MSM offers its wide range of vertical wind turbines WINDSIDE as ideal complement for battery charging, making wind energy into electricity wherever energy is needed. They are specially suitable for offshore installations, buoys, small islands, vessels, ..., under the harshest marine conditions.

WINDSIDE wind turbines provide highest efficiency and durability with a minimum maintenance.

One of the main advantage of its vertical axe construction is its autocontrolled rotational speed, also in conditions of extreme wind.

Also characterised by their respect for the environment due to their soundless (0 dB), ensuring a safe installation in population centres, public spaces, natural areas, etc.

Features:

- Vertical wind turbine based on sailing engineering principles.
- The turbine rotor is rotated by two spiral-formed vanes.
- Operating in harmony with nature and environment.
- No need to stop or secure during storms.
- No need to be turned to wind direction.
- Stands snow, frost, heat and humidity.
- Composite re-enforced fibre glass propellers.
- Marine-grade aluminium generator casings.
- Stainless-steel hardware.
- Top quality lubricated bearings.
- Depending on its use and the weather conditions, we offer various models to our customers.
### Materials and environment

- **Fibre glass vanes.**
- **Aluminium fixings.**
- **Chrome coated steel or stainless steel shaft, depending on model.**
- **Generator and generator end plates from marine grade aluminium or hot-dip galvanized steel, depending on model.**
- **Stainless-steel (A4 or A2) or hot-dip galvanized steel (Zn) bolts.**
- Produces maximum amount of energy in storms.
- Soundless (0 dB), measured in 2 meters distance from the vane.
- Long service life.
- Minimum maintenance, only lubrication.
- Safe to people, animals and nature.

### Approximate annual power production / Annual average wind speeds (KWh/year)

<table>
<thead>
<tr>
<th>m/s</th>
<th>WS-0.15</th>
<th>WS-0.30</th>
<th>WS-2</th>
<th>WS-4</th>
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### Specifications subject to change without previous notice.