

LS Double-Helix 0.5 Marina

Vertical wind power turbine



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LS Helix Marina – for special applications

The LS Double Helix 0.5 Marina was primarily developed for the maritime sector, for example to supply power to houseboats and harbor facilities. Of course, our smallest Savonius blade can also be mounted on flat roofs of garages or houses. This off-grid turbine charges 48V batteries to fill the natural gaps of photovoltaic systems, among others.

Thanks to the Savonius principle, the four-blade turbine already starts moving at a low wind speed of 9.8 fps (6.8 mph) and silently and reliably starts producing electricity (DC).

Insights into the LuvSide turbine

A third roller bearing in the substructure gives this small turbine a high degree of rigidity, making it exceptionally robust. The controller's volt step-up function ensures that power production can begin at low wind speeds. In return, an integrated dumpload ensures a reduction of the energy surplus above 0.5 kW at wind speeds above 16 m/s. The 1.4 m² rotor surface is made of seawater-resistant GRP and rotates at only 20-130 rpm. The outermost point of the turbine moves at about half the speed of the wind, making the sight almost meditative. With this low number of revolutions there is no danger for birds or bats.



Turbine LS Helix 0.5 Marina

Output Power

Nominal Power	500 W at 52.5 fps
Start-up wind speed	9.8 fps (6.8 mph)
Stop wind speed	82 fps (59 mph)
Max. wind speed before destruction	164 fps (112 mph)

Turbine Dimension

Diameter	4.6 ft
Height	3.3 ft
Rotor Surface	15 sqft
Weight	192 lbs
Speed of Rotation	20-130 rpm
Number of rotor blades	4 Pcs.
Material	Glassfiber-reinforced plastic (GRP)

Generator

Typ	PMSG
Rated Output Power	500 W
Rated Output Voltage	48 VAC
Rated Speed	130 rpm
Charge Controller	48 VDC

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Installed systems

Rendering/Photo composition of a possible application



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