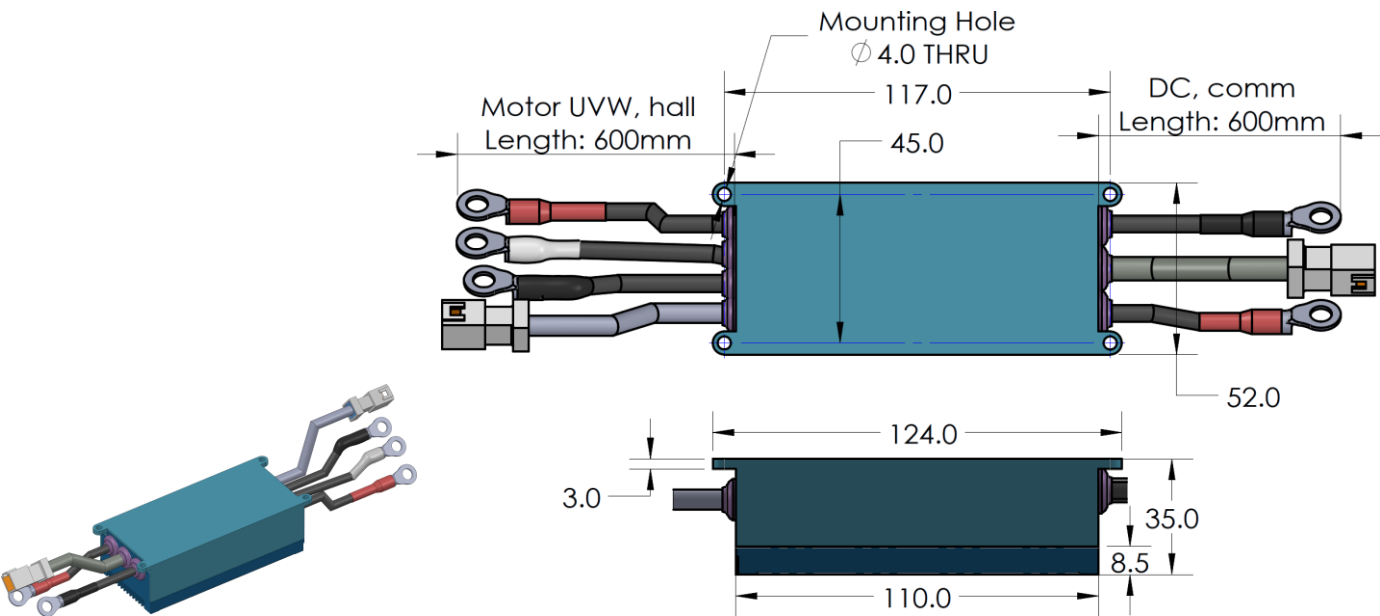


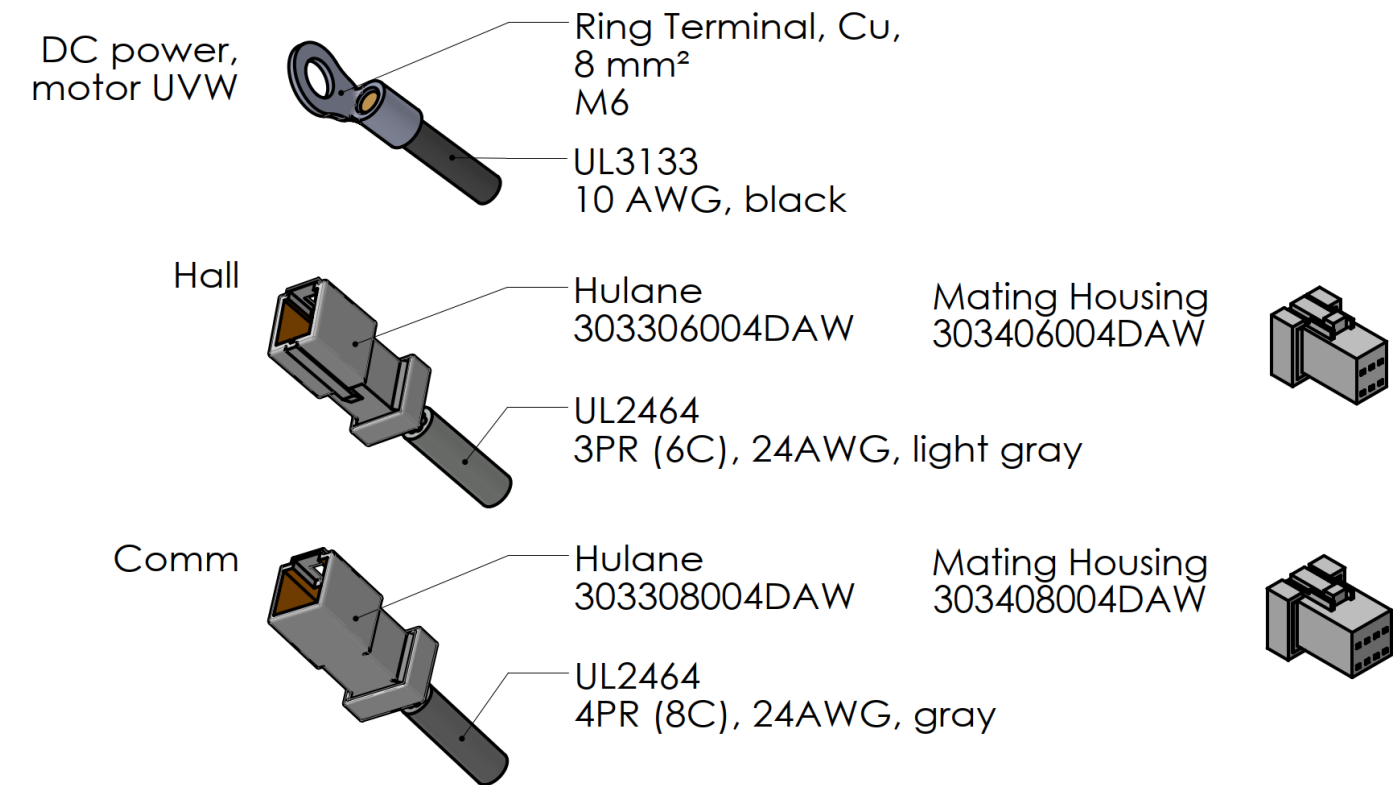
ES-362 - Drone ESC Specification

Document Version: V2.4 Date: 2026-06-29

1. Appearance & Dimensions



2. Terminal Connectors and Cable Specifications



3. Terminal Pin Assignment

6-Pin Hall Signal Cable

No.	Color	Function
1	Red	+5V
2	Black	GND
3	White	H1-Hall1
4	Green	H2-Hall2
5	Blue	H3-Hall3
6	(N/C)	Reserved

8-Pin Communication/Control Cable

No.	Color	Function
1	Red	+5V
2	Black	GND
3	Green	I1_CW Input
4	White	I2_CCW Input
5	Gray	RS-485 A
6	Orange	RS-485 B
7	Yellow	O1_Alarm Signal Output
8	Blue	Vi_VR Input

4. General Specifications

Item	Specification
Dimensions (L × W × H)	52 × 110 × 35 mm
Housing Material	Aluminum Alloy
Cable Gland Seal	Rubber Cable Gland Seal
Ingress Protection	IP65
Operating Temperature Range	-20 °C ~ 60 °C

5. Electrical Specifications

Item	Specification
Supported Battery Cells	6S-14S
Supported Voltage Range	25.2 V - 58.8 V
Continuous Output Current	100 A
Peak Output Current	125 A (10s duration, 125% of rated current)

6. Circuit Architecture

Item	Specification
Control & Power Circuit Configuration	Independent PCB Design
Microcontroller (MCU)	Microchip MCU

1. Protection Features

Item	Specification
Current Sensing	Built-in Sensor
Overvoltage Protection	Built-in
Low Voltage Protection (LVC)	Built-in, software configurable
