



SEAMAP
A MIND Technology Business

SEAMAP AMPAIR UW100™
UNDERWATER MICRO HYDRO TURBINE

Designed to generate power for charging batteries from fast flowing streams and over the stern of yachts, the Ampair UW100 manufactured by Seamap is a powerful and efficient solution, providing 100W continuous battery charging power at 4m/s water speed.

- 12V or 24V version
- 100W at 4m/s at 400mm depth
- Two Phase Output
- Turbine diameter 312mm
- Weight 10kg

Powerful

Generates 2.4 kWh per day from 400mm deep fast flowing streams.

Protected

Optional stainless steel propeller guard prevents fine rope, fishing line and debris from blocking the turbine.

Applications

Designed for fast flows in fresh water or salt water.

Robust

Alternator body is filled with oil for pressure equalisation and to reduce internal corrosion.

Durable

The stainless steel shaft is triple-sealed for optimum protection.

Proven

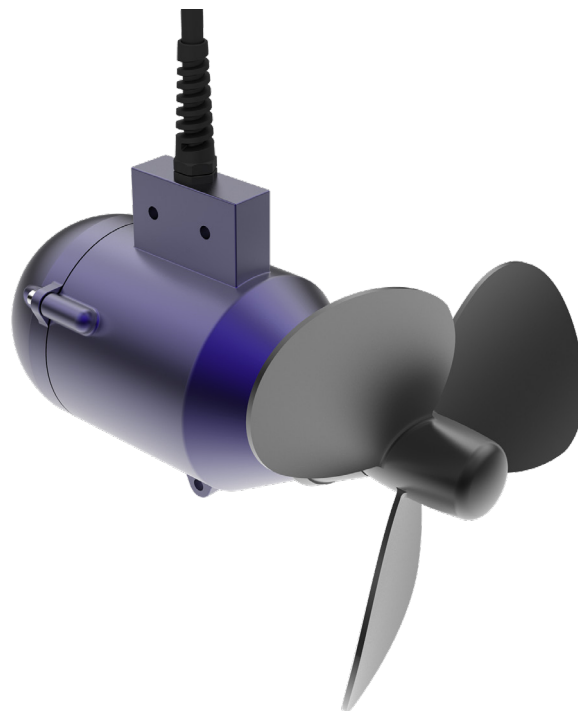
Manufactured for 20 years and used worldwide.

Dependable

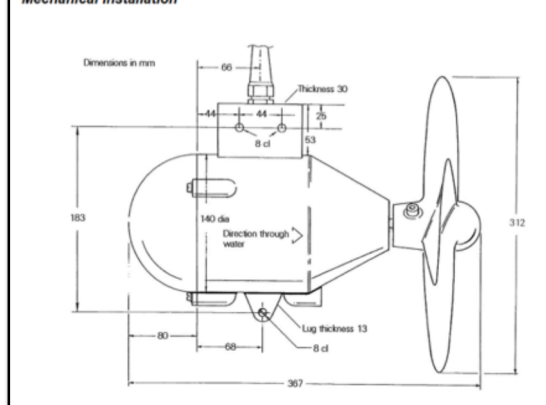
Reliable, rugged and cost effective.

The Ampair UW100™ underwater generator has been manufactured commercially by Ampair in the UK for 20-years – Seamap acquired the intellectual property and manufacturing rights for the product in February 2015.

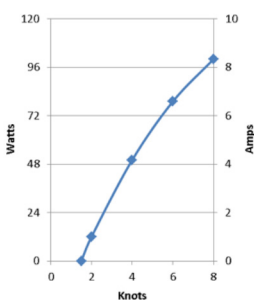
The radial flux permanent magnet generator is housed within a pressure compensated oil filled cast aluminum casing. The casing is sealed with dual redundant seals throughout and there are only two transits into the generator section: one for the turbine shaft and one for the electrical cable. The turbine is bi-directional but because of flow obstruction by the body it is most efficient if facing into the water flow.



