



Product Features

**Next-generation
Permanent Magnet
Direct-Drive (PMDD)
Platform**



High Reliability

Retain the good qualities of 3S and 4S, Goldwind's mature platforms

High Scalability

Multiple optional configurations and software & hardware interfaces based on platform and module development

• **Friendly Grid Connection**

ZVRT and primary frequency modulation realize outstanding grid code compliance even of weak grid

**Intelligent All-round
Upgrading**



• **High Performance**

The single-turbine and site-level self-learning optimization algorithm, enables autonomous optimization of power generation performance

• **High Adaptability**

Load shedding technology based on advanced sensing exploit performance potential

• **High Safety**

Reliable precaution strategies for extreme weather can be delivered based on the exclusively accurate weather data

GW 165-5.2/5.6MW

PMDD Smart Wind Turbine

GW 165-5.2/5.6MW

PMDD Smart Wind Turbine

Operating parameters

Rated power	kW	5200/5600
Wind turbine class	IEC	S
Cut-in wind speed	m/s	3
Rated wind speed	m/s	10.3/11
Cut-out wind speed	m/s	24
Design service life	Year	≥20
Operating temperature	°C	-20°C ~ +40°C
Survival temperature	°C	-30°C ~ +50°C

Rotor system

Rotor diameter	m	165
Swept area	m ²	21382

Generator

Type	\	Permanent magnet synchronous generator
Rated voltage	V	950

Converter

Type	\	Full power converter
Power factor regulation range	\	Capacitive 0.9~inductive 0.9/ Capacitive 0.95~inductive 0.95
Rated output frequency	Hz	50(±5%) / 60(±5%)
Rated output voltage	V	900

Brake system

Aerodynamic brake system	\	3 Full feathering aerodynamic brakes
Mechanical brake system		Generator hydraulic brake (for maintenance)

Yaw system

Type/Design	\	Motor-driven/Four-stage planetary gear reducer
Yaw bearing	\	Sliding yawing system

Control system and lightning protection

Type	\	PLC control system
Lightning protection design standard	\	IEC 61400/24-2010、IEC62305-2010
Lightning protection strategy	\	Integrated lightning protection system for the turbine (GL certification standards)
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

Tower

Type	\	Steel tower/Concrete tower
Hub height	m	100 /Project-specific