Stall Protection	Built-in
Low RPM Power Protection	Built-in
Temperature Protection	Built-in
Current Protection	Built-in
Power-on Low Throttle Detection	Built-in
Throttle Signal Loss Protection	Built-in
Start-up Protection	Built-in
Phase-to-Phase Short Circuit Protection	Built-in

2. Communication Protocol

Item	Specification
Communication Protocol	RS-485
Error Signal Output	Digital Output
Digital Feedback (Telemetry)	Temperature, Voltage, Current, RPM

3. Throttle Control Interface

Item	Specification
Control Interface	PWM
Throttle Signal Frequency	50 - 500 Hz
Throttle Operating Pulse Width	1100 μ s - 1900 μ s

4. Software Configuration

Item	Specification
Throttle Calibration	Supported
Low Voltage Protection Settings	Soft Cutoff / Hard Cutoff / Protection Threshold Selectable

5. Advanced Drive Technologies

Item	Specification
ASCF (Active Switch Continued Flow)	Faster response, significantly reduces ESC heat, improves operational efficiency
Synchronous Rectification Technology	Driving Efficiency Optimization (DEO) / Active Freewheeling: improves linear throttle response, drive efficiency, reduces ESC temperature rise
Reverse Thrust Function (Bi-directional Brake)	Supports in-flight motor direction switching; effectively reduces fixed-wing landing roll distance
Brake Mode	Normal / Proportional dual mode, brake force adjustable