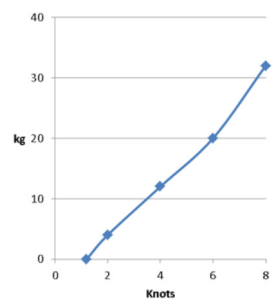
Mechanical installation



Power Curve - 12V



Thrust



UNDERWATER MICRO HYDRO TURBINE

Installation Options:

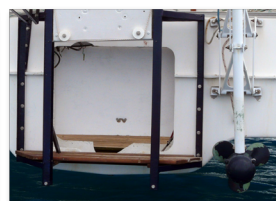
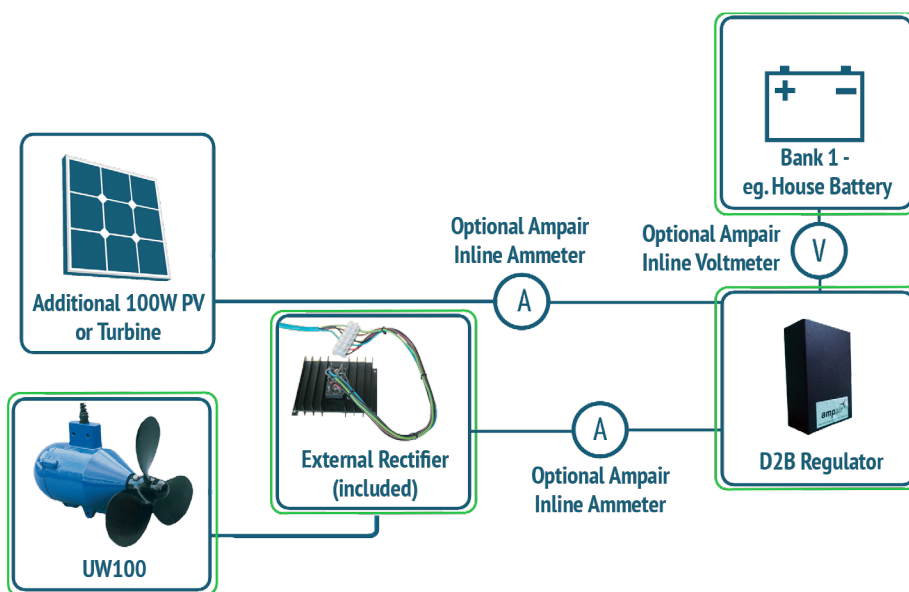
Standard - shroud prevents fine rope, fishing line or debris from winding around shaft and damaging seals. Starts at 3 knots (1.5 m/s).

Low RPM - designed for very fast flows or high speed boats. Delays charging and reduces drag until greater water speeds are reached.

Prop Guard - the optional stainless prop guard protects against debris.

Mounting and Protection - because of the wide variety of locations mountings are normally fabricated locally. To assist we offer 48mm dia x 1.2m long mounting poles complete with cast socket to mate with the UW. Matched clamps are available for fresh water use. Zinc anodes are available for salt water.

Fixing Pole - fabrications can be made of steel. Side plates or angle brackets can be made to suspend the UW from an overhead beam, wires or a sliding pole arrangement.



Ordering Information:

Part Number	Description
02-63-1014	Underwater Generator, 12v, CW Shrouded propeller with 5m cable and rectifier, AM W01 1012
02-63-1015	Underwater Generator, 24v, CW Shrouded propeller with 5m cable and rectifier, AM W01 1024

Accessories & Cables	
02-63-1024	Regulator, 100W, 12v, Dual Inputs (Solar PV and UW100), Dual Outputs (Batteries) AM A00 RG D2B-12
02-63-1025	Regulator, 100W, 24v, Dual Inputs (Solar PV and UW100), Dual Outputs (Batteries) AM A00 RG D2B-24
05-58-0041	Underwater Generator, Propeller Guard SS316, W01 SP29 / UW 100
02-63-1027	Underwater Generator, Mounting Pole (1.2m) and Pole Clamps, W01 MO12 & W01 MO27
17-63-7701	Underwater Generator, Spare Prop, CW Standard, Shrouded with Bush, W01 SP 24
17-63-7703	Underwater Generator, Spare Prop, CW Low RPM, Shrouded with Bush, W01 SP 23
02-63-1011	Underwater Generator, Spare Rectifier and Heat-sink Cable Assembly, W01 SP 12
17-63-7702	Underwater Generator, Spare Shaft Seals with Cover Washer, W01 SP 11
49-00-5492	Sacrificial Anode, 1.6kg, Aluminum, Flush, AM W01 SP31
49-00-0106	Sacrificial Anode, 0.2Kg, Zinc, Ampair AM W01 SP 32

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