XC-ESC

UF100Fv2 ESC MANUAL

Disclaimer

Thank you for choosing this product. Please carefully read this manual before using this product.
Using this product indicates you agree with all the terms 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.

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 flight, please carefully check if all components are in good condition, the propeller and motor are installed correctly, and the screws are not loose.

Features

Support dual throttle (CAN digital throttle +PWM analog throttle) control, priority CAN digital throttle control.

Quick response: It takes only 0.6 seconds for the motor to go from idle to full speed.

Equipped with a CAN communication interface, enabling real-time communication with the flight controller. (Note: This function requires matching with the flight controller.)

Both the control signal interfaces and the main power supply are fully isolated.

Protection Function

Short Circuit Protection

When the ESC detects a short circuit, it will cut off the output immediately and auto-restart after 150ms.

Stalling Protection

Stalling Protection: The ESC will resume output only after the throttle is reset to zero and the ESC is powered on again.

Voltage Protection

Voltage Protection: Once the battery voltage is detected to be less than 158V or higher than 427V when the ESC is powered on, the ESC will sound an alarm and will not start the motor.

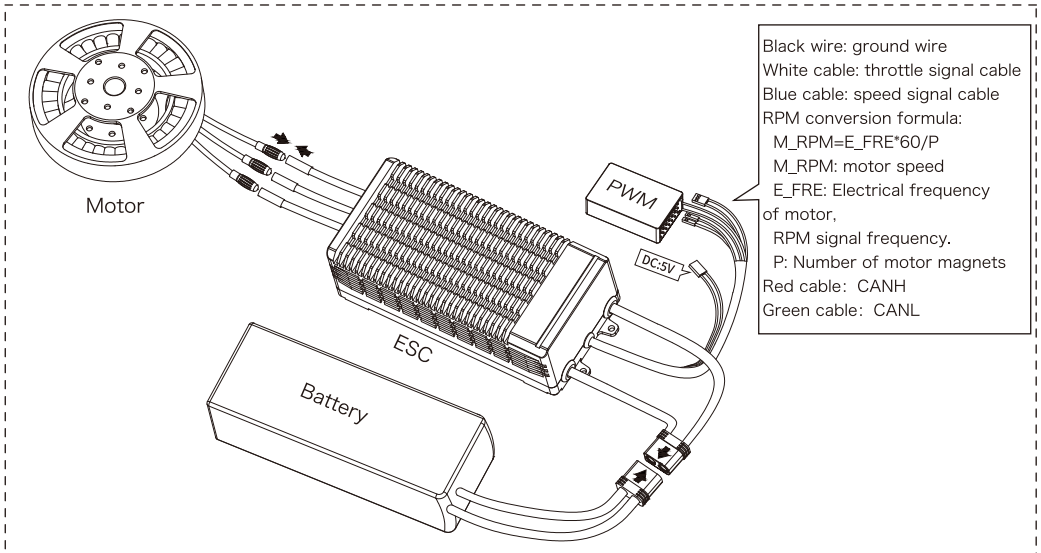
Temperature Protection

Temperature Protection: During flight, if the ESC temperature exceeds 125°C, it will start reducing the maximum output power by 50%. If the temperature continues to rise above 140°C, the ESC will turn off the output, and normal output can only be restored after the throttle is reset to zero. When the temperature drops to 80°C, the ESC's maximum output power starts to increase.

Throttle Loss Protection

Throttle Loss Protection: When the ESC detects that the throttle signal is lost for more than 2.0 seconds, it will immediately shut off the power output. After the throttle signal is restored, the ESC will resume the previous power output.

ESC Connection



ESC Parameter

Model: UF100F v2
PWM Input Signal Voltage: 3.3V/5V(compatible)
Continuous Current: 100A (under good cooling conditions)
Current limiting: 100A
Online Update: available
Throttle Loss Protection: available
Phase Short Circuit Protection: available
Voltage Protection: available
Temperature Protection: available
Motor Temperature Detection: available
Stall Protection: available
Working Environmental Temperature: -20~65 ℃
Throttle Pulse Width: Default 1050us - 1940us

Battery Cell Count: 48~96S
Compatible Signal Frequency: 50-500Hz
BEC: 5V/200MA output
IP Rating: IPX4
Weight(without lines): ≈910g
Motor Line: 10AWG
Power Line: 10AWG
Size(L*W*H): 186.5*84.2*56.7mm
Communication interface: CAN

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 to 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 158V	Beep-Beep, Beep-Beep... every 1 second	Battery voltage is too low	Change full power battery
Voltage is more than 427V	Beep-Beep, Beep-Beep... every 1 second	Battery voltage is too high	Change proper full power battery
Temperature is higher than 80℃	Beep-Beep-Beep, Beep-Beep-Beep... every 1 second	ESC’ s temperature is too high	Please cool down the ESC in a ventilated place
The power-on current or short-circuit protection is abnormal	Beep-Beep-Beep-Beep, Beep-Beep-Beep-Beep... every 1 second	Overload	Replace the appropriate propeller blades