WWW.GOLDWINDINTERNATIONAL.COM

4.2 MW

Goldwind Smart Wind Turbine

Product Benefits

For more than two decades Goldwind has been innovating for a brighter energy tomorrow. The Goldwind 4.2 MW PMDD turbine is part of that innovative future. The 4.2 MW turbine is a direct evolution of Goldwind's portfolio of wind turbine generators that offer best-in-class energy production, smarter controls and industry-leading availability.

- **Smart features**

Through Smart Sensing, strategic sensors monitor key components, enabling predictive diagnostics and precision control. Based on Goldwind's big data analysis of tens of thousands of installed direct-drive turbines and more than 20 years of wind energy expertise, Goldwind had developed advanced optimized control algorithms for maximum energy capture.

- **High reliability**

The gearless drivetrain design, eliminates the possibility of gear failure during the operational life of the turbine. Goldwind's own toothed belt pitch drive system simplifies pitch system maintenance requirements.

- **Highly adaptable**

Grid adaptability: excellent zero, low and high voltage ride-through capability, and compliant with global standards. Maintenance adaptability: dual circuit design 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.

**For more information, visit us at www.goldwindinternational.com*

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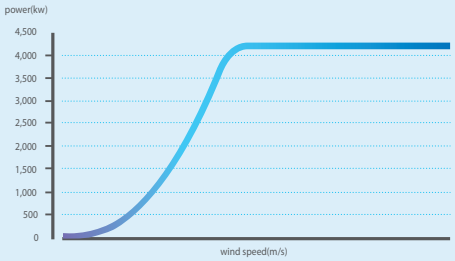

Technical specifications

Parameters	Unit	GW155-4200kW
Operating parameters		
Rated power	kW	4200
Wind turbine class	IEC	III/S
Cut-in wind speed	m/s	2.5
Rated wind speed	m/s	10.5
Cut-out wind speed	m/s	22*
Design service life	Year	⩾20
Operating temperature	℃	-30℃ to +40℃ (derating at 45℃)
Survival temperature	℃	-40℃ to +50℃
Sound power	\	Optimized for maximum performance: 106dB(A) Sound-reduced operating modes available

* Cut-out speed can be extended based on project-specific wind data.

Rotor system		
Rotor diameter	m	155
Swept area	m^2	18772
Generator		
Type	\	Permanent magnet synchronous generator
Rated voltage	V	740
Converter		
Type	\	Full Power Converter (IGBT) Modular System
Power factor regulation range	\	Capacitive 0.9 - inductive 0.9
Brake system		
Aerodynamic brake system	\	Aerodynamic brake via feathering
Mechanical brake system	\	Hydraulic and mechanical brake (for maintenance)
Yaw system		
Type/Design	\	Motor-driven/Four-stage planetary gear reducer
Yaw brake	\	Hydraulic brake
Control system and lightning protection		
Type	\	PLC control system
Design standard	\	IEC standards and GL certification standards
Lightning protection strategy	\	Integrated lightning protection system for the turbine
Wind turbine ground resistance	Ω	⩽4
Tower		
Type	\	Steel tower
Hub height	m	100, project specific