

# Aquair™ 100 water/wind turbine. 12 or 24 V battery charging power.

Towed Turbine Generator when sailing. Wind Driven Generator when at anchor.

## Hybrid wind and water drive.

Sailing downwind at 6 knots, the Aquair 100 water drive generates approximately 5 amps continuous charge. To obtain 5 amps at 12 Volts of generation from the wind driven version while underway, the wind speed required is typically 30 knots (24 knots plus 6 knots boat speed).

## Water mode.

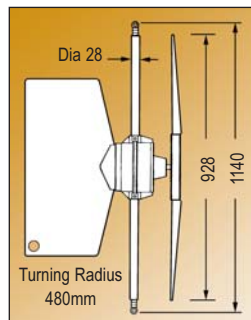
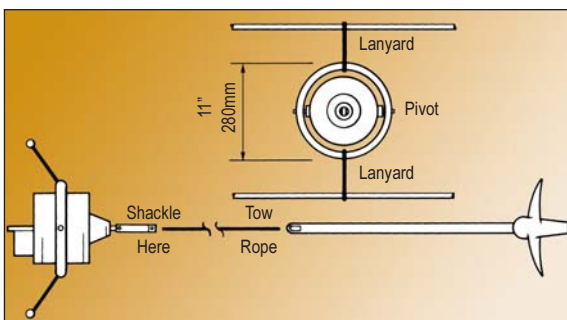
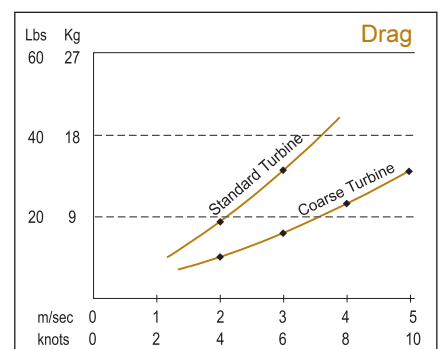
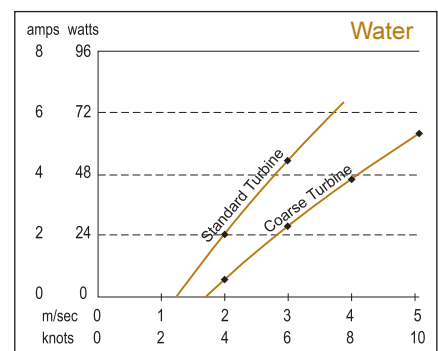
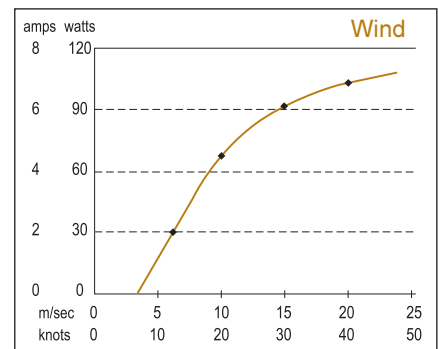
The Aquair 100 is designed for yachts cruising at 4-7 kts. The standard pitch turbine surfaces at 7-8 kts and skips at higher speeds. The coarse pitch turbine suits yachts which sail at 8-12 kts. The shaft connector is designed to break to save the generator and rail if the turbine becomes trapped. At normal cruising speeds the turbine will not noticeably slow the yacht.

## Wind mode.

Uses a "rope only", hoist-in-the-rigging system. A halyard lifts the Aquair 100 away from busy cockpit into clear air. No noise or vibration to worry about! A pole mount option is available for yachts with stern gantry or similar. A short pole is welded, clamped etc. to an existing structure. A single electrical connection then serves wind and water modes.

## Advantages.

Use of an Aquair 100 greatly reduces the frequency of engine running to recharge service batteries. The turbine generates sufficient power to run an autopilot, maintain navigation equipment or support a fridge. It produces a continuous output of up to 6 Amps at 12 volts. Its permanent magnet alternator with built-in rectifiers has no commutator brushes and the windings cannot overheat so it requires no thermal cut-outs or protection choke.



## Technical Specifications- water mode:

Power Rating	5 Amps 12 V at 3 m/s (6 knots) waterspeed
Voltage Options	12 or 24 V DC
Output	Rectified DC
Start-up Waterspeed	3 knots
Weight	10kg Generator - 3kg Turbine
Propeller	Standard 7-8 knots or High speed 8-12 knots
Housing	Die cast aluminium (powder coated)
Wind Mode	See Ampair 100