

**Vestas**<sup>®</sup>

**V100**  
**2.6 MW**

**Wind.** It means the world to us.<sup>™</sup>

# V100-2.6 MW

## reliability, performance and safety

### **More energy from medium-to-low wind sites**

The new V100-2.6 MW broadens the Vestas portfolio in the low-to-medium wind speed range, allowing you to install the optimal turbine choice for your site.


It is based on one of the most proven platforms in the industry, the V90-3.0 MW turbine. The V100-2.6 MW uses the same integrated drive train and nacelle design to minimise weight and loads, but its 100m rotor enables it to make the most of the available wind at low-to-medium wind sites within this MW segment.

### **Cutting-edge engineering meets trusted technology**

The V100-2.6 MW is a modified version of the V90-3.0 MW, which is a proven turbine in terms of reliability, performance and safety – all of which is transferred to the V100-2.6 MW.

### **Maintaining the highest standards of safety**

The V100-2.6 MW adheres to Vestas' stringent safety requirements. From the safety system in the nacelle, to a fall arrest device, service lift and safe access to the hub, the V100-2.6 MW is designed to be a safe workplace.



# **Energising** the potential of low and medium wind speed sites

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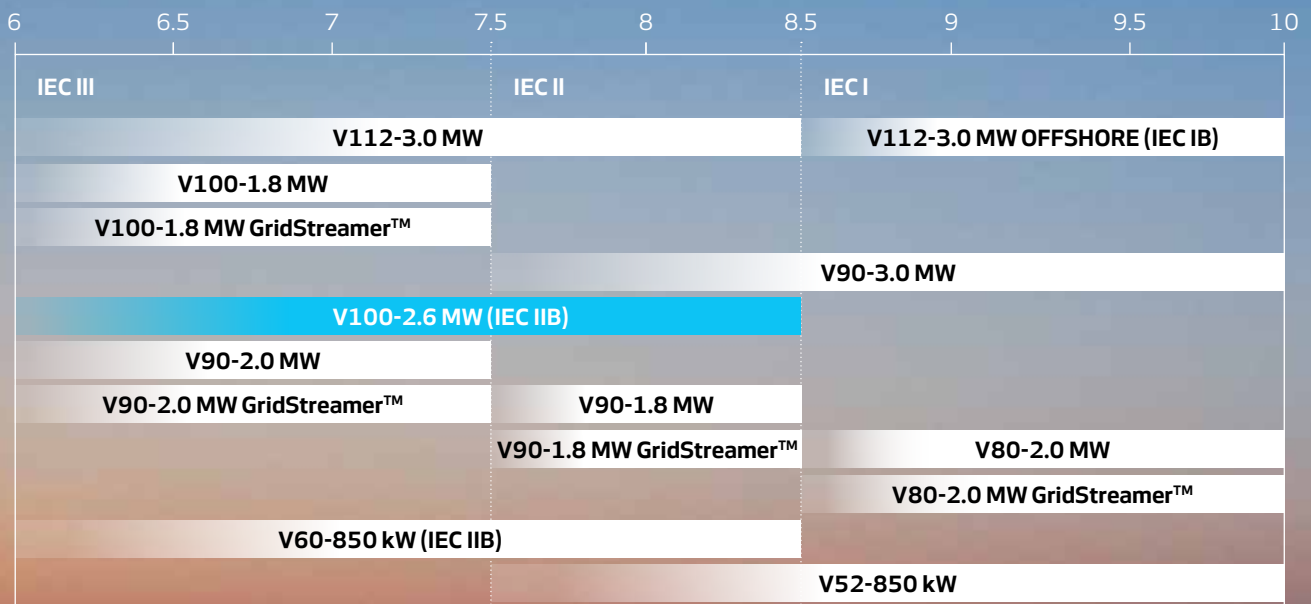
**Wind.** It means the world to us.™  
Wind is all we do. We are relentlessly committed to the success of wind as a source of energy for the world, providing everything you need to succeed in your wind power ambitions.

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# V100-2.6 MW an excellent choice

If you want to ensure the yield of your low and medium-wind locations (IEC IIB), the V100-2.6 MW is an excellent choice.

Wind speed  
(m/s)



- - 100 meter rotor diameter
- - 2.6 MW rated power

# +2,170

The V100-2.6 MW is based on 2,170 successful installations of the tried and tested V90-3.0 MW.

