

Solar Energy South Africa

How to make a water-wind dual-purpose generator impeller



Overview

What is a sail-Gen water generator?

The Sail-Gen is a dedicated water generator developed for the long distance sailing. It shares the same operating principal as the DuoGen's water mode, which is well proven over hundreds of thousands of sea miles. The Sail-Gen comprises a rigid welded aluminium frame with carbon fibre drive shaft and cast alloy impeller.

Can a wind generator be mounted in wind mode?

This remains the case in both water and wind mode. Consequently, when operating in wind mode, the mounting only has wind loadings to resolve, not the mass of an alternator. Installing a conventional wind generator involves a dedicated mount tower and substantial braces fore and aft and athwartships.

How do you assemble a wind-powered water pump?

To assemble the wind-powered water pump, I hammered a metal rod into the ground where I wanted the pump to stand. To this rod I braced the outer part of the pump mechanism using two screw clamps.

What is a duogen generator?

DuoGen is a combined water and wind generator that can be easily reconfigured to harness the kinetic energy in either a water stream or a wind stream in order to produce electricity.

Why is my duogen water impeller not working?

This is due to dry salt deposits and the unit should free up immediately it is returned to the water. However, the DuoGen's water impeller rotates about 5 million times for every thousand miles sailed, and like all mechanical devices, it is prone to wear.

How does a windmill & water pump work?

This bearing, and another identical one attached to the piston on the water pump are what allow the connecting piece between the windmill and the water pump to move freely, transferring the wind's horizontal force into the up-and-down force of the water pump. The connecting "rod" itself is made out of PVC.

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Everything you need to know about hydrogenerators

The Seagen and Duo-Gen take a very different approach to mounting, with a flexible yoke providing a single point of attachment. The alternator is attached at this end, while the impeller is at the end of a 1.6m ...

How to Choose the Right Impeller

Impeller diameters are typically configured for the specific application, but theoretically speaking, the impeller diameter should be about the same as the distance between the bottom of the impeller and the bottom of the tank.



The Latest in Water Generators , Cruising Compass

The Duo-Gen, from England, is a dual purpose generator that can be deployed in both wind and water modes. Now in its third generation, the generator advertises that it can produce six amps in 15 knots of wind or eight ...

DuoGen 3 - Wind & Water Generator - Hybrid Generator - Micro ...

DuoGen is a combined water and wind generator that can be easily reconfigured to harness the

kinetic energy in either a water stream or a wind stream in order to produce electricity. ...



12.8V6Ah

Nominal voltage (V):12.8
 Nominal capacity (ah):6
 Rated energy (WH):76.8
 Maximum charging voltage (V):14.6
 Maximum charging current (a):6
 Floating charge voltage (V):13.6-13.8
 Maximum continuous discharge current (a):10
 Maximum peak discharge current @ 10 seconds (a):20
 Maximum load power (W):100
 Discharge cut-off voltage (V):10.8
 Charging temperature (°C):0-+50
 Discharge temperature (°C): -20-+60
 Working humidity: $\le 95\%$ RH (non condensing)
 Number of cycles (25 °C, 0.5C, 100%DoD): >2000
 Cell combination mode: 32700-4s1p
 Terminal specification: T2 (6.3mm)
 Protection grade: IP65
 Overall dimension (mm):50*70*107mm
 Reference weight (kg):0.7
 Certification: un38.3/msds

[How a Wind Turbine Works](#)

Step-by-step look at each piece of a wind turbine from diagram above: (1) Notice from the figure that the wind direction is blowing to the right and the nose of the wind turbine faces the wind. (2) The nose of the wind turbine is constructed ...

[DIY Wind-Powered Water Pump](#)

DIY Wind-Powered Water Pump: This summer I made a bunch of fun things out of PVC for my visiting nieces and nephews, and this wind-powered water pump is a combination of two of those projects: a wind-powered deer deterrent, and a ...



DuoGen 3 - Wind & Water Generator - Hybrid Generator - Micro Wind ...

DuoGen is a combined water and wind generator that can be easily reconfigured to harness the kinetic energy in either a water stream or a wind stream in order to produce electricity. ...



Sail-Gen - Dedicated Water Generator

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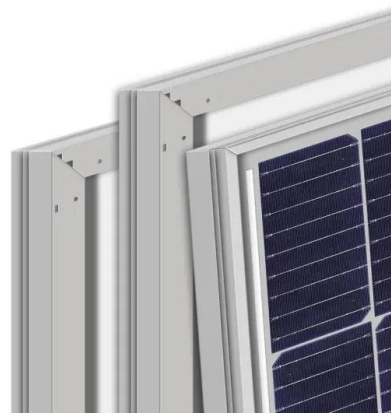


17 Brilliant DIY Wind Turbine Design Ideas For Living ...

DIY Wind Turbine Ideas for Free and Green Energy Source DIY Wind Turbine Design Ideas. If you're like me, who can't stand the noise of a generator and the stench of gas, consider a wind generator. We have solar ...

Changing A Raw Water Pump Impeller by Compass Marine How ...

A simple mishap like forgetting to open the engines raw water intake can kill an impeller in short order. They don't like to be run dry and they don't like heat. If let go for to long they can "throw" ...



DESIGN AND FABRICATION OF PORTABLE WATER ...

Portable wind and water power generators are designed to change the flow of water and wind into a generator drive in order to produce electrical energy. The design of portable wind and water power generators includes fan blades, ...

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