

SMART SOLUTIONS FOR BLUE OCEANS



HELIOS  MARINE

HELIOS MARINE BATTERY

Pioneering Blade Battery Cell Technology

Product Characteristics

- Marine grade
- Modularity & scalability
- Stainless steel IP67
- Blade battery cells
- CAN and RS485 connectivity
- Smart Battery Management System

IP67 Marine Battery & Marine Battery Systems

Our LFP batteries are purpose-built for marine applications, delivering reliable power and ensuring safe operation. With an advanced Battery Management System (BMS), the Helios Marine batteries offer modular and scalable configurations, supporting voltage systems up to 1000V in various capacities to meet a wide range of marine requirements.

Blade Battery Cell Technology

The blade cells in Helios Marine Battery Systems offer several advantages, including a compact design enabled by reduced cell height, uniform temperature distribution, and superior anti-vibration performance tailored for rough sea conditions. They also support a high discharge rate across a broad temperature range of -20°C to +60°C.

Specifications

Chemistry	LiFePO4
Cell Type	Blade
Capacity	8,960 Wh / 175 Ah @1C
Nominal Voltage	51.2V
Battery Life	>3,000 cycles at 80% DoD
Max Charging Voltage	57.6V
Cutoff Voltage	40V
Charging Temperature Range	0 – 60°C
Discharging Temperature Range	-20 – 60°C
Max Continuous Charging Current	2C
Max Continuous Discharging Current	2C
Warranty	2 years



KEY BENEFITS

Energy Density

LiFePO4 energy density is on par with other Li-ion batteries, without compromising on key parameters such as safety and long cycle life. This technology is becoming increasingly integrated in the automotive industry as well. Blade cells have superior performance compared to prismatic LFP cells.

Modularity

Our JAM (Just Add Module) plug-and-play system offers expandable capacity and voltage, providing the flexibility to meet your specific needs. Together with our advanced bespoke software, the battery system can be configured, allowing for a fully customizable solution.

Safety

We firmly believe that LiFePO4 battery chemistry is the future of the marine industry. Known for its safety and stability, this technology offers excellent charge and discharge performance and is highly resistant to overheating. The battery maintains voltage stability across all states of charge (SOC), ensuring consistent power delivery even in demanding marine conditions.

HELIOS MARINE LINK

Smart Control for Smarter Boating

Product Characteristics

- Robust & reliable marine grade hardware
- Intuitive UI: Available as an app on iOS, Android, and major marine MFD (multi-function display) systems
- Fleet management portal: Cloud & Connectivity

