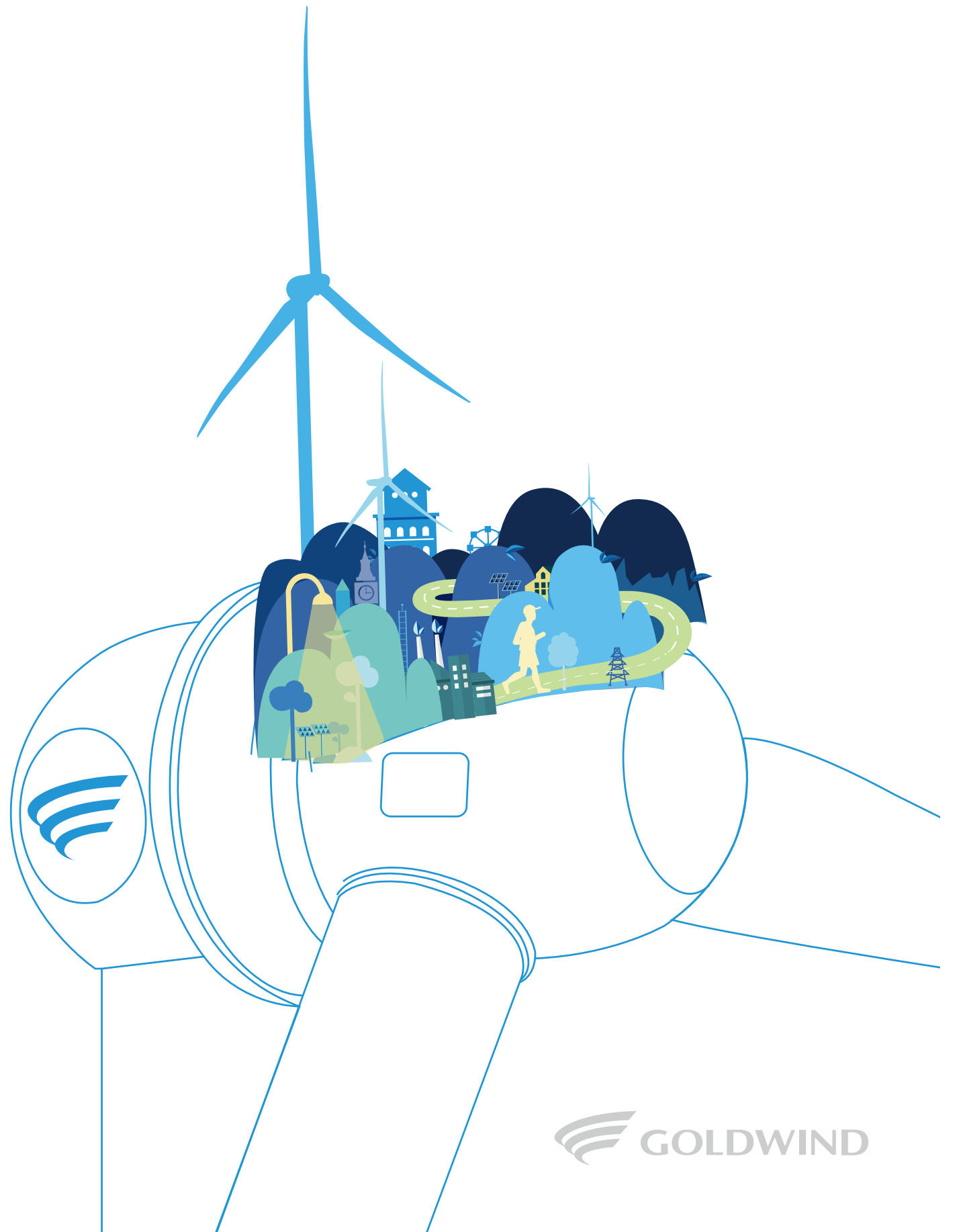
