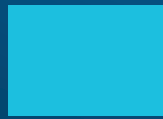
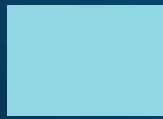
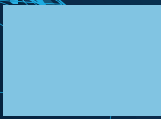
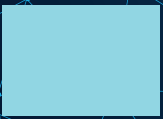
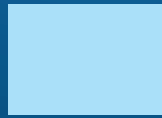
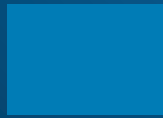
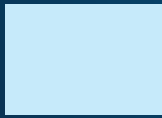


This is



Products and solutions portfolio



# AT WEG

WE ALWAYS  
**BELIEVE**  
IT IS POSSIBLE  
**TO DO BETTER.**

Therefore, we work every day to make things better. All products, processes and developments are intended for the increase of efficiency.

*Any time, any place. This is WEG.*

- Electrical & electronic components
- Industrial and building automation
- Low and high voltage generators and electric motors
- Transformers and substations
- Overhaul, recovery and repowering services for electric machines and transformers
- Liquid and powder paints
- Electro-insulating varnishes
- Hydraulic turbines
- Steam turbines and gearboxes
- Wind turbines
- Digital solutions and IoT platforms for the Industry 4.0
- 24/7 Service support





## Business Unit **Electric Motors and Gearboxes**

Efficiency and reliability for the industry.

High performance with maximum energy efficiency. This is the most important WEG electric motor feature. WEG is regarded 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.

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 efficiency products.

A verticalized 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 place.

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

- W22
- W22 Magnet
- W50
- HGF
- W40
- W11
- W20
- W22 Quattro
- W12
- W22 Smart
- W60

### Definite Purpose

- W22 Mining
- W22 WELL
- W22 Wash
- W22 Close-Coupled Pump
- W22 Brake Motor
- W22 Smoke Extraction
- Fan motors
- Roller table
- Water cooled
- W22 for hazardous areas

### Traction Motors

- Light duty vehicles
- Heavy duty vehicles
- Delivery vehicles
- Railway and subway traction systems

### Gearboxes and Geared Motors

- Helical
- Parallel shaft
- Helical bevel
- Helical worm
- Motor adaptor
- Drive shaft

### Appliance Motors

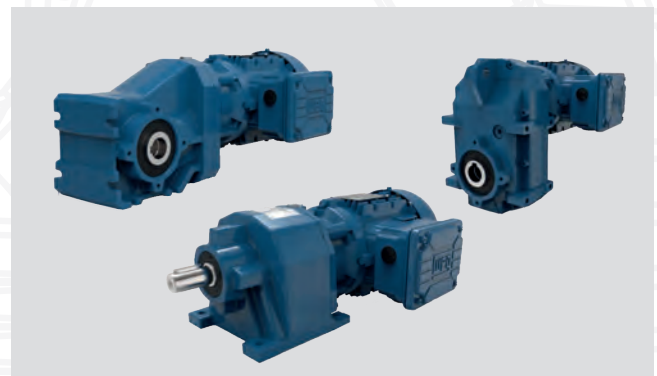
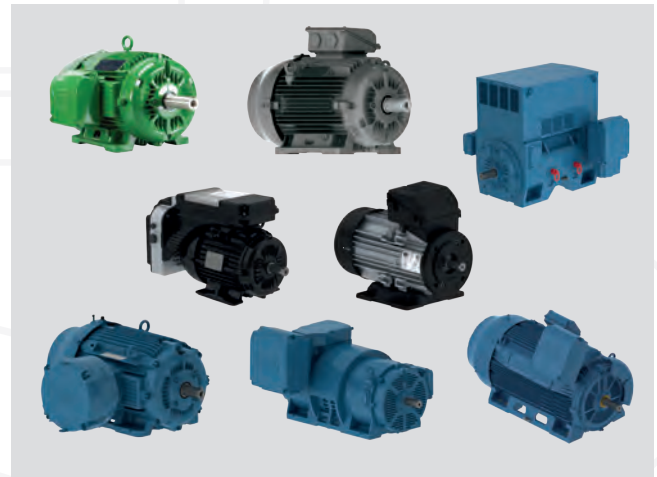
- PSC (Permanent Split-Capacitor)
- CIM (Controlled Induction Motor)
- BLDC (Brushless Direct Current)
- WDD (Washer Direct Drive)
- External rotor DDM
- Washing machine
- Dryer
- TL - external rotor
- Midway (Small & High)
- Air conditioning motors
- Fan and exhaust

