

## ***Energy from the wind***

### ***Tuule T188 Nominal power 4 kW, rotor diameter 4,9m***

**The Tuule T188** is a wind generator for heating houses. It can be used also for combined production of heating electricity and charging of batteries. Tuule T188 has been designed to last against even the most extreme weather conditions and its maintenance need is low. As the price of other energy forms is going up, it is now worthwhile to invest in wind power. The Tuule T188 wind generator rotor has been optimised to produce well at low wind speeds. The wind generator's annual production can reach 12 000kWh. The generator can be located up to 250m from the place of use without significant loss during power transfer.

#### **Benefits of the Tuule T188:**

- quality, safety and ease of use with a 5 year guarantee
- outstanding efficiency
- mast heights of 18 and 27 metres increase productivity
- internal watt-hour meter and safety functions as standard features
- innovative mast structure, uncompromising corrosion protection and high-grade components
- Foundation laying: cement trucks and cranes are not required

**Coming in 2010 - international sales! Would you like to represent us in your area? For more information contact: [sales@finnwind.fi](mailto:sales@finnwind.fi)**

Please visit our website [www.finnwind.fi](http://www.finnwind.fi) for:

- Products: technical details, pictures and information about implementing our Tuule T188 wind generators
- FAQ: here you will find our Buyer's checklist with useful information for prospective wind generator buyers.

The Tuule T188 delivery includes:

1. Wind generator machinery
2. Guyed 12 or 18 metre mast
3. Logic-controlled regulation system
4. Heating resistor
5. Ground cable - 50 metres

#### **Heat**

Tuule T188H - delivery includes:

Wind generator machinery

Guyed 18 metre mast  
Logic-controlled heating (regulation) unit  
Heating resistor  
Ground cable - 50 metres  
Price 13,500 euros

Or:

Heat and electricity

Tuule T188C - delivery includes:  
Wind generator machinery  
Guyed 18 metre mast  
Logic-controlled heating and charging (regulation) unit  
Heating resistor  
Ground cable - 50 metres  
Price 14,500 euros

Or:

Electricity

Tuule T188E - delivery includes:  
Wind generator machinery  
Guyed 18 metre mast  
power inverter  
Ground cable - 50 metres  
Price 14,500 euros

**Wind generator technical specifications**

<b>Nominal power and wind speed</b>	4 kW, 10 m/s
<b>Cut-in wind speed</b>	2.8 m/s
<b>Cut-out wind speed</b>	no
<b>Rotor diameter</b>	4.9 m
<b>Rotor blade quantity</b>	3
<b>Rotor blade body material</b>	parallel glued laminated wood
<b>Rotor effective rotation speed</b>	80 – 400 rpm

<b>Generator</b>	Permanent magnet generator, axial magnetising Neodymium permanent magnets
<b>Nominal voltage</b>	88 - 370 V AC, 3 ~
<b>Regulation system</b>	Logic-controlled regulation automatics.
<b>Storm protection</b>	furling, automatic mechanism
<b>Machinery weight</b>	75 kg

**Profit estimate in good location**

	On the coasts	Inland
<b>Nominal power</b>	4 kW	4 kW
<b>Average power</b>	1.6 kW	0.7 kW
<b>Annual energy production</b>	12000 kWh	5000 kWh

**Finnwind Ltd.** is a Finnish technology company founded in 1993, which manufactures and markets small wind generators and their components. The main product of the company is the Tuule series of wind generators for heating and providing electricity to houses and vacation homes. Other application targets are e.g. lights and water pumping.

***Accessories and technical specifications  
in detail: [www.finnwind.fi](http://www.finnwind.fi)***

***Ask for more information:***

***[sales@finnwind.fi](mailto:sales@finnwind.fi)***

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Terms of delivery: Prices valid in Finland until August 31, 2006. Delivery according to Finnwind Oy delivery terms