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Introducing

V136-3.45 MW™

Built on the Vestas 3 MW platform, with 7 GW of installations in 27 countries.

V136-3.45 MW video
(https://www.vestas.com/en/products_and_services/turbines/v136-3_45_mw#!v136-video)

Discover more (/en/products_and_services/turbines/v136-3_45_mw)

V90-3.0 MW® at a Glance

The V90-3.0 MW® is designed to be low weight ensuring easy transportation and installation while reducing foundation costs thanks to its lower load.

The nacelle is lighter because its gearbox has an integrated main bearing that eliminates the need for a traditional main shaft. Blade weight is also kept to a minimum by using carbon together with glass fibre. The tower is lighter, too, as it uses magnets instead of welding to attach the tower internals to the tower wall.

This turbine delivers exceptional performance and a high yield, and can be supplied in a variety of hub heights (65-105 m) to accommodate site-specific needs. The tower for offshore is designed site-specific and is furthermore protected with a special offshore coating to withstand the harsh environment.

Quick Access

[Track Record \(/en/about/track_record\)](/en/about/track_record)

[V90-3.0 MW® brochure \(/en/system/links/media-links/product-media/brochures/uk/v90-30-brochure\)](/en/system/links/media-links/product-media/brochures/uk/v90-30-brochure)

[Load & Power Modes Video \(/en/system/links/media-links/product-media/videos/load-and-power-modes-video\)](/en/system/links/media-links/product-media/videos/load-and-power-modes-video)

[OCAS™ Video \(/en/system/links/media-links/product-media/videos/ocas-video\)](/en/system/links/media-links/product-media/videos/ocas-video)

[Operation & Maintenance \(/en/products_and_services/operation_and_maintenance\)](/en/products_and_services/operation_and_maintenance)

[Options & Solutions \(/en/products_and_services/options_and_solutions\)](/en/products_and_services/options_and_solutions)

[LCA V90 3MW onshore \(/en/system/links/links-sustainability/lca-v90-3-mw-onshore\)](/en/system/links/links-sustainability/lca-v90-3-mw-onshore)

[LCA V90 3MW offshore \(/en/system/links/links-sustainability/lca-v90-3mw-offshore\)](/en/system/links/links-sustainability/lca-v90-3mw-offshore)

+25,500

The Vestas Performance and Diagnostics Centre monitors more than 25,500 turbines worldwide. We use this information to continually develop and improve our products and services.

[View Track Record \(/en/about/track_record\)](/en/about/track_record)

IEC IA/IIA

It is important to find the right turbine for your wind site. The V90-3.0 MW® IEC IA/IIA designed for high- and medium-wind sites with high turbulence.

[View the V90-3.0 MW® brochure \(/en/system/links/media-links/product-media/brochures/uk/v90-30-brochure\)](/en/system/links/media-links/product-media/brochures/uk/v90-30-brochure)

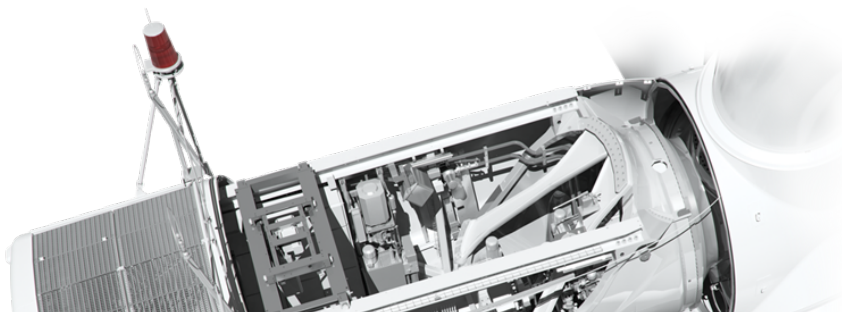
+51,000

Vestas has installed more than 51,000 turbines worldwide - more than any other supplier.

[View Track Record brochure \(/en/system/links/media-links/product-media/brochures/uk/track-record\)](/en/system/links/media-links/product-media/brochures/uk/track-record)

The V90-3.0 MW® IEC IA/IIA V90-3.0 MW®

The V90-3.0 MW® IEC IA/IIA is a great choice for high- and medium-wind sites with high turbulence. It is designed for easy transportation and installation while reducing foundation costs thanks to its lower load.



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[V90-3.0 MW® \(#!AT-A-GLANCE\)](#)

[TECHNICAL SPECIFICATIONS \(#!TECHNICAL-SPECIFICATIONS\)](#)

[POWER CURVE \(#!POWER-CURVE\)](#)

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Technical Specifications

OPERATIONAL DATA

Rated power	3,000 kW
Cut-in wind speed	3.5 m/s
Rated wind speed	15 m/s
Cut-out wind speed	25 m/s
Re cut-in wind speed	20 m/s
Wind class	IEC IA/IIA
Operating temperature range standard turbine	-20 °C to 40 °C
Operating temperature range low temperature turbine	-30 °C to 40 °C

SOUND POWER

(Mode 0, 10 m above ground, hub height 80 m, air density 1,225 kg/m³)

