

Go electric with WaterWorld propulsion and battery systems.







## What we do.

WaterWorld provides a complete package to electrify your boat. This includes electric propulsion, throttle, colour display, lithium batteries and much more!

# What to expect.

About WaterWorld	04
Hybrid systems	07
Inboard systems	09
Pod systems	13
Saildrive systems	15
Battery systems	17
Accessories and more	21





#### **Durable**

Thanks to WaterWorld's high-efficiency systems, your vessel sails all day with the right battery pack, recharged overnight.



#### **Affordable**

WaterWorld systems match traditional combustion engines' costs thanks to efficient production, easy installation, and low maintenance.



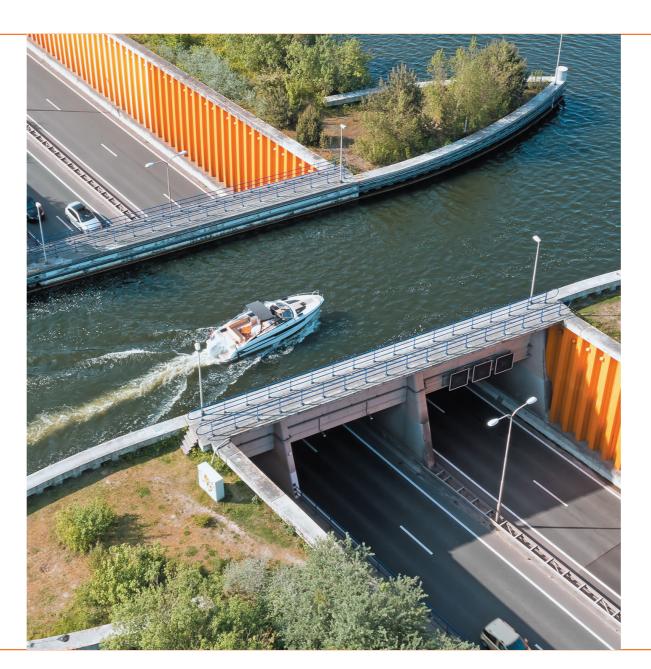
#### Reliable

Born from the electronics expertise of sister company Bietronic since 1987, WaterWorld Electronics ensures trust through Dutchmade technology and easy installation. Our in-house R&D and production facility guarantees top-quality systems, rooted in the legacy of Bietronic as our founding knowledge base.



#### **Technological sparring partner**

Our extensive experience ensures we tackle any challenge, providing sustainable solutions and exceeding client expectations.



### About us.

At WaterWorld Electronics, we are driven by a passion for boating and technology, with over 35 years of expertise rooted in our sister company, Bietronic, founded in 1987. This solid foundation enables us to push the maritime sector forward with innovative, efficient, and sustainable solutions.

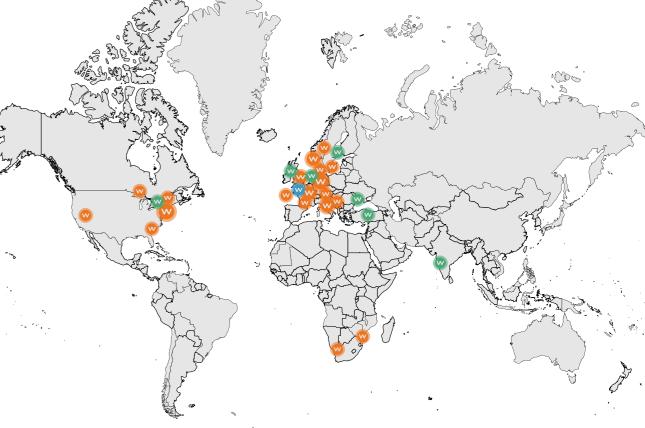
Since our establishment in 2013, our mission has been to redefine the international market. We control every aspect of production, from the design and manufacturing of our batteries and propulsion systems to the software that powers them. This comprehensive in-house approach allows us to respond flexible to our customers' specific needs, consistently focusing on innovation and user experience.

### Why WaterWorld?

Boat tech innovators with over 35 years of expertise and in-house design, production, and software ownership for complete flexibility.



Worldwide partners
You are in good company



100% Dutch Circular, sustainable, and ethically produced

In-house development 
& PCB production

Reliable since 1987

# **Hybrid systems.**

WaterWorld hybrid propulsion combines the power of a traditional diesel engine, with the silent efficiency of an electric drive. Our 4.0h, 10.0h, and 20.0h motors have proven reliable in vessels up to 20 meters, operating alongside existing diesel engines. This tailored approach offers seamless integration, providing a custom solution for each vessel.

