

SG 2.7-129 New SGRE turbine with increased capacity factor for greater returns





First SGRE turbine designed for the diverse site conditions of the American market

SG 2.7-129: combines the trusted technology and continuous innovation from two industry leaders now united

Siemens Gamesa, your trusted technology partner

One of the key aspects to Siemens Gamesa's success is the continuous development of new and advanced products adapted to the business case of every customer. We strive to provide the best technological solutions for each project, while driving down the LCoE.

For this reason we offer an optimized, streamlined catalog of proven solutions for different site conditions and financial performance indicators. Our solutions are backed by:

- Our reputation as a trusted and stable partner (+84.5 GW installed worldwide).
- A proven track record spanning over 35 years that makes Siemens Gamesa a benchmark for wind projects.
- The recognition of the wind power sector.



New SG 2.7-129 wind turbine for medium to low-wind sites

The SG 2.7-129 wind turbine is the latest Siemens Gamesa onshore turbine developed to meet the medium to low-wind site and market conditions of the American market. The turbine is designed based on the foundation of the proven 2.3 MW geared product series, one of the most robust and successful turbine lines in the market, with over half of the more than 9,100* units installed globally, installed in North America (more than 6,100 units). The product configuration maintains a similar design utilizing components from its predecessor, the SWT-2.625-120.

To deliver the lowest Cost of Energy and maximize performance across various sites in the U.S., the SG 2.7-129 is designed with the higher capacity factor our customers demand. This new model enhances our wind turbine catalog by demonstrating our ability to offer flexible solutions for every context.

Proven technology

The knowledge acquired through our latest products, specifically in the optimization of design, prototyping, validation and industrialization processes, has been a key factor in the development of the SG 2.7-129 wind turbine.

- Siemens Gamesa has incorporated proven technologies through best practices into this wind turbine, boosting capacity and simplifying maintenance.
- Aeroelastic tailored blades with 129-m rotor diameter.
- IntegralBlade[®] technology, DinoTails[®] Next Generation, Vortex Generators and optimized cross-sections (airfoils) design.
- Adaptive yaw system for optimized performance.
- Gearbox with two planetary stages and one helical for increased capacity.
- Efficient direct cooling system.

Technical specifications

General details	
Rated power	2.75 MW
Wind class	S
Control	Pitch and variable speed
Standard operating temperature	Range from -20°C to 35°C ⁽¹⁾
Deter	
Diameter	129 m
Swort groo	12.070 m ²
Dever depoits	210.41 W/m ²
Power density	210.41 W/III ⁻
Blades	
Length	63.5 m
Airfoils	Siemens Gamesa
Material	Fiberglass reinforced with epoxy resin
Tower	
Туре	Tubular steel tower with concrete base
Height	87 m and site-specific
Gearbox	
Туре	3 stages
Generator	
Туре	Full scale converter
Voltage	690 V AC
Frequency	60 Hz
Protection class	IP 34
Power factor	0.9 CAP-0.9 IND throughout the power range ⁽²⁾

⁽¹⁾ Different versions and optional kits are available to adapt machinery to high or low temperatures and saline (C4) or dusty environments.

⁽²⁾ Power factor at generator output terminals before transformer input.

^{*} Figures as of CY4Q2017.

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