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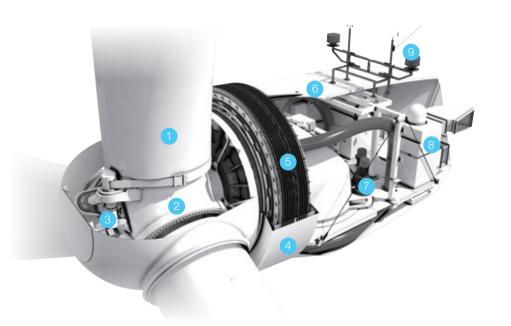


PMDD WIND TURBINE

INNOVATING FOR A BRIGHTER FUTURE



25 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

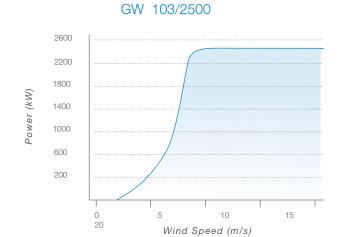
- The gearless drivetrain design eliminates the possibility of gear failure during the operational life of the turbine
- Maintenance-free design of the toothed belt pitch drive system simplifies pitch system maintenance requirements
- PMSG does not require high maintenance slip rings for conducting power

Highly Adaptable

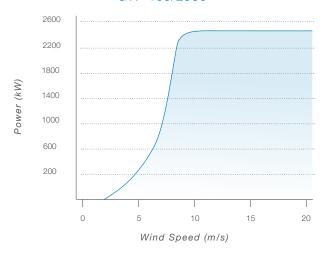
- Grid Adaptability: Excellent zero, low and high voltage ride through capability and compliant with associated standard's across the globe
- · Maintenance Adaptability: Dual circuit design of generator and converter enables partial operation when one circuit is compromised
- · Environment Adaptability: 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

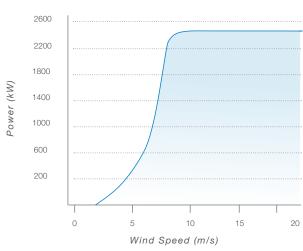
Air Density: 1.225kg/m³



GW 109/2500



GW 121/2500



TECHNICAL SPECIFICATIONS

GW 2.5MW				
Item	Unit	Specifications		
Model		GW 103/2500	GW 109/2500	GW 121/2500
Parameters				,
Rated Power	kW	2500		
Wind Class		IEC IB	IEC IIA	IEC IIIB
Cut-in Wind Speed	m/s	3		
Rated Wind Speed	m/s	10.8	10.3	9.3
Cut-out Wind Speed	m/s	25	25	22
Designed Service Life	Year	≥20		
Operating Temperature Range	$^{\circ}$	-30°C to +40°C		
Survival Temperature Range	$^{\circ}$	-40°C to +50°C		
Rotor System				
Nominated Rotor Diameter	m	103	109	121
Rotor Swept Area	m²	8,397	9,931	11,595
Generator				
Generator Type		Permanent Magnet Synchronous Generator (PMSG)		
Rated Voltage	V	690		
Rated Rotation Speed	rpm	14.5	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	Protectio	n		
Туре		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				
Туре		Conical Steel Tower		
Hub Height	m	80	90	90/120