

## ANTARIS 4.5 kW Wind Turbine Grid Connected



- For locations exposed to storm-force winds, optionally with different rotor diameters (3.50 – 4.00m).
- Low noise blade tip profile
- Grid connected, Heating system and Battery charging
- Storm protection with Helicopter position and electronic brake
- Easy to install

### Information about ANTARIS Wind Energy System

The ANTARIS wind turbine is a wind energy system that is ideally suited to inland sites. It is designed specifically for feeding power into the grid, charging batteries (24 VDC / 48 VDC etc.) and for supporting heating systems.

As a result of its sturdy design, the ANTARIS is also suitable for locations exposed to storm-force winds, optionally with different rotor diameters (3.50 – 4.00m).

The hand-laminated rotor blades benefit from a computer-designed aerodynamic profile. Needless to say, each blade is statically and dynamically balanced, carries an identification number and comes with relevant documentation.

Uncomplicated from the aspect of configuration, importance has been attached to ensuring that these turbines can be quickly assembled and installed by hand. As a result of its robust design, the ANTARIS works with extreme efficiency and not only comes at a highly attractive price in its basic version. Particular attention must be drawn to its excellent start-up behaviour (at wind speeds as low as 2.8 m/s) and very quiet operation (43 dB). This means the system can also be installed in residential areas.

Grid-connected operation requires one inverter Smart!wind 5.5 with characteristics matched to the ANTARIS and local wind conditions. Alternatively, in less windy areas, grid-connected operation is also possible with an Aurora 2.5.

The inverters carry an appropriate declaration of conformity and are approved for grid-connected operation – the ENS (electronic grid guard system) is already integrated!

When the ANTARIS is used in heating applications, a control cabinet with control electronics provides optimum control of the wind characteristic in conjunction with a 6000-watt heating element.

<b>Alternator:</b>		<b>Turbine data:</b>	
Type	Three phases, permanentmagnet	Type	Grid connected, Heating system
Efficiency	94%	Speed range	0 rpm - 350 rpm
Rated output power	5.5 kW	Operation speed	75 rpm – 300 rpm
Maximum output power	9.5 kW	Start up wind speed	2.8 m/s
Rated voltage	350 VAC	Storm protection	13.0 m/s
Protection class	IP56	Destructive wind speed	> 58 m/s

<b>Mechanical data:</b>		<b>Storm protection:</b>	
Repeller diameter	4.0 m (3.5 m)	Automatic system	Helicopter position, breaking resistance, electromagnetic brake (optional)
Sweep area	12.56 m <sup>2</sup> (9.61m <sup>2</sup> )	Manual	Short circuit braking, Resistor braking
Blades	3 pcs. Carbon / glassfiber		
Blades protection	UV, chemical and temperature resistant		
Turbine material	Zinc-coated steel		
Colour	RAL 9010		
Weight complete	165 kg		

<b>Standard Norms and Certifications:</b>	
	CE-DIN EN 60204-1 DIN VDE 0113 T 1 DIN EN 12100 DIN EN 418 Accident prevent regulation BGV A3 (VBG4) According to IEC 61400-2

