

VE158

A MULTI-PURPOSE SURVEYING UNMANNED SURFACE VESSEL



Introducing the eSurvey VE158, a groundbreaking and fully integrated solution designed specifically for 3D bathymetric surveys. This innovative system has gained widespread recognition across a range of studies, including hydrology, seepage analysis, water quality studies, profiling streams and reservoirs, and managing reservoir and pond impoundment.

The eSurvey VE158 boasts a meticulously engineered hull with a comprehensive sealing design. To ensure maximum protection, anti-collision strips have been strategically installed around the hull, providing resistance against sinking and corrosion. The body design is optimized for space efficiency, featuring a modular structure that is lightweight yet capable of carrying substantial loads.

Exceptional Hull Design

The unique M-type trimaran hull features a one-piece molding ceiling and waterproofing. The hull structure is modular and designed with a shallow draft, providing superior wave resistance and unbeatable stability. To ensure maximum durability and strength, the hull is brilliantly crafted out of Kevlar and carbon fiber composite materials, furnishing it with exceptional pressure resistance.

Seamless communication made easy

Our system is equipped with both bridge and network communication modules, offering flexibility to cater to a wide range of operating conditions. With these advanced communication capabilities, distance limitations are eliminated, ensuring uninterrupted and reliable signal transmission.

Empowering you with the necessary force

Equipped with a ducted propeller, our system boasts high-speed sailing capabilities while maintaining optimum performance during low-speed operations. The propeller is designed for effortless disassembly and maintenance, ensuring hassle-free upkeep.

Ensuring a safe and efficient system

Our system provides support for low voltage and lost automatic return, mitigating any potential risks and ensuring stable and reliable performance.

With the ability to choose between straight-line return, original return, and set route return, our system is designed to operate seamlessly and safely in any environment.

Unparalleled battery longevity

Our intelligent battery system incorporates a fast-charging design, ensuring efficient charging times. Not only is our system lightweight and easy to carry, but it also boasts exceptional endurance, allowing for extended operation periods. The battery system is engineered for numerous cycles, maintaining its performance over time.



Website



Social media

Product Specification

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Physical

Hull dimension (L × W × H)	1560 mm x 850 mm x 550 mm
Hull material	Kevlar + Carbon fibre material
Hull weight	41 kg
Anti-wave & wind	6th wind level and 4th wave level
Boat shape	M-type trimaran
Anti-sinking design	Closed-cell foam filling and fully enclosed compartment anti-sinking design
Camera	360° full view camera
Navigation lights	A pair of navigation lights

Electrical

Battery life	6 hours (1.5 - 2 m/s)
Battery capacity	2*(40,000 mAh, 33.6 V)
Cruising speed	1.5 - 2 m/s
Maximum speed	≥5 m/s
Motor	Brushless DC motor (BLDCM)
Propeller	Ducted propeller

Navigation and Commander System

Navigation model	- Manual mode - Automatic mode - Cruise mode
Positioning system (Optional)	- Positioning mode: - Autonomous - DGPS - RTK - Positioning accuracy: - Horizontal: 8 mm ± 1 ppm - Vertical: 15 mm ± 1 ppm
Direction control	Differential steering
Communication loss protection	- Automatically return to base when the communication is lost - GPS anti-theft system (Optional)

Communication

Communication mode and distance	2.4G Wi-Fi: 2 km 4G network: unlimited
Software platform	Windows 10 or above
Software function	Support: - USV management - Route management - Status display - Data management - Log function ...
Remote control unit	- Waterproof, dustproof and dropproof - Digital high-definition image transmission - Ultra-long link - Impressive battery endurance

Available Instrumentation

Sensor (Only choose one)	- Single-beam echo sounder - Multi-beam echo sounder - Side scan sonar - ADCP - Online water quality monitoring system - Water sampling System
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Single-beam Echo Sounder

Frequency	200 kHz
Beam angle	5°
Sounding range	0.3 -100 m
Sounding accuracy	±1 cm ±0.1% D (D:depth of water)
Resolution	0.01 m
Data output	RS-232 (Depth data format can be customized)