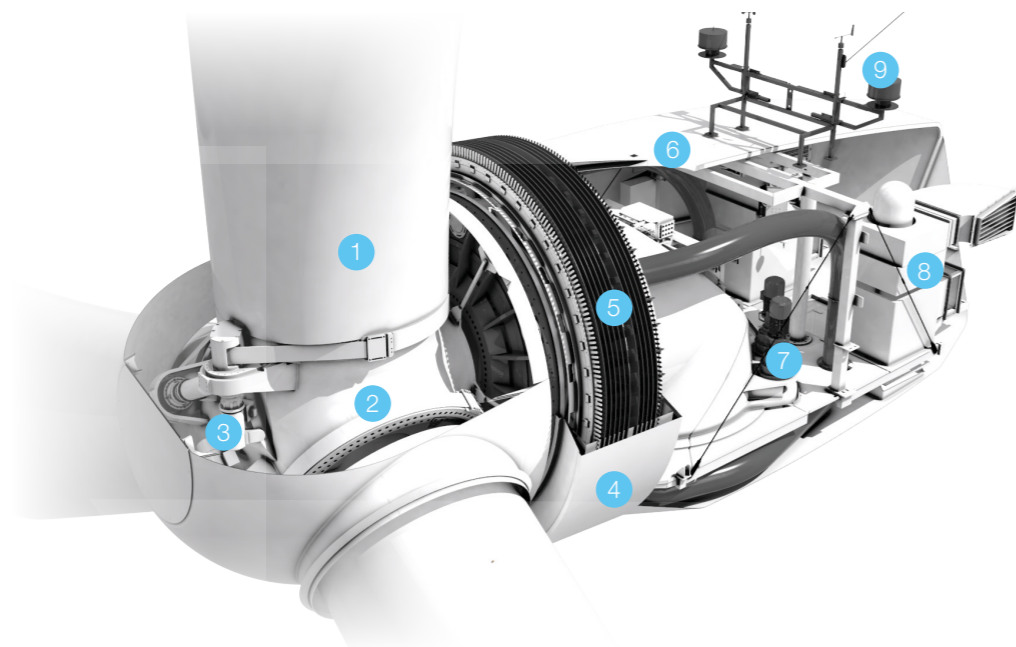


2.5 MW

PMDD WIND TURBINE



2.5 MW PMDD WIND TURBINE



1. Blade
2. Hub
3. Pitch System
4. Generator Rotor
5. Generator Stator
6. Nacelle
7. Yaw System
8. Generator Cooling System
9. Wind Measurement Equipment

GOLDWIND 2.5MW PMDD WIND TURBINE KEY FEATURES

Platform Evolution

- 20+ years of operational experience from 21,000+ Permanent Magnet Direct Drive (PMDD) wind turbines
- Expansion of the successful Goldwind 1.5 MW platform with enhanced architectural features

High Efficiency

- Permanent Magnet Synchronous Generator (PMSG) eliminates excitation losses
- The absence of gearbox eliminates losses from ancillary systems such as lubricant distribution and thermal management

