Industrial Motors

Commercial & Appliance Motors

Automation

Digital & Systems

Energy

Transmission & Distribution

Coatings

Wind Energy Solutions

Equipment and systems ensuring superior **efficiency, adaptability and dependable reliability**

Driving efficiency and sustainability

Renewable energy
the fastest growing worldwide

With over 60 years of expertise in delivering electrical solutions for industrial applications and energy systems, WEG has expanded into the wind energy sector, developing high-performance products specifically designed to meet the industry's demands.

Every solution is meticulously developed by specialized research and development teams, combining decades of experience in electrical equipment with cutting-edge innovation and advanced technology.

This commitment results in a diverse portfolio of products that ensure superior efficiency, adaptability, and dependable reliability.

WEG's offerings include generators, converters, panels, switchgear, supervisory systems, transformers, electric motors, and special coatings.

WEG's state-of-the-art technology is carefully engineered to enhance operational ***efficiency***, maximize ***availability***, and support ***sustainability*** in your wind energy project.

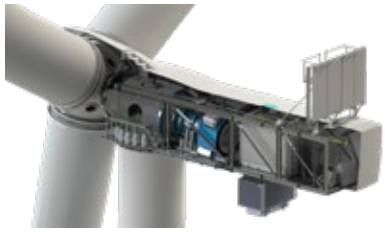
This is WEG's unwavering commitment to driving continuous and sustainable development.

MULTIPLE **ADVANTAGES**

AGW Wind Turbines

WEG wind turbines are engineered to deliver exceptional reliability and performance. Equipped with a permanent magnet synchronous generator and a full-power converter, they ensure reliable interconnection and seamless compliance with global grid requirements. Their modular construction streamlines maintenance processes and maximizes operational availability.

Leveraging cutting-edge technology, WEG is dedicated to enhancing operational efficiency and delivering superior value to its customers.



Model	AGW 147/4.2	AGW 172/7.0
Rated power	4,200 kW	7,000 kW
Rotor diameter	147 m	172 m
Hub height	125 m	107.5 m, 116.3 m
Wind class	S	S
Drivetrain	Direct drive	Medium speed geared
Generator	PMSG	PMSG
Converter	Full-power	Full-power

Scope of supply

- Equipment (wind turbines)
- Logistics to site
- Field-erection and installation
- Commissioning and start-up
- Operation and maintenance

Engineering services

- Layout optimization
- Mechanical load assessment
- Site-specific power curve
- 24/7 monitoring
- Wind farm control capabilities
- CMS, predictive maintenance
- Evaluation and repair of third-party components

Motors

Brake motors

These motors are specifically designed to operate with frequency inverters in wind turbines, driving yaw gearboxes to ensure precise alignment, smooth motion, and reliable yawing performance.

Air cooled motors

Motors engineered to drive the internal cooling system of the nacelle, powering fans and circulation pumps to ensure precise temperature control and dependable performance, ultimately extending the lifespan of all associated equipment.

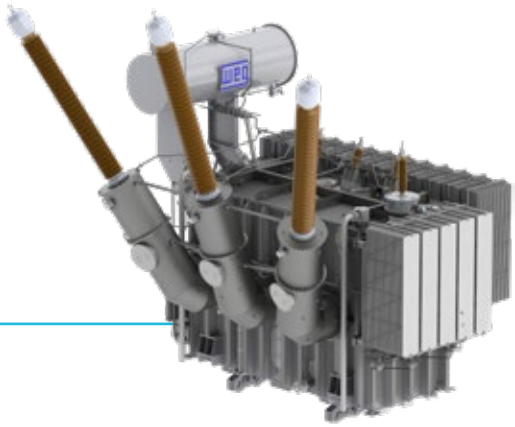
Transmission & Distribution

The verticalized production process, combined with the use of high-quality raw materials and project customization, sets WEG Transmission & Distribution solutions apart in the wind power generation market.

Offering increasingly comprehensive solutions, WEG provides the complete electrical package for wind farms, including the construction of internal distribution networks, transmission lines, and connection to local utilities.

Power transformers (up to 500 MVA)

Transformers with output above 50,000 kVA adjust the voltage between different parts of the circuit in large power systems, enabling cost-effective power transmission over medium and long distances. They are widely used by utility companies to interconnect generation, transmission, and distribution systems, and are also applied in large industrial substations.



