AMPX PRO ESC 30A

2~6S Electronic Speed Controller manual (V1.0)

MAD COMPONENTS

⚠ Disclaimer

Thank you for choosing this product. Please carefully read this manual before using this product. Using this product will indicate you're agreed with the all items in this manual. Please strictly follow these items during usage. We'll not commit any responsibility including but not limited to indirect loss or joint responsibility caused by improper usage, private modification and other faults. The maximum compensation will be not more than the cost of product itself.

⚠ Attention

This part has strong power. High speed running propellers have certain safety risk. User must be older than 18 years and have relative professional knowledge.
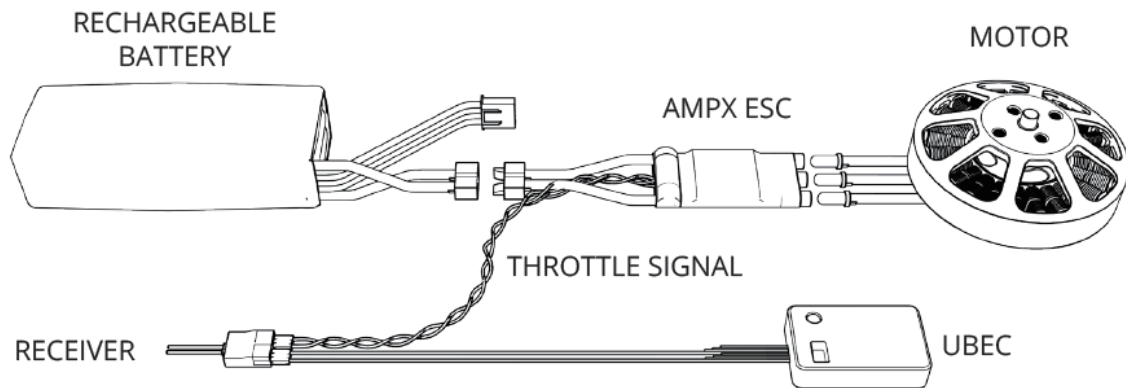Before usage, please carefully check if all the components are in good conditions.

Features

- New core software for quadcopter esc with improved throttle response.

- Excellent compatibility with more poles type motors like MAD motors.

- Default middle timing meet almost all brushless motor.

- Crosstalk reduction of signal transmission.

- Compatibility with wide range of flight controllers Signal frequency above 600HZ.

Protection Function

- **Over Current Protection**

  Once checking current is more than 40A and lasts 3 seconds, ESC will shut off power output, and will resume normal after making throttle zero.

- **Short Circuit Protection**

  Once checking instant current is more than 60A, ESC will power off, and will rework after trouble shooting and powering again.

- **Stalling Protection**

  Motor stall will trigger stalling protection. ESC will resume after making throttle zero and powering again.

- **Voltage Protection**

  Once checking voltage is less than 16V or more than 64V, ESC will alarm and will not start up motor. But it will be out of effect during flying.

- **Temperature Protection**

  When checking temperature is higher than 110 centigrade degree, ESC will output error signal. Once temperature exceeding 140 centigrade degree, ESC will shut off and will resume normal after making throttle zero.

- **Throttle Loss Protection**

  When the detected throttle signal is lost for more than 0.3 seconds, the ESC will automatically shut down. After the throttle signal is restored, the ESC will work again

- **Start Protection**

  When the motor is not started after increasing the accelerator for 10 seconds, the ESC will automatically shut down. After the accelerator is reset to zero, and the accelerator is pushed again, the ESC will return to normal.

- **Throttle Calibration Setting**

  First connect motor and adjust throttle top, then power on and ESC will beep two times. Second adjust throttle bottom and ESC will Do Mi So one time. After finishing these steps, throttle calibration will be set successful.

ESC Connection

Throttle calibration Setting

1.Turn on the transmitter.move the throttle stick to the top position.

2.Connect the receiver to the battery, ensure the transmitter and receiver are well bound, and then turn on the ESC.

3.After the motor emits two short "Beep–beep", move the throttle stick to the bottom position in 3 seconds.

4.Throttle Calibration completed

ESC Parameter

Model	AMPX PRO ESC 30A	Stall Protection	available
BEC	No	Error Signal Output	available
Continuous Current	30A–40A (under good cooling conditions)	Protection Grade	IPX4
Online Update	not available	Motor Line	14AWG 75mm
Throttle Loss Protection	available	Continuous Current	30A (under good cooling conditions)
Phase Short	available	Instant Current	60A (under good cooling conditions)
Size(L*W*H)	68*25*7mm	Voltage Protection	available
Power Line	16AWG 75mm	Temperature Protection	available
Battery Section	2~6S	Speed Signal Output	not available
Recommended Battery	12S	Weight(without lines)	22g
Current Protection	available	Working Environmental Temperature	–20~65°C

Trouble Shooting

Problem	Alarm	Cause	Solution
Motor can't start after powering on.	Quick noise of beep beep beep...	Throttle is not made zero.	Adjust throttle bottom
Motor can't start after powering on.	Beep, beep, beep... every 1 second.	Receiver has not throttle output signal.	Check sender and receiver co–work condition, check throttle control lines.
Voltage is less than 16V.	Beep beep, beep beep... every 1 second.	Battery voltage is too low.	Change full power battery.
Voltage is more than 64V.	Beep beep, beep beep... every 1 second.	Battery voltage is too high	Change proper full power battery.
Temperature is higher than 110 centigrade degree.	Beep beep, beep beep... every 1 second.	ESC's temperature is too high	Please cool down the ESC in a ventilated place

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