

# PRODUCT LINE WEG AUTOMATION

Electric and electronic systems  
enhancing productivity



Motors | Automation | Energy | Transmission & Distribution | Coatings





# Product Line

## WEG Automation

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# ELECTRIC AND ELECTRONIC SYSTEMS ENHANCING PRODUCTIVITY

Quality and competitive edge meet when it is possible to combine efficiency and speed in the processes. Learn about WEG solutions of the automation line and have the best results always within your reach.

## Variable Speed Drives

### CFW100



#### Variable Speed Drives

- Power supply: 100-127 or 200-240 V (single-phase)
- Rated currents: 1.6 A to 7.3 A (0.25 cv / 0.18 kW to 2 cv /1.5 kW)
- Vector control (VVW) or scalar control (V/F)
- Built-in SoftPLC function
- Built-in operating (HMI) interface
- Surface or DIN rail mounting
- Protection degree IP20
- Removable fan
- Alarm or fault diagnosis
- Several accessories for network communication, input and output expansion, RFI filter, all of them with the Plug & Play concept
- Electronic protection against motor overload
- Remote operating (HMI) interface (accessory)
- Free WPS programming and monitoring software
- Flash memory module (accessory)
- Communication RS485 (accessory)
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional

### CFW300



#### Variable Speed Drives

- Rated output current of 1.6 to 15.2 A (0.25 cv / 0.18 kW to 10 cv / 7.5 kW), single-phase or three-phase power supply, at 100-127 V, 200-240 V or 380-480 V and three-phase power supply of the motor at 220 V or 380 V. Direct current power supply is also possible
- 4 configurable (PNP or NPN) digital inputs, 1 relay output 0.5 A / 250 V ac, 1 analog input 0-10 V dc / 4-20 mA
- Selectable V/F, quadratic V/F or VVW vector control modes
- 2 slots for function expansion, such as communication or number of I/O
- Conformal coating: standard class 3C2 electronic board varnishing, 3C3 optional
- Built-in SoftPLC function
- Free WPS programming and monitoring software
- IP20 protection rating
- EMC footprint filter (accessory)
- Protections, alarm and diagnostics functions
- Operating interface (HMI) with built-in LED display



## Variable Speed Drives

### CFW500



#### Variable Speed Drives

- Power supply: 200-240 V, 380-480 V or 500-600 V
- Rated currents: 1.0 A to 211 A (0.33 cv / 0.25 kW to 175 cv /132 kW)
- Voltage vector control VVW - Voltage Vector WEG, and vector with or without encoder (sensorless) and VVW PM permanent magnet motor control
- Software applications dedicated to pumping - Pump Genius
- Plug & Play Concept
- Built-in SoftPLC function
- Free WPS programming and monitoring software
- Smart thermal management of the fan
- Degree of protection IP20, NEMA type 1 or IP66 (NEMA type 4X)
- LCD operating interface (HMI) with backlight
- Conformal coating: standard class 3C2 electronic board varnishing, 3C3 optional
- RFI filter according to the levels of EN 61800-3 standard (optional)
- Version with built-in safety functions: STO and SS1, meeting SIL 3 / PL safety performance requirements, and in compliance with IEC 61800-5-2, EN ISO 13849-1, EN 62061, IEC 61508 and IEC 60204-1
- Communication protocols: CANopen, DeviceNet, Profibus-DP, EtherNet/IP, Modbus-TCP, PROFINET-IO, RS485 and RS232 (available by means of accessories)
- Flash memory module (optional), enabling the data transfer (parameters and applications) between inverters without turning them on

### CFW700



#### Variable Speed Drives

- Power supply: 200-600 V
- Rated currents: 2.9 to 211 A (2.0 to 175 cv)
- VVW Voltage Vector WEG, vector with and without encoder (sensorless)
- Plug & Play Philosophy
- Built-in SoftPLC function
- Smart thermal management
- Degree of protection IP20, IP21, NEMA1 and IP55
- Incorporated DC link inductor
- Incorporated input for incremental encoder and RS485 communication port (Modbus)
- LCD operating interface (HMI) with backlight and USB port
- RFI filter according to the levels of EN 61800-3 standard (optional)
- Communication: CANopen, DeviceNet and Profibus-DP (optional)
- Safe Torque OFF Module (STO) for safety stop (optional):
  - Category 3 / PL d / SIL CL 2 certified by TÜV Rheinland® according to EN ISO 13849-1, IEC 61800-5-2, IEC 62061 and IEC 61508 standards
- Flash memory module (optional)
- Free WPS programming and monitoring software
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional

# Variable Speed Drives

## CFW11



### Variable Speed Drives

- Power supply: 200-690 V
- Rated currents: 3.6 to 1,141 A (2 to 950 cv)
- Plug & Play Concept
- Built-in SoftPLC function
- IP20, IP21, NEMA1 or IP55 protection rating
- Built-in DC link inductor, eliminating the necessity to add a line reactance and complying with the requirements of IEC 61000-3-12 regarding harmonic levels
- Option of connection to a single DC link
- Built-in USB communication port
- Real time clock
- Input and output expansion through plug-in modules
- LCD operating interface (HMI) with backlight
- RFI filter in compliance with the EN 61800-3 (optional in frames A to D and built-in in frames E to H)
- Communication protocols: CANopen, DeviceNet, Modbus, Profibus-DP, EtherNet/IP, Modbus-TCP, PROFINET-IO and EtherCAT (optional)
- Safe Torque OFF (STO) safety stop module (optional):
  - Category 3 / PL d / SIL CL2 with certification TÜV Rheinland®, according to EN ISO 13849-1, IEC 61800-5-2, IEC 62061 and IEC 61508
- Flash memory module (included)
- Built-in disconnecting switch on IP55 models (optional)
- Side-by-side mount, allowing the installation without space between the inverters, streamlining the panel size
- Free WPS programming and monitoring software
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional

## CFW501 HVAC



### Variable Speed Drives

- Supply voltage of 200-240 V or 380-480 V
- Rated currents: 1.0 A to 31 A (0.33 cv / 0.25 kW to 20 cv / 15 kW)
- Control types: scalar (V/F) and voltage vector VVW - Voltage Vector WEG
- Low input harmonic distortion
- Special functions:
  - Energy saving - electric motor lower power consumption and higher performance
  - Dry pump - protection of the pump in case of lack of water and fault indication
  - Short cycle protection to increase the service life of compressor applications
  - Bypass - allows the motor to be directly started from the power supply
  - Fire mode - when enabled, the protections are disabled and the inverter continues to operate even under adverse conditions. Ideal for applications in fume extraction
  - Broken belt: indication of the fan belt malfunction
- Built-in SoftPLC function
- Sleep mode - the motor is prevented from operating at low speeds for long periods, increasing the system useful life
- Free WPS programming and monitoring software
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional



## Variable Speed Drives

### CFW701 HVAC



#### Variable Speed Drives

- Supply voltage: 200-600 V
- Rated currents: 2.9 to 211 A (2.0 to 175 cv)
- IP20, IP21, NEMA1 or IP55 protection rating
- Special functions:
  - Energy saving
    - Dry pump - protection of the pump in case of lack of water and indication of the fault
    - Protection against short circuits increases the useful life of compressors
    - Bypass - the motor can be directly driven through the power line
    - Fire mode - when activated, the protections are disabled and the inverter continues to operate even under adverse conditions. Ideal for applications in fume extraction
    - Sleep mode - the motor is prevented from operating at low speeds for long periods, increasing the system useful life
- RFI filter in compliance with the levels of EN 61800-3 (default)
- Inductor on the DC link
- Operating interface (HMI) with specific units for HVAC applications
- BACnet, Metasys N2 and Modbus-RTU communication protocols
- Free WLP and SuperDrive G2 programming software
- Built-in USB communication port
- Built-in SoftPLC function
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional

### MW500



#### Motor Drive

- Power supply: 200-240 V (single-phase) or 380-480 V (three-phase)
- Rated currents: 1.3 A to 16 A (0.5 cv / 0.37 kW to 10 cv / 7.5 kW)
- Built-in SoftPLC function
- NEMA 4x/IP66 protection rating
- RFI filter according to the levels of EN 61800-3 standard (optional)
- Adaptable to WEG W22 motor line or wall mounting
- Switch-disconnector (optional)
- LED operation indicators
- Free WPS programming and monitoring software
- Compatible with the plug-in modules of the CFW500 line
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional
- Connectivity: CANopen, DeviceNet, Profibus-DP, Modbus-RTU, EtherNet/IP, Modbus-TCP, PROFINET IO

## Variable Speed Drives

### AFW11



#### Complete Drives with Variable Speed Drives

- Mounting with protection rating IP42 or IP54
- Supply voltage: 220 to 690 V - 50/60 Hz
- Rated currents: 3 to 1,141 A
- Maximum applicable motor: 2 to 1,000 cv
- Control voltage: 220 V - 50/60 Hz<sup>1)</sup>
- Optional accessories
- Assembly warranty
- Ease of use

Note: 1) For others control voltages, please contact WEG.

### AFW11M/AFW11W



#### Modular Variable Speed Drives

- Solution in a compact structure, increasing reliability and simplifying maintenance
- Features an air-cooled heatsink
- 6-pulse, 12-pulses input rectifier
- It can be configured with up to five power units (UP11) and three rectifying units (UR11), according to the current variation, plus one control unit (UC11) and connecting cables
- The power units (UP11) are directly powered by the DC link, and the control unit is powered by a +24 V dc power supply

### MVW01



#### Medium Voltage Variable Speed Drives

- Motor voltages: 2.3 kV up to 6.9 kV
- Powers: 500 to 22,500 HP (400 to 16,000 kW)
- Power and control insulated by fiber optic
- Withdrawable power arms for quick and easy replacement
- Easy-to-use graphic operating interface (HMI)
- Compact model with standard 18-pulse rectifier
- Network communication: DeviceNet, Modbus, Profibus-DP and EtherNet
- Dry-type plastic film power capacitors with high reliability and long life
- Imposed voltage
- Air-cooling
- High efficiency (>99%)
- High power factor (>95%)
- Low noise level (<75 dB)
- Low heat dissipation

### MVW3000



#### Medium Voltage Variable Speed Drives

- Motor voltage: 2.3 kV to 13.8 kV
- Motor current: up to 1,140 A<sup>1)</sup>
- Input voltage: 2.3 kV...13.8 kV
- High-efficiency air cooling
- Compliance with the harmonic limits of IEEE 519
- Fully integrated solution, reducing the system commissioning and start-up time
- High power factor (>0.95)
- Optimized input harmonics; no filters required
- The sinusoidal output voltage and current reduce the motor losses, vibration, torque pulsation and motor overheating

Note: 1) For higher currents, please contact WEG.



## Soft-Starters

### SSW05



#### Soft-Starters

- Output rated current: 3 to 85 A
- Voltage: 220 to 575 V
- Built-in bypass
- Control with digital processor (DSP)
- Electronic thermal relay
- Built-in motor protections
- High efficiency
- Compact
- Simple electrical installation
- Easy to operate, adjust and service
- Extended motor and equipment lifespan, eliminating mechanical shock
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional

### SSW08



#### Soft-Starters

- Currents: 17 a 412 A
- Voltage: 220 to 575 V
- Incorporated bypass
- Full electronic motor protection
- Kick start function to start loads with high static friction
- Electronic thermal relay
- Switched-mode power supply of the electronics with EMC filter (110 to 220 V)
- Thermal image (monitoring of the electronics voltage, allowing the backup of the current and voltage values)
- Simple electrical installation
- Interconnection with Fieldbus communication networks: Modbus-RTU and DeviceNet (optional)
- Human-Machine Interface - HMI (optional)
- Free WPS programming and monitoring software
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional

## Soft-Starters

### SSW07



#### Soft-Starters

- Output rated current: 17 to 412 A
- Voltage: 220 to 575 V
- Incorporated bypass
- Full electronic motor protection
- Kick start function to start loads with high static friction
- Electronic thermal relay
- Switched-mode power supply of the electronics with EMC filter (110 to 220 V)
- Thermal image (monitoring of the electronics voltage, allowing the backup of the current and voltage values)
- Simple electrical installation
- Interconnection with Fieldbus communication networks: Modbus-RTU and DeviceNet (optional)
- Human-Machine Interface - HMI (optional)
- Free WPS programming and monitoring software
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional

### SSW900



#### Soft-Starters

- Currents: 10 to 1,400 A
- Versions for 220 to 575 V ac or 380 to 690 V ac
- Oriented start-up
- Option of standard connection (3 cables) or motor inside delta connection (6 cables)
- HMI with Bluetooth connectivity for monitoring and parameter setting via smartphone or tablet
- Pump control function for smart control of pumping systems that prevent water hammer and pressure overshoots in the hydraulic piping
- Integral motor thermal protection
- Built-in SoftPLC function
- Longer lifespan of the motor and equipment
- Limitation of voltage drops at the start
- Great reduction of the forces on the couplings and on the transmission devices (gearboxes, pulleys, gears, belts, etc.) during the start
- Three braking methods to stop the motor and the load faster. Braking methods with or without a contactor
- Built-in bypass: minimizing power losses and heat dissipation in the thyristors, providing space reduction, contributing to energy saving and increasing the product lifespan; available in models from 10 to 412 A
- Free WPS programming and monitoring software
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional



## Soft-Starters

### SSW7000



#### Medium Voltage Soft-Starters

- Supply currents: 2.3 kV, 4.16 kV, 6.9 kV or 13.8 kV
- Power: 600 cv to 7,500 cv (other values on request)
- Rated currents: 125 A, 180 A, 250 A, 300 A, 360 A, 500 A and 600 A
- Degree of protection: IP41, NEMA12
- Operating interface (HMI) with graphic LCD
- Real time clock
- Main and bypass vacuum contactors
- Medium voltage fuses
- Input switch-disconnector
- Power and control insulated by fiber optic
- Flash memory module (optional)
- SoftPLC function
- Free WLP and SuperDrive programming software
- USB connection to PC
- Motor thermal protection - Pt-100 (optional)
- 5 starting modes
- Boards for network communication: DeviceNet, Profibus-DP, EtherNet and Modbus, RS232 or RS485 interfaces (optional)

## Servo Drives

### SCA06



#### Servo Drives

- Supply voltage of 220-230 V or 380-480 V
- High performance
- Motion control accuracy
- Closed loop operation
- Position feedback by means of resolver
- Control and power with independent power supplies
- Flexibility and integration to the drive
- Simple operation: positioning via parameters
- HMI with 6-digit LED display
- USB port
- CANopen / DeviceNet in the standard version
- Free WPS programming and monitoring software
- RFI filter (optional)
- Built-in SoftPLC function
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional

### SWA



#### Servomotors

- Supply voltage: 220 V ac or 380 V ac
- Torque: 0.8 to 40 Nm
- Servomotor option with electromagnetic brake at 24 V dc
- Degree of protection IP65
- Internal thermal Protector (PTC) 55°
- Rare earths magnets (neodymium, iron, boron)

