Industrial Motors

Commercial & Appliance Motors

Automation

Digital & Systems

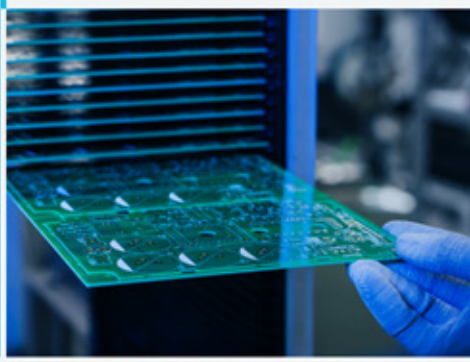
Energy

Transmission & Distribution

Coatings

PRODUCT LINE WEG AUTOMATION

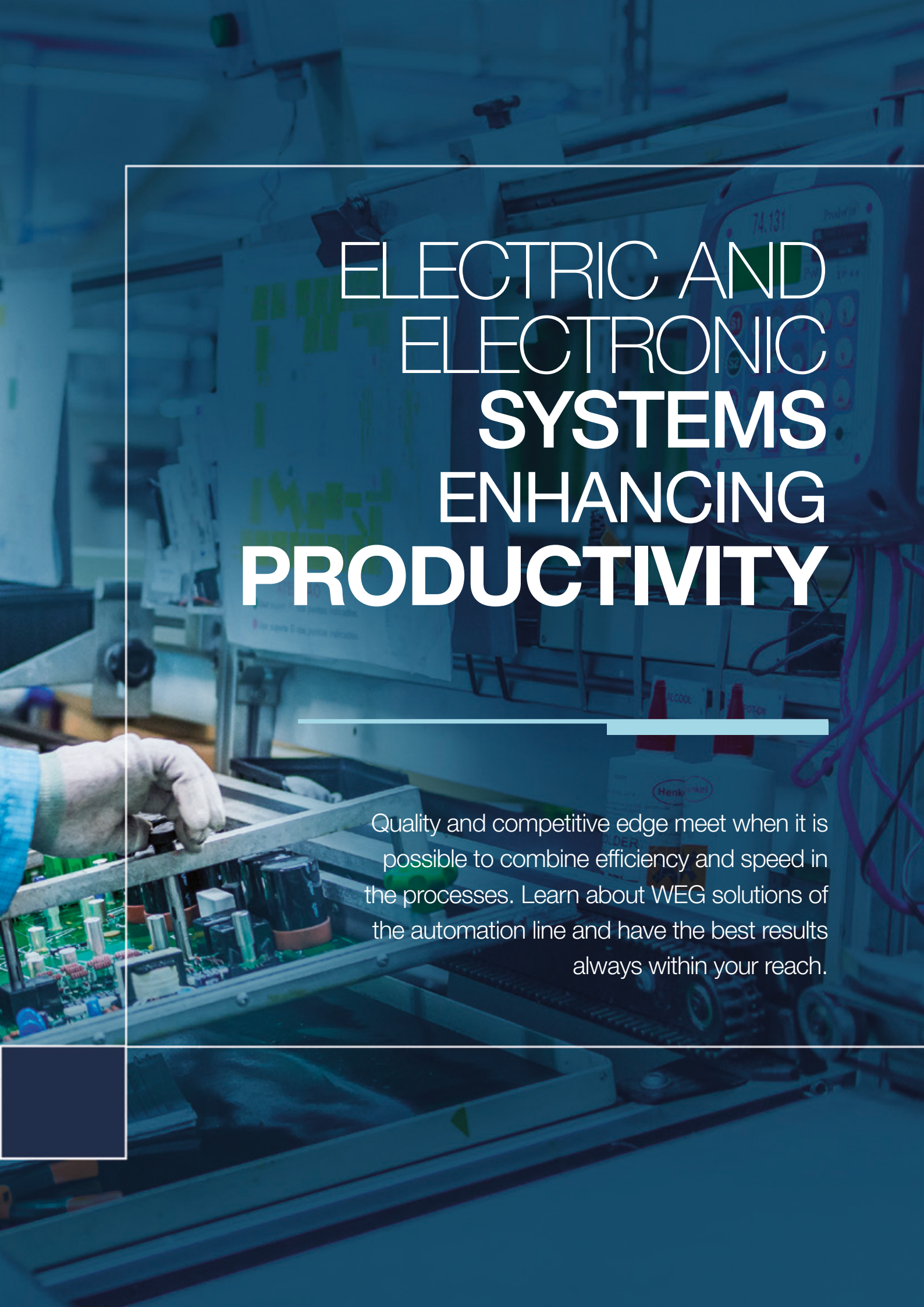
European Portfolio



Driving efficiency and sustainability

SUMMARY


G-KF32
C-8F
C-8H



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
- 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
- Supply voltage: single-phase 110-127 V and 200-240 V, and three-phase 200-240 V and 380-480 V. It also allows DC power supply.
- 4 configurable (PNP or NPN) digital inputs, 1 relay output 0.5 A / 250 VAC, 1 analog input 0-10 VDC / 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 withor 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 (available via accessory)
- 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

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

Variable speed drives

CFW900

Variable speed drives

- Power voltage: 200-240 V, 380-480 V
- Current ratings: 2.8 A to 760 A (1.5 cv /1.1 kW to 550 cv /440 kW)
- Control: Scalar, VVW, vector sensorless, vector with encoder, VVW PM (permanent magnet motors)
- Larger memory with option to use SD card
- Wide power range in a small size
- Size book-type cabinet design
- Special features in standard product:
  - Dual Port Ethernet, RS485, USB and Bluetooth®
  - STO / SS1 functional safety
  - Advanced energy saving
  - Smart thermal management
  - Modbus-RTU
- MQTT protocol - IoT-Ready product
- Modern, graphical HMI
- Plug & Play expansion modules
- Free WPS software for programming and monitoring
- Efficiency class IE2, maximum Eco Design rating - IEC 61800-9

ADV200

Variable speed drives

- Field-oriented vector inverter
- 400 V series:
  - AC power supply: 380 -15%...480 VAC +10%, 50/60 Hz
  - DC power supply: 450...750 VDC
  - Power ratings: from 0.75 kW up to 1.65 MW
- 690 V series:
  - Power supply: 500 VAC -10%...690 VAC +10%, 50/60 Hz
  - DC power supply: 600...1,120 VDC
  - Power ratings: from 160 kW up to 1.65 MW
- Motor type: asynchronous and synchronous motors
- Regulation control modes: FOC with speed feedback, FOC open loop, V/F
- Up to 4 options on board
- *Safe Torque Off* function, SIL3 according to EN 61508 and EN 61800-5-2, PL e according to EN 13849-1
- Fieldbus interface cards: Profibus-DP, CANopen, DeviceNet, EtherCAT, EtherNet/IP, PROFINET
- Software packages dedicated to specific applications (PID, torque winder, electrical line shaft, hoist and crane, positioning)
- PLC environment IEC 61131-3
- RS485 serial line (Modbus-RTU protocol)
- Modbus-TCP/IP-RTU converter
- Heavy duty and light duty overload management
- Efficiency class IE2
- WEG-eXpress multi-language programming SW (5 languages)
- Integrated KB_ADV programming keypad

Variable speed drives

ADV200-LC

Variable speed drives

- Field-oriented liquid cooled vector inverter
- Power supply 380 VAC -15%...480 VAC +10%, 50/60 Hz ±5%
- Power ratings: from 30 kW up to 1.2 MW, higher on request
- Cooling liquid temperature 0...35 °C. Up to 45 °C with current derating
- Flow rate 6...30 l/min, depending on the module size
- +24 VDC supply backup
- Programmable anti-condensation function
- Motor type: asynchronous and synchronous motors
- Regulation control modes: FOC with speed feedback, FOC open loop, V/F
- Up to 4 options on board
- *Safe Torque Off* function, SIL3 according to EN 61508 and EN 61800-5-2, PL e according to EN 13849-1
- Fieldbus interface cards: Profibus-DP, CANopen, DeviceNet, EtherCAT, EtherNet/IP, PROFINET
- PLC environment IEC 61131-3
- RS485 serial line (Modbus-RTU protocol)
- Modbus-TCP/IP-RTU converter
- Heavy duty and light duty overload management
- WEG_eXpress Multi-language programming SW (5 languages)
- Integrated KB_ADV programming keypad

Note: 1) UL/cULus: sizes 4300 to 84000, parallel excluded.