## Custom solutions for every vessel

Each hybrid setup is customdesigned, taking into account diesel RPM, gearbox ratio, propeller size, and vessel speed to calculate the perfect pulley ratio for the WaterWorld system. The result? A finely tuned hybrid solution that operates smoothly with our battery systems, delivering effortless performance.

## **Intelligent** regeneration

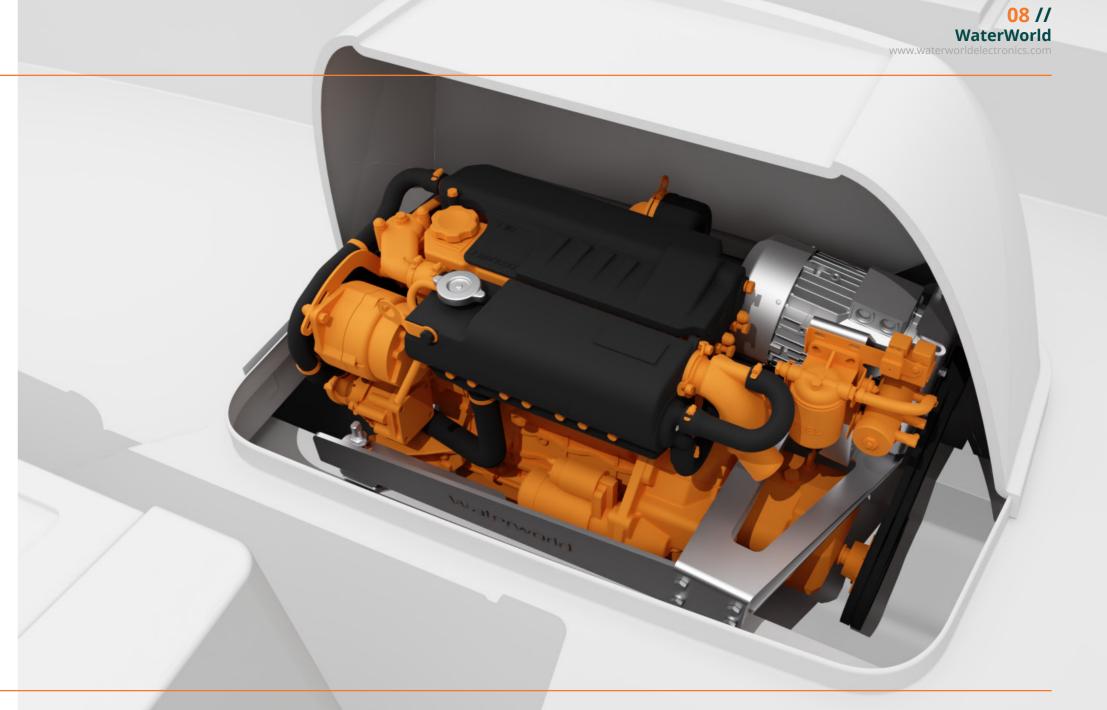
When regeneration is enabled, our system adjusts to the diesel's RPM: low RPM means no charging, while increased RPM boosts regeneration up to its maximum. The system automatically prevents overloading, shutting off regeneration when the batteries are full or the RPMs are too high, ensuring safe and efficient energy management.

## Silent, precise electric control

In electric mode, WaterWorld motors offer whisper-quiet operation with enhanced control. Steering becomes smoother and more responsive, providing a premium boating experience that outshines traditional diesel handling.

#### WaterWorld hybrid: the future of versatile boating

Enjoy the best of both worlds with WaterWorld hybrid propulsion, combining power, efficiency, and the unmatched comfort of silent electric cruising.







# **Inboard systems.**

WaterWorld electric inboard propulsion systems have been carefully designed to provide an innovative alternative to conventional inboard motors. These systems are suitable for new construction, retrofitting and hybrid projects, ensuring easy installation.

### Robust power and control

Electric inboard motors deliver remarkable power and control, equipping your vessel with the strength to tackle challenging conditions and execute precise maneuvers. Whether navigating open waters or tight spaces, these motors empower you.

#### **Silent Operation**

Electric inboard motors operate in near silence, ensuring a serene and undisturbed environment for your crew and passengers. This noise-free experience enhances comfort and relaxation onboard.

