

## PRODUCT BENEFITS

- ▼ Dispensing with a gearbox means lower repair and maintenance costs and a higher yield.
- ▼ High-quality permanent magnets prevent electrical excitation losses, which additionally increases the energy yield.
- ▼ The air-cooling system used for the generator and the VENSYS frequency converter saves on additional components, cooling agents and maintenance work.
- ▼ The blade pitch system with a toothed belt drive is lubrication-free, resistant to wear and requires little maintenance.

A detailed 3D rendering of a wind turbine nacelle, showing the internal components like the generator and frequency converter, and the three blades extending from the hub. The nacelle is white with a blue triangle logo on the side.

**VENSYS 82**

1.85 MW

# VENSYS 82

1.85 MW



## Operating data

Rated power	1.85 MW
Cut-in wind speed	3 m/s
Cut-out wind speed	25 m/s
Operating temperature	-20 °C to +40 °C
(De-rating possible from 30 °C)	

## Sound power

Optimized for maximum performance	105.8 dB(A)
(Sound-reduced operating modes available)	

## Rotor

Diameter	82 m
Swept area	5,281 m <sup>2</sup>
Rotational direction	Clockwise
Rated speed	18.25 rpm
Blade type	EBT 40
Power control	Pitch
Primary braking system	Single-blade adjustment, triple redundant

## Generator

Type	Synchronous generator with permanent magnet excitation
Construction type	Direct drive

## Yaw system

Construction principle	Geared electric motors
Braking system	Hydraulic brake calipers

## Converter

Type	IGBT full power converter
Frequency	50 Hz / 60 Hz

## Tower

Hub heights	58.7 m   83.7 m   100 m
Material	Steel tube tower

## Wind class

All hub heights	IEC IIA
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## POWER CURVE VENSYS 82

Wind speed [m/s]	AEP [MWh]
5.0	2,904.3
5.5	3,666.0
6.0	4,446.8
6.5	5,221.8
7.0	5,972.6
7.5	6,686.3
8.0	7,354.0
8.5	7,969.9