AFW11 / AFW11C

Complete drives with frequency inverter

- Panel mounting with IP42 or IP54 protection rating
- Supply voltage: 220 to 690 V - 50/60 Hz
- Rated output current: 3 to 1,141 A
- Applicable motor: 2 to 900 cv
- Control voltage: 220 V - 50/60 Hz[1)]
- Configurable accessories
- Assembly warranty
- Ease of use
- Metal panel with anticorrosion treatment and set in accordance with NBR IEC 61439
- Standard or customized versions according to the needs of the project

Note: 1) For other control voltages, contact WEG.

Variable speed drives

AFW11M/AFW11W

Modular variable speed drives

- Solution in a compact structure, increasing reliability and simplifying maintenance
- Supply voltage: 380 to 690 V
- Rated output current: 439 to 3,012 A
- Applicable motor: 550 to 2,800 cv
- 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 VDC power supply
- Configurable accessories
- Metal panel with anticorrosion treatment and set in accordance with NBR IEC 61439
- Standard or customized versions according to the needs of the project

MVW01

Medium voltage variable speed drives

- Motor voltages: 2.3 kV up to 6.9 kV
- Powers: 500 to 48,810 HP (410 to 36,360 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 or water cooling
- Internal arc-resistant version
- High efficiency (>99%)
- High power factor (>95%)
- Low noise level (<75 dB)
- Low heat dissipation
- New generation G4, compatible with WEG MFM asset management software

Variable speed drives

MVW3000

Medium voltage variable speed drives

- Motor voltage: 2.3 kV to 13.8 kV
- Motor current: up to 1,140 A[1)]
- 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 startup 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
- New generation G4, compatible with WEG MFM asset management software

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

AFE200

Regenerative power supply unit

- Active front end regenerative power supply unit
- 400 V series:
  - Power supply: 380 -15%...480 VAC +10%, 50/60 Hz
  - Power ratings: from 11 kW up to 1.65 MW
- 690 V series:
  - Power supply: 500 VAC -10%...690 VAC +10%, 50/60 Hz
  - Power ratings: from 160 kW to 1.65 MW
- Heavy duty and light duty overload management
- “Clean Power” thanks to the unit power factor and reduced harmonic distortion (<5%)
- External EMI mains filter (optional)
- Pre-charge kit
- External LCL filter
- Fieldbus interface cards: Profibus-DP, CANopen, DeviceNet, EtherCAT, EtherNet/IP, PROFINET
- Modbus-TCP/IP-RTU converter
- UL-cUL, CE certifications and EAC
- WEG-eXpress multi-language programming SW (5 languages)
- Integrated KB_ADV programming keypad

Variable speed drives

FFE200

Regenerative power supply unit

- Fundamental front end regenerative power supply unit
- 400 V series:
  - Power supply: 380 -15%...480 VAC +10 %, 50/60 Hz
  - Power ratings: from 297 kW up to 2.2 MW
- 690 V series:
  - Power supply: 500 VAC -10%...690 VAC +10%, 50/60 Hz
  - Power ratings: from 476 kW up to 3.2 MW
- Heavy duty and light duty overload management
- Fieldbus interface cards: Profibus-DP, CANopen, DeviceNet, EtherCAT, EtherNet/IP, PROFINET
- Modbus-TCP/IP-RTU converter
- WEG-eXpress multi-language programming SW (5 languages)
- Integrated KB_ADV programming keypad