### Adaptability to various vessels

Electric inboard motors are versatile, capable of integration across a range of vessel types. Their adaptability makes them ideal for customizing your fleet to meet specific operational requirements. These motors can also be utilized in hybrid applications. WaterWorld can assist in designing a hybrid framework to complement the diesel engine.

#### **Streamlined**

#### maintenance

Enjoy minimal maintenance requirements with electric inboard motors. This means less time and resources spent on servicing, leading to increased uptime and cost savings for your business.



4.0i

Length 525 mm
Width 240 mm
Height 229 mm
Weight 34 kg
Nominal speed 1500 rpm
Input power 4.4 kW
Nominal voltage 48 Volt
Communication CANopen
Hybrid possible Yes
Regeneration possible Yes



10.0i

Length 719 mm
Width 290 mm
Height 296 mm
Weight 76 kg
Nominal speed 1500 rpm
Input power 11 kW
Nominal voltage 48 Volt
Communication CANopen
Hybrid possible Yes
Regeneration possible Yes



20.0i

Length769 mmWidth290 mmHeight301 mmWeight100 kgNominal speed1600 rpmInput power20 kWNominal voltage48 VoltCommunicationCANopenHybrid possibleYesRegeneration possibleYes







Air cooled



"WaterWorld's silent motor lets us drift in peaceful harmony just us and the water."



# Pod systems.

Electric pod motors provide superior maritime performance and offer a range of benefits for various types of vessels. Developed with the professional and demanding user in mind, these systems are built to withstand rigorous operational requirements, including use in saltwater environments.

## Unmatched maneuverability

With 360-degree rotatable pods, these motors give your vessel exceptional maneuverability. Easily navigate through busy harbours, improve docking precision, and enhance the safety and efficiency of operations.

#### **Low maintenance**

Engineered for minimal maintenance, pod motors reduce operational costs and maximize your sailing time. Their sealed design and corrosion-resistant materials ensure durability, even in saltwater, leading to fewer repairs and more days on the water.

#### **Quiet operation**

Underwater motor placement ensures a whisper-quiet, vibration-free experience for your crew and passengers, enhancing comfort and providing an unforgettable journey.

#### **Ultimate flexibility**

Versatile and adaptable, electric pod motors are ideal for the maritime, cruise, offshore, and other sectors. Install them on various vessel types to enjoy maximum operational flexibility and reliable performance, tailored to meet the highest standards.



#### 2.0p

Length 496 mm
Width 108 mm
Height 255 mm
Weight 16 kg
Nominal speed 1500 rpm

Input power 2.2 kW
Nominal voltage 48 Volt
Communication CANopen

Regeneration Yes possible

**Mounting** Fixed and Steerable



Pod + Ventral fin



3.5p

Length 525 mm
Width 108 mm
Height 255 mm
Weight 16 kg
Nominal speed 1500 rpm
Input power 3.8 kW