4 m/s	97.9 dB (A)
5 m/s	100.9 dB (A)
6 m/s	104.2 dB (A)
7 m/s	106.1 dB (A)
8 m/s	107.0 dB (A)
9 m/s	106.9 dB (A)

ROTOR

Rotor diameter	90 m
Swept area	6,362 m ²
Nominal revolutions	16.1 rpm
Operational interval	8.6 - 18.4 rpm
Air brake full blade feathering with 3 pitch cylinders	

ELECTRICAL

Frequency	50/60 Hz
Generator type	4-pole doubly fed generator

GEARBOX

Type two planetary stages and one helical stage

TOWER

Type	tubular steel tower
Hub heights	65 m and 80 m (IEC IA) 105 m (IEC IIA)

NACELLE DIMENSIONS

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

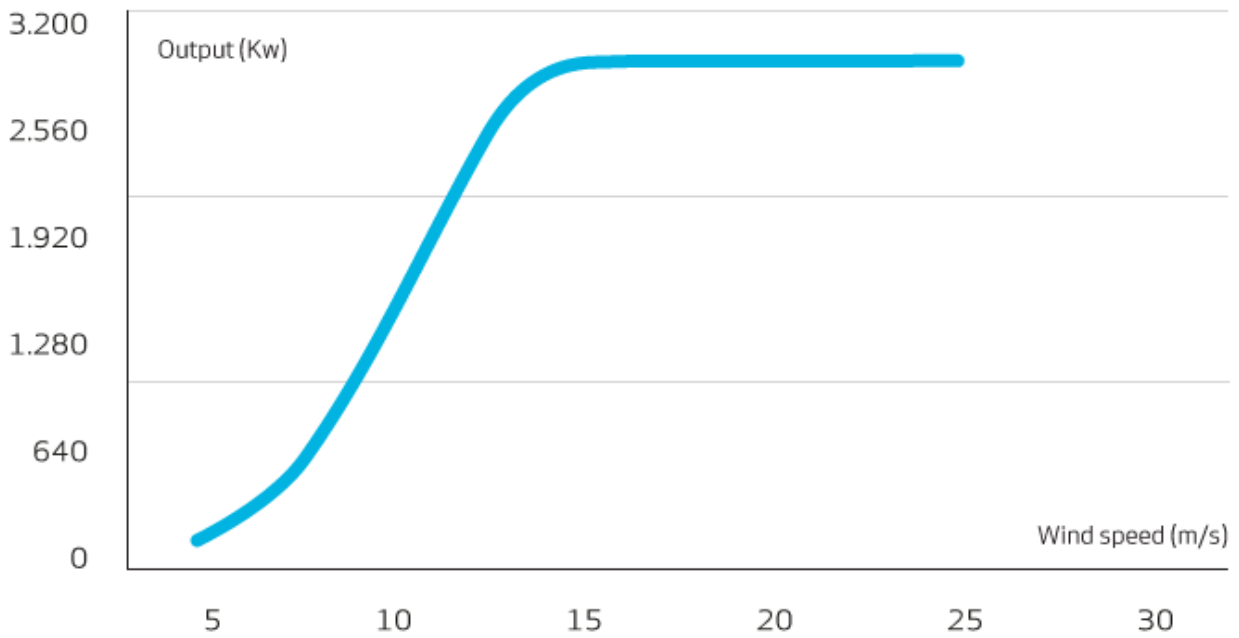
HUB DIMENSIONS

Max. transport height	3.6 m
Max. transport width	4.2 m
Max. transport length	4.4 m

BLADE DIMENSIONS

Length	44m
Max. chord	3.5 m
Max. weight per unit for transportation	70 tonnes

Power Curve



Related Products



V100-2.6 MW® IEC IIB

The V100-2.6 MW® IEC IIB is based on the proven technology of the V90-3.0 MW® and with its 100 m rotor it is able to make the most of the available wind at low-to-medium wind sites.

[V100-2.6 MW® \(/en/products_and_services/turbines/v100-2_6_mw\)](/en/products_and_services/turbines/v100-2_6_mw)



Operation & Maintenance

You need to consider a large number of factors when operating a wind farm. It has to be serviced, it has to be managed effectively to get the most out of the turbines, you have to train people to operate it, and it has to be insured. We can help with all these issues, and more.

We provide a range of different offerings, such as service and training, and work in close collaboration with our customers to help them find the optimum solution for operating their wind power plant.

[Operation & Maintenance \(/en/products_and_services/operation_and_maintenance\)](/en/products_and_services/operation_and_maintenance)



Options & Solutions

To gain the most out of your wind site, Vestas offers you a wide range of options and solutions to support you in every step of your value chain. With our vast knowledge of the wind resource, we are able to assist you in optimising the layout of even the most complex sites, and we offer a great variety of options and solutions to enhance the performance of the wind power project – and the business case certainty of your investment.

[Options & Solutions \(/en/products_and_services/options_and_solutions\)](/en/products_and_services/options_and_solutions)

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Current share price

440.70 -2.76 %

11 December 2015 17:20 CET

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Vestas Wind Systems A/S Hedeager 42 8200 Aarhus N Denmark +45 97 30 00 00 Company reg. no. 10403782

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