

# PowerWind

## Scada Measure Actual

Project site:- alvington (UK)

**PowerWind 500-60 Meter Rotor dia**

<b>PowerWind</b>	<b>500 Calculated Power Curve</b>		
	No. 69547 29.02.2016	Language: en	Revision: 02 Date:

## 1 Basis

The values of the power curve are based on calculations.

### Turbine data

Rated power: 500 kW  
Rotor diameter: 60 m  
Rated wind speed: 9.2 m/s

## 2 Assumptions

Turbulence intensity: 10%  
Air density: 1.225 kg/m<sup>3</sup>

## 3 Calculations

Wind Speed v[m/s]	Observed Output Power P <sub>el</sub> [kW] (Scada Report)
2.5	6
3	16
3.5	32
4	53
4.5	79
5	106
5.5	139
6	178
6.5	222
7	271
7.5	332
8	394
8.5	461
9	490
9.5	505
10	505
10.5	505
11	505
11.5	505
12	505
12.5	505
13	505

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## 4 Graph