Nominal voltage 48 Volt
Communication CANopen

Regeneration Yes possible

**Mounting** Fixed and Steerable



Pod + Ventral fin + Anti-Cavitation plate



8.0p

Length652 mmWidth150 mmHeight288 mmWeight35 kg

Nominal speed 1500 rpm Input power 8.8 kW

Nominal voltage 48 Volt

Communication CANopen
Regeneration Yes
possible

Mounting Fixed and Steerable



Pod + Rudder



18.0p

Length 726mm
Width 206 mm
Height 370mm
Weight 71 kg
Nominal speed 1500 rpm

Input power 19.8 kW

Nominal voltage 48 Volt
Communication CANopen

Regeneration Yes possible

**Mounting** Fixed and Steerable



Pod + Rudder + Pivot

# Saildrive systems.

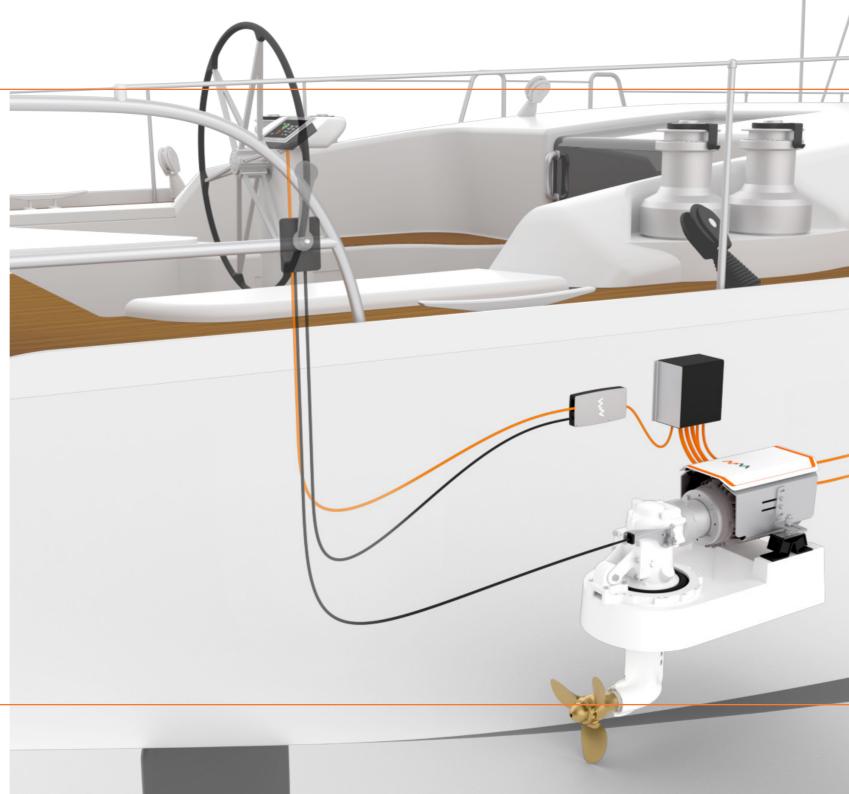
Explore WaterWorld's revolutionary installation kit, specifically crafted for the majority of Yanmar, Volvo Penta, and Technodrive saildrive systems. Say goodbye to your old diesel engine and usher in a new era of robust, eco-friendly, noise-free, and low-maintenance electric propulsion.

## Seamless sailing regeneration

Our system is designed to regenerate power while sailing, ensuring optimal energy utilization. Your current cable control system remains untouched, courtesy of our innovative installation block, which seamlessly controls the electric motor's speed while preserving the integrity of your forward and reverse gears.

#### **Easy installation**

In just one day, transform your vessel from diesel-dependent to electrically efficient. Make the switch with WaterWorld and experience an ecofriendly, effortless, and swift transition. Who wouldn't want to sail into the future with us?



#### 10.0s

Length	613 mm	Input power	11 kW
Width	278 mm	Nominal voltage	48 Volt
Height	296 mm	Communication	CANopen
Weight	76 kg	Regeneration possible	Yes
Nominal	1500 rpm	possible	

#### 20.0s

Length	693 mm	Input power	20 kW	
Width	278 mm	Nominal voltage	48 Volt	
Height	296 mm	Communication	CANopen	
Weight	100 kg	Regeneration possible	Yes	
Nominal speed	1600 rpm	possible		



## **Battery systems.**

Designed for demanding users, our batteries are built to last over 4000 cycles at an 80% depth of discharge, retaining capacity at optimal temperatures. Only the most stable lithium chemistry is used, guaranteeing safety and durability even in rigorous environments.

## **Smart battery management**

Our advanced Battery
Management System (BMS)
continuously monitors and
protects each battery cell,
safeguarding against extreme
conditions and ensuring stable
performance.

### Cylindrical battery cells

Each (6,8kWh) battery contains 352 cylindrical LiFePO4 cells, renowned for their stability, safety, and durability. This structure enhances reliability and maximizes overall battery performance.

### Robust aluminum enclosure

The enclosure, crafted from 3.5 mm anodized aluminum, is built for durability and strength. Not only does it protect the battery electronics from environmental factors, but it also serves as a heat sink, preventing overheating and ensuring optimal temperature management.

#### Plug and play system

Designed for seamless installation, the battery's Flexconnect power connectors allow for easy setup, even in confined spaces on your vessel, ensuring the safest possible installation.

### Integrated

#### communications

With BatteryLink, your batteries operate as a fully integrated energy system.
BatteryLink connects with the WaterWorld motor controller via CANopen, providing realtime data on battery status to support safe and continuous navigation. If any cell experiences a fault, BatteryLink instantly reroutes power to prevent interruptions, ensuring your boat remains operational at all times.



