

Wind Sensor

## windsurf

#### Specifications

Power a class		
Rated Power (Projected)	16.4kW @ 12m∕s nominal	
Wind Class	Class III device (Vave 7.5m/s)	

Architecture & Size	
Architecture	Actively pitched vertical axis turbine
Rotor	5.5m Diameter
Rotor Mass (nominal)	1.2t
Total Turbine Mass (nominal)	1.8t
Blade Length	6m
No Of Blades	5
Swept Area	33m2
Generator Type	Brushless, zero-cogging, direct drive permanent magnet
	axial flux generator
Overall Height	15m (on standard tower)
Tower Height	6.2m (higher options possible)

Installation	
Target installation site characteristics	Urban and brownfield sites (disturbed airflow)
Grid connections	Three phase
Off grid connections	Off grid connectivity will be rolled out in due course
Transportation	Discrete subassemblies allowing containerised shipment

Solid state

Installation method Crane installed Foundation Options Pad/Root/Rock Anchor etc to suit local site conditions

Operation	
Cut-in Speed (estimated)	3 m/s
Rated Speed	12 m/s
Cut-out Speed	Exact limit unknown, active pitching will allow extended operation into higher windspeeds
Survival Wind Speed	52.5m/s (MCS Class III)
Rotation Speed	0-80 RPM
Emission Sound Pressure (estimated)	<45dB(A)(@60m)

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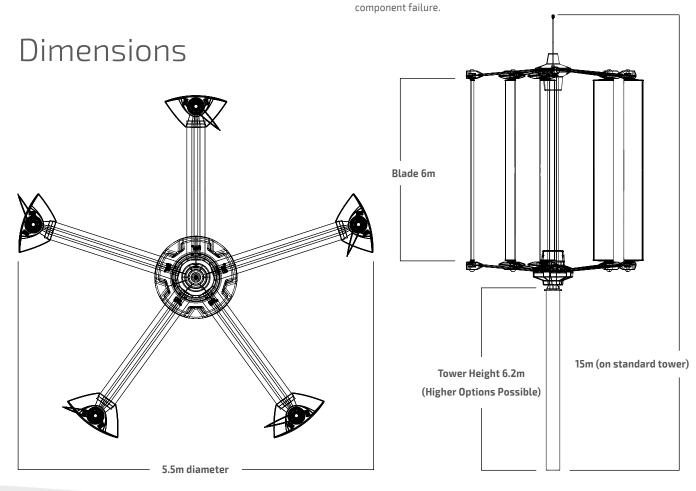
# Overspeed management Turbine is aerodynamically inert, it cannot initiate or sustain rotation without the control system activated. Inherently fail safe Lightning protection Protection from secondary strikes as standard. Direct strike protection offered as an option Dynamic braking Active pitch control Maintenance brake Light holding mechanical brake

#### Longevity

Lifespan Design lifespan 20yrs

Service intervals To be determined through testing program

Preventative maintenance Control system feedback can show deviation from standard operation which may indicate the start of wear in advance of



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