Medium distribution transformer (up to 5,000 kVA)

With guaranteed quality, WEG is among the major manufacturers of this line, ensuring the preference of the consumer market. Developed by an engineering team dedicated to this transformer range, these products have streamlined sizes, aiming at reducing the required installation space.

Potencial transformers - PT

Potential Transformers (PTs) are used to reduce high voltages to safer levels, ensuring personnel safety, electrical isolation, and accurate voltage measurement.
They are available in inductive models (7.2 kV to 138 kV) and capacitive models (72.5 kV to 550 kV), suitable for various environments and applications.

Generators

WEG generators are developed using modern design technologies, materials, and manufacturing processes, resulting in compact generators with excellent performance, suitable for a wide range of power generation applications. WEG offers generators for wind turbines in the following configurations.

- Singly-fed induction generators (SFIG)
- Doubly-fed induction generators (DFIG)
- Permanent-magnet synchronous generators (PM)
- Electrically excited synchronous generators (EESG)

Technical specifications

- Power: up to 15,000 kW
- Voltage: up to 13,800 V
- Frequency: 50 and 60 Hz
- Insulation: F or H

Singly-fed induction generators (SFIG)

Doubly-fed induction generators (DFIG)

Permanent-magnet synchronous generators (PM)

Electrically excited synchronous generators (EESG)

Automation

WEG offers excellent solutions with static frequency converters and disconnectors applied to wind energy.

Wind converter WCW1300 ~ 4200

- Conversion types: AC/DC, DC/AC, AC/AC, and multiport
- Nominal alternating voltage: 480 to 690 V
- Frequency range: 0 to 600 Hz
- Nominal DC voltage: 650 to 1,150 V
- Power ranges: 600 kW to 4,200 kW
- Cooling: liquid
- Modular system ensuring high performance and a more compact structure
- The modular design facilitates maintenance and allows for pairing to achieve higher power levels
- Simplified power module circuit providing high performance with less stress, lower cost, and greater reliability than the traditional 2-level converter

Medium-voltage switchgear and control assembly CCW07

- Compactness, operational safety, and modularity are key characteristics of the medium-voltage switchgear and control assemblies in the CCW series
- These arc-proof and air-insulated cubicles comply with the NBR IEC 62.271-200 standard and the requirements of NR10
- Gas-insulated circuit breaker and disconnect switch (loadbreaking)
- Maintenance-free disconnect switch
- Modules with circuit breakers: nominal current of 630 A
- Modules with disconnect switches: nominal current of 630 A

Services

Complete solutions, **reliable** services

As essential as developing wind energy technologies is providing clients with responsive, specialized, and intelligent technical support. Our expert team, backed by a globally recognized leader in wind component innovation, offers reliable corrective maintenance and part manufacturing.
We aim to extend equipment lifespan and maintain peak performance. Our qualified professionals deliver fast and dependable services across critical wind turbine components, including generators, gearboxes, main shafts, yaw and pitch drives, and yaw rings.

- Modern and complete industrial site located centrally in the US.
- Technology to manufacture parts for equipment from different manufacturers.
- Expert team with manufacturer technology.
- Products that offer high operational efficiency, safety, compact design, ease of use, and low maintenance requirements.
- Optimized and assertive maintenance, with repair services on wind equipment conducted by a team with know-how in the segment of gearboxes and multipliers.
- 24/7 structure and service for emergencies, solving problems in mechanical, electrical and renewable energies.
- Overhaul, maintenance and manufacturing engineering services on components.
- More than 150 employees in the factory, dedicated to performing maintenance.

Minneapolis Factory - USA

Services

WEG's electrical and mechanical repair units are backed by a team of skilled technicians and engineers who manufacture components and perform maintenance, repairs, and restoration of machines and equipment in large industrial parks with modern and suitable infrastructure for such specialized services.

