

MPH 100-300-500

Vertical Axis Wind
Turbines



The MPH 100, MPH 300 and MPH 500 wind turbines offered by Mediterráneo Señales Marítimas are versatile and durable vertical models. There are the ideal solution to generate off-grid energy.

This power supply system consist on modular wind generators with permanent magnet alternator made on 100% recyclable components .

Given its small size and light weight, installation is very quick and easy.

Ideal for energy supply at low power, isolated or connected systems, even constituting hybrid systems in combination with solar power supply systems.

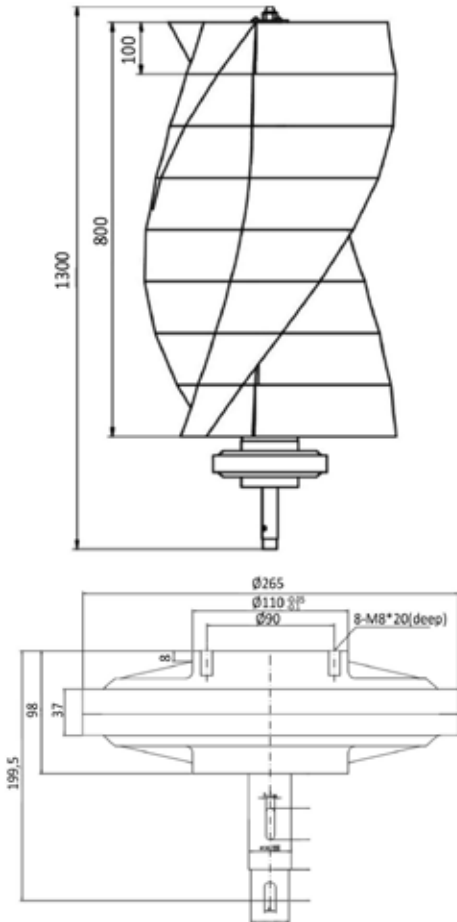
Designed to provide a long service life under severe marine conditions.

Features:

- Small and lightweight vertical axe wind generators of 100W, 300W and 500W.
- Ideal for power supply at low power, isolated or connected systems, even constituting hybrid systems in combination with solar power generation systems.
- Quick and easy installation due to its small size and light weight.
- Cut-in speed of 2 m/s (100W) and 2.5 m/s (300W and 500W).
- Energy production below 3 m/s wind speed.
- Can withstand speeds greater than 150 km/h without deformation.
- Extreme durability even in adverse marine conditions. Support snow, ice, heat, humidity and salt water.
- No need to be oriented to wind direction.
- Completely silent and safe.
- Free of maintenance.



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MPH 300.wind generator example.



Mediterráneo Señales Marítimas, S.L.

Pol. Ind. Mas de Tous - C/ Oslo 12
46185 La Pobla de Vallbona - Valencia SPAIN

+34 96 276 10 22

msm@mesemar.com

www.mesemar.com



General technical specifications

	MPH 100	MPH 300	MPH 500
Axe type:	Vertical		
Height (mm):	809	1,000	1,200
Diameter (mm):	490		
Weight (kg):	21.3	27.4	31.5
Swept area (m²):	0.19	0.24	0.29
Axis and hardware materials:	Acero Inox 316-L		

Vanes technical specifications

	MPH 100	MPH 300	MPH 500
Vane material:	Polypropylene copolymer		
Vane colour:	White, black, green, grey and blue.		
Vane properties:	Marine environment resistant to ultraviolet rays and temperature extremes.		

Electrical features

	MPH 100	MPH 300	MPH 500
Type of generator:	PMG		
Output nominal power:	100W	300W	500W
Nominal speed:	200 rpm max.	300 rpm max.	350 rpm max.
Nominal voltage:	14/28V c.c.		28/56V c.c.
Noise level at 10 m/s:	Lower wind noise.		
Nominal current line:	5.16A	15.47A	6.44A
Efficiency:	>85%		
Resistance:	-		
Type of winding:	Y		
Insulation resistance:	100 Mohm Min (500V d.c.)		
Leakage level:	<5 mA		
Starting torque:	<0.1 N/m		
Phase:	3 phases		

Motor features

	MPH 100	MPH 300	MPH 500
Structure:	Rotor exterior.		
Stator:	Sin núcleo.		
Rotor:	Imanes permanentes (rotor exterior).		
Top Diameter (mm):	220	265	
Lower Diameter (mm):	30		
Height (mm):	209	119.5	
Weight (kg):	8.5	11	

Production per model

m/s	Production per model (kWh/year)		
	MPH-100	MPH-300	MPH-500
4	37	110	183
6	64	193	322
9	124	373	622
13	196	587	979

(*) Indicative values. Actual production may vary depending on conditions..

Performance parameters

	MPH-100	MPH-300	MPH-500
Start-up speed:	2 m/s	2.5 m/s	
Braking speed (*):	30 m/s		
Survival speed:	45 m/s		
Nominal wind speed:	9 m/s		12 m/s
Noise level at 10 m/s:	Lower wind noise.		

(*) This figure is set by the user by means the regulator.