Application drives

CFW501 HVAC

VSDs

- Supply voltage: 200-240 V, 380-480 V
- Rated currents: 1.0 A to 211 A (0.33 cv / 0.25 kW to 175 cv / 132 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

Application drives

ADV200-WA

HVAC and water treatment

- Field-oriented vector inverter
- 400 V series:
  - AC power supply: 380 -15%...480 VAC +10%, 50/60 Hz
  - DC power supply: 450...750 VDC
  - Power ratings: from 1.5 kW up to 1.8 MW
- 690 V series:
  - AC power supply: 500 VAC -10%...690 VAC +10%, 50/60 Hz
  - DC power supply: 600...1,120 VDC
  - Power ratings: from 200 kW up to 1.8 MW
- Asynchronous motor control
- Regulation control modes: Open Loop FOC, V/F
- DC choke integrated up to 160 kW
- *Safe Torque Off* function, SIL3 according to EN 61508 and EN 61800-5-2, PL e according to EN 13849-1
- PLC environment IEC 61131-3
- RS485 serial line (Modbus-RTU protocol)
- Modbus-TCP/IP-RTU converter
- Interfacing with the more common Fieldbus: Profibus-DP, CANopen, DeviceNet, EtherCAT, EtherNet/IP
- Integrated special functions for HVAC and pumping control and protection:
  - Double PID
  - Integrated Real Time Clock (RTC)
  - HVAC: non-stop operation and bypass, jump resonance frequencies, alarm belt breakage, programming timers
  - Pumps: pressure and flow control, dry run, pump cleaning, multi-pump control, controlled system filling

CFW500 - Solar Drive

Solar pump

- Power supply: 200-240 VAC / 310 VDC; 380-480 VAC / 540 VDC
- Current ranges: 1.0 A to 211 A (0.25 cv / 0.18 kW to 150 cv / 110 kW)
- SoftPLC: with customized functions for solar application
- Double Control PID: DC voltage control with maximum power point tracking (MPPT) and pressure control tube through the connection of a transducer
- Modbus-RTU communication through RS485 as standard
- *Sleep/Wake* function
- Scalar control
- Side-by-side mounting possible
- Off-grid systems

Application drives

CFW11 – Solar Drive

Solar pump

- Power supply: 380-480 V
- Current range: 242 A, 312 A, 370 A
- SoftPLC: with customized functions for solar application
- Overload current of 150% for 60 seconds and ambient temperature up to 50 °C

ADV200-SP

Solar pump drive

- Power supply:
  - DC: 330...800 VDC
  - AC: 380 VAC -15% … 480 VAC +10%, 50/60 Hz, ± 5%
- MPPT voltage range: 350...750 VDC
- Rated power: 1.5 to 400 kW + parallels up to 1.8 MW
- Motor type: asynchronous
- Control: V/F, vector control OL
- Functions: integrated MPPT, dual source control, double PID, specific functions for pump control and protection
- System configuration: isolated (PV alone), dual supply (PV or 2° AC source), hybrid (PV and 2° AC source)
- Communication: Modbus-RTU (RS485 port), Modbus-TCP/IP-RTU converter optional
- Fieldbus: Profibus-DP, CANopen, DeviceNet, EtherCAT, EtherNet/IP
- Keypad: integrated advanced LCD keypad
- Overload:
  - Light duty: 110% x In (for 60”)
  - Heavy duty: 150% x In (1’ each 5‘), 180 % x In (for 0.5”)

Application drives

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
- Built-in switch-disconnector (optional)
- LEDs for status indication
- 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
- Built-in safety functions: STO and SS1, meeting SIL 3/PL e safety performance requirements and in compliance with IEC 61800-5-2, EN ISO 13849-1, EN 62061, IEC 61508 and IEC 60204-1 (available via accessory)

