# THIS IS WEG

Industrial Motors

Commercial & Appliance

Motors

Automation

Digital & Systems

Energy

Transmission & Distribution

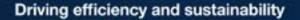
Coatings

**Products** and solutions portfolio















#### Efficiency and reliability for the industry.

High performance with maximum energy efficiency. This is the most important feature of WEG's electric motors and gearboxes.

Considered as one of the world's largest electric motor manufacturers. This Business Unit offers solutions for several types of applications, from commercial and residential to industrial, always focusing on customer needs. The development of products focused on the real needs of customers results in a high degree of satisfaction due to the versatility, reliability and durability confirmed in the most severe applications.

In addition to commercializing its products through the network of Branches, Distributors and Agents, WEG provides service support to customers, after-sales services for specific applications and installations, through its qualified Service Agents Network.

#### **Efficiency**

WEG manufactures a complete line of electric motors complying with and even exceeding all global markets required efficiency levels.

Our commitment to sustainability leads us to research new technologies to produce high effciency products.

A simple company. Our vertical process guarantees the design and manufacture of an electric motor specially designed for your application, at the time you need it.

Improved efficiency motors providing higher reliability with lower operating cost, which results in a more effective production process.

#### Reliability

WEG is a vertically integrated company, with the largest manufacturing site of electric motors in the world, all in one

Investments in research and technology innovation and continuous improvements in our production processes allow us to manufacture high reliability electric motors.

A qualified team of engineers is dedicated to design electric motors with:

- Higher efficiency.
- Reduced size, vibration levels and temperature.
- High reliability.
- Lower operating cost.

#### **Industrial Motors General Purpose**

■ Three-phase low voltage motors up to 1,250 kW

#### **Definite Purpose**

- For energy efficiency
- For hazardous areas: Ex db, Ex eb, Ex ec or Ex tb
- For the mining industry
- For continuous processing industries
- For the food & beverage, pharmaceutical or other industry which requires continuous cleaning
- For the steel industry

- Three-phase high voltage motors up to 1,800 kW
- For smoke extraction
- For industrial pump application
- For fan and exhaust application
- For the application with gearboxes
- For elevator traction
- For electric vehicle traction (light, heavy or delivery vehicles)

#### Gearboxes

#### **General Purpose**

- Crown and worm gearboxes from 10 to 1,600 Nm
- Helical gearboxes from 50 to 18.000 Nm
- Industrial gearboxes from 7,500 Nm to 500,000 Nm

#### **Definite Purpose**

- Plastic extruder
- Cooling tower
- Irrigation pivot Milk mixer

#### **Appliance Motors**

- PSC (Permanent Split-Capacitor)
- CIM (Controlled Induction Motor) ■ BLDC (Brushless Direct
- Current)
- WDD (Washer Direct Drive)
- DDM external rotor
- Washing Machine

TL - external rotor

Dryer

- Midway (Small & High)
- Air conditioning motors
- For appliance equipment (washing machines, dryers, centrifuges, air conditioners, hoods, grills, etc.)
- Fan and exhaust

#### **Commercial Motors**

- Single-phase motors up to 11 kW
- For lawn mower
- For high pressure washer
- For electric gates
- For the application in circular and pendulum saws
- For cement mixers
- For food processing machines
- For the application in commercial, residential or fuel pumps

- Jet pump
- Steel laminated motors
- Fuel pump
- Poultry fan
- W12 ■ ECM Motors
- Explosion proof
- W22 single phase
- Swimming pools and bathtubs







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#### Industrial systems increasing productivity.

Leader in the Brazilian market for frequency drives, soft-starters and MCCs, the Automation Business Unit develops solutions for the increase of effciency, productivity and competitiveness of its customers through process automation, with focus on operational safety and energy saving.

This Business Unit stands out as the largest manufacturer of Integrated Electric Systems in Brazil and is a reference in the supply of Automation Systems, Drives & Controls, Machine Safety, Critical Power, Building & Infrastructure, Electric Mobility and Solar Energy.

#### **Controls**

- Terminal blocks
- Metallized polypropylene motor-run and lighting permanent
- Power factor correction capacitors
- Molded case circuit-breakers with high breaking capacity
- Open case circuit-breakers up to 6,300 A
- Medium voltage circuit breakers
- Molded case circuit breakers
- Motor protective circuit breakers
- aR and gL/gG fuses
- Power factor controller
- Industrial plugs and sockets
- Detuning reactor
- Timing, voltage and liquid level monitoring relays
- Switch-disconnectors
- Industrial sensors and power supplies
- Multimeters
- Motors starting and protection
- Smart Connection



#### **Drives**

- AC/DC Frequency Drives (power ratings up to 2,200 Adc)
- Frequency Drives
- Self-supported frequency drives (75 to 550 HP)
- Medium voltage frequency drives
- Modular Drives
- Programmable logic controllers (PLCs) and operation interface (MMIs)
- Servomotors and servo drives AC
- Soft-starters
- Medium voltage soft-starters
- Remote Units

#### **Machine Safety**

- Electronic zero-force touch buttons
- Safety emergency pull-cable switch
- Interlock switches
- Limit switches
- Contactors for safety applications
- Safety light screens
- Automation kit
- Safety relays
- Bidirectional sensor
- Magnetic sensors with safety function

#### **Building & Infrastructure**

- Busbar trunking system
- Residual current circuit breakers
- Minibreakers (from 3 up to 10 kA)
- Surge suppressors
- Distribution boards
- Sockets & Switches

#### **Critical Power**

- Single phase low and medium voltage nobreaks
- Three-phase high voltage modular nobreaks
- Digital rectifier with microprocessor
- Medical/IT Insulation and ground fault monitoring system
- Batteries

#### Solar Energy

- Solar drives
- Smart energy meters
- Solar integrated electric systems

#### **Electric Mobility**

- Traction frequency drives
- Electric vehicles charging stations

#### **Electrical Panels**

- Full tested panels
- Low Voltage Motor Control Centers (MCCs)
- E-houses
- MV Panels
- Compact medium voltage protective switchgears
- Low Voltage Load Centers

#### **Battery Energy Storage System (BESS)**





















#### Flexible solutions for sustainable energy.

With the experience of those who have already manufactured more than 114,000 MVA of generators, the Energy Business Unit offers products for the most diverse applications, from a simple to complex machine drawings for indoors and outdoors environments. Besides commercializing the products and solutions, this Business Unit is focused on specialized customer service a providing after-sales and technical support for different applications and installations.

#### **Sustainable Energy**

Efficient products that contribute to environment protection and generation of clean energy.



#### Services

WEG offers repair, redesign and repowering services for electrical and mechanicall machines, including other brands, which are carried out at the factory or in the field.

In addition to maintaining a wide range of specialized services in the field, the company counts on a network in charge for all after-sales support. These services include analisys of inquires, field services, including evaluation, machine comissioning and 24/7 support.

The service area counts on a qualified and duly trained team for the most diverse field situations and remote support, using the latest equipment, providing a reliable service.



#### Generators

- Allternators for generator sets Power rating: from 7.5 kVA Voltages: from 220 to 13,800 V
- Hydrogenerators Power rating: up to 150,000 kVA Voltages: up to 13,800 V
- Turbogenerators Power rating: up to 200,000 kVA, 2 and 4 poles Voltages: up to 13,800 V

#### **Low and High Voltage Special Industrial Motors**

- Induction motors Power rating: up to 50,000 kW Voltages: from 220 to 13,800 V
- Synchronous motors Power rating: up to 110,000 kW Voltages: from 220 to 13,800 V

#### **Hydraulic Turbines**

- Power rating: up to 50 MW
- Francis
- Kaplan
- Pelton

#### **Wind Turbines**

- Rated power: 4.2 and 7 MW
- Voltage: 34.5 kV

#### **Steam Turbines**

- Reaction and action technologies
- Backpressure and condensation types
- Rated output power of up to 150 MW
- Intake pressure up to 140 bar
- Intake temperature up to 540 °C
- Extraction pressure up to 45 bar
- Exhaust pressure from 0.10 bar to 16 bar

#### Gearboxes

- Planetary Gearboxes
- Models RPS, RPZ and G3 Full
- Encoded from 150 to 620
- Torque up to 10.000 kN.m
- Turbo Gearboxes
- Models RTS 200 to 560, up to 20 MW
- Models ST 630 to 900, from 20 up to 60 MW
- Parallel Shaft
- Models RTS and RTM
- Special models

#### **Speed Multipliers**

Used in small hydro power plants and electric power generating plants















#### Excellence in power supply technologies.

Transmission & Distribution Business Unit is focused on the industrial, renewable energy, transmission and distribution markets, offering products such as transformers, high voltage equipment and complete solutions, ranging from conventional turn-key substations to transformers, switch-disconnectors and mobile solutions, repair and repowering services, which represent an annual manufacturing capacity of approximately 76 GVAs.

#### **Excellence in Technology**

Ensuring customer satisfaction is what drives the company to strive for excellence.

The quality of the manufactured products, along with a team prepared to develop solutions, are factors that drive this Business Unit towards this goal: Excellence in Technology and Solutions, focused on Energy Supply.

#### Integrated and Complete Solutions

- Products developed according to the specific needs of each customer.
- Interface with other products manufactured by the WEG Group.
- Availability of skilled labor and adequate structure to carry out repair and redesign services on the field.
- Experienced and qualifed technical team, responsible for the turn-key substation projects, from the prospection, definition of the customer solution and projects management to its construction and assembly.

#### **Products**

High Voltage Disconnect Switch Rated current: 5,000 A Rated voltage: 15 to 550 kV Distribution transformers

Power ratings: 15 to 300 kVA Rated voltage: 15 / 24.2 or 36.2 kV

Dry transformers

Power ratings: 112.5 to 20,000 kVA Rated voltage: 15 / 24.2 or 36.2 kV

Industrial transformers

Power ratings: 500 to 5,000 kVA Rated voltage: 15 / 24.2 / 36.2 or 72.5 kV

Transformers Pad Mounted Power ratings: 150 to 3,000 kVA Rated voltage: 15 / 24.2 or 36.2 kV

Underground and submersible transformers

Power ratings: 150 to 2,000 kVA Rated voltage: 15 / 24.2 kV or 36.2 kV

Mini substations

Power ratings: 100 to 1,000 kVA Rated voltage: up to 24.2 kV Power transformers and reactors

Power ratings: above 5,000 kVA Rated voltage: up to 550 kV

■ Furnace transformers and rectifier systems Power ratings: above 3,000 to 150,000 kVA

Rated voltage: up to 36.2 kV (other voltages on request)

Direct current: up to 150 kA (rectifiers)

#### Solutions

Conventional substations Rated voltage: up to 550 kV Turn-key contracts

Mobile solutions (substations, transformers and mobile bay) Rated voltage: up to 230 kV Turn-key contracts

■ Transportable solutions (SKID) Rated voltage: 138 kV

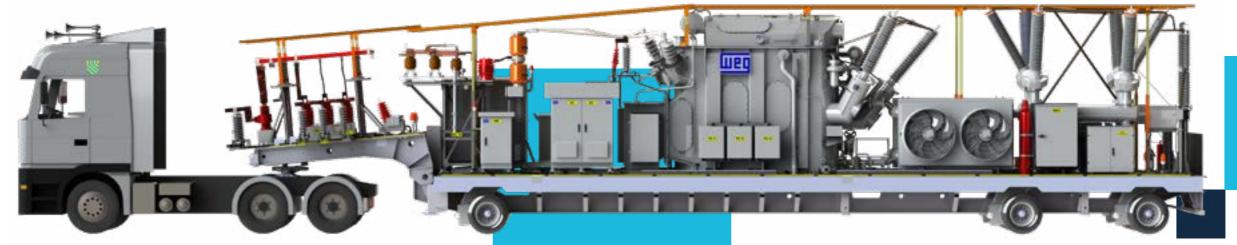
#### Services

Repair and repowering of power transformers Rated voltage: up to 550 kV









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#### Paints offering full protection.

To offer integrated industrial solutions. This was the purpose that this Business Unit was created, which counts on a wide range of products, including liquid and powder paints, automotive paints and electroinsulating vamishes. Today, this Business Unit is among the largest paint producers in Latin America, and in Brazil is considered the largest powder coatings producer; with outstanding position in the market for marine and anticorrosive paints.

#### **Our Commitment**

- To create opportunities for personal and professional development for the entire supply chain of stakeholders.
- To be a citizen company, participating in community life and promoting the development of its employees.
- To invest in sustainable development.
- To be in line with international standards of innovation with low environmental impact.
- To create value for society attentive to the UN - SDG (Sustainable Development Goals).

#### **Main Segments**

WEG Coatings products are used on oil platforms, ships and vessels, metallic structures, agricultural machinery and equipment, home appliances, open-area leisure equipment, automotive industry, road and auto parts, metal furnitures, mirrors, plastics, glass, lighting, fishing and sailing boats, among many other seaments.

#### **Technology & Sustainability**

WEG walks at the forefront of innovation by manufacturing coatings increasingly sustainable, promoting the preservation of natural resources. We are also committed to our administrative and industrial processes with consistent actions of environmental responsibility, social and corporate governance.

#### **Liquid Paints**

- Primers and alkyds, epoxies and polyurethanes
- High temperature and oven drying enamels
- Epoxy for wet surfaces
- Anticorrosive paints
- Marine paints
- Petrobras standardized paints
- Water base paints
- Anti-flame coating for wood and metal
- Coatings for glass and mirrors
- Coatings for plastics
- Coatings for wheels
- Coatings for wind towers, blades and wind turbines
- Floor paints

#### **Powder Coatings**

- Hybrid
- Epoxy
- Polyester durable and super durable
- Antimicrobial
- Rich in zinc
- Heavy metal free
- Low cure
- Thermochromic
- Anti-flame
- Low laver High layer
- Polyester anticorrosive
- Polyester TGIC free

#### **Resins and Varnishes**

- Electrical insulation varnishes
- Air and oven drying varnishes
- Wire enamel

#### **Automotive Paints**

- Tinting system W-Mix Color
- W-Mix Color UHT
- Primers
- Basecoats
- Varnishes
- Pastes and auxiliaries















## A new way to allow interaction of people, companies and smart products.

For many years, we have been developing solutions to allow efficiency to be present in the industry in different ways. The connectivity era has opened up an universe of opportunities to collect and analyze multiple data. With that, giving the start of a new chapter in our history.

Combining technology, processes and people, we have created the WEG Digital Solutions. A platform that interconnects and integrates equipment and sensors, capable of collecting and storing a highly diversified number of industrial data.

With WEG Digital Solutions, the monitoring and analysis of information can be performed anytime and anywhere, making the decision process easier.

Such is the concept of Industry 4.0 put into practice, with smart factories that use big data, cloud computing and internet of things supported by a differenciated aspect: the WEG expertise.

### Regardless the size of your industry, we can help you:

- Scalable and Flexible Solutions
- Easy to implement regardless the type of industry.
- Flexible, custom-made solutions.

#### WEG Expertise

We can contribute with operational efficiency increse for our partners and reduce losses in the most diverse industrial processes.

#### Close to you

- We will help you to change from traditional industries to Industry 4.0.
- Share technologies and experiences with the best industrial companies.

Learn more at:

www.weg.net/digital-solutions





Every day, in all market segments: from small systems to large operations.

Paying attention to details, proactivite in solving problems and loyal relationship with customers.

WEG is present all over the world with manufacturing sites, commercial operations a wide service network, and, in some way, in our daily lives, with technology for the production processes of the most varied products.

With such a responsibility, WEG maintains its focus on people and the environment protection. Therefore, we invest in the development of innovative and reliable solutions to promote effciency and sustainability, anytime, anyplace.

Certifications



ISO 9001 ISO 14001 ISO 50001 ISO TS 16949



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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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