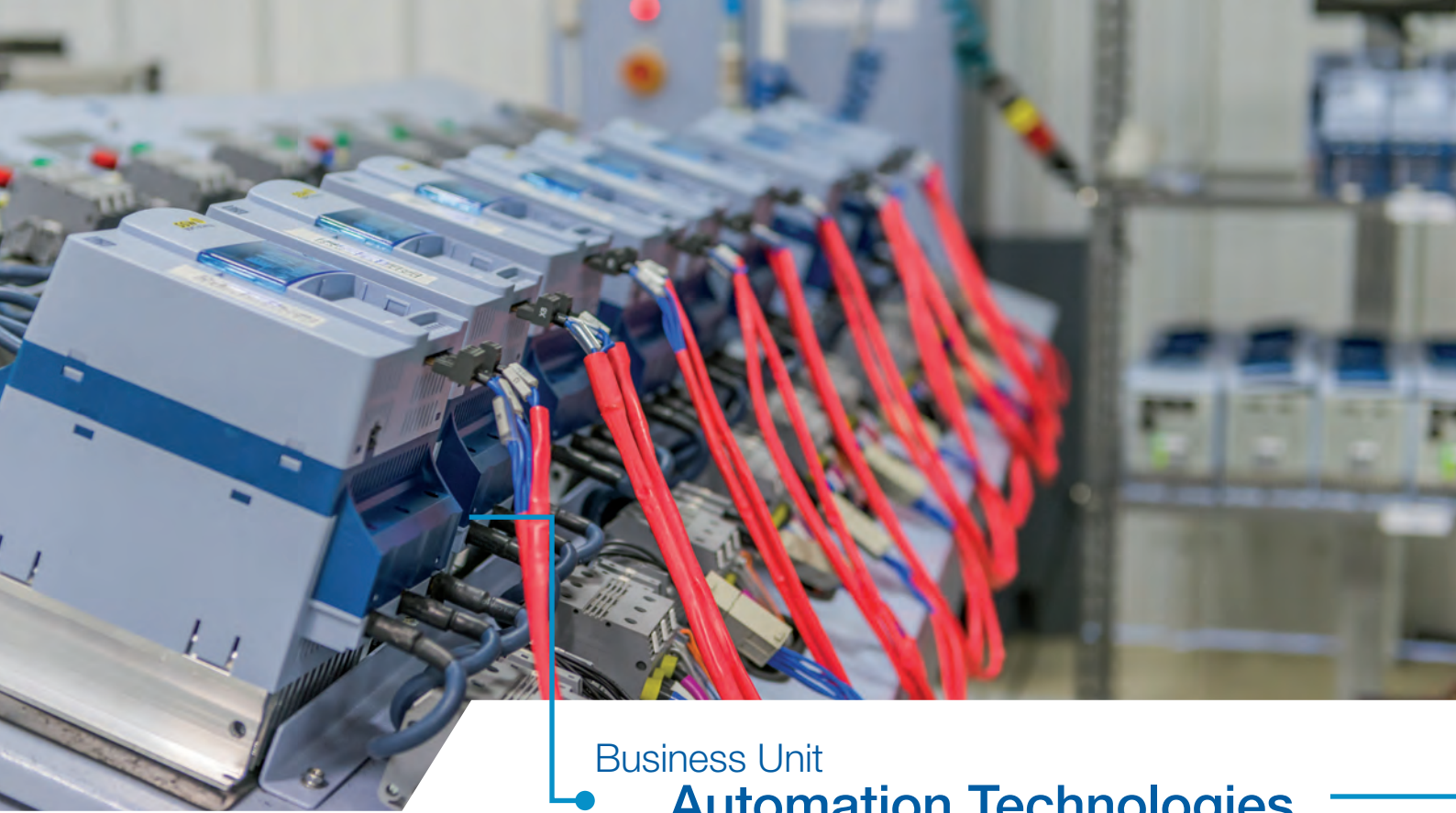
### Commercial Motors

- Jet pump
- Steel laminated motors
- Fuel pump
- Poultry fan
- W12
- ECM Motors
- Electric gate motors
- WPump
- Explosion proof
- Grinding motor
- W22 single phase
- Swimming pools and bathtubs
- High pressure washing machines

### IoT Solutions

- WEG Motor Scan
- Gateway





## Business Unit Automation Technologies

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 efficiency, 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

- Busbar trunking system
- Terminal blocks
- Metallized polypropylene motor-run and lighting permanent capacitors
- Power factor correction capacitors, motors and lighting
- Starters
- Contactors and thermal overload relays
- 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
- Industrial plugs and sockets
- Detuning reactor
- Timing, voltage and liquid level monitoring relays
- Switch-disconnectors
- Industrial sensors and power supplies



### Drives

- AC/DC Frequency Drives (power ratings up to 2,200 Adc)
- Frequency Drives (40 to 600 HP)
- Self-supported frequency drives (75 to 550 HP)
- Medium voltage frequency drives (up to 29,000 HP)
- Modular Drives (400 to 2,500 HP)
- Programmable logic controllers (PLCs) and operator interface (MMIs)
- Servomotors and servo drives AC
- Soft-starters (3 to 2,500 HP)
- Medium voltage soft-starters (up to 16,000 HP)



### Machine Safety

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



### Building & Infrastructure

- Residual current circuit breakers
- Minibreakers
- Surge suppressors
- Distribution boards
- Sockets & Switches



### Critical Power

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



### Solar Energy

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



### Electric Traction

- Traction frequency drives
- Electric vehicles charging stations

### Electrical Panels

- Completely tested electric panels
- Motor control centers (MCCs)
- E-houses
- MV Panels
- Compact medium voltage protective switchgears
- Load Centers





## Business Unit Power Generation

Flexible solutions for sustainable energy.

With the experience of those who have already manufactured more than 101,000 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 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 rebuild services for medium and high voltage electric machines, hydraulic and steam turbines, planetary and parallel gearboxes, including other brands, which are carried out at the factory or on 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 analysis of inquiries, general services, product evaluation, machine commissioning 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.



G<sub>1</sub>



### Generators

- Alternators 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: up to 110,000 kW  
Voltages: from 220 to 13,800 V
- DC motors  
Power rating: up to 10,000 kW  
Voltages: from 110 to 1,000 V dc

### Hydraulic Turbines

Power rating: up to 50 MW  
(rotor diameter up to 5 m)

- Francis
- Kaplan (open pit and tubular S)
- Pelton

### Hydromechanical

- Forced ducts
- Butterfly valves
- Floodgates

### Wind Turbines

- Direct-drive permanent magnet technology (no gearbox)
- Rated power: 2.1, 2.2 and 4.2 MW
- Voltage: 34.5 kV

### Steam Turbines

They are applied in electric power generation or mechanical drives. They are made of modular constructions and guarantee greater flexibility of installation in each type of industrial process, always considering the practical way, safety, efficiency and, mainly, savings.

- Reaction and action technologies
- Backpressure and condensation types
- Nominal 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

### Planetary Gearboxes

They are available in models RPS, RPZ and G3 Full, and coded from 150 to 620, with torque up to 7,500 kN.m. They can be used on mills, diffusers, feeder tables, conveyor belts, choppers, winches, cranes, drums, water meters and several other rotary drive machines that require large transmission ratios and/or reduced spaces in the installation.

### Turbo Gearboxes

The turbo gearboxes are used on turbine sets with electric power generator up to 60 MW and are available from the RTS 200 to the 560 and from the ST 630 to the 900 models of the SuperTurbo line, which are designed with a proper semi-flexible gear coupling, which provides safety to the equipment and integrity to the set.





Business Unit

## Transmission & Distribution

Excellence in power supply technologies.

Transmission & Distribution Business Unit is focused on the industrial and 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 transformers, repair and redesign services, which represent an annual manufacturing capacity of approximately 58 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 qualified technical team, in charge for the turn-key substation projects, from the prospection, definition of the customer-based solution and projects management to its construction and assembly.



## Products

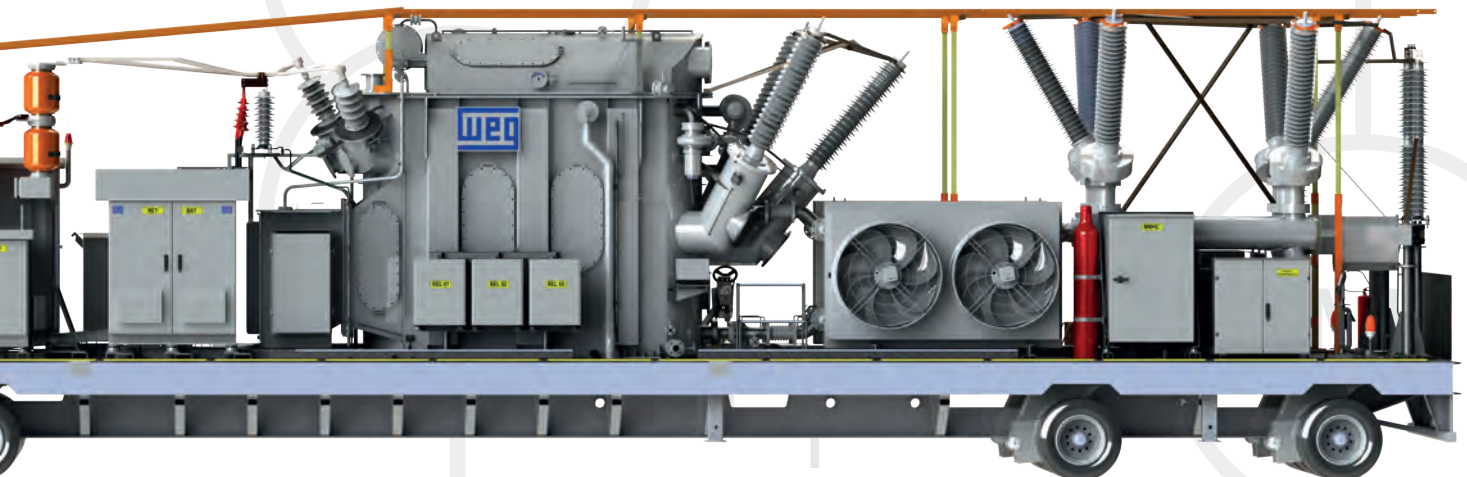
- High-voltage circuit-breakers  
Rated current: 5,000 A  
Rated voltage: 15 to 550 kV
- Distribution transformers  
Power ratings: 15 to 300 kVA  
Rated voltage: 15 / 24.2 or 36.2 kV
- Dry transformers  
Power ratings: 112.5 to 20,000 kVA  
Rated voltage: 15 / 24.2 or 36.2 kV
- Industrial transformers  
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
- TArc 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

## Services

- Repair and redesign in power transformers  
Rated voltage: up to 550 kV





# WEGdigital SOLUTIONS

## 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 division. 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 differentiated aspect: the WEG expertise.

Regardless of your industry size, we can help you:

### Scalable and Flexible Solutions

- Easy to implement regardless of the industry aspects;
- Flexible, custom-made solutions.

### WEG Expertise

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

### Close to You

- 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/digitalsolutions](http://www.weg.net/digitalsolutions)



# This is WEG

Complete solutions for the industry,  
at the speed the market demands.

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 factories, commercial plants, 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 technology to develop more efficient solutions that promote sustainability.

Any time, any place. Transforming energy into solutions for your company.

Certifications:



ISO 9001  
ISO 14001  
ISO 50001  
ISO TS 16949



For WEG's Canadian  
operations visit our website



[www.pamensky.com](http://www.pamensky.com)



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Cod: 50019082 | Rev: 11 | Date (m/a): 10/2020.

The values shown are subject to change without prior notice.  
The information contained is reference values.