ADV200-HC

Hoist and crane

- Field-oriented vector inverter
- 400 V series:
  - Power supply: 380 -15%...480 VAC +10%, 50/60 Hz
  - DC power supply: 450...750 VDC
  - Power ratings: from 0.75 kW up to 55 kW
- Motor type: asynchronous and synchronous motors
- Regulation control modes: FOC with speed feedback, FOC open loop, V/F up to 4 options on board
- *Safe Torque Off* function, SIL3 according to EN 61508 and EN 61800-5-2, PL e according to EN 13849-1
- Integrated braking chopper
- Fieldbus interface cards: Profibus-DP, CANopen, DeviceNet, EtherCAT, EtherNet/IP, PROFINET
- Customized functions for hoist and crane application
- PLC environment IEC 61131-3
- RS485 serial line (Modbus-RTU protocol)
- Modbus-TCP/IP-RTU converter
- Heavy duty and light duty overload management
- Efficiency class IE2
- WEG-eXpress multi-language programming SW (5 languages)
- Integrated KB_ADV programming keypad

Application drives

ADP200

Drive for servo pump control

- Applications: hybrid injection molding, die casting, servo-hydraulic presses and bending machines
- Power supply: 3ph 230-400-480 V (-15% / +10%) @ 50/60 Hz
- Rated power: 4 to 37 kW (3 x 230 V); 7.5 to 75 kW (3 x 400 V)
- Motor type: synchronous
- Control: FOC closed loop
- Feedback: resolver, opt cards for TTL digital / Sinusoidal / Endat-SSI / SinCos / Hiperface
- Functions: dedicated PID for flow and pressure control, pressure sensor status control, adaptive feedforward, pressure oscillation damping, automatic switchover between pressure and flow control
- System configuration: single and multi-pump control
- Communication: Modbus-RTU (RS485 port), CANopen
- Smart com: SD card for parameter set saving
- Keypad: integrated basic LED keypad, optional advanced LCD keypad
- Enclosure: IP20
- Overload: 170% x In (for 60sec), 200% x In (for 3sec)
- EMI filter: integrated in -F version

ADL510

Inverter for elevators - low rise and modernization

- Power supply: 3ph 380-400 V (-15% / +10%) @ 50/60 Hz
- Rated power: 4 to 22 kW
- Motor type: geared (asynchronous)
- Control: sensorless scalar control (SSC), field-oriented control CL (Asyn FOC)
- Encoder: TTL/HTL incremental digital and sinusoidal encoder interface
- Elevator control mode: Multi-speed (EFC)
- Functions: energy saving calculator
- Communication: Modbus-TCP (RJ45 port) for direct or LAN connection
- Keypad: optional advanced LCD keypad
- Enclosure: IP20
- Overload: 183% x 10s
- EMI filter: integrated in -F version
- Emergency power supply: UPS or battery
- Wizards: drive set-up, start-up, optimization and troubleshooting

Application drives

ADL530

Inverter for elevators - mid rise

- Power supply:
  - 3ph 230-400-480 V (-15% / +10%) @ 50/60 Hz
  - 3ph 200-230 V ±10% @ 50/60 Hz
- Rated power: 5.5 to 22 kW (3 x 200 V); 4 to 45 kW (3 x 400 V)
- Motor type: geared (asynchronous), gearless (synchronous)
- Control: Sensorless Scalar Control (SSC), field-oriented control CL (Asyn and Syn FOC)
- Encoder: universal multi-encoder interface (TTL/HTL Incremental digital and sinusoidal / Endat / Biss / SinCos / SSI)
- Elevator control mode: multi-speed (EFC), CANopen Lift 417
- Functions: energy saving calculator, Anti-roll back
- Communication: Modbus-TCP (RJ45 port) for direct or LAN connection, CANopen 301 and 417
- Smart com: USB multifunction port, Wi-Fi optional module for WEG_Liftouch app interface
- Keypad: optional advanced LCD keypad
- Enclosure: IP20
- Overload: 183% x 10s
- EMI filter: integrated in -F version
- Emergency power supply: UPS or battery
- Wizards: drive set-up, start-up, optimization and troubleshooting