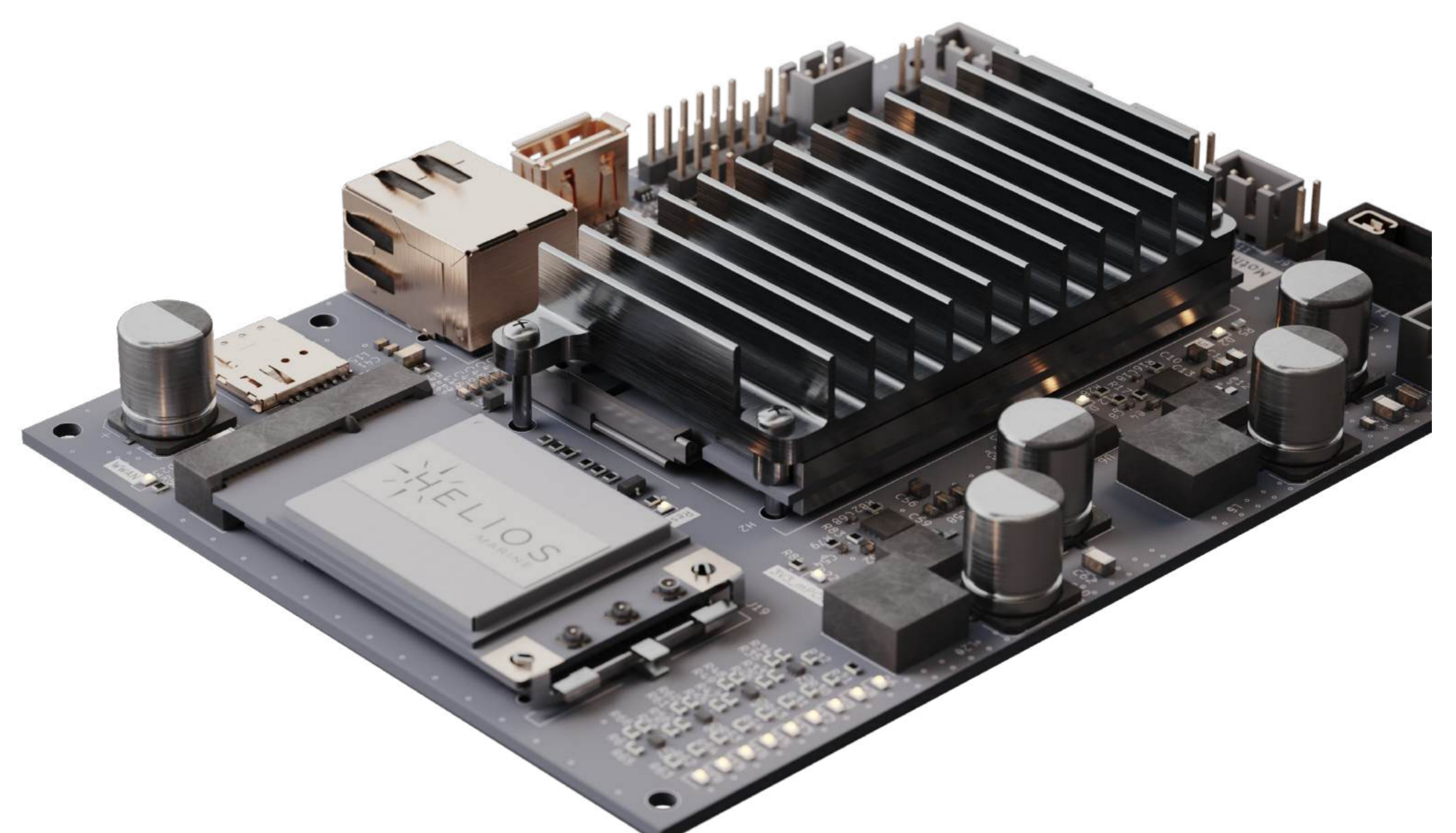
IoT Boat Control Module & UI

The Helios Marine Link is a smart onboard control module designed to deliver real-time monitoring, seamless connectivity, and intelligent control over your vessel's systems. Built with durable marine-grade hardware and an intuitive user interface, Helios Marine Link keeps you in command, both onboard and remotely.

Robust Marine Grade Hardware

Marine hardware that withstands the elements and test of time.

- **5G Connectivity & Secure Data Transfer** - stay connected with fast, secure, and reliable communication.
- **GPS Module & Geofencing** - track location-based services and set geofence alerts for enhanced safety.



ELECTRIC PROPULSION & DIGITAL CONVERSION

Integrate the right electric propulsion package into your new-build or existing fleet with our top-tier components and engineering support.

We combine our products and technology with top tier partner components to configure electric propulsion packages tailored to serve every purpose – from the smallest secondary motors to complex high-powered systems.

Flexible Solutions for Every Application

Our engineering team creates propulsion packages based on your specific needs. We integrate our high-quality products with top-tier components to ensure that your system is perfectly suited to your boat's requirements.

Smart Monitoring with Helios Marine Link

Helios Marine Link is a core building component for all our electric propulsion packages. Monitor and manage your boat's performance remotely through the Helios Marine App, available on both iOS and Android.

Versatile Solutions

Engineered for sailing yachts, ICE vessel retrofits, and OEM boat and yacht manufacturers.

Seamless Integration

High-performance motors, paired with our custom-made batteries ensure long service life and reliable operation.

- **NMEA 2000 compatible** - plug-and-play installation for easy integration into your boat's systems.
- **OTA Firmware & Software Updates** - keep your systems up-to-date with over-the-air updates.
- **Real Time Tracking & Vessel Performance Data** - monitor your vessel's location and performance in real time.
- **Remote Camera Monitoring** - stay in control with remote video monitoring for added security.

Intuitive User Interface (UI)

Download as an app on iOS and Android, or use directly on your MFD display.

Key characteristics and benefits:

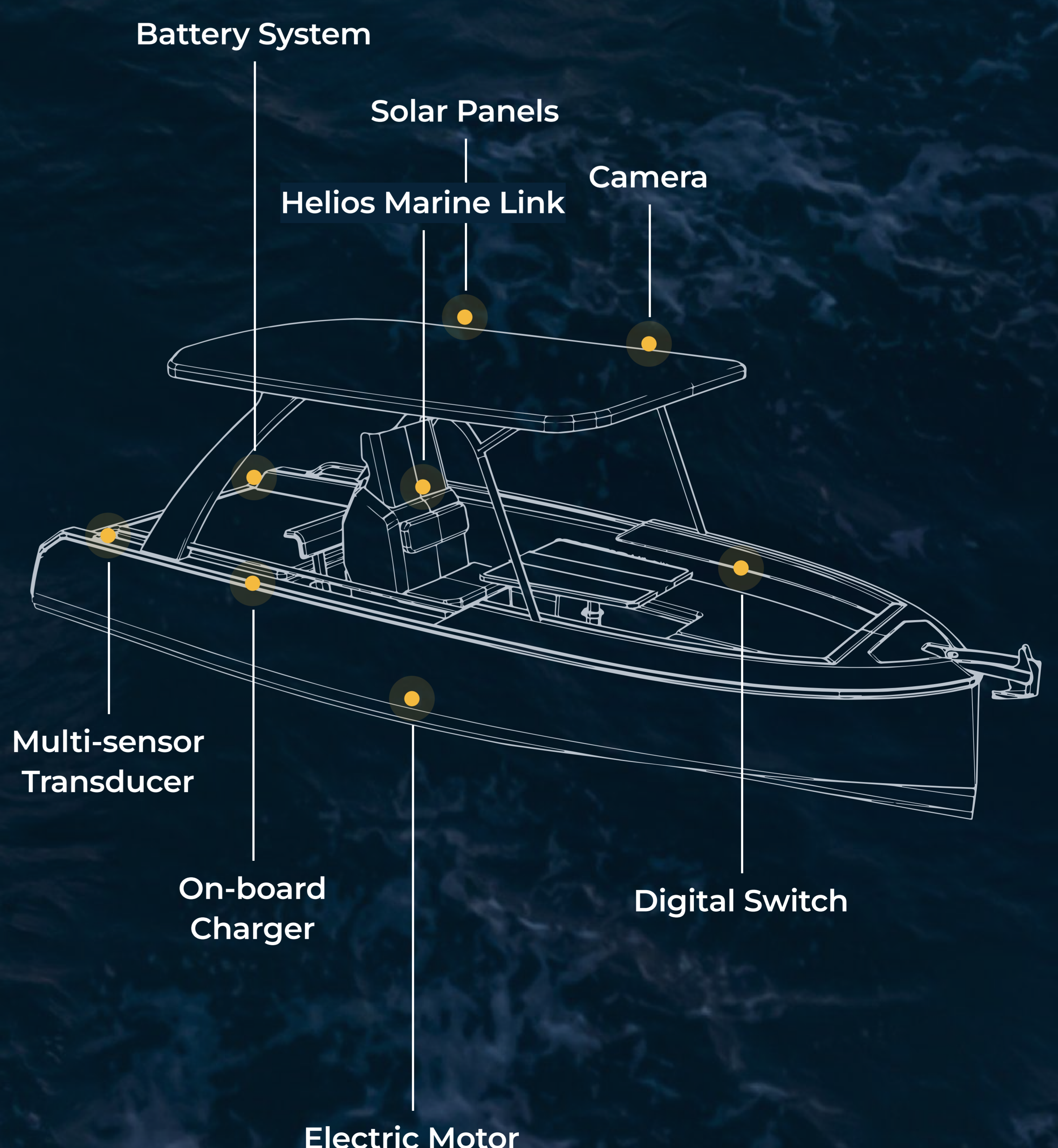
- **Enables Onboard and Remote Boat Control & Monitoring** – control and monitor your vessel both onboard and remotely.
- **Voice Commands** – operate key functions using simple voice commands.
- **Links the Mariner with the Vessel and the External Environment** – connects the mariner with the vessel's systems and the surrounding environment.
- **Displays Critical System Alerts** – provides real-time alerts for critical system issues.

Fleet Management Portal

Seamlessly connect to the cloud for real-time data access and analytics.

Key characteristics:

- **Fleet Management and Analytics** - monitor performance across multiple vessels for better fleet oversight.
- **Energy Consumption Insights** - optimize energy usage to improve efficiency and reduce costs.
- **Preventive Maintenance** - stay proactive with predictive maintenance alerts and reduce downtime.
- **OPEX Analysis** – analyze operational expenses and identify opportunities for efficiency improvements.
- **CO2 Reduction** – track and minimize your environmental impact by monitoring CO2 emissions.



HELIOS  MARINE



**BRINGING DIGITAL FIRST ELECTRIC SOLUTIONS TO
THE MARINE INDUSTRY**

Helios Marine is redefining marine technology with cutting-edge electric and digital systems, powered by our custom-built software. We deliver unmatched performance and efficiency, while keeping our environment clean and quiet.



heliosmarine.io

+359 88 4444 818 ▪ sales@heliosmarine.io ▪ 37 "Transportna" Blvd, 8008 Burgas, Bulgaria