

RAD

PROPULSION



The most advanced electric drives on the market

www.radpropulsion.com

Building the marine products of the future

Our mission is to deliver:

- **Exceptional user experience**
- **Pioneering product design, engineering and technology**
- **Sustainable products**
- **Brand trust and first-rate customer care**

We offer modular and flexible propulsion drives to fit a range of boat configurations. Both current and future products connect through our RADBus drive-by-wire control architecture.



RAD 40

The all new electric outboard

- Continuous power: 40 kW
- Operating voltage range: 350-450 Vdc
- Integrated drive-by-wire steering
- 180° steering angle
- Electro-hydraulic trim/tilt
- Long and short shaft options





Super compact

Designed from the ground up to take advantage of electric power, the RAD 40 has a super compact form factor and reduced weight in comparison to other outboard designs. This maximises space onboard and improves efficiency.

The low profile, attractive styling and built-in steering enable new transom designs that result in seamless integration with the boat.



“The manoeuvrability is out of this world”

180° steering

The RAD 40 features a fully integrated steering system. The lower section rotates through 90° each way.

- Enhanced manoeuvring for stress free docking
- Ready for driving aids (e.g. auto docking and autopilot) to make boating even easier
- Reduced installation cost and time for boat builders as they don't need to install separate steering systems, hydraulics etc



Technical info

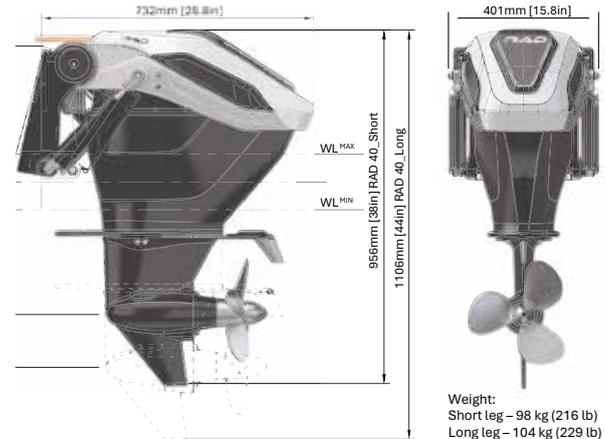
Power	40 kW continuous	
Operating voltage	400 Vdc	Compatible with automotive fast charging standards
Shaft length options	Long and short	
Max propeller RPM	2600	Up to 350 mm diameter propellers available
Weight	100 kg	Excluding battery and power distribution
Steering angle	+/-90 degree	Fully integrated electro-hydraulic system
Tilt	0-80 degree	Electro-hydraulic actuation

Ease of maintenance and durability is at the heart of our product designs.

The RAD 40 uses a closed circuit cooling system with no raw water intake. This eliminates blockages and reduces maintenance, cost and downtime for the boat owner/operator.

Market leading efficiency

- We pair state-of-the-art high torque axial flux motors with custom low rpm propellers to deliver exceptional efficiency
- Drag and transmission losses are reduced by the teardrop gearbox, tuned single gear set and no through exhaust



Tough and tested

Tested to IP67

We have put the RAD 40 through its paces with extensive testing to prove its durability. From extreme temperatures to 50 times gravity drop tests, EMC resilience to 1000s of hours on the water.

This, coupled with due diligence around the most up-to-date and rigorous safety standards, makes the RAD 40 the superior choice for both commercial and leisure users alike.

- Independent certification of the RAD 40 drive by HPIVS. Certified in accordance with requirements of the Recreational Craft Directive II (RCD II)
- Tested to IP67
- Both steering and propulsion control systems are designed, manufactured and tested in accordance with ISO 25197



RADBus system

Our standard drive pack comes complete with a RADBus drive-by-wire control system and cables for easy installation.



12v supply



Included is a choice of either a steering wheel and throttle or our autonomy interface for connection to third party autonomy systems



A complete set of RADBus cables is included as standard



Throttle units are available to suit either single or twin drives



RADTag intelligent key and stop lanyard

Multi-function display options

Our multi-function displays are available in a broad range of sizes from 10" to 24" and come with custom RAD gauges showing all the data you need in an easy to read format.



Battery management system (BMS) interface for RAD or third-party batteries

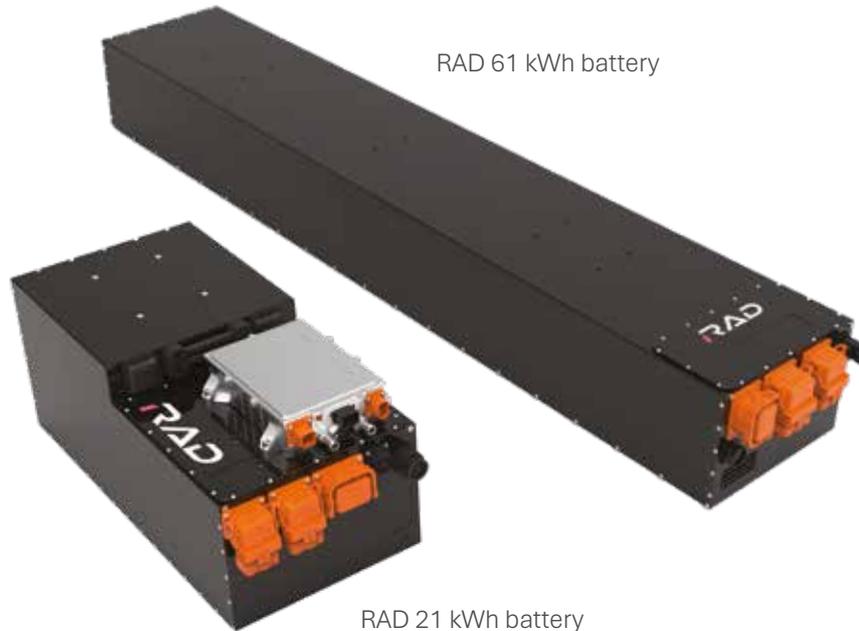
Vessel control unit (VCU) with GPS, Wi-Fi, GSM, and NMEA connectivity



Single or twin RAD 40 drives with a choice of propeller to suit your vessel

Fast charging batteries

RAD batteries are available in 21 kWh and 61 kWh sizes, to fit a variety of boat configurations and requirements. The advanced BMS (battery management system) ensures the cells are kept in peak condition, reporting state of charge and cell health through the RADBus system. At 400 V the batteries can be charged by the onboard AC bi-directional charger or a DC fast charger. The batteries also provide 12 V power via the onboard DC-DC converter.



RAD 61 kWh battery

RAD 21 kWh battery

Specifications

Capacity	Dimensions	Weight	Charging
21 kWh (can be linked to provide up to 80kWh)	377W x 832.5D x 332.2H mm	130 kg	AC 7 kW and DC fast charging via CCS2
61 kWh	372W x 2147D x 268H mm	358 kg	AC 7 kW and DC fast charging via CCS2

“A new electric
outboard bursting
with clever ideas”

Motor Boat & Yachting magazine





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