

## Specifications

### Power & 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	33m <sup>2</sup>
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)
Wind Sensor	Solid state

### 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
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)

## Safety

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 component failure.

## Dimensions