## **Reliable, durable and efficient – the benefits of proven technology**

Medium-to-low wind sites are expected to dominate the market in the coming years. The V100-2.6 MW complements our portfolio for this segment and meets your demand for a turbine tailored for these wind conditions.

It is based on the V90-3.0 MW platform, one of the most proven platforms in the industry, with more than 2,170 installations since 2002.

The V100-2.6 MW uses technology which has already shown its efficiency and durability in the field, backed by our extensive monitoring and data collection.

All main components have been rigorously tested and are in active production at our factories – giving you the confidence you need to invest.



# Maximising yield with **innovative technology**



The V100-2.6 MW allows you to increase productivity at low-to-medium wind sites by extracting more power and minimising downtime. A number of features inherited from the V90-3.0 MW ensure optimised energy production, lower costs and a strengthened business case:

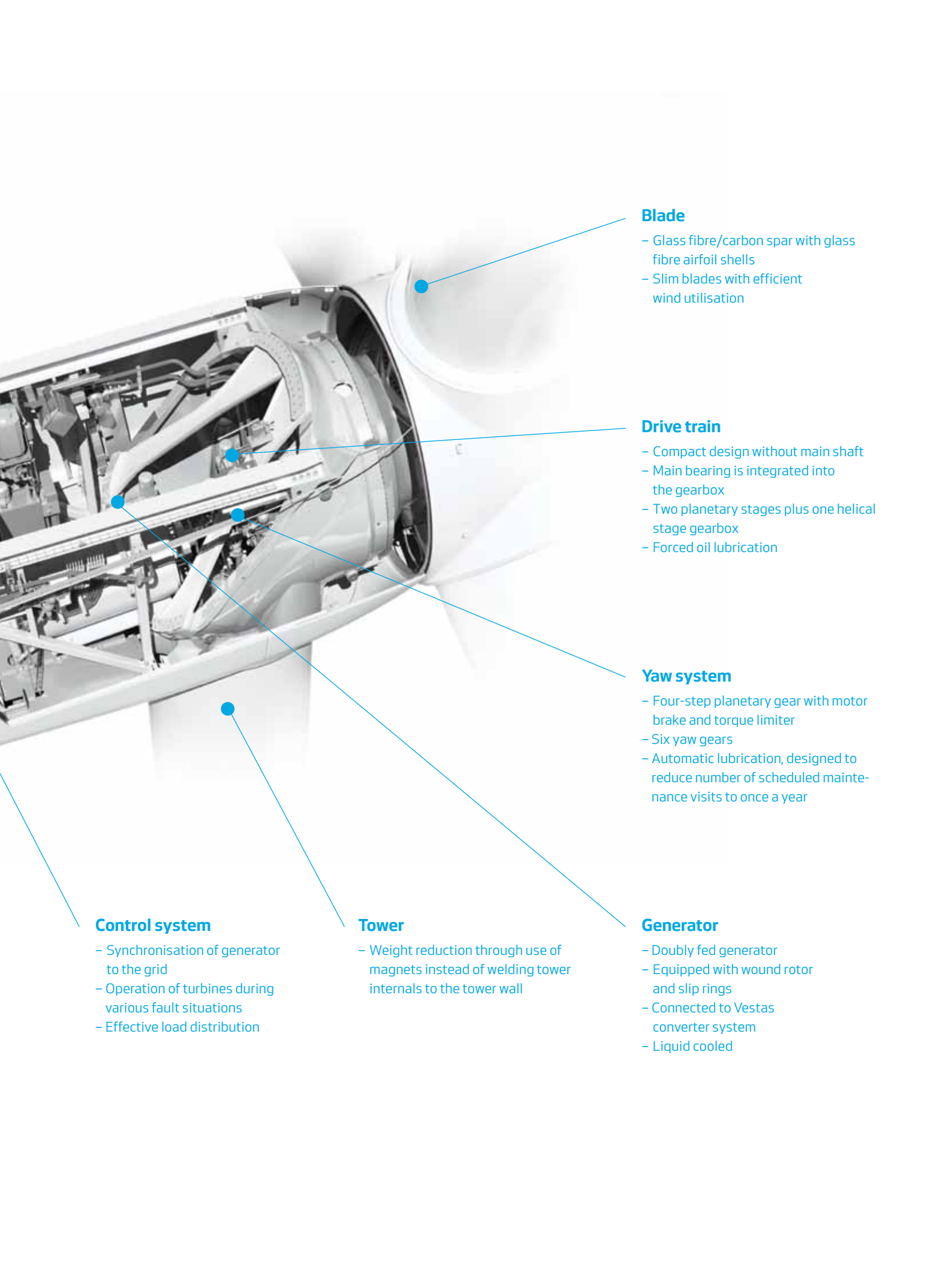
**Integrated drive train:** The nacelle design, including the integrated drive train, minimises the weight and loads of the V100-2.6 MW, which reduces foundation loads and reduces transportation expenses.

