Platform Evolution
- 20+ years of operational experience from 21,000+ Permanent Magnet Direct Drive (PMDD) wind turbines
- Expansion of the successful Goldwind 2.5 MW platform with enhanced architectural features

High Efficiency
- Permanent Synchronous Generator (PMSG) eliminates excitation losses
- The absence of gearbox eliminates losses from ancillary systems such as lubricant distribution and thermal management

Smart Features
- Smart Sensing: Strategic sensors monitor key components, enabling predictive diagnostics and precision control
- Smart Control: Goldwind’s big data analysis of 21,000+ installed direct-drive turbines and more than 20 years of wind energy expertise, have resulted in the most advanced algorithms
- Smart O&M: Platform includes a QR code data management system which is customizable to customer requirements for efficient logistics

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 global standards
- 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

GOLDWIND 3SMW PMDD WIND TURBINE KEY FEATURES

DYNAMIC POWER CURVE

TECHNICAL SPECIFICATIONS
GOLDWIND 45MW PMDD WIND TURBINE

KEY FEATURES

SMART
- Integrate service monitor key components, enabling predictive diagnostics and preventive control.
- Enhanced data transmission and remote data recording capabilities.
- Flexible and power control and automatic adjustment to ensure maximum output of the entire wind farm.

RELIABLE
- Development of Goldwind’s Permanent Magnetic Direct Drive (PMDD) turbine technology with more than 300 installed units with industry-leading reliability.
- Double bearing design - minimal bearing wear.

ADAPTABLE
- Flexible control module enables adaptability in various environmental conditions such as high and low temperature, wind conditions, and challenging wind conditions.

TECHNICAL SPECIFICATION

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<th>技术规格</th>
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DYNAMIC POWER CURVE

Air Density: 1.225 kg/m³

1. Brakes
2. Hub
3. Pitch System
4. Generator Tower
5. Generator Bearing
6. Hubs
7. Gearbox
8. Bearing System
9. Transmission System
10. Control System and Limiting Functions
11. Pitch System
12. Generator Protection System
13. Control System
14. Main Electric Control System
15. Control Cabinet
16. Main Control System
17. Control System