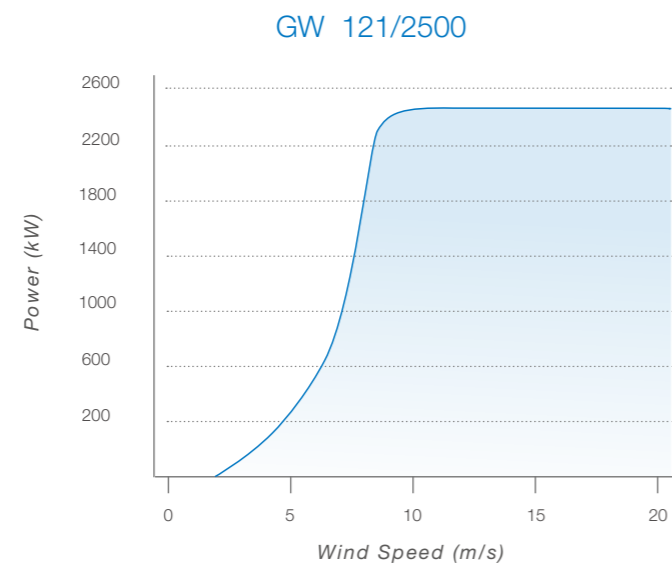
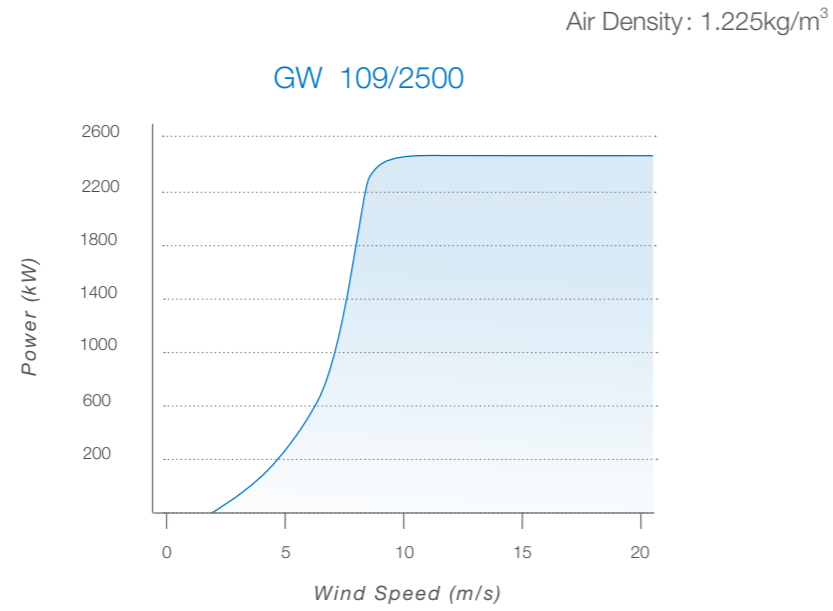
High Reliability

- The gearless drivetrain design eliminates the possibility of gear failure during the operational life of the turbine
- Maintenance-free design of the toothed belt pitch drive system simplifies pitch system maintenance requirements
- PMSG does not require high maintenance slip rings for conducting power

Highly Adaptable

- Grid Adaptability: Excellent zero, low and high voltage ride through capability and compliant with associated standard's across the globe
- Maintenance Adaptability: Dual circuit design of generator and converter enables partial operation when one circuit is compromised
- Environment Adaptability: Flexible operation modes enable adaptation to extreme environmental conditions such as high and low temperature, noise constraints and challenging wind conditions
- Construction Adaptability: Individual blade assembly to conserve site space constraints

DYNAMIC POWER CURVE



TECHNICAL SPECIFICATIONS

GW 2.5MW			
Item	Unit	Specifications	
Model		GW 109/2500	GW 121/2500
Parameters			
Rated Power	kW	2500	
Wind Class		IEC IIA	IEC IIIB
Cut-in Wind Speed	m/s	3	
Rated Wind Speed	m/s	10.3	9.3
Cut-out Wind Speed	m/s	25	22
Designed Service Life	Year	20	
Operating Temperature Range	°C	-30°C to +40°C	
Survival Temperature Range	°C	-40°C to +50°C	
Rotor System			
Nominated Rotor Diameter	m	109	121
Rotor Swept Area	m ²	9931	11595
Generator			
Generator Type		Permanent Magnet Synchronous Generator (PMSG)	
Rated Voltage	V	690	
Rated Rotation Speed	rpm	14.5	13.5
Converter			
Converter Type		Full Power Conversion	
Power Factor Regulation Range		Capacitive 0.95 to Inductive 0.95, dynamically adjustable	
Rated Output Voltage	V	690	
Brake System			
Aerodynamic Brake System		Blade Pitch Triple-Redundant	
Mechanical Brake System		Hydraulic Mechanical Brake System (for Maintenance)	
Yaw System			
Type/Design		Motor Drive/Four Planetary Stages for Speed Reduction	
Yaw Brake		Hydraulic Brake	
Control System and Lightning Protection			
Type		PLC Control System	
Lightning Protection Standard		Complying with IEC 61400-24:2010 and IEC 62305:2006, and in conformance with GL Standards for the Certification of Wind Turbines	
Ground Resistance	Ω	≤4	
Tower			
Type		Conical Steel Tower	
Hub Height	m	90	90/120

INNOVATING FOR
A BRIGHTER FUTURE



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