



Hydrogenerator

Introduction

Expert in the field of the battery charge in severe and constraining environment for more than 30 years, CRISTEC presents its brand new hydrogenerator.

Further to a determining experience in the ocean race the French manufacturer based in Quimper offers an energy production system that is entirely autonomous and dedicated to most of the sailors.

Thanks to the success of 4 HF switch-mode battery charger generations and about 100 000 pieces worldwide delivered, a specific tried and tested 500W charger unit has been adapted to an optimal high-performance system.



On-board electronics converters

Principle

The CRISTEC hydrogenerator produces some electricity that matches sailors, boat racers and ocean racers' needs.

The principle consists of using the speed of the boat to make a submerged propeller to rotate in the slipstream.

The power provided from the rotating machine is then processed by an exclusive on-board electronics converter.

The hydrogenerator insures an energy production entirely :

- › Autonomous
- › Silent
- › Clean
- › Unlimited

Thanks to its innovating design, installation and use are particularly friendly.



Hydrogenerator

500W

12V/40A & 24V/20A

Description and assets

⊙ Thanks to its exclusive pitch propeller the hydrogenerator provides energy on a large speed scale, from 3 to 20 knots. It does not create any disturbance while sailing :



- › No braking nor vibration
- › Optimal efficiency
- › Negligible drag
- › Silent operation
- › Eco-friendly

⊙ The system comprises an exclusive on-board electronics converter particularly efficient :

- › High quality stable charge voltage (no ripple)
- › 3 independent battery banks (i.e. service, engine and bow-thruster)
- › Made-to-measure charge according to the battery type : wet, Lead-sealed, Calcium-Lead, gel, AGM, spiral batteries, etc.



3 output batteries

Performances

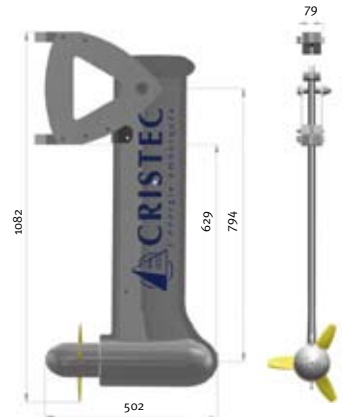
⊙ The CRISTEC hydrogenerator is a high-performance energy production solution : **500W** at rated speed.

- › 3 knots : navigation lights and safety systems are powered
- › 5 knots : on-board electronics and instrumentation are powered
- › 6 knots : fridge and/or water pumps
- › 8 knots : enough energy to power-supply DC on-board consumers and to charge the batteries

The hydrogenerator is much more powerful than other equipment like a solar panel, a wind generator or a fuel cell.

Technical characteristics of the submerged generator

- › Permanent magnet rotating machine
- › 250mm plastic 3-blades propeller
- › Plastic body
- › Safety device against shock
- › Height : 108cm
- › Width : 50cm
- › Total weight including the lifting system : 18Kg
- › Warranty : 1 year



Technical characteristics of the on-board electronics converter

- › Selection wheel to choose the battery type
- › IU charging curve
- › 3 separated battery banks
- › 3 front LED
- › Natural cooling (fanless = silent functioning)
- › Various protections : polarity reversal, short-circuit, over-temperature, etc.
- › PCB coated with waterproof and tropicalized varnish
- › IP23 cabinet with an anti-drip covering and special painting against corrosion
- › 4 external fixings for a vertical or horizontal mounting
- › Dimensions : 212x282x117 mm
- › Weight : 4Kg
- › 2 years warranty

Item codes :

12V model = HYDGEN/12-500

24V model = HYDGEN/24-500

The furniture includes : the immersed generator and its variable pitch propeller + the lifting system + on-board electronics converter.

Preliminary documentation – Specifications may change without prior notice.