Electrical repairs

Wind generators

- Restoration
- Reverse engineering
- Retrofit
- Rewinding (stator and rotor)
- Replacement of magnets
- Rearrangement of the laminations (stator and rotor core)
- Replacement of the shaft
- Metallization of the shaft

Mechanical repairs

Main shaft

- Non-destructive testing using UT, LPI, and MPI, including beat conference and machine alignment
- Metallization of bearing housing to restore original dimensions
- Shaft end polishing to remove surface imperfections
- Sandblasting and painting of applicable surfaces
- Inspection and recovery of main shaft components (sealing ring cover, bearing cover, and pillow block)

Yaw drive / Pitch drive / Gearbox

- Individual checklist during receipt and shipment
- Inspection and dimensional control of internal gearbox/ multiplier components
- Non-destructive testing (magnetic particle and liquid penetrant)
- Replacement of worn components (e.g., bearings, seals)
- Recovery or manufacturing of parts as per technical report/design
- Surface blasting and painting when required
- Final assembly according to design specifications
- Bench test: vibration, temperature, flushing, oil leaks, and shipment checklist

Yaw ring

- Checklist during component receipt and shipment
- Dimensional analysis and technical report according to project scope
- Recovery or manufacture of a new component according to the design
- Standard blasting and painting of the proper surfaces of the set

Nationalization of components

- Intermediate pinion shaft
- Hollow pinion shaft
- Helical gear
- Ring gear
- Planet gear

Coatings

WEG offers a comprehensive portfolio of solutions, ranging from blade coatings and towers to an array of internal and external equipment for wind energy projects. Our products offer exceptional versatility, being compatible with various substrates such as fibers, concrete, galvanized steel, and plastic, while ensuring superior corrosion protection and outstanding performance.

Blades

W-POLI HSM 452 PUTTY

Ultra-fast drying epoxy-based compound, ideal for correcting imperfections on wind turbine blades. Can be applied directly onto the fiber in a single layer, filling gaps and contributing to surface protection.

W-POLI HSM 452 PORE FILLER

Polyaspartic resin-based compound developed for filling micro-pores on the surface of wind turbine blades. Fast-drying, it can be applied directly onto the fiber or over the W-POLI HSM 452 PUTTY layer.

WRAPX LEP

High-solids epoxy primer/finish, suitable for high-build application, offering excellent barrier protection, outstanding resistance to abrasion and impact, and superior flexibility. Recommended for use on wind turbine blades, especially in leading edge areas.

W-POLI RLA 455

Fast-drying polyaspartic topcoat with antimicrobial action and excellent color and gloss retention. Recommended for use on wind turbine blades, applied directly onto the fiber or over a primer.

Tower

Steel tower

LACKPOXI N 1277

Zinc-rich polyamide epoxy primer that provides effective anticorrosive protection through galvanic action. Suitable for application on surfaces prepared by abrasive blasting or hydroblasting, and can also be applied on damp surfaces.

LACKTHANE N 2677

High-gloss aliphatic acrylic polyurethane topcoat with high solids content and excellent coverage. Developed as part of an anticorrosive protection system, it offers strong waterproofing capability, chemical resistance, and durability against natural weathering.

W-POLI HPD 451

A dual-function coating—serving as both primer and topcoat—based on high-solids polyaspartic resin. It provides excellent color and gloss retention with ultra-fast drying. It forms a high-strength film and is widely used for painting equipment exposed to aggressive environments where both performance and aesthetics are essential.

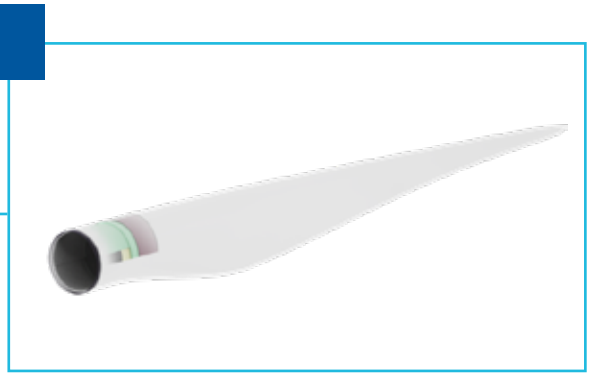
Concrete tower

W-THANE TCA 502

High-build polyurethane topcoat with high solids content, offering excellent corrosion protection and outstanding resistance to weathering and abrasion.

W-POXI CVS 301

Surface sealing varnish with excellent anchoring properties, ideal as an adhesion base for concrete painting systems.



The scope of WEG Group solutions
is not limited to products and solutions
presented in this catalogue.
To see our portfolio, contact us.

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