**Light and efficient blade design:** V100-2.6 MW blades are made out of glass fibre/carbon spar, with glass fibre aerofoil shells. The aerofoils, when combined with low blade weights, maximise production while reducing loads.

**Less frequent servicing limits lost revenue:** To minimise lost production, the V100-2.6 MW requires only annual servicing.

**Grid support:** The V100-2.6 MW supports grid requirements in a wide range of markets and territories. Advanced control of reactive power capability stabilises the frequency and voltage of the grid.

**Easy to transport and install:** Thanks to our advanced design techniques, the V100-2.6 MW can be dispatched to almost any location around the world – and all components comply with local and international limits for standard transportation. The nacelle requires no on-site assembly, further lowering your costs.



### Blade

- Glass fibre/carbon spar with glass fibre airfoil shells
- Slim blades with efficient wind utilisation

### Drive train

- Compact design without main shaft
- Main bearing is integrated into the gearbox
- Two planetary stages plus one helical stage gearbox
- Forced oil lubrication

### Yaw system

- Four-step planetary gear with motor brake and torque limiter
- Six yaw gears
- Automatic lubrication, designed to reduce number of scheduled maintenance visits to once a year

### Control system

- Synchronisation of generator to the grid
- Operation of turbines during various fault situations
- Effective load distribution

### Tower

- Weight reduction through use of magnets instead of welding tower internals to the tower wall

### Generator

- Doubly fed generator
- Equipped with wound rotor and slip rings
- Connected to Vestas converter system
- Liquid cooled

# V100-2.6 MW a **safe choice**

## **Safety comes first**

The most important factor in reliability and risk management is safety. Making sure your wind power plant is a safe work environment is a top priority for us. We constantly reassess our safety performance and design our processes to continually reduce the number of industrial injuries.

The V100-2.6 MW has inherited all of the safety features from the V90-3.0 MW, ensuring a safe workplace. Rotating parts within the nacelle are shielded. All components are positioned for ease of access. Most service and maintenance can be carried out using standard tools.







# V100-2.6 MW

## Facts and figures

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### POWER REGULATION

pitch regulated with variable speed

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#### OPERATING DATA

Rated power	2.6 MW
Cut-in wind speed	3.0 m/s
Rated wind speed	18 m/s
Cut-out wind speed	23 m/s
Re-cut in wind speed	20 m/s
Wind class	IEC IIB
Operating temperature range	standard range: -20 °C to 40 °C low temperature option: -30 °C to 40 °C

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#### SOUND POWER

(Mode 0, 10 m above ground, hub height 80 m,  
air density 1,225 kg/m<sup>3</sup>)

3 m/s	96.7 dB (A)
4 m/s	98.1 dB (A)
5 m/s	101.2 dB (A)
6 m/s	104.3 dB (A)
7 m/s	104.4 dB (A)
8 m/s	104.2 dB (A)
9 m/s	104.1 dB (A)

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#### ROTOR

Rotor diameter	100 m
Swept area	7,854 m <sup>2</sup>
Nominal revolutions	13.37 rpm
Operational interval	6.72 - 13.37 rpm
Air brake	full blade feathering with three pitch cylinders

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#### ELECTRICAL

Frequency	50 Hz
Generator type	four-pole doubly fed generator

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#### GEARBOX

Type two planetary stages and one helical stage

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#### TOWER

Type tubular steel tower

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#### BLADE DIMENSIONS

Length	49 m
Max. chord	3.9 m

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#### NACELLE DIMENSIONS

Height for transport	4 m
Length	9.65 m
Width	3.65 m (3.85 m installed)