## Voltage Regulators

### ECW500



#### Automatic Voltage Regulators

- Drive of synchronous machines with brushless excitation
- HMI with 2.5" display
- Supply voltage:
  - 85/242 V ac (50/60 Hz)
  - 85/150 V dc
- Field current: 20 A
- Five control modes:
  - MTVC - Voltage control
  - MECC - Current control
  - MTVC\_DROOP - Voltage control mode with reactive droop
  - MPFC - Power factor control
  - MRPC - Reactive power control
- RS485/422 communication

## AC/DC Converter

### CTW900



#### AC/DC Converters

- Drive and control of direct current (DC) motors
- Rated currents: 20 to 2,000 A
- Speed or torque control
- Simplified connections to power and control
- Internal supply for the field bridge
- Operating interface (HMI) with LCD display
- USB port for serial communication and software update
- Built-in SoftPLC function
- Free programming and monitoring software
- Memory card for backup of parameters and software applications
- 3 options of speed feedback: incremental encoder, DC tachogenerator or counter-electromotive force (CEMF)
- Network communication: DeviceNet, Profibus-DP, EtherNet-IP, Modbus-TCP, PROFINET-IO, RS485 and RS232
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional

## Remote Units

### RUW100



#### Remote units

- Allows the expansion of digital, analog, thermocouple, Pt-100, Pt-1000 and load cell inputs and outputs, and relay outputs
- Modular, flexible and easy-to-integrate system
- Available in three main modules and ten expansion modules
- Supports up to 8 expansion modules per main unit, enabling the customization of automation systems
- Supply voltage: 24 V dc
- Connectivity to Modbus (RS485) and CANopen (CAN) networks and complete integration with the process network

## Programmable Logic Controllers - PLCs

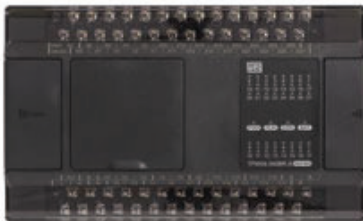
### Clic02 3<sup>rd</sup>



#### Programmable Logic Controllers

- Maximum configuration of 55 I/O points, using up to 3 expansions
- Power supply in 12 V dc, 24 V dc or 110/220 V ac - 50/60 Hz
- Real time clock
- On-line message visualization and parameter change
- Fast inputs up to 1 kHz
- Pulse train and PWM output
- Modbus communication
- LCD display with 4 lines x 16 characters
- Arithmetic functions (Addition/sub. Mul/Div)
- PID Control Function
- Free Clic Edit programming software
- Programming in ladder or block diagram of the function

### TPW04



#### Programmable Logic Controllers

- Equipment dedicated to automation
- Streamlined high-speed counter, pulsed output and interpolation function for positioning control
- Multiple communication protocols supported
- High processing speed: 0.18 micro-seconds/step
- High memory capacity
- Easy installation of input and output expansions
- Expandable up to 384 points
- Several types of expansion boards: digital, analog and communication function

### PLC300



#### Programmable Logic Controllers

- PLC with incorporated HMI, complete and expandable
- 10 digital inputs and 1 analog input
- 9 digital outputs (1 fast) and 1 analog output
- Battery voltage monitoring, informing the replacement moment without losing the application
- PWM ramp function
- Internal flash memory that enables the automatic recovery of the resource in case of battery fault
- 5 incorporated ports: EtherNet, CANopen, RS232, RS485 and USB
- Expansion of digital and analog inputs and outputs via CANopen or CFW11 modules
- SD memory card (Secure Device)<sup>1)</sup> for data, program and event log storage
- Programming in ladder language via WPS software (WEG Programming suite), according to IEC 61131-3
- Built-in encoder input (100 kHz)
- RUW01: 14 - DI and 10 - DO, PNP/NPN at 24 V dc
- RUW01-CN13DI: 13 - DI, PNP/NPN at 24 V dc
- RUW02: 7 - analog inputs 0 to 10 V dc or 4 to 20 mA 24 bits
- RUW04: 7 - J/K type thermocouple inputs 24 bits
- RUW06: 2 analog inputs for load cell
- RUW03-CN8AO: 8 analog outputs of 0 to 10 V dc or 4 to 20 mA
- RUW05-CN4RTD: 4 Pt-100 or Pt-1000 inputs

Note: 1) SD card not included.



## Operating Interfaces

### MT

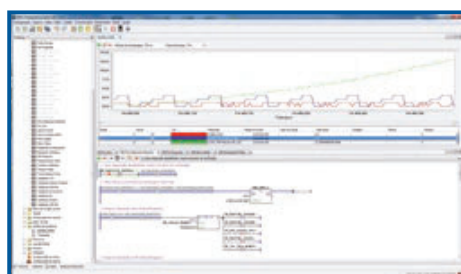


#### Operating Interfaces

- Color graphic HMIs with touchscreen, available in 4.3", 7", 10" or 15" models
- Modern visual with flexible and versatile programming software
- Application simulator software
- Degree of protection IP65
- USB, EtherNet, RS232, RS485 and RS422 communication ports

## Free Softwares

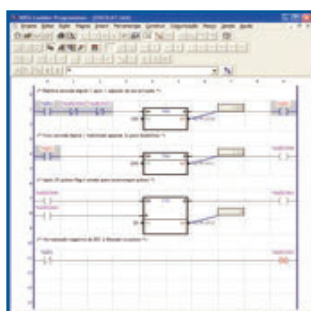
### WPS



#### WEG Programming Suite

- Integrated tool, even software, enabling programming and monitoring of PLC, servo drive and variable speed drives
- Logic monitoring and on-line charts, recipe edition, handling of the SD card files
- Software application development
- SoftPLC logic programming using ladder language according to IEC 61131-3
- Mathematical PLC Blocks, counters, timers
- Recording of software application (via SoftPLC)
- USB or Bluetooth connection
- Communication with the inverter, servo drive and soft-starter lines
- Parameter setting, pushbuttons and pilot lights
- Programming wizard
- On-line help and monitoring

### WLP

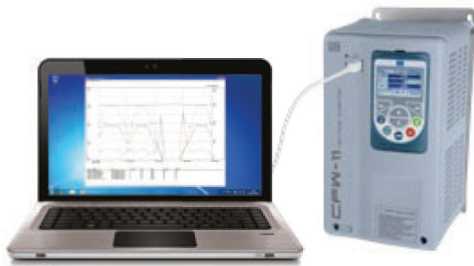


#### WEG Ladder Programmer

- Development of software applications
- Function programming
- SoftPLC
- Ladder language
- Control mathematical PLC blocks
- On-line monitoring and help
- USB connection

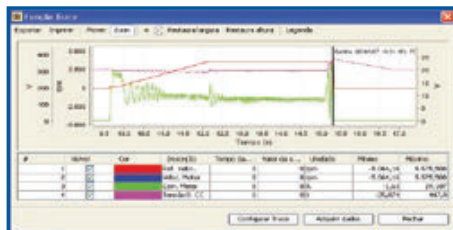
Available on website: [www.weg.net](http://www.weg.net)

## Free Softwares



### SuperDrive G2

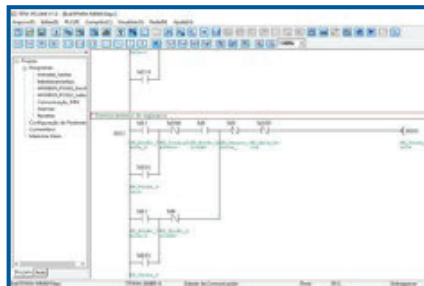
- USB connection to inverter, servoconverter and soft-starters
- Parameterization, command and signaling
- Recording of software application (via SoftPLC)
- On-line monitoring and help



