

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.

The text "VENSYS 82" in a large, blue, sans-serif font. The "82" is significantly larger than "VENSYS". The background is a detailed 3D rendering of a wind turbine nacelle and hub assembly, showing the main shaft, generator housing, and various mechanical components like sensors and wiring.

1.5 MW

VENSYS 82

1.5 MW



Operating data

| | |
|-----------------------|------------------|
| Rated power | 1.5 MW |
| Cut-in wind speed | 3 m/s |
| Cut-out wind speed | 22 m/s |
| Operating temperature | -20 °C to +40 °C |

Sound power

| | |
|---|-------------|
| Optimized for maximum performance | 104.4 dB(A) |
| (Sound-reduced operating modes available) | |

Rotor

| | |
|------------------------|--|
| Diameter | 82.3 m |
| Swept area | 5,320 m ² |
| Rotational direction | Clockwise |
| Rated speed | 17.3 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 m 85 m 100 m |
| Material | Steel tube |

Design

| | |
|--------------------------|----------|
| Hub heights (m) 58 85 | IEC IIA |
| Hub heights (m) 58 100 | IEC IIIA |

POWER CURVE VENSYS 82

| Wind speed m/s | AEP [MWh] VENSYS 82 - EBT 40 |
|-------------------|---------------------------------|
| 5.0 | 2,746.4 |
| 5.5 | 3,430.2 |
| 6.0 | 4,113.2 |
| 6.5 | 4,774.8 |
| 7.0 | 5,400.1 |
| 7.5 | 5,978.9 |
| 8.0 | 6,504.0 |
| 8.5 | 6,970.5 |

Power (kW)

