



BL15 Ducted Fan 3200 Kv Brushless Motor Instructions

Thank you for purchasing the E-flite BL15 DF Brushless Motor. This motor is an ideal choice for products such as Parkzone's Habu EDF and other similar sized ducted fan airplanes when using the purpose-built Delta-V 15 69mm EDF (EFLDF15). The motor will provide great performance in 68-70mm diameter fan units requiring a 28mm inrunner motor. This is a lower current alternative to the 3600Kv BL15 DF motor and works better in applications where cooling is limited such as in foam models.

BL15 DF 3200Kv Motor Features:

- Purpose-built for the Delta-V 15 69mm EDF (EFLDF15)
- Replacement motor for Parkzone Habu EDF
- Ideal for 68-70mm EDF units requiring a 28mm diameter inrunner motor
- Ideal for up to 800 input watts
- High-quality construction with ball bearings and hardened steel shaft
- 6-pole design

BL15 DF Specifications

Diameter: 28mm (1.10 in)
Case Length: 40mm (1.56 in)
Weight: 106g (3.7 oz)
Shaft Diameter: 4mm (.16 in)

EFLM3215DF

Kv: 3200 (rpms per volt)
I_o: 2.20A @ 15V (no load current)
R_i: .025 ohms (resistance)
Continuous Current: 44A*
Max Burst Current: 52A*
Cells: 3S-4S Li-Po or 10-14 Ni-MH/Ni-Cd
Recommended Ducted Fan Unit: Delta-V 15 69mm EDF (EFLDF15)
Static Thrust: 1.7 lbs on 3S (11.1V) – using recommended Delta-V 15
 2.8 lbs on 4S (14.8V) – using recommended Delta-V 15
RPM: 33,800 on 3S (11.1V) – using recommended Delta-V 15
 45,700 on 4S (14.8V) – using recommended Delta-V 15
Brushless ESC: 50A – 60A

- * Maximum Operating Temperature: 220 degrees Fahrenheit
- * Adequate cooling is required for all motor operation at maximum current levels.
- * Maximum Burst Current duration is 15 seconds. Adequate time between maximum burst intervals is required for proper cooling and to avoid overheating the motor.
- * Maximum Burst Current rating is for full high power and limited motor run flights. Lack of proper throttle management may result in damage to the motor since excessive use of burst current may overheat the motor.

Battery Choices:

EFLB32003S	3200mAh 3S 11.1V 20C Li-Po, 13AWG EC3	EFLB32004S30	3200mAh 4S 14.8V 30C Li-Po, 12AWG EC3
EFLB32004S	3200mAh 4S 14.8V 20C Li-Po, 13AWG EC3	THP33003SP30	3300mAh 4C/4S 11.1V G4 Pro Power 30C Li-Po
EFLB32003S30	3200mAh 3S 11.1V 30C Li-Po, 12AWG EC3	THP33004SP30	3300mAh 4C/4S 14.8V G4 Pro Power 30C Li-Po

There are many Li-Po battery brands on the market with several choices for consumers. We recommend either E-flite or Thunder Power batteries and list some possible choices for the BL15 DF Brushless Motor, depending on the airplane application.

Examples of Airplane Setups:

Parkzone Habu EDF PNP (PKZ7075)

Comments – The E-Flite 3200Kv Delta 15 motor matched with the Parkzone Habu provides high speed flight and great vertical ability.

Weight w/Battery: 46 oz (1300g)

Ducted Fan Unit: Delta-V 15 69mm EDF (EFLDF15) – included with plane

Battery: 3200mAh 4S 30C 14.8V Li-Po (EFLB32004S30) – included with plane

ESC: 60A Pro SB Brushless (EFLA1060) – included with plane

Accessories and Spare Parts:

See our web site at www.E-fliteRC.com or www.horizonhobby.com for our complete line of brushless motors. We have posted a specification comparison sheet on our web site so you can compare the different motors we offer.

EFLDF15 Delta-V 15 69mm EDF

EFLDF153 Center Body Fairing, 28mm: EDF

NOTE: The Center Body Fairing (tail cone) is a great accessory item for 28mm motors used in EDF units. It is included with our E-flite Delta-V 15

EFLA1060 60A Pro SB Brushless ESC

EFLA110 Power Meter (measures power output in amps, volts, watts, and capacity)

EFLA241 Bullet Connector Set, Gold, 3.5mm (3)

Operating Instructions:

1. This brushless motor requires the use of a sensorless brushless speed control. Failure to use the correct speed control may result in damage to the motor and/or speed control.
2. When mounting the motor, be sure the correct length of screws (5mm) are used so damage to the inside of the motor will not occur. **The use of long screws will damage the motor.**
3. You may connect the three motor wires directly to the controller with solder or use connectors such as gold plated brushless bullet connectors (EFLA241), which will also need to be soldered properly to your wires. The three motor wires can be connected in any order to the three output wires or output port on a sensorless brushless speed control. Be sure to use heat shrink tubing to properly insulate the wires so the wires will not short. Shorting may damage the motor and speed control.
4. If you add connectors and or you no longer wish to use them, never cut the motor wires. Remove them by properly de-soldering them. Shortening the motor wires is considered an improper modification of the motor and may cause the motor to fail.
5. When you connect the motor to the esc, check the rotation direction of the motor. If you find the rotation is reversed, switching any two motor wires will reverse the direction so the motor rotates properly.
6. Proper cooling of the motor is very important during operation. New technology has brought much higher capacity batteries with higher discharge rates, which can cause extreme motor temperatures during operation. It is the responsibility of the user to monitor the temperature and prevent overheating. Overheating of the motor is not covered under any warranty.
7. You can install the rotor/propeller on the motor shaft after you have confirmed proper rotation direction. Also consult the instruction included with your sensorless electronic speed control for proper adjustments and timing.
8. Once the battery is connected to the motor, please use extreme caution. Stay clear of the propeller/ducted fan rotor during operation. Spinning propellers/rotors are very dangerous as the motors produce high amounts of torque.
9. Never disassemble the motor. This will void any warranty.

Motor Safety Precautions:

The motor will be used in an EDF unit that contains a rotating part so use extreme caution. Please read the warning information included with your fan unit / propellers for safety information related to the operation of motors with propellers. Failure to comply with these warnings and/or improper use of propellers or EDF units may result in serious injury.

Limited Warranty Period

Horizon Hobby, Inc. guarantees this product to be free from defects in both material and workmanship for a period of 1 year from the date of purchase.

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If you as the Purchaser or user are not prepared to accept the liability associated with the use of this Product, you are advised to return this Product immediately in new and unused condition to the place of purchase.

Law: These Terms are governed by Illinois law (without regard to conflict of law principals).

Safety Precautions:

This is a sophisticated hobby Product and not a toy. It must be operated with caution and common sense and requires some basic mechanical ability. Failure to operate this Product in a safe and responsible manner could result in injury or damage to the Product or other property. This Product is not intended for use by children without direct adult supervision. The Product manual contains instructions for safety, operation and maintenance. It is essential to read and follow all the instructions and warnings in the manual, prior to assembly, setup or use, in order to operate correctly and avoid damage or injury.

Questions, Assistance, and Repairs:

Your local hobby store and/or place of purchase cannot provide warranty support or repair. Once assembly, setup or use of the Product has been started, you must contact Horizon directly. This will enable Horizon to better answer your questions and service you in the event that you may need any assistance. For questions or assistance, please direct your email to productsupport@horizonhobby.com, or call 877.504.0233 toll free to speak to a service technician.

Inspection or Repairs

If this Product needs to be inspected or repaired, please call for a Return Merchandise Authorization (RMA). Pack the Product securely using a shipping carton. Please note that original boxes may be included, but are not designed to withstand the rigors of shipping without additional protection. Ship via a carrier that provides tracking and insurance for lost or damaged parcels, as **Horizon is not responsible for merchandise until it arrives and is accepted at our facility**. A Service Repair Request is available at www.horizonhobby.com on the "Support" tab. If you do not have internet access, please include a letter with your complete name, street address, email address and phone number where you can be reached during business days, your RMA number, a list of the included items, method of payment for any non-warranty expenses and a brief summary of the problem. Your original sales receipt must also be included for warranty consideration. Be sure your name, address, and RMA number are clearly written on the outside of the shipping carton.

Warranty Inspection and Repairs

To receive warranty service, you must include your original sales receipt verifying the proof-of-purchase date. Provided warranty conditions have been met, your Product will be repaired or replaced free of charge. Repair or replacement decisions are at the sole discretion of Horizon Hobby.

Non-Warranty Repairs

Should your repair not be covered by warranty the repair will be completed and payment will be required without notification or estimate of the expense unless the expense exceeds 50% of the retail purchase cost. By submitting the item for repair you are agreeing to payment of the repair without notification. Repair estimates are available upon request. You must include this request with your repair. Non-warranty repair estimates will be billed a minimum of ½ hour of labor. In addition you will be billed for return freight. Please advise us of your preferred method of payment. Horizon accepts money orders and cashiers checks, as well as Visa, MasterCard, American Express, and Discover cards. If you choose to pay by credit card, please include your credit card number and expiration date. Any repair left unpaid or unclaimed after 90 days will be considered abandoned and will be disposed of accordingly. **Please note: non-warranty repair is only available on electronics and model engines.**

Motors requiring inspection or repair should be shipped to the following address (freight prepaid):

**Horizon Service Center
4105 Fieldstone Road
Champaign, Illinois 61822**

Please call 877-504-0233, or e-mail us at productsupport@horizonhobby.com with any questions or concerns regarding this product or warranty.

**United Kingdom:
Horizon Hobby UK
Units 1-4 Ployters Rd
Staple Tye
Southern Way
Harlow, Essex CM18 7NS
United Kingdom**

Please call +44 (0) 1279 641 097 or email us at sales@horizonhobby.co.uk with any questions or concerns regarding this product or warranty.

**Germany:
Horizon Technischer Service
Hamburger Strasse 10
25335 Elmshorn
GERMANY**

Please call +49 4121 46199 66 or email us at service@horizonhobby.de with any questions or concerns regarding this product or warranty.

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