



Envision
Net Zero Tech Partner

Solving the
challenges for
a sustainable future



Onshore WTG

EN 156/3.3

Basic parameters

Rated power	3300kW
Design class	IEC S
Cut -in wind speed	3m/s
Cut- out wind speed	25m/s
Maximum wind speed (10min)	40m/s
Design lifetime	20 years

Rotor

Rotor diameter	156m
Swept area	19113m²
Pitch system	Electrical pitching

Generator

Generator type	Doubly-fed induction
Rated voltage	950V

Converter

Type	Three Level power converter, Type3 (IEEE)
Frequency	50 Hz
Rated output voltage	950V

Gearbox

Type	3 stage transmission
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Braking system

Main braking system	Aerodynamic braking
Secondary braking system	Hydraulic braking

Tower

Tower type	Steel Tubular or Hybrid Tower (Optional)
Hub height	120m / 140m



EN 182/5.0

Basic parameters

Rated power	5000kW
Design class	IEC S
Cut -in wind speed	3m/s
Cut- out wind speed	25m/s
Maximum wind speed (10 min), Verf	57m/s
Design lifetime	25 years
Derating Temperature	50°C

Rotor

Rotor diameter	181.1m
Swept area	25759m²
Pitch system	Electrical pitching

Generator

Generator type	Doubly-fed induction
Rated voltage	1140V

Converter

Type	Three Level power converter, Type3 (IEEE)
Frequency	50Hz
Rated output voltage	1140V

Gearbox

Type	3 stages transmission
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Braking system

Main braking system	Aerodynamic braking
Secondary braking system	Hydraulic braking

Tower

Tower type	Steel Tubular or Hybrid Tower (Optional)
Hub height	130m/140m



Offshore WTG

EN 252/14

Basic parameters		Converter	
Rated power	14000kW	Type	Full scale power
Design class	IEC S	Frequency	50Hz
Cut -in wind speed	3m/s	Rated output voltage	1140V
Cut- out wind speed	25m/s		
Maximum wind speed (10 min), Verf	57m/s	Gearbox	
Design lifetime	25 years	Type	3 stages transmission
Rotor		Braking system	
Rotor diameter	252m	Main braking system	Aerodynamic braking
Swept area	49876m²	Secondary braking system	Hydraulic braking
Pitch system	Electrical pitching		
Generator		Tower	
Generator type	Permanent magnet medium speed	Tower type	Steel tubular
Rated voltage	1140V	Hub height	146m/site specific



Advanced Offshore Wind Power Technology



Professional Gearbox Transmission Technology and Application

With more than 15 years experience and 10,000 units of technology and application, Envision has deep knowledge of gearbox transmission technology. Meanwhile, the stable operation of Envision's self-developed gearboxes in the field further verifies its robustness and reliability. The offshore high-speed and medium-speed transmission products share the gearbox technology, and each plays its own strengths in different scenarios with high reliability.



Ultimate Platformization and Modularization Architecture

Based on Envision's extensive knowledge of platformization and modularization, we created the ultimate expansion capability of the new platform, carrying multiple product series on the same platform, with ultra-wide coverage of power rating and rotor diameter, and flexibly seeking the optimal product solution in the changing scenarios of high, medium and low wind speed offshore combinations to achieve the best outcome for our clients.



Efficient and Low Cost Hoisting, Operation and Maintenance

Envision's advanced self-climbing tooling enables the replacement of wind turbine components with efficient and flexible operation and maintenance at lower costs. Combined with the modular design, the products can be flexibly transported, assembled and lifted in separate parts to improve the efficiency of installation, operation and maintenance for customers' diversified applications.



In-house Components for a Safe and Reliable Supply Chain

Based on comprehensive design and manufacturing experience, through in-house development of big components and cooperation with high-quality suppliers, Envision has formed an efficient iterative development model and wind power industry chain with fully independent intellectual property rights. We provide customers with highly reliable, lightweight and high-quality components and a flexible, safe and stable supply system.



Industry-leading Blade Development System

As the power engine for the turbines, blades are the top priority of Envision's technology investment. Our international technical team have the world's leading high-performance aerodynamic design knowledge and experience. We perform a full set of rigorous performance and load acceleration tests to ensure high reliability of large blades. From design to test, from manufacturing to operation and maintenance, strict control of every link provides customers with high performance, reliable, and high quality blades.



Safe and Reliable Anti-Typhoon Capability

In response to the high ultimate wind speed and fast wind direction change during typhoon scenario, our wind turbines are equipped with backup power according to IEC typhoon design standards, while the blades, pitch yaw system, bearings and other major load-bearing components are strengthened to ensure safe operation of the turbines under various typhoon conditions. The leading control algorithm can achieve extra power boost in typhoon conditions.