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#### HUB DIMENSIONS

Max. diameter	3.6 m
Max. width	4.2 m
Length	4.4 m

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Max. weight per unit for transportation 70 metric tonnes

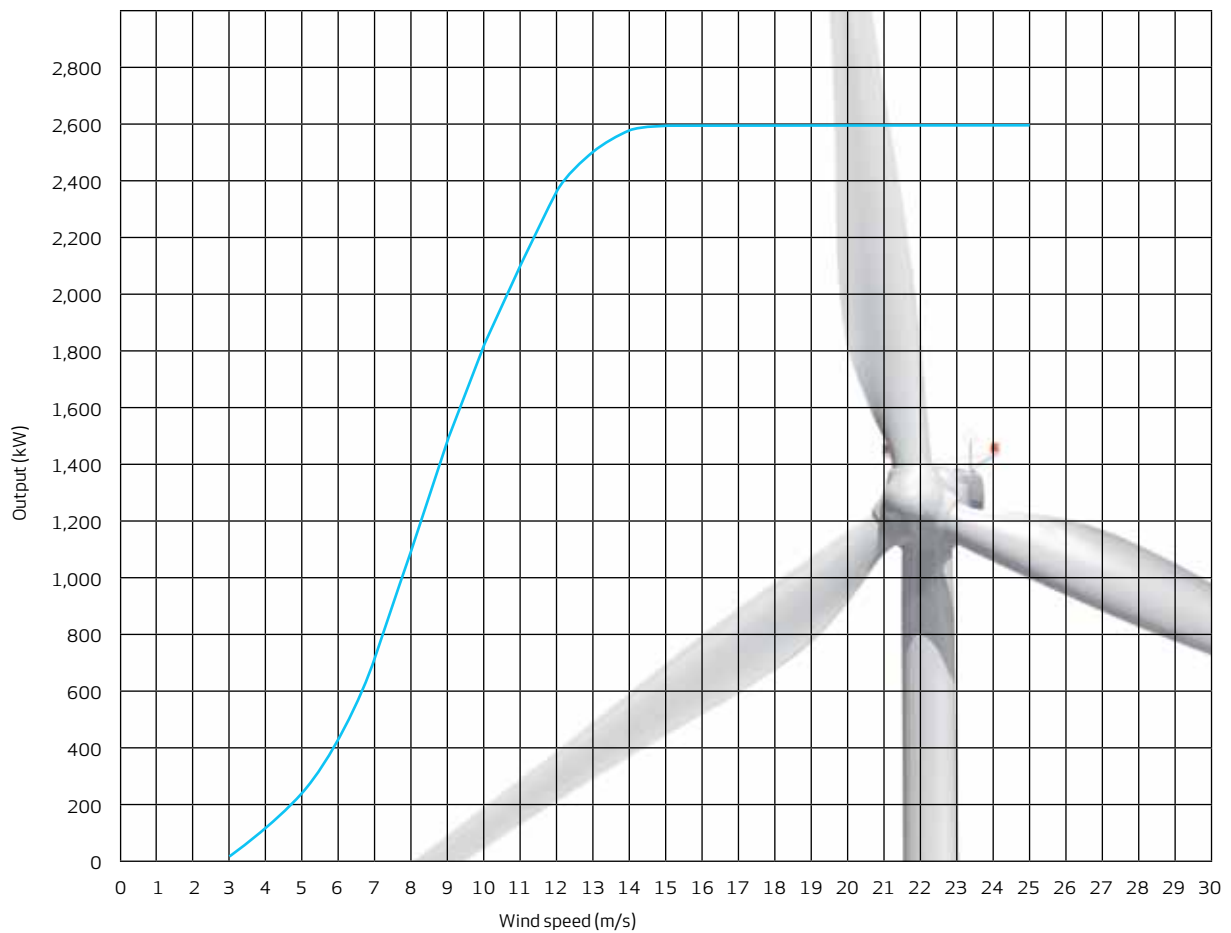
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# +20,000

committed, highly-trained employees around the globe are always ready to help in any aspect of wind power production.

## POWER CURVE FOR V100-2.6 MW

Noise reduced sound power modes are available



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