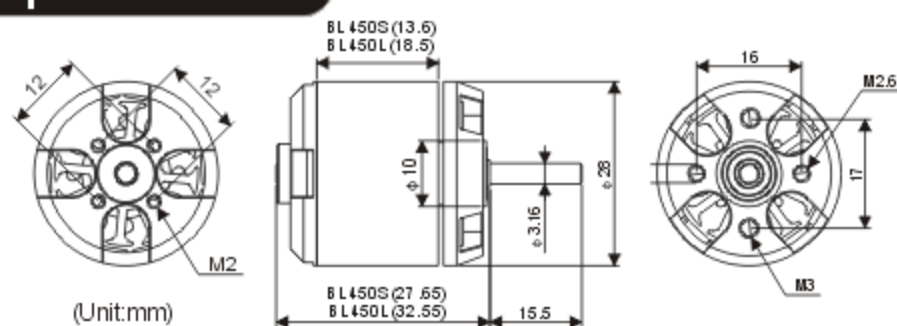




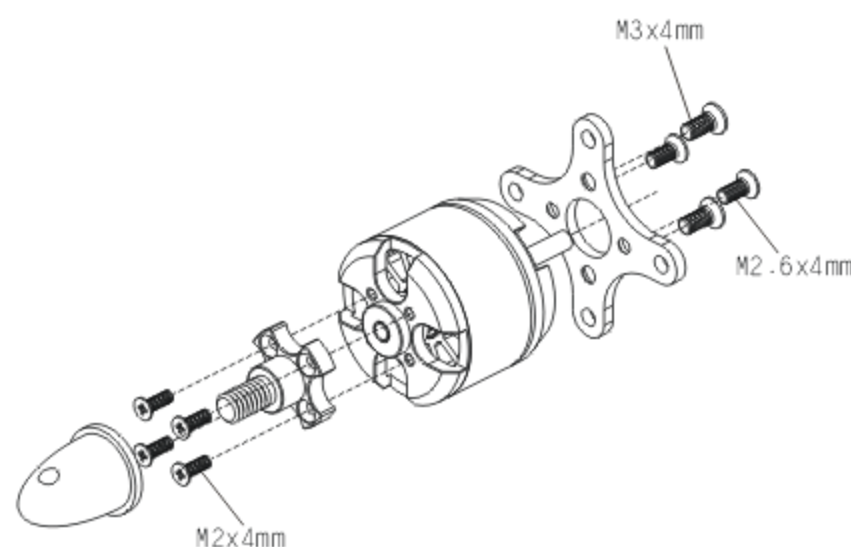
RCM-BL450S/BL450L Brushless Motor

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 450S/L utilizes an 14-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 450S/L will be the most revolutionary motor operating on low current amperage, and delivering high torque to RC models.

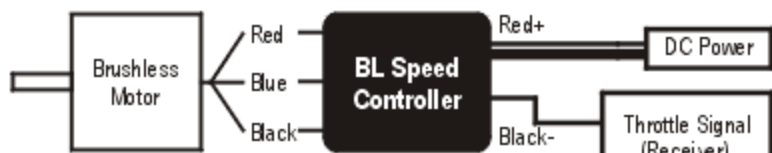
Specification



Assembly illustration



Illustration



Exchange two wire for changing motor rotation direction.

Model	Input voltage	Dimension	Weight	KV	Max. Output Current
RCM-BL450S	DC7.4~12.6V	Shaft 3.16x28x27.65mm	Approx 45g	1100KV	165W
				1500KV	170W
RCM-BL450L	DC7.4~12.6V	Shaft 3.16x28x32.55mm	Approx 58g	1100KV	185W
				1400KV	250W

Features

1. The 450S/L 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. The motors feature High-speed ball bearings, powerful magnetic outrunner rotor.

These high-torque, high-speed, brushless motors, RCM-BL450S/BL450L, are suitable for RC electronic products. The features of high efficiency output, low amperage, and light weight are suitable for electronic 3D airplanes which require high-torque and high-speed power systems. We recommend using ALIGN Brushless Speed controllers or equivalent digital or brushless electronic speed controllers available on the market.

Rotor is constructed with very powerful Ndfeb 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, 450 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-BL450S Brushless Motor Testing								RCM-BL450L Brushless Motor Testing							
KV	Voltage	Current	Prop Dimension	Thrust	RPM	G/W	G/A	KV	Voltage	Current	Prop Dimension	Thrust	RPM	G/W	G/A
1100KV	7.4V	8.9A	ALIGN10x4.7	480	6169 rpm	6.90	53.93	1100KV	7.4V	9.2A	ALIGN10x4.7	530	6441 rpm	7.37	57.61
	9.6V	12.3A	ALIGN10x4.7	670	7117 rpm	5.49	54.47		9.6V	13.4A	ALIGN10x4.7	790	7669 rpm	5.84	58.96
	11.1V	14.1A	ALIGN10x4.7	750	7478 rpm	4.63	53.19		11.1V	16.2A	ALIGN10x4.7	935	8304 rpm	4.98	57.72
	7.4V	10.7A	ALIGN11x4.7	525	5375 rpm	6.25	49.07		7.4V	12.0A	ALIGN11x4.7	620	5850 rpm	6.62	51.67
	7.4V	8.0A	APC9x4.7	433	6469 rpm	6.96	54.13		7.4V	8.2A	APC9x4.7	480	6716 rpm	7.80	58.54
	9.6V	11.2A	APC9x4.7	630	7741 rpm	5.67	56.25		11.1V	13.9A	APC9x4.7	855	9140 rpm	5.32	61.51
	11.1V	13.1A	APC9x4.7	745	8449 rpm	4.94	56.87		7.4V	12.5A	APC10x4.7	645	5822 rpm	6.57	51.6
	7.4V	10.9A	APC10x4.7	530	5334 rpm	6.22	48.62		7.4V	7.2A	ALIGN7x5	245	8876 rpm	4.62	34.03
1500KV	7.4V	7.5A	ALIGN7x5	230	9051 rpm	3.90	30.67	9.6V	11.3A	ALIGN7x5	380	11003 rpm	3.36	33.63	
	9.6V	11.6A	ALIGN7x5	360	10981 rpm	3.06	31.03	11.1V	14.2A	ALIGN7x5	480	12224 rpm	2.94	33.80	
	11.1V	14.2A	ALIGN7x5	430	12106 rpm	2.57	30.28	7.4V	12.1A	ALIGN8x6	435	7877 rpm	4.63	35.95	
	7.4V	11.5A	ALIGN8x5.5	320	7755 rpm	3.27	27.83	9.6V	17.6A	ALIGN8x6	645	9544 rpm	3.60	36.65	
	7.4V	12.0A	ALIGN8x6	400	7747 rpm	4.17	33.33	11.1V	21.2A	ALIGN8x6	775	10321 rpm	3.1	36.56	
	7.4V	14.0A	ALIGN9x6	450	7003 rpm	4.01	32.14	7.4V	14.8A	ALIGN9x6	500	7278 rpm	4.31	33.78	
	7.4V	13.2A	ALIGN10x4.7	515	7151 rpm	4.81	39.0	7.4V	13.9A	ALIGN10x4.7	585	7416 rpm	5.37	42.09	
	7.4V	14.5A	ALIGN11x4.7	580	6533 rpm	4.81	40.0	7.4V	15.9A	ALIGN11x4.7	700	6984 rpm	5.51	44.03	