Application drives

ADL550

Inverter for elevators - high rise

- Power supply:
  - 3ph 230-400-480 V (-15% / +10%) @ 50/60 Hz
  - 3ph 200-230V ±10% @ 50/60 Hz
  - 1ph 200-230 ±10% @ 50/60 Hz
- Rated power:
  - 2 to 7.5 kW (3 x 230 V)
  - 4 to 15 kW (3 x 400 V)
  - 1.1 to 5.5 kW (1 x 200 V)
- Motor type:
  - Geared (asynchronous)
  - Gearless (synchronous)
- Control:
  - Sensorless scalar control (SSC)
  - Field-oriented control CL (Asyn and Syn FOC)
- Encoder: universal multi-encoder interface (TTL/HTL Incremental digital and sinusoidal / Endat / Biss / SinCos / SSI)
- Elevator control mode:
  - Multi-speed (EFC)
  - CANopen Lift 417
  - Position control for direct approach (EPC)
- Functions:
  - Energy saving calculator
  - Anti-roll back
  - Safety functions
  - Peripheral encoder control
  - Stand-by
- Safety: STO SIL3, Safe Brake Test, Electronic Brake Control (with EBC500 module)
- Communication: Modbus-TCP (RJ45 port) for direct or LAN connection, CANopen 301 and 417
- Smart com: USB multifunction port, Wi-Fi optional module for WEG_ Liftouch app interface
- Keypad: optional advanced LCD keypad
- Expansion card: for I/O extention
- Enclosure: IP20
- Overload: 183% x 10s, 200% x 2s
- Operating temp: up to 50 °C (without derating)
- EMI filter: integrated in -F version
- Battery power supply: -EMS version (48-96 VDC) for emergency
- Wizards: drive set-up, start-up, optimization and troubleshooting

EBC500

Electronic brake control for elevators

- Accessory for ADL550 for electronic brake control
- Contactor-free (certified in accordance with EN 81-20/50)
- Up to 2 brake circuits, 2 x 3.5 Arms max
- Output voltage: 0-207 VDC (typ. 105 VDC, 207 VDC)
- Power supply: 115 VAC - 230 VAC ±5%, @ 50/60 Hz
- Enclosure: IP20
- DIN rail mounting
- CANopen communication with ADL550
- Monitoring of the current circulating into brake coils

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

SSW07

Soft-starters

- Currents: 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

Soft-starters

SSW08

Soft-starters

- Currents: 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 VAC or 380 to 690 VAC
- 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
- Free WPS programming and monitoring software
- Conformal coating: standard class 3C2 electronic board varnishing; 3C3 optional

Soft-starters

SCA06

Servodrives

- 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

Servo drives

SWA

Servomotors

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

DC-Drive

TPD500

AC/DC converters

- Digital AC/DC converter with 2- and 4-quadrant operation and integrated field controller
- Suitable for DC motors, electromagnets, and electrolytic cell control
- 6- and 12-pulse configurations (series and parallel)
- AC supply voltage:
  - 3x 230...500 VAC ±10%, 50/60 Hz ±5%
  - 3x 350...690 VAC ±10%, 50/60 Hz ±5%
  - Customized solution available on request
- DC output current:
  - 20...3300 ADC (single bridge)
- Speed feedback options:
  - 2x digital incremental encoder (HTL/TTL)
  - 1x tachogenerator
- Smart keypad:
  - LCD display: for intuitive navigation
  - USB port: download/upload drive parameters, FW update
  - Wi-Fi port: supports Wi-Fi DriveLink module (optional) for wireless PC connection
  - Remote installation kit (optional): for cabinet door mounting
- RJ45 Ethernet port (Modbus-TCP protocol)
- I/O expansion (optional)
- Fieldbus interface cards (optional): Profibus, PROFINET, EtherNet/IP
- Fiber optic communication card (optional): for intra-drive connectivity
- Safety card (optional): supports STO and SBC safety functions
- WEG_DriveLabs: PC-based tool for drive commissioning and monitoring
- WEG_DriveLogic: custom application development environment (IEC 61131-1 standard)
- Application available as default: PID control and torque winder
- Degree of protection:
  - IP20 (compact version)
  - IP00 (version with external power bridge)