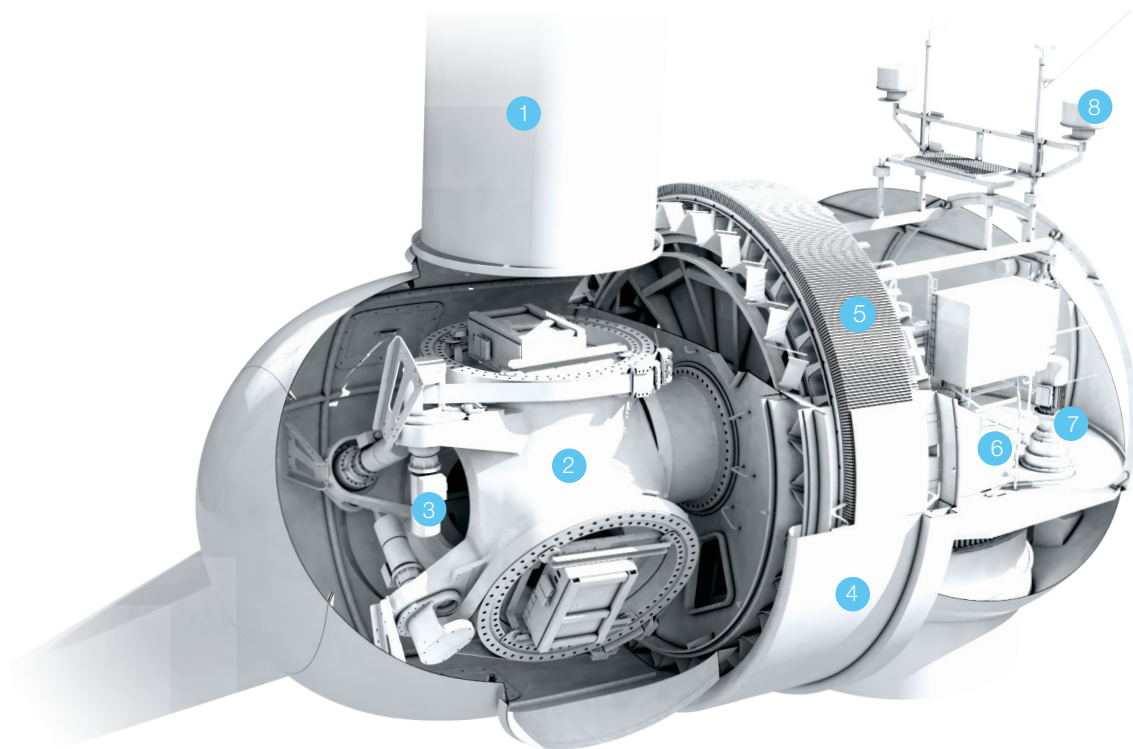


