

Smart features

- **Smart sensing**

Monitoring of key components enables predictive diagnostics and precision control

- **Smart transmission**

Enhanced efficiency and convenience in data transmission with remote data burning and transmission

- **Smart control**

Flexible power control and self-adjustment guarantees maximum output of the entire wind farm

Industry-leading adaptability

- **Environment adaptability**

Flexible power control

- **Maintenance adaptability**

Dual circuit design of electrical system enables partial operation when one circuit is compromised, thus improving MTBF

- **Construction adaptability**

Individual blade assembly to conserve site space

GW155-4.5MW

PMDD Smart Wind Turbine



Please scan QR code
for more information

GW 155-4.5MW

PMDD Smart Wind Turbine

Operating parameters

Rated power	MW	4.5
Wind turbine class	IEC	III B/S
Cut-in wind speed	m/s	2.5
Rated wind speed	m/s	10.8
Cut-out wind speed	m/s	26(High wind ride through)
Design service life	Year	≥ 20

Operating temperature	℃	-20℃ ~ +45℃ (Extendable to -30℃ ~ +45℃ , at 0m altitude, de-rating temperature is 40℃ and cut-out temperature is 45℃)
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Survival temperature	℃	-30℃ ~ +50℃ (Extendable to -40℃ ~ +50℃)
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Rotor system

Rotor diameter	m	155
Swept area	m²	18869

Generator

Type	\	Permanent magnet synchronous generator
Rated voltage	V	740

Converter

Type	\	Full power converter
Power factor regulation range	\	Capacitive 0.9 - inductive 0.9
Rated output frequency	Hz	50/60

Rated output voltage	V	690
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Brake system

Aerodynamic brake system	\	Aerodynamic brake via feathering
Mechanical brake system	\	Generator hydraulic 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
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Lightning protection design standard	\	IEC61400/24-2010、IEC62305-2010 standards
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Lightning protection strategy	\	Integrated lightning protection system for the turbine (GL certification standards)
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Wind turbine ground resistance	Ω	If the average earth resistivity $\rho \leq 3000 \Omega \cdot m$, the power frequency grounding resistance R for each Wind Turbine should be less than 4 Ω
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Tower

Type	\	Steel tower
Hub height	m	95/110/140 (project specific)

1. Generator cooling system
2. Wind sensors
3. Hoist
4. Yaw system
5. Nacelle base
6. Nacelle cover
7. Generator stator
8. Generator rotor
9. Hub
10. Blade
11. Pitch system