WaterWorld prioritizes safety with comprehensive protections:

- High Current & Short Circuit Protection
- Deep Discharge and Overcharge Protection
- Temperature Protection
- IP67 Rated: Waterproof and Dustproof
- Certified Quality

	I Z V (12,8)			<b>24V</b> (25,6)		40 V (51,2)		
Capacity	1700 Wh	1700 Wh cranking	3400 Wh	3400 Wh	6800 Wh	3400 Wh	6800 Wh	13600 Wh
Length	242 mm	242 mm	392 mm	392 mm	687 mm	397 mm	695 mm	1295 mm
Width	253 mm	253 mm	253 mm	253 mm	253 mm	253 mm	253 mm	253 mm
Height	212 mm	212 mm	212 mm	212 mm	212 mm	212 mm	212 mm	212 mm
Weight	19 kg	19 kg	34 kg	34 kg	61 kg	33 kg	61 kg	119 kg
Charge rate	80 A	100 A	130 A	80 A	130 A	60 A	80 A	130 A
Continuous discharge rate	150 A	200 A	150 A	150 A	150 A	100 A	150 A	150 A
Max discharge rate (2sec)	300 A	500 A	400 A	300 A	400 A	200 A	300 A	400 A
Max discharge rate (10sec)	200 A	400 A	300 A	200 A	300 A	150 A	200 A	300 A
Chemistry	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4	LiFePO4

24V (25.6)

48V (51.2)

12V (12.8)



waterworld

Powerful, safe, IP67-rated cranking battery.



Most batteries protect themselves, but WaterWorld batteries protect you.



### Accessories and more.

WaterWorld takes the lead in crafting high-quality accessories, specifically designed for seamless integration with top brands in the maritime industry. Elevate your experience, benefiting both end users and partner brands.

With our cutting-edge hardware, software, and CANopen communication integration, every new WaterWorld system seamlessly interfaces with other professional maritime systems, revolutionizing industry-wide connectivity. Bringing all components into a single extensive network makes the installation of every WaterWorld system a breeze, simplifying the process for everyone.

For communication,
WaterWorld has adopted
CANopen, enabling us to
establish industrial-grade
communication among all your
devices. Additionally, we
develop solutions such as the
108kWh battery package
displayed, fully integrated with
chargers and plug-and-play
system connection boxes,
tailored for the professional
market. At WaterWorld, no
challenge is too big!



**Custom solutions** 



#### **WaterWorld Connect**

WaterWorld Connect enhances your experience by wirelessly connecting your iPhone or iPad to your vessel, displaying essential information such as GPS data for precise speed and positioning. Designed with the future in mind, WaterWorld Connect is capable of receiving remote updates, allowing for enhanced features and system adjustments as they become available. Invest in a system that evolves with you. Elevate your journey today and be ready for tomorrow!



#### **VE-Link**

The VE-Link allows you to access battery information from a Victron SmartShunt on your WaterWorld display. Settings are managed through the Victron app on your phone, ensuring accurate consumption and charging data on your WaterWorld display, even during battery charging.



#### **Ray-Link**

We have created the Ray-Link to provide your Raymarine Axiom screen with WaterWorld data. Whether it is motor or battery parameters, with Ray-Link, allows you to maintain an overview without switching between screens.

### **Multiple throttles**

WaterWorld's throttle options provide seamless control and flexibility, tailored to suit any vessel configuration. Choose from top-mount, side-mount, or dual top-mount levers, all designed for smooth, precise handling in any conditions.

Our throttles prioritize safety with advanced dual-control technology. Unlike traditional mechanical throttles, WaterWorld throttles use contactless magnetic rotation encoders that are immune to external magnetic fields, along with dual Hall sensors for redundant monitoring. This combination of magnetic rotation encoders and dual Hall sensors ensures unmatched durability and provides reliable, precise control for safe navigation.







**Topmount** 



**Topmount lever** 



**Dual topmount lever** 

### **Multiple displays**

Experience full system oversight with WaterWorld's versatile display solutions. From our dedicated WaterWorld displays to seamless integration with Raymarine, multiple display options ensure you have all essential data at a glance. Whether you are monitoring performance on the WaterWorld app or using a multifunctional Raymarine Axiom screen, our displays keep you informed and in command.







WaterWorld display

**IOS** app

Raymarine

### Get in touch.

WaterWorld Electronics B.V. Weerdijk 14, 8375 AX Oldemarkt, The Netherlands

waterworldelectronics.com info@waterworldelectronics.com

