

ESC 4in1 BLS 75A 6S

User manual



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1. Product overview



Fig.1. ESC 4in1 BLS 75A 6S

The ESC 4in1 BLS 75A 6S is a four-in-one electronic speed controller designed for FPV applications. It supports an input voltage range from 3 to 8S, delivering a continuous current of 75A with a peak current capability of 85A. This ESC is equipped with the EFM8BB51F16G microcontroller and operates using the Blujay firmware, featuring various protocols including DShot150, DShot300, DShot600, Multishot, OneShot, ProShot, and PWM. It includes telemetry support for current, voltage, temperature, and RPM, with passive cooling requirements for optimal operating conditions.

2. Wiring guide

According to the diagram, please follow these steps for a safe and reliable installation:

2.1. Power Input (Battery Connection)

- Positive (+): Solder the Red wire from your battery lead (XT60/XT90) to the large pad marked with a (+) sign at the bottom.
- Negative (-): Solder the Black wire from your battery lead to the large pad marked with a (-) sign at the bottom.
- Capacitor: You **MUST** solder a Low ESR capacitor to these same pads. Keep the legs of the capacitor as short as possible to minimize electrical noise.

2.2. Motor Connections

The ESC has 12 side pads grouped for 4 motors.

- Motor 1 (Bottom right): Connect the three wires from your motor to the pads marked 1.
- Motor 2 (Top right): Connect to pads marked 2.
- Motor 3 (Bottom left): Connect to pads marked 3.
- Motor 4 (Top left): Connect to pads marked 4.

Note: If a motor spins in the wrong direction, you can swap any two wires or change the direction in the AM32 Configurator.

2.3. Control Connector (8-Pin JST-SH)

The top connector links the ESC to your Flight Controller (FC).

- VCC: Battery voltage output to FC (for voltage monitoring).
- GND: Common ground.
- CUR: Current sensor output.
- S1 - S4: Motor signals 1 through 4.

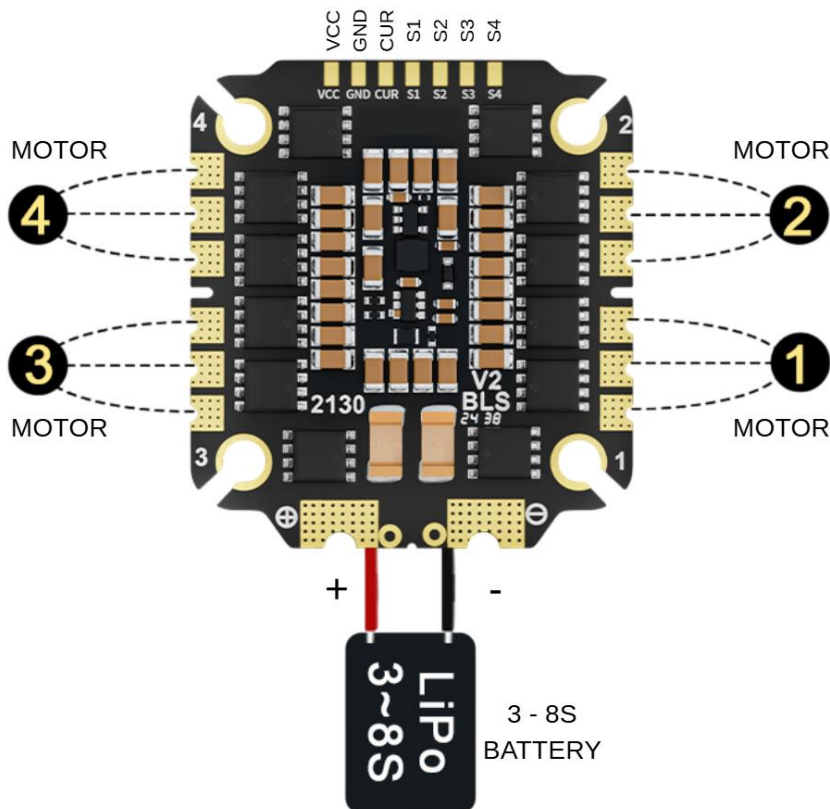


Fig.2. Wiring diagram

3. Safety warnings

- Smoke stopper: Always use a smoke stopper for the first power-on.
- Polarity: Double-check (+) and (-) before connecting the battery. Reversed polarity will destroy the ESC instantly.
- Condensation: If bringing the drone from a cold environment to a warm room, wait 30-60 minutes for moisture to evaporate before powering on.

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