# 1.5 MW

## PMDD WIND TURBINE



# 1.5 MW PMDD WIND TURBINE



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

## GOLDWIND 1.5MW PMDD WIND TURBINE KEY FEATURES

### Platform Evolution

- 20+ years of operational experience from 21,000+ Permanent Magnet Direct Drive (PMDD) wind turbines

### 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

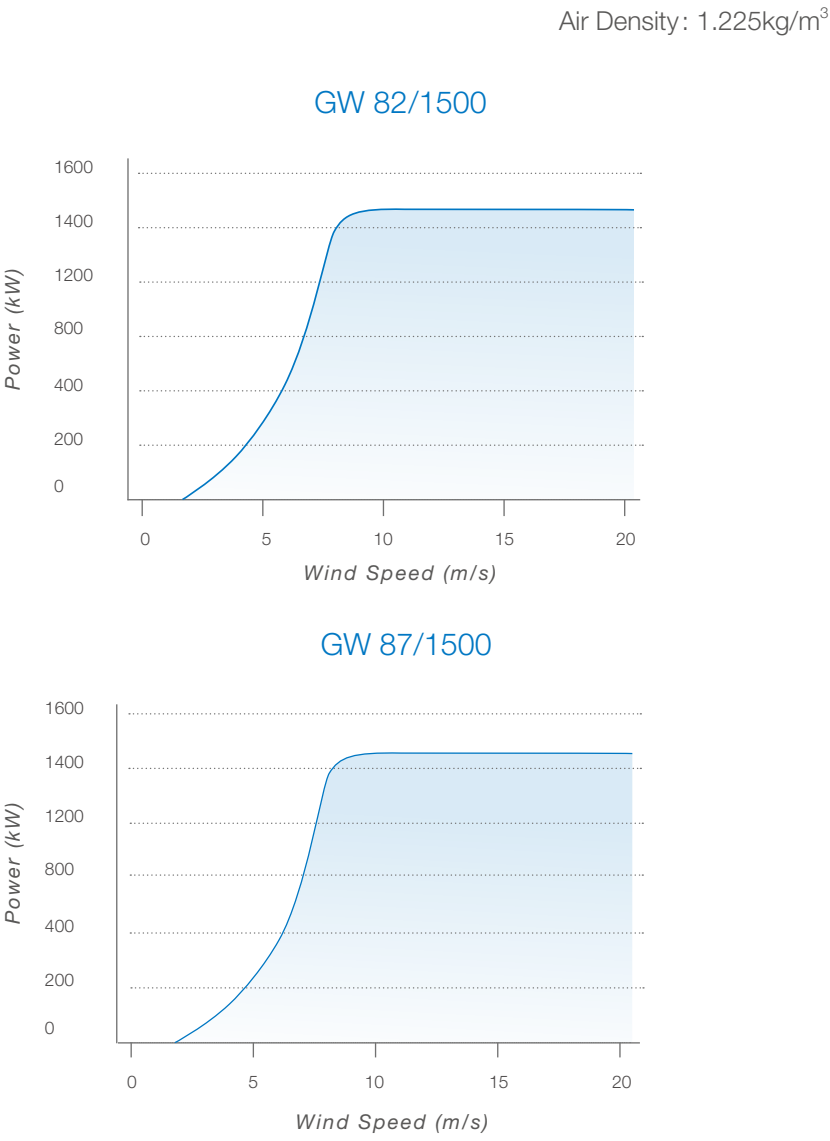
### High Reliability

- 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 standards 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 1.5MW			
Item	Unit	Specifications	
Model		GW 82/1500	GW 87/1500
Parameters			
Rated Power	kW	1500	
IEC Wind Turbine Class		IEC IIIA	IEC S
Cut-in Wind Speed	m/s	3	
Rated Wind Speed	m/s	10.3	9.9
Cut-out Wind Speed	m/s	22	22
Designed Service Life	Year	20	
Operating Temperature Range	°C	-20°C to +40°C	
Survival Temperature Range	°C	-30°C to +50°C	
Rotor			
Rotor Diameter	m	82	87
Rotor Swept Area	m²	5325	5890
Generator			
Generator Type		Permanent Magnet Synchronous Generator (PMSG)	
Rated Power	kW	1580	
Rated Voltage	V	720	
Rated Rotor Speed	rpm	17.3	16.6/17.3
Converter			
Converter Type		Full Power Conversion	
Power Factor Regulation Range		Capacitive 0.95 to Inductive 0.95, dynamically adjustable	
Rated Frequency	Hz	50/60	
Rated Output Voltage	V	620/690	
Brake System			
Aerodynamic Brake System		Blade Pitch Triple-Redundant	
Mechanical Brake System		Generator Brake (for maintenance)	
Yaw Brake			
Type/Design		Electric Motor Drive/Four Planetary Stages for Speed Reduction	
Yaw Brake		Hydraulic Brake	
Control System and Lightning Protection			
Type		PLC Control System	
Lightning Protection Standard		Compliant with IEC 62305, IEC 61643, IEC 61400-24, and in conformance with GL Standards for the Certification of Wind Turbines	
Ground Resistance	Ω	≤4	
Tower			
Type		Conical Steel Wind Turbine Tower	
Hub Height	m	70/85	75/85

INNOVATING FOR  
A BRIGHTER FUTURE



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