

ESC Single Pilotix 32bit AM32 120A 6-8S

User manual



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1. Product overview

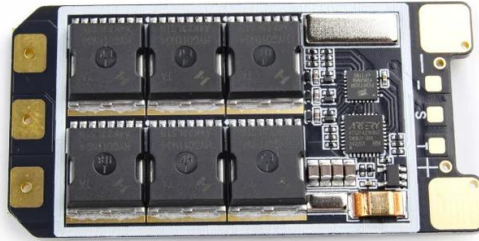


Fig.1. ESC Single Pilotix 32bit AM32 120A 6-8S

The Pilotix 32bit AM32 120A is a high-performance single 32-bit ESC designed for heavy-lift drones, cinema rigs, and industrial platforms. It supports high-voltage input up to 8S LiPo and utilizes the AM32 firmware for maximum efficiency and reliability.

2. Wiring guide

Refer to the visual diagram for precise pad locations. Working with high-cell-count (6-8S) voltage requires high-quality solder and high-wattage soldering equipment.

2.1. Power Input (Battery Connection)

- BTA + (Positive): Solder the Red 10AWG/8AWG wire to the pad marked with the (+) symbol.
- BTA - (Negative): Solder the Black 10AWG/8AWG wire to the pad marked with the (-) symbol.
- Anti-Spark Requirement: Always use an anti-spark connector to prevent electrical arcing when connecting high-cell-count (6-8S) batteries.

2.2. Motor Connections

The ESC has 3 output pads for a single motor, located along the right edge of the board (see Fig. 2).

- Motor wires: Connect the three phase wires from your motor to the three output pads (see Fig. 2). Wire order does not matter for the ESC itself — it only affects spin direction.

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 & Power Pads

These pads connect to your Flight Controller (FC) or PDB:

- GND: Signal ground. Connect this to the FC ground pad to ensure a clean signal.
- TX (Telemetry): Connect this to an available RX port on your Flight Controller to receive temperature, RPM, and current data.
- PWM (Signal): The primary control input. Connect this to the Motor Signal output of your FC.
- – (secondary GND): Same potential as the GND pad above — use whichever is more convenient to reach.
- + (low-current output): Can be used to power your Flight Controller or receiver — check the pad's voltage/current rating before connecting.

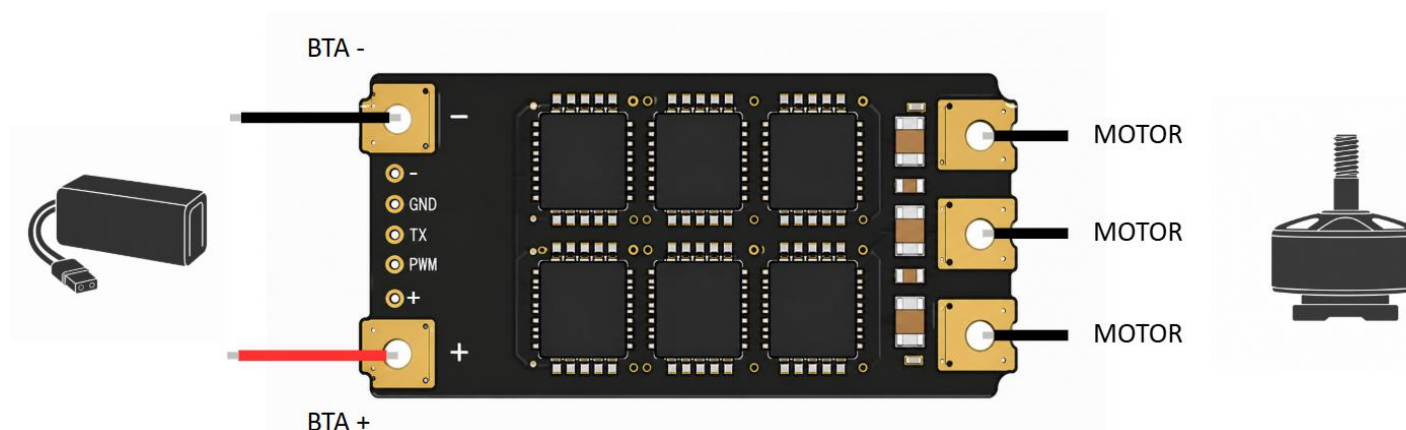


Fig.2. Wiring diagram

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.
- Mandatory: High-cell-count (6-8S) systems generate significant voltage spikes. You must install high-voltage Low ESR capacitors (rated for 63V) as close to the BTA +/- pads as possible.

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