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

CE

SBM200

AC/DC power suppliers

- AC/DC power supply units
- 400 VAC series:
  - Power supply: 230 VAC -10% … 500 VAC +10%, 50/60 Hz
  - Rated power: from 490 kW up to 3.8 MW - overload 150%
- 690 VAC series:
  - Power supply: 500 VAC -10% … 690 VAC +10%, 50/60 Hz
  - Rated power: from 700 kW up to 6.6 MW - overload 150%
- SMB200 is suitable for powering both single and multiple DC/AC inverters connected to a common DC bus

CE

AC/DC converter

SM32

AC/DC power suppliers

- AC/DC power supply units
- 400 VAC series:
  - Power supply: 230 VAC -10% … 480 VAC +10%, 50/60 Hz
  - Rated power: from 100 kW up to 1.6 MW - overload 150%
- 690 VAC series:
  - Power supply: 500 VAC -10% … 690 VAC +10%, 50/60 Hz
  - Rated power: from 745 kW up to 1.3 MW - overload 150%
- SM32 is suitable for powering both single and multiple DC/AC inverters connected to a common DC bus

CE

Remote units

RUW100

Remote units

- Allows expanding 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
- 24 VDC power supply
- Connectivity to Modbus (RS485) and CANopen (CAN) networks and complete integration with the process network

CE

Programmable logic controllers - PLCs

Clic02 3rd

CE

Programmable logic controllers

- Maximum configuration of 55 I/O points, using up to three expansions
- Power supply: 12 VDC, 24 VDC or 110/220 VAC - 50/60 Hz
- Real time clock
- Online message view and parameter change
- Fast inputs up to 1 kHz
- Burst and PWM output
- Modbus communication
- LCD display (4 lines x 16 characters)
- Arithmetic functions (addition/subtraction/multiplication/division)
- *PID control* function
- Free Clic Edit programming software
- Programming in ladder or function block diagram

PLC300

CE

Programmable logic controllers

- PLC300 logic controller, versions with and without HMI
- 10 digital inputs and 1 analog input
- 9 digital outputs (1 fast) and 1 analog
- Battery voltage monitoring, informing when to change without losing the application
- *PWM ramp* function
- Internal flash memory that allows automatic recovery of the resource in case of battery failure
- 5 built-in ports: Ethernet, CANopen, RS232, RS485 and USB
- Expansion of digital and analog inputs and outputs via CANopen or CFW11 modules
- SD (Secure Device)[1)] memory card to store data, programs and event logs
- Programming in ladder language via WPS software (WEG Programming suite), according to IEC 61131-3
- Built-in encoder input (100 kHz)

Note: 1) SD card not included.

Programmable logic controllers - PLCs

PLC200/PLC201

Programmable logic controllers

- Extremely compact and modular design
- Powerful 400 MHz Cortex M7 RAM processor
- Flash memory / retentive RAM / non-retentive RAM - 1 MB / 4 KB / 128 KB
- Digital inputs / digital outputs 8 / 4 (PNP)
- 4 fast dual channel inputs up to 150 kHz
- Ethernet protocol supported: Modbus-TCP / EtherNet/IP (adapter)
- Serial protocols supported: Modbus-RTU[1)] or CANopen[2)]
- IoT protocols (MQTT: publisher/subscriber)
- Micro USB port for programming
- 1 x Ethernet port
- 1 x RS485[1)] or CAN[2)] port
- Up to 08 local expansions supported

Notes: 1) PLC200 model supports the Modbus-RTU protocol.
2) PLC201 model supports the CANopen protocol.

PLC410

Programmable logic controllers

- DUAL core 400 MHz processor + COP. 200 MHz
- RAM / flash memory: 265 MB / 4 GB
- Data / code / retentive / persistent memory: 8 MB / 16 MB / 64 kB / 16 kB
- Digital inputs / outputs: 8 / 8 (PNP)
- Protocols supported: CANopen / Modbus-RTU / Modbus-TCP / EtherNet/IP / EtherCAT / PROFINET
- Up to 08 local expansions supported
- