



Vestas

V27 225kW Wind Turbine

OVERVIEW

A 225kW medium sized wind turbine suitable for powering larger farms, community projects and commercial properties

PERFORMANCE

The energy capture of the Vestas V27 turbine is exceptionally good across a wide range of wind speeds and comes installed on a 31m free-standing tower for maximum energy capture.

RELIABILITY

The Vestas V27 turbine is intended for a range of harsh conditions, especially exposed locations. The remaining design life of these machines is in excess of 10 years.

Every machine supplied is fully refurbished by Segen and comes with an all inclusive 5 year warranty and support service to ensure trouble free operation throughout the expected payback period.

COST

Typical fully installed cost is around £285,000 depending upon the site conditions and electrical connection. This compares favourably with the cost per kW of smaller wind turbines.



Segen is meeting the need for affordable clean energy.

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

Segen is an authorised distributor and installer for the Vestas V27 turbine which is a very efficient and cost effective small wind turbine. The Vestas V27 wind turbine generates exceptional levels of power for its size, but is remarkably quiet.

Segen can supply, install and support the Vestas V27 turbine to help power semi-rural domestic properties and many more applications.

Segen works in 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 a range of smaller turbines for less power hungry applications.

Association Memberships





Vestas V27 Wind Turbine

Technical Specification

Efficiency and reliability for maximum lifetime power generation

EFFICIENCY

The efficient three blade configuration drives the asynchronous generator through a gearbox ensuring the generator runs at optimal speed throughout the expected wind speeds

RELIABILITY

The Danish manufacturer has been developing and selling small wind turbines since 1980. They are installed all around the world.

The V27 is a well established model that has a proven track record with many installations world wide.



PERFORMANCE

At a particular location, the wind speed will vary about an annual mean value. The expected energy yields for the Vestas V27 at various annual wind speeds (AMWS) is shown below:

| AMWS m/s | Annual MWh | Daily kWh |
|----------|------------|-----------|
| 4 | 128 | 351 |
| 5 | 255 | 699 |
| 6 | 411 | 1,126 |
| 7 | 575 | 1,575 |
| 8 | 734 | 2,011 |
| 9 | 878 | 2,405 |

Note: The annual electricity consumption of a medium size home is in the region of 4-6 MWh or 11-16 kWh per day. At 6 m/s wind speed the Vestas V27 can provide the annual energy needs for 100 homes.

CHARACTERISTICS

| | |
|---------------------|----------------------|
| Generator Rating | 225 kW at 16 m/s |
| Rotor Speed | 43 rpm nominal |
| Cut-in Wind Speed | 3.5 m/s |
| Survival wind speed | 56 m/s |
| Rotor diameter | 27m |
| Rotor orientation | Upwind |
| Number of blades | 3 |
| Blade material | Fibreglass/polyester |
| Control system | Pitch controlled |
| Gearbox | Planetary |
| Brakes | Disc |
| Generator | Asynchronous |
| Yaw control | Powered |
| Tower height | 31 m |
| Tower | Free standing |

Segen Ltd
Wesley Hall
Barrack Road
Aldershot
Hants GU11 3NP

Phone: 0845 094 2445
Fax: 0845 094 1803
E-Mail: info@segen.co.uk
Web: www.segen.co.uk

