

# PROVEN 11 WIND TURBINE

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## Technical Specifications v2.5

### ROTOR

TYPE: Downwind, 360 degrees free yawing  
 SPEED CONTROL: Self-regulating  
 BLADES: 3 blades, passive coning and pitch control  
 ROTOR DIAMETER: 5.5m  
 RATED SPEED: 200 rpm @ 12m/s  
 ROTOR THRUST: 10kN

### GENERATOR

TYPE: Brushless permanent magnet, direct drive  
 OUTPUT: Grid connect, battery charging 24/48V,  
 direct heating 240V switch DC

### TOWERS

TYPE: Self-supporting hinged monopole  
 HUB HEIGHT: 9m or 15m

### PAD FOUNDATIONS (root options also available)

3.80m x 3.80m x 1.00m (15m tower)  
 3.05m x 3.05m x 1.00m (9m tower)

### WEIGHT

TURBINE HEAD: 600kg  
 TOWER: 678kg (9m)  
 TOWER: 1200kg (15m)

### SOUND EMISSION

Ongoing testing - data not yet available

### PERFORMANCE

CUT-IN WIND SPEED: 2.5m/s  
 MAX WIND SPEED (survival): 70m/s  
 ESTIMATED ANNUAL YIELD: 6,000 – 12,000kWh

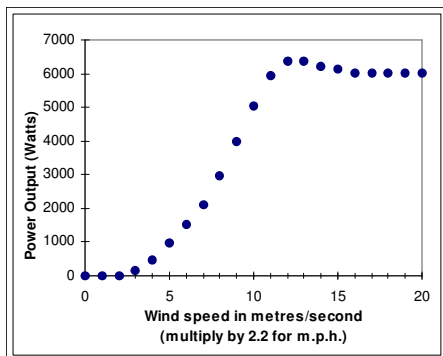
### BUILD MATERIALS AND COLOURS

FRAME: Galvanised steel, grey (not visible)  
 BLADES: Glass thermoplastic composite, black or white  
 COVERS: Plastic. black or white  
 TOWERS: Galvanised steel, grey



PROVEN  
 ENERGY

PROVIDING ROBUST RELIABLE  
 WIND POWER WORLDWIDE



#### ***Rotor Speed Control***

Above 12m/s (25mph) the blade pitch is automatically adjusted to maintain 200 rpm and full output

#### ***High Build Quality***

All components are hot-dipped galvanised steel, stainless steel or plastic.

#### ***Low Speed Equals Durability***

Low rotor speed (half the speed of comparable machines) ensures extended durability of blades and bearings. It also means that Proven WT's are the quietest in the world!

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## Proven WT6000 6kW Wind Turbine Proven TM900 9m (or TM1500 15m) Self-Supporting Mast

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#### ***Performance***

Cut-In Wind Speed 2.5 metres/second (5.6 mph)  
Cut-Out Wind Speed none  
Rated Wind Speed 12 metres/second (25 mph)

#### ***Rotor***

Type Down-wind, Self-Regulating  
Number of Blades 3, Flexible  
Rotor Diameter 5.6 metres  
Blade Material Wood/Epoxy/PU

#### ***Generator***

Type Brushless, Direct Drive,  
Permanent Magnet  
(No Gear-Box, Zero Maintenance)  
Output 48V/120V/240V/300V 3-phase AC  
(25Hz nom)  
Rated RPM 200 nominal  
Rated Power 6000 Watts  
Annual Output 7000-18 000 kWh depending on site

#### ***TM900 Mast***

Type Self supporting/Tilt Down.  
Hub Height 9m  
Foundations 35 Newton Concrete Pad 2.5 x 2.5 x 1 m  
Tube Ø 175 mm top A/F  
350 mm bottom A/F  
530 mm square mast base

#### ***TM1500 Mast***

Type Self supporting/Tilt Down.  
Hub Height 15m  
Foundations 35 Newton Concrete Pad 3 x 3 x 1.2 m  
Tube Ø 200 mm top A/F  
440 mm bottom A/F  
750 mm x 739mm mast base

#### ***Noise***

(approximate)  
<45dB At 5m/s  
<60dB At 20m/s  
70-80dB Car 15m away at approx 40 mph.

#### ***Weight***

WT6000 500 kg  
TM900/6000 360 kg (+ 70kg gin pole)  
TM1500/6000 656 kg (+ 240kg gin pole)