### Trace Function

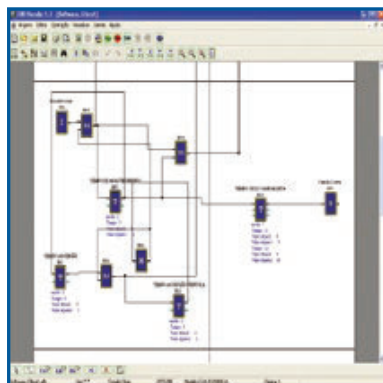
- Customizable tool that monitors and stores variable registers in the inverter memory, activated by the occurrence of an event (e.g., overload)
- Registration and graphic view of inverter variables
- Excellent tool for fault diagnosis in remote locations
- Simulates an oscilloscope
- Included in SuperDrive G2 and WPS software

### TPW



### PC Link

- Software to program the TPW controllers
- Programming in ladder language
- On-line monitoring and via graphs
- Hot download (PLC in RUN mode)



### Clic Edit V3

- Programming of the Clic02 3<sup>rd</sup>
- Ladder or FBD language in Portuguese
- On-line editing and monitoring

Available on website: [www.weg.net](http://www.weg.net)

## Motors Start and Protection

### CWB



#### Contactors

- Compact solution up to 125 A and up to 72 mm wide
- Built-in auxiliary contacts 1NO + 1NC
- Low energy consumption DC coils allow direct drive of the contactors via PLCs, inverter outputs or soft-starters without requiring an interface relay
- More compact assemblies of motor starters
- Developed according to IEC 60947 and UL 60947 international standards
- Wide range of accessories

### CWM



#### Contactors

- Complete line from 9 to 800 A (AC-3)
- 3-pole and 4-pole contactors
- Quick mounting on 35 mm DIN rail or screw mounting
- Contactors available in several command voltages and frequencies (AC or DC)
- Direct mounting of contactors on overload relays up to 105 A
- Wide range of accessories
- Easy connection busbars for star-delta or reversing starters interconnection, allowing fast mounting and reducing space

### CWC0



#### Compact Contactors

- Complete line from 7 to 22 A (AC-3)
- Quick mounting on 35 mm DIN rail or screw mounting
- Built-in auxiliary contacts up to 16 A
- Low-consumption DC coils, allowing direct connection to PLCs
- Direct mounting on RW17 overload relays
- Same dimensions (AC or DC coil) for models up to 16 A

### RW



#### Thermal Overload Relays

- Current setting range from 0.28 to 840 A
- Tripping class 10
- Versions allowing direct mounting to compact contactors/ contactors, screw mounting or DIN rail mounting with accessory
- Adjustable multifunction key with HAND, AUTO, H or A functions
- Auxiliary contacts 1NO + 1NC



## Motors Start and Protection

### RW\_E



#### Electronic Overload Relays

- Three-pole electronic overload relay with selectable trip class: 10, 20 and 30
- Current setting range from 0.4 to 840 A
- Phase loss protection (time delay <5 seconds)
- Phase unbalance protection (>40% between phases)
- Temperature compensated
- Manual or automatic reset
- Direct mounting on CWB9...38 and CWM9...105 contactors
- Allows individual mounting with accessories
- Auxiliary contacts 1NO + 1NC

### MPW



#### Motor-Protective Circuit Breakers

- Motor-protective circuit breakers with high short-circuit breaking capacity up to 100 A ( $U_e \leq 690$  V)
- Compact solution up to 40 A and 45 mm wide and up to 80 A 54 mm wide
- Motor start and protection up to 40 cv at 220 V and 75 cv at 380/440 V
- Adjustable thermal releases to protect the motor against overload
- Magnetic releases for short circuit protection fixed at 13xIn

### PDW



#### Starters

- Three-phase contactors in thermoplastic enclosures up to 40 cv at 220 V and 75 cv at 380/440 V, and single-phase contactors
- Star-delta starters in thermoplastic enclosures up to 20 cv at 220 V and 40 cv at 380 V
- Star-delta, reduced-voltage and series-parallel starters in metallic enclosure starting from 15 HP

### RTW17, RMW17, RIEW17, RNW, ERWT and ERWM



#### Electronic Relays

- LED status indicators
- Simple configuration and operation
- Adjustments via external selectors
- High-reliability contacts
- Excellent accuracy, repeatability and noise immunity
- Mounting on DIN rail or screw mounting
- Compact enclosure 17.5 mm and 22.5 mm wide
- Available models:
  - Timers: simple function and timing (RTW17), multi timing (RTW-MAT/MBT) or multifunction (ERWT)
  - RIEW digital impulse relay: control of automation systems in homes, hotels and commercial or residential buildings
  - Voltage monitoring relays: single monitoring (RMW17) or multifunction (ERMW)
  - Level relays: filling and draining (RNW)

## Motors Start and Protection

### SRW01



#### Smart Relays

- Reliability and accuracy in monitoring, operation and protection of low voltage electric motors
  - Supply voltage: 24 V ac / V dc or 110/240 V ac / V dc
  - Plug & Play Philosophy
  - Modular design
  - Communication networks: Modbus-RTU, Profibus-DP, DeviceNet or EtherNet
  - USB port
  - Free WLP programming software (WEG Ladder Programming)
- Optional Items:
- Operating interface (HMI) for cabinet door mounting: monitoring, parameterization and operation with copy function and serial communication
  - Current and voltage or current measuring units
    - Current Measuring Unit (CMU): current monitoring on the three motor phases
    - Current and Voltage Measuring Unit (CVMU): current monitoring on the three motor phases, voltage monitoring up to 690 V, phase sequence, power factor and other motor powers, allowing the management of electric energy consumption in kWh

## Pushbuttons and Pilot Lights

### CSW and CEW

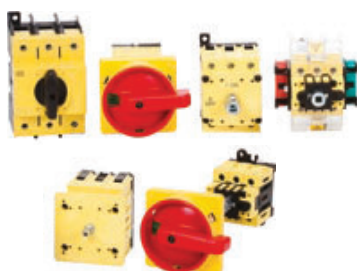


#### Pushbuttons, Selector Switches and Pilot Lights

- Developed for different applications, harsh and industrial environments
- Degree of protection IP66
- Illumination blocks with integrated LED (high efficiency)
- Quick and easy mounting system
- High-reliability auxiliary contacts
- Wide range of accessories

## Electrical Circuits Protection

### MSW



#### Compact Switch-Disconnectors

- Rated currents: 12 to 160 A
- Developed according to IEC 60947-3
- Compliance with the requirements of NR12 standard
- Modern and compact design for simple installation
- Complete line of accessories
- Terminals with degree of protection IP20
- Handle with degree of protection IP65
- Handles allow using up to 3 padlocks
- Handles allow door interlocking
- ON/OFF indication on the handle in Portuguese, as required by Brazilian NR12 standard
- Base mounting or top mounting

## Electrical Circuits Protection

### RIW



#### Rotary Switch-Disconnectors

- Rated currents: 100 to 1,250 A
- Developed according to international standards IEC 60947-3 and IEC 60947-1
- Housing in self-extinguishing thermoplastic (flammability class V0)
- Auxiliary contact installed on the switch
- Complete accessory line
- Mounting in any position
- Safe operation
- Easy installation

### RFW



#### Rotary Switch-Disconnectors

- Rated currents: 100 to 630 A
- Developed according to international standards IEC 60947-3 and IEC 60947-1
- Housing in self-extinguishing thermoplastic (flammability class V0)
- Total fuse isolation with the switch in the OFF position
- Auxiliary contact installed on the switch
- Complete line of accessories
- Mounting in any position
- Safe operation
- Easy installation

### FSW



#### Fuse-Switch-Disconnectors

- Rated currents: 100 to 630 A
- Developed according to international standards IEC 60947-3 and IEC 60947-1
- Transparent cover allows viewing the contacts
- Possibility of checking the fuse state through holes in the cover
- Auxiliary contact installed on the switch
- Fast fuse replacement
- Safe operation
- Easy installation

