

## ④ 10kW Small Wind Turbine

### HIGHLIGHTS

#### Overview

A 10kW small wind turbine suitable for powering farms, community centres, schools, commercial, domestic properties and many more applications.

- ④ The Westwind 10 is a well tried and tested product over many years from Australia and comes with a 2 year warranty.

The Westwind is for serious wind energy generation

#### Performance

The energy capture of the Westwind 10 turbine is exceptionally good across a wide range of wind speeds, and comes with options for a 15m free-standing tower for maximum energy capture.

#### Reliability

The Westwind 10 turbine is intended for a range of conditions, especially rural locations. The design life of the machine is 20 years.

#### Cost

The Westwind 10 is very competitively priced and has been designed for ease of installation to minimise costs.



### Segen is meeting the need for affordable clean energy.

**Segen** is committed to the production of clean and affordable energy through the development of sustainable energy generation projects.

**Segen** is an authorised distributor and installer for the Westwind 10kW turbine which is a very cost effective small wind turbine. The Westwind 10 wind turbine generates exceptional levels of power for its cost.

**Segen** can supply, install and support the Westwind 10 turbine to power farms, community centres, schools, commercial properties and many more applications.

**Segen** works in a partnership with site owners, financiers, suppliers and other stakeholders to guide projects through the process until the energy starts to flow and beyond.

**Segen** also sells the Iskra AT5-1 5kW and Southwest Windpower Skystream 1.8kW wind turbines, for smaller, less power hungry applications.



# 10kW Westwind Technical Specification

COST EFFECTIVE LIFETIME POWER GENERATION

## Efficiency

The efficient three blade configuration drives the permanent magnet rotor.

At rated rpm, the automatic furling mechanism operates and the turbines turns out of the wind to prevent over powering.

## Reliability



Westwind have been developing and selling small wind turbines for many years to operate in the harsh Australian climate.

The generator is sealed to stop the ingress of foreign particles. This reduces corrosion (especially in coastal locations) but also stops the magnets attracting airborne particles.

The Westwind 10 is a long established model that has a proven track record with many installations world-wide.

## Characteristics

|                            |                             |
|----------------------------|-----------------------------|
| <b>Generator rating</b>    | 10 kW at 14 m/s             |
| <b>Rotor speed</b>         | 600 rpm nominal (variable)  |
| <b>Cut-in wind speed</b>   | 3.0 m/s                     |
| <b>Survival wind speed</b> | 50 m/s (110 mph)            |
| <b>Rotor diameter</b>      | 6.2 m                       |
| <b>Rotor orientation</b>   | Upwind                      |
| <b>Number of blades</b>    | 3                           |
| <b>Blade material</b>      | Pultruded Fibreglass.       |
| <b>Control system</b>      | Automatic side furling      |
| <b>Gearbox</b>             | None                        |
| <b>Brakes</b>              | Electro-dynamic             |
| <b>Generator</b>           | Permanent magnet alternator |
| <b>Yaw control</b>         | Tail vane                   |
| <b>Tower height</b>        | 15 m                        |
| <b>Tower</b>               | Free standing.              |

## Performance

At a particular location, the wind speed will vary about an annual mean value. The expected energy yields for the Westwind 10 at various annual mean wind speeds (AMWS) is shown below.

| AMWS m/s | Annual MWh | Daily kWh |
|----------|------------|-----------|
| 4        | 5.8        | 16        |
| 5        | 11.2       | 31        |
| 6        | 17.9       | 49        |
| 7        | 25.0       | 68        |
| 8        | 31.6       | 87        |
| 9        | 37.2       | 102       |

*Note: The annual electricity consumption of a medium size home is in the region of 4 to 6 MWh. This is equivalent to a daily consumption of 11 to 16 kWh.*



Phone: 0845 094 2445  
 Fax: 01252 336934  
 E-mail: [info@segen.co.uk](mailto:info@segen.co.uk)  
[www.segen.co.uk](http://www.segen.co.uk)

Wesley Hall,  
 Barrack Road  
 Aldershot  
 Hants, GU11 3NP.