CE

### MMW



#### Multimeters of Electrical Quantities

- Direct and reverse energy measurement
- Memory for 1,920 records of hourly parameters, 240 daily parameters and 36 monthly parameters for local reading or export via communication network
- Communication with RS485 isolated serial output, Modbus-RTU protocol
- Simple and easy parameter setting via front keys or remotely
- Configurable digital inputs and outputs
- Phase sequence and phase loss identification and current and voltage presence indication



## Electrical Circuits Protection

### FNH and FDW



### aR Ultra-Fast Fuses and gL/gG Circuits Protection

- Class gL/gG - for general electrical circuit protection
- Class aR - for semiconductor protection
- D-type gL/gG fuses with rated currents from 2 to 63 A
- NH-type gL/gG fuses with rated currents from 4 to 630 A
- NH-type aR fuses with nominal currents from 20 to 1,000 A in four sizes
- aR fuse with thread connection type (flush end) and currents of 450 A to 2,000 A
- High breaking capacity (type D = 50 kA, type NH = 120 kA, thread connection type (flush end): 200 kA)
- Technical specification according to IEC 60269 standard
- High breaking capacity

### ABW/ABWC



### Air Circuit Breakers

- Rated currents: 800 to 6,300 A
- Available in two versions: fixed and withdrawable
- Designed in compliance with IEC 60947-2 standard
- Short-circuit breaking capacity up to 120 kA (380/415 V)
- Standard protection units with:
  - LSIG protection
- Protection units with option of:
  - Current and voltage reading
  - Earth leakage protection
  - Network communication
- Compact model
- Wide range of accessories
- More built-in protections as default
- Network communication: Modbus and Profibus (optional)
- ABWC line: compact model
  - Rated currents of 800 and 1,600 A
  - Short-circuit breaking capacity up to 50 kA (380/415 V)

### VBW



### Vacuum Circuit Breakers

- Designed in compliance with IEC 62771-100 standard
- Rated currents: 630 and 1,250 A
- Rated voltage of 17.5 kV
- Short-circuit interrupting capacity of 25 kA
- Distance between poles: 150 mm
- Complete line of accessories
- Robust and compact structure
- Vacuum-insulated ceramic bottle

### ACW



### Molded-Case Circuit Breakers

- Designed in compliance with IEC 60947-2 standard
- Rated currents: from 20 to 1,600 A
- Short-circuit breaking capacity up to 200 kA (220/240 V)
- Broad range of internal and external accessories
- Trigger options:
  - Adjustable thermal and fixed magnetic
  - Adjustable thermal and magnetic
  - Electronic
  - Magnetic only

## Electrical Circuits Protection

### AGW



#### Molded-Case Circuit Breakers

- Designed in compliance with IEC 60947-2 standard
- Breaking capacity from 18 to 45 kA @ 380 V
- Available in 4 frames: currents from 15 to 800 A
- Complete range of accessories
- Compact size

### DWB/DWA



#### Molded-Case Circuit Breakers

- WEG line of circuit breakers:
  - DWB/DWA Line - protection of distribution electrical circuits and generators
  - DWB/DWM Line - motor protection
  - IWB and IWA Line - electrical circuit switch-disconnection
- Designed in compliance with IEC 60947-2 standard
- Rated currents: 16 to 1,600 A
- Short-circuit breaking capacity up to 80 kA (380/415 V)
- Models with thermal and adjustable magnetic triggers
- Broad range of internal and external accessories
- DWB1000 and DWB1600 with LSIG electronic protection

### VBWK



#### Input Modules in MV for Masonry Installations

- Installation in masonry cabinets
- Vacuum-arc extinguishing technology
- Robust and compact structure
- Protection relay homologated by the utility companies
- Maintenance-free equipment in the primary part
- Visual indication of the VBWK operating conditions
- Input and output connections prepared to receive cables or rods
- Easy installation
- Supplied assembled with all the equipment interconnected, tested and ready for energizing

### DWP

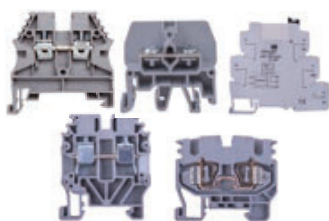


#### Molded-Case Circuit Breakers

- The DWP molded-case circuit breakers protect the low voltage distribution circuits against short circuit and overload
- Available in currents from 16 to 800 A with fixed thermal and magnetic releases
- Designed in compliance with IEC 60947-2 standard

## Electrical Connectors

### BTW



#### Terminal Blocks

- Screw line: cables from 0.5 to 240 mm<sup>2</sup>
- Cage clamp line: cables from 0.5 to 10 mm<sup>2</sup>
- Push-in line: cables 0.5 to 10 mm<sup>2</sup>
- Lug line: cables 0.5 to 10 mm<sup>2</sup>
- Wide range of accessories
- Relay line:
  - Reversible contact
  - Plug-in relay
- Mini Terminal Screw Line: cables 0.5 to 4 mm<sup>2</sup>
- Mini Terminal Cage Clamp Line cables: 0.5 to 2.5 mm<sup>2</sup>
- Many options of identifiers and markers

## Power Factor Correction

### Power Factor Correction Capacitors

- Coils produced with self-healing, dry dielectric, metalized polypropylene film
- Built-in discharge resistors in three-phase units, modules and banks
- Dielectric losses smaller than 0.4 W/kvar
- Manufactured in 50 and 60 Hz, in accordance with NBR IEC 60831
- Self-healing
- Explosion protection device

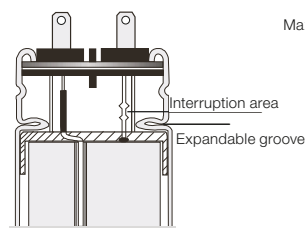


Fig. 1 Internal view of UCWs

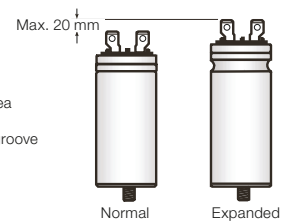


Fig. 2 UCW normal x UCW expanded

#### UCW



#### Single-Phase Capacitive Units

- Power up to 10 kvar, diameters from 40 to 75 mm and 535 V ac
- Capacitive units for mounting of modules and three-phase banks
- Replacement of expanded cells in the modules and banks
- Separate discharge resistors

#### UCWT



#### Three-Phase Capacitive Units

- Ideal for localized/individual motor correction:
  - 0.5 to 50 kvar at 220 V
  - 0.5 to 50 kvar at 380/440/480/535 V
  - 50 to 50 kvar at 600/660/690 V
- Built-in discharge resistors
- Protecting cover for connections
- Philips and box terminals

#### MCW



#### Three-Phase Capacitor Modules

- Power: up to 60 kvar and 480 V ac
- Single-phase capacitive units connected in delta
- Built-in discharge resistors
- You can associate up to 4 modules through interconnection busbars, reaching the equivalent powers to the banks (best cost-benefit)

#### BCW and BCWP



#### Three-Phase Capacitor Banks

- Power: up to 100 kvar and 535 V ac
- Capacitors connected in delta
- General protection with "NH" fuses or circuit breakers
- Electronic timing relay that protects the capacitors in the reenergizing

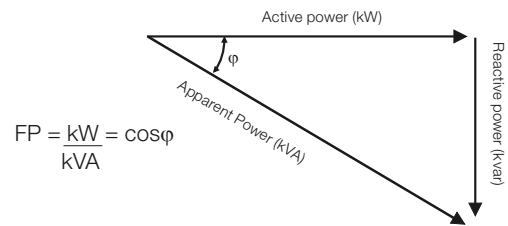


## Power Factor Correction



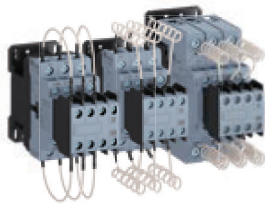
In a three-phase power line, three quantities represents the electrical installation:

- Active power: kW (generates work)
- Reactive power: kvar (creates magnetic field)
- Apparent power: kVA (total power consumed)



(The more kvar circulates through the line and the transformer/generator, the higher the kVA consumed and the lower the power factor.)

### CWBC



#### Contactors for Switching Capacitors

- Available for switching capacitor banks of up to 50 kvar at 400/415 V
- 3 built-in auxiliary contacts
- Same accessories as those of the CWB line
- Direct mounting on DIN rail 35 mm or screw mounting

### CWMC



#### Contactors for Switching Capacitors

- Available for switching capacitor banks of up to 61 kvar at 400/415 V
- Direct mounting on DIN rail 35 mm or screw mounting
- Developed with pre-charge resistors to reduce high in-rush currents



### PFW



#### Automatic Power Factor Controllers

- Switching of capacitors and reactors with 8 to 24 control steps available
- Ability to "learn" and record the reactive powers of the steps, eliminating the need for parameter setting of each one
- Dynamic step monitoring - DCM that speeds up maintenance and increases reliability in power factor correction
- Communication with RS485 isolated serial output, Modbus-RTU protocol
- Harmonics phasor diagram, table and bar graph up to the 51st order for current and voltage
- Direct and reverse energy measurement
- Configurable digital inputs and outputs



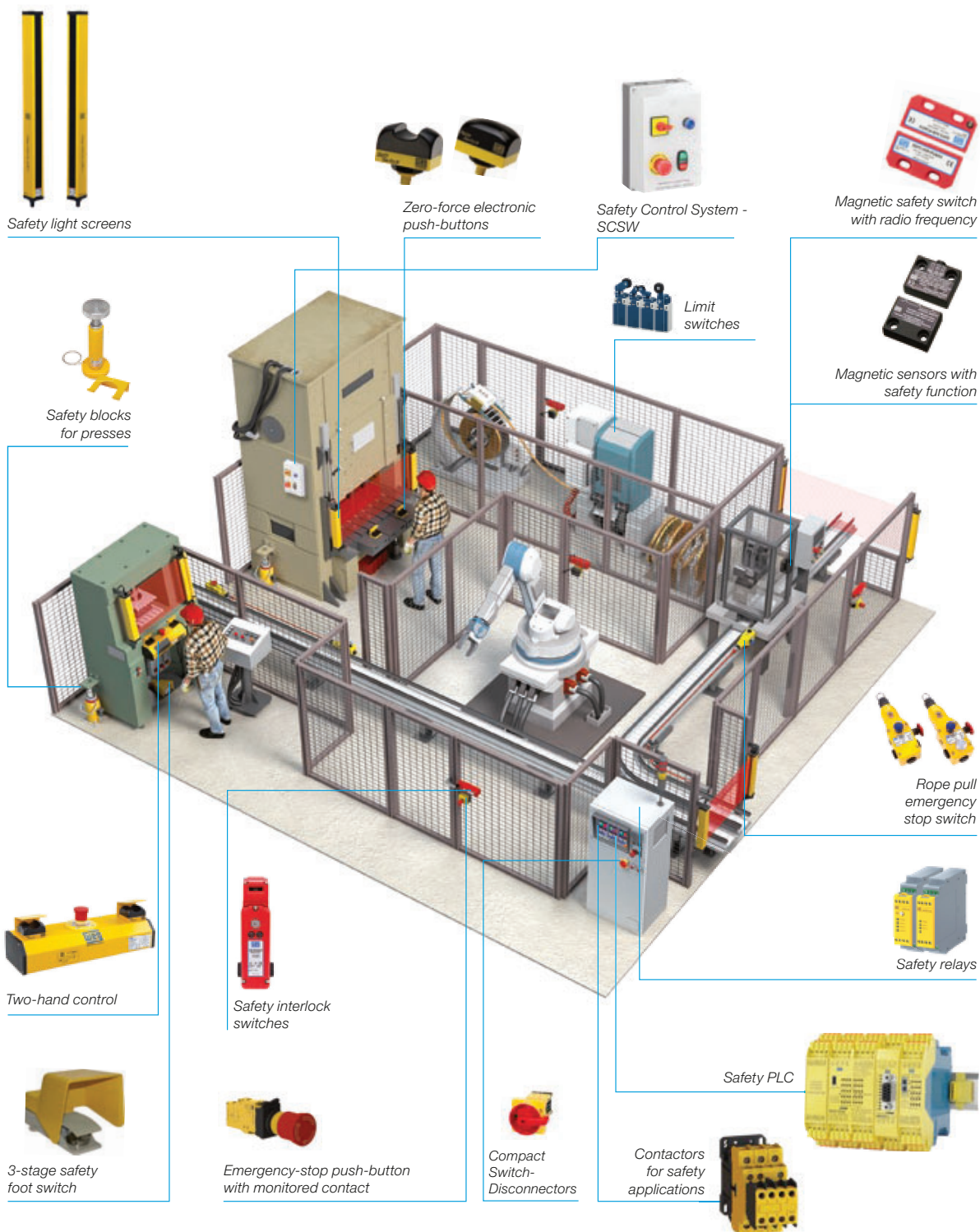
### DRW



#### Detuning Reactors

- Voltage: 220, 380 and 440 (V)
- Power: 9.0...63.3 (kvar)
- Reduced vibration
- Reduced noise
- Insulation class H (180 °C)
- Insulation voltage of 1 kV
- Use of spacers between winding layers: it aids in thermal dissipation by reducing the operating temperature
- Special silicon steel plate: excellent magnetic properties in all directions, reduced losses and low operating temperature

## Safety



## Safety

### LSP



#### Safety Light Screens

- Height of the protection area 200 to 1,600 mm
- 14 or 30 mm resolution
- Finger, hand and arm protection
- 24 V dc power supply
- Compact size
- Dual channel output
- Floating and fixed blanking
- Autocheck: continuous monitoring of the functions
- Protection category 4/PL e/SIL 3
- Certification: TÜV Rheinland
- IP65 protection rating

### SS, PALM and ST



#### Zero-Force Electronic Push-Buttons

- Zero force to operate
- Reduce the stress caused by repetitive strain and consequently the occurrence of occupational diseases
- Resistant to liquids, dust, oils and mechanical vibrations
- IP67 protection rating
- Category 4/PL e/SIL 3 – with WEG safety relay
- Certification: TÜV Rheinland (Brazil)

### CEC



#### Cable Pull Emergency Stop Switches

- Cable length up to 80 meters
- Start the emergency command from any point along the length of the installed cable
- Built-in emergency-stop push-button, reset and LEDs
- Rugged cast metal housing
- Category 4/PL e/SIL 3 – with WEG safety relay
- IP67 protection rating
- Certification: TÜV Rheinland, CE, UL

### SCSW



#### Safety Control System

- Powers from 0.5 to 15 cv
- Supply voltages: 220 V ac and 380 V ac
- Complies with safety category 4 / PL e / SIL3
- Control with voltage at 24 V dc
- IP52 or IP65 protection rating and compact size
- Options with switch-disconnectors and manual motor protector

### H5 and M5



#### Magnetic Sensors with Safety Function

- Used to monitor grilles, doors, gates or the like
- 10-30 V dc supply voltage (model H5)
- Power supply directly on the safety relay (model M5)
- Coded actuator
- IP67 protection rating
- Category 4/PL e/SIL 3 - with WEG safety relay

## Safety

### RFID



### Magnetic Sensors with Safety Function

- Provides high protection level and avoids tampering with the safety system
- Coded switch with a unique code (1 in 32 million combinations): works only with the actuator provided in the set
- Can be used with CP-D and CPA-D safety relays, not requiring special relays
- Can be interconnected in series with other similar sensors, interlock switches, emergency-stop pushbuttons and other devices of the Safety Line
- Rugged plastic housing with IP67 protection rating, allowing its application in any type of environment
- No moving parts: long service life, shock and vibration resistant



### Safety Interlock Switches

- Selectable actuators (tongues)
- Models with and without solenoid
- Used to monitor grilles, doors, gates or the like
- Ideal for applications in restricted spaces and aggressive environments
- IP67 protection rating
- Category 4/PL e/SIL 3 - with WEG safety relay
- Certification: TÜV Rheinland, CE, UL



### Safety Relays

- PSRW Line - Programmable Safety Relay
- CS Line - Simultaneity control
- CPW Line - Emergency stop control
- SZS - Zero speed monitor
- PSSR - Auxiliary relay
- Dual channel outputs
- Contact supervision
- Protected against faults and tampering
- Category 4/PL e SIL CL 3
- TÜV Rheinland certification

### CWBS



### Contactors for Safety Systems

- Three-pole power versions CWBS (9...80 A) and CWMS (40...105 A). Auxiliary versions CAWBS ( $I_{th}$ : 10 A)
- Enclosed design protected against the ingress of foreign bodies and against inadvertent touches
- Auxiliary contacts permanently connected to the contactors
- Specific color that enables easy identification on machinery and equipment panels
- Developed in compliance with the standards: IEC 60947-1, IEC 60947-4-1 (Mirror Contacts - Annex F) and IEC 60947-5-1 (Mechanically Linked Contacts - Annex L)
- Main certifications: UL, CE, TÜV Rheinland
- Units assembled and tested at the factory



## Safety

### CPSW



CE

#### Programmable Safety Controllers

- Compact modular system
- Configurable up to 15 modules
- Modules with different functions: safety inputs and outputs, speed monitoring and network communication
- 24 V dc power supply
- Push-in terminals
- Safety category SIL 3 / PL e / Cat 4

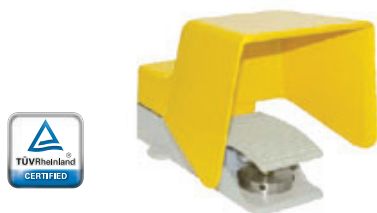
### CBM



#### Two-Hand Controls

- 24 V dc power supply
- Degree of protection IP20
- Used with the other products of the Safety Line
- Category 4/PL e, SIL CL 3 (with safety relay CS-D/CS-D201)
- TÜV Rheinland certification (CS-D/CS-D201 built-in)

### PD3S



#### 3-Stage Safety Pedals

- 3 actuation stages
- Monitored contact block with positive trip
- Guard to avoid inadvertent actuation
- Must be used with the CS-D/CSD201 relay and CP-D/CPA-D emergency stop relay

### CA

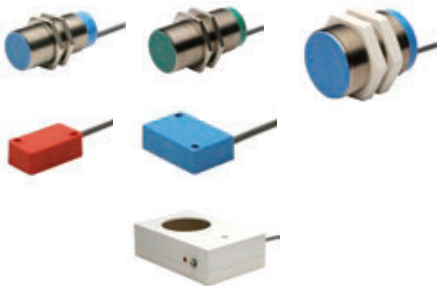


#### Safety Block for Presses

- Adjustable height from 150 to 900 mm
- Withstands up to 20 t
- Monitored by safety interlock switch
- Used with the other products of the Safety Line
- Compliance certificate

## Industrial Sensors and Power Supplies

### SL



#### Inductive Sensors

- Wide variety of models and shapes
- Detection of metal parts
- Protection against overload, short circuit, transient noise and reverse polarity
- Metal or plastic housing
- Activation indicator LED
- Reduced size
- Shock and vibration resistant
- IP67 protection rating
- Output with cable (fixed or coupling) or M12 connector (selectable)

### SC



#### Capacitive Sensors

- Cylindrical shape
- Detection of metallic or non-metallic solid objects, and fill level control of liquids and solids
- Metal or plastic housing
- Protection against overload, short circuit, transient and reverse polarity
- Activation indicator LED
- Shock and vibration resistant
- IP67 protection rating
- Output with cable (fixed or coupling) or M12 connector (selectable)

### MSO



#### Miniature Optical Sensors

- Models
  - Barrier (ERO)
  - Reflective (SRO)
  - Diffuse (SDO)
  - Retroreflective (SRR)
  - Retro-polar (SRP)
- Rectangular shape
- Plastic housing
- Protection against overload, short circuit, transient and reverse polarity
- Activation indicator LED
- Shock and vibration resistant
- IP67 protection rating
- Output with cable (fixed or coupling) or M8 connector (selectable)

### SMI



#### Magnetic Sensors

- Mounting on pneumatic cylinders with magnetic plunger
- Precise activation
- Activation indicator LED
- Robust mounting in plastic
- IP67 protection rating
- 2 m cable

## Industrial Sensors and Power Supplies

### PSS24W



#### Switched-Mode Power Supplies

- Output voltage: 24 V dc
- Output current range: 0.65 to 10.0 A
- Powers: 15 to 240 W
- Universal AC input
- DIN rail mounting
- Indication LEDs
- Compact and excellent cost effectiveness
- CE and UL certifications
- Overvoltage and overcurrent protection

### PS



#### Power Supplies for Industrial Sensors

- Power Supplies for Sensors - PSS and PSD
- Level Control Power Supply - PSN
- PNP or NPN Input Signals
- Output voltage 24 Vdc
- 1 NOC and 2 NOC contacts

### RM



#### Monitoring Relays for Automation

They are devices that can send a control panel information regarding the stop, speed and displacement of sensors

- Checkout monitor relay y - RMCW
- Universal Timing Relay - RTUW
- Zero Speed Monitor Relay - RMMZW
- Speed Monitor Relay - RMVW
- Displacement monitor relay - RMDW

## Limit Switches

### LSW



#### Limit Switches

- Interchangeable contacts and a wide range of heads and fast and slow action contacts
- Shorter assembly time, as the switches are assembled at the factory
- High durability even in harsh environments
- Body in self-extinguishing thermoplastic material
- Complies with international standards IEC/EN 60947-5-1 and UL 508
- Positive opening on the NC (normally closed) contacts
- Can be used for indication, detection, limitation, monitoring and rigid object counting
- Thermoplastic housings
- Double insulation
- IP65 protection rating

## Building & Infrastructure

### MDW



#### Miniature Circuit Breakers 3 kA

- Curves B and C
- Rated currents: 2 to 125 A
- 1, 2, 3 and 4 poles
- High breaking capacity:
  - 3 kA - NBR NM 60898 (residential purpose)
  - 5 kA - IEC/EN 60947 (industrial purpose)
- Side auxiliary contact block (optional)
- Padlock (optional)

### MDWH



#### Miniature Circuit Breakers 10 kA

- Curves B and C
- Rated currents: from 6 to 125 A
- 1, 2, 3 and 4 poles
- Breaking capacity:
  - 10 kA - NBR NM 60898 (residential purpose)
  - 10 kA - IEC 60947-2 (industrial purpose)
- Installation of accessories, such as padlock, undervoltage release and auxiliary blocks, supplied as optional items

### SIW



#### Switch-Disconnectors

- They disconnect electric circuits with rated currents up to 100 A
- 2, 3 and 4 poles
- According to standard IEC 60947-3
- Possibility of padlock locking (optional)
- Auxiliary contact block (optional)

### RDWS



#### Residual Current Circuit Breakers

- Current leakage protection
- 30 mA sensitivity (life protection) or 300 mA (installation protection)
- 2 and 4 poles
- Rated currents: 25 to 100 A
- Padlock (optional)
- Auxiliary contact block (optional)
- Auxiliary contact block with alarm function (optional) Remote disconnect coil (optional)
- Undervoltage release (optional)



## Building & Infrastructure

### SPW



#### Surge Suppressors

- SPW02 and SPWC General Characteristics
- Protection of equipment and installations
  - Class I (direct discharges) and II (indirect discharges)
  - Plug-in connection
- SPW02 Model – Alternating current (AC) application
  - 10, 20, 40 and 60 kA (class II)
- SPWC Model – Alternating current (AC) application
  - 12, 20, 45 and 60 kA (class II)
  - 12.5 kA (class I)
  - Auxiliary contact (optional)
- SPW12 Model – Direct current (DC) photovoltaic application
  - 40 kA (class II)
  - DC Voltages (600 V and 1,000 V)

### QDW



#### Distribution Boards

- Installation of 4, 8, 12, 18, 24 and 36 circuit breaker modules
- Wall and flush models
- Smoked and white cover finish
- Connection and distribution busbars (optional)
- Neutral and ground busbars (optional)
- Complete line of accessories

### VDI



#### Distribution Boards

- Allow organizing your phone, internet and TV devices in a simple and practical way
- Available in sizes 20x20 cm and 30x30 cm

### TTW01-QD



#### Distribution Boards

- Simplified installation and operations
- Robust and compact structure
- In accordance with the applicable safety standards
- Metal boards in a single set, allowing faster assembly and greater robustness in handling and maintenance
- Wide range of mounting kits, offering a great variety of arrangements

## Building & Infrastructure

### BWW



### Shielded Busbars

- Reduction of the installation space in relation to the conventional cable method
- Executive design of the lines prepared by WEG, and manufacture of customized parts according to the application requirement
- Full WEG support to designers and end customers for specification and application in projects
- Installation time up to 80% shorter than required for conventional cable systems
- Flexibility to position the load supply points with withdrawable box for up to 630 A
- Product certified according to international standard IEC 60.439-2 / IEC 61.439-6 and homologated for use in buildings by the main power utility companies
- With aluminum bars, it offers economic feasibility up to 40% higher in comparison to conventional installations with copper cables
- Wide range of configurations:
  - Copper or aluminum conductors
  - IP31, IP54 or IP55 protection rating
  - Separate bars or bonded bars topology
  - 250 A to 5,000 A rated current
  - Short-circuit capacity up to 120 kA

### PIW



### Industrial Plugs and Sockets

- Interchangeable with other products developed according to IEC 60309
- Resistant to impacts and corrosion
- Protection against indirect contact
- Housing in self-extinguishing thermoplastic PA6 (flammability class V0)
- Frequency: 50 / 60 Hz
- Rated operating voltage:
  - 100/130 V ac - yellow
  - 220/240 V ac - blue
  - 380/440 V ac - red
- Insulation voltage: 600 V ac
- Rated currents: 16 A, 32 A, 63 A and 125 A
- Number of poles: 3 (2P+G), 4 (3P+G) and 5 (3P+G+N)

## Electrical Panels

### CCM



#### Low Voltage Motor Control Centers

- User safety during operation, supervision and maintenance
- Installation in centralized locations to simplify operation and maintenance
- Versatility to command and protect a great number of motors
- Extremely compact design that enables maximum use of space
- Fast and easy maintenance, especially because of the extraction of the drawers and their interchangeability
- Modular system enables easy expansion
- High safety, because it allows the execution of maintenance and other services in a certain device without de-energizing other equipment
- Communication networks: Profibus, Modbus-RTU, DeviceNet, Modbus-TCP, Ethernet/IP, Profinet
- Communication with other PLCs in open protocol network
- Electric-arc resistant: 50 kA and 65 kA
- Short-circuit current: 55/65/80/85/100 kA
- Rated current:
  - Main busbar up to 6,300 A (other on request)
  - Vertical busbar: 1,200 / 1,400 A
- Constructive form: 1, 2, 3a, 3b, 4a and 4b
- Applicable standard: NBR-IEC-60439, IEC-61439 and IEC-61641

### MTW



#### Medium Voltage Switchgears

- Voltage class: 7.2 to 36 kV
- Short-circuit current: 25 / 31.5 / 40 / 50 kA
- Main disconnection and protection of manufacturing plants and industrial installations
- In compliance with IEC 62271-200
- Operation by means of removable circuit breaker
- Reduced dimensions
- Easy mounting and connection
- Simplified inspection
- Internal arc resistant - Classification IAC BF ALR and IAC AFLR

### LCW



#### Low-Voltage Load Centers

- Lower risk of accidents with operators
- Fast and easy maintenance
- Modular system enables easy expansion
- Easy rear access to the electric cable terminals
- Greater reliability on the protection system
- Direct protection: through the tripping devices incorporated to the circuit breakers
- Secondary protection: through the secondary protection relays and CTs (IECs), which can be connected to network (Modbus, DeviceNet, Profibus, IEC 61850)
- Profibus, Modbus-RTU, DeviceNet, Modbus-TCP, Ethernet/IP, Profinet and IEC-61850
- Applicable standard: NBR-IEC-60439
- Internal arc resistant
- Rated currents:
  - Main busbar up to 6,000 A
  - Vertical busbar up to 4,000 A
- Constructive form: 3b and 4b

## Electrical Panels

### PMW01



#### Modular Panels

- Assembly flexibility: simple and easy-to-use modular panel with various dimensions and mounting plates
- Robustness and durability: steel structure and electrostatic polyester paint finish with a minimum thickness of 80 µm
- Quality and reliability: panels in accordance with NBR IEC 62208, IP55 protection rating and door with crémone lock, according to NR10

### TTW01



#### Totally Tested Panels

- In accordance with the requirements of NBR IEC 60439 and NBR IEC 61439
- Operating safety
- Performance reliability
- Fast manufacture and delivery
- Panel assembled by panel builders with the guarantee of WEG quality
- Modularity - allows expansion without requiring electrical mechanical intervention on the existing panel
- Rated current: main bus up to 5,000 A
- Short-circuit current: 65 kA/1s; 80 kA/0.3s
- Constructive form: 1, 2 and 3b

### CCW



#### Compact Medium Voltage Switching and Protection Set Up to 20 kA / 24 kV

- Gas-insulated switchgear and switch disconnecter (opening with load)
- Three positions: open, closed and grounded (with closing to earth capacity)
- Compact dimensions: 375, 500, 750 and 1,000 mm widths
- Easy access to devices (CTs, PTs and lighting arresters)
- Maintenance-free switch disconnecter
- Air isolation from other active parts
- Possibility of expansion

### ELW, EMW and ESW



#### E-Houses

- Shorter project lead time
- Faster field assembly time
- Little infrastructure required at the site (lower mobilization and demobilization costs)
- The assembly at the factory and installation in the field are not subject to weather conditions
- Single engineering to integrate all devices and systems
- Reduction of storage area and field interference
- Better control of processes and quality systems





## Notes

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# Global presence is essential, as much as understanding your needs.

## Global Presence

With more than 30,000 employees worldwide, WEG is one of the largest electric motors, electronic equipments and systems manufacturers. We are constantly expanding our portfolio of products and services with expertise and market knowledge. We create integrated and customized solutions ranging from innovative products to complete after-sales service.

WEG's know-how guarantees our **WEG Automation product lines** are the right choice for your application and business, assuring safety, efficiency and reliability.



**Availability** is to have a global support network



**Partnership** is to create solutions that suit your needs



**Competitive edge** is to unite technology and innovation



# Know More



High performance and reliable products to improve your production process.



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Cod: 50019085 | Rev: 21 | Date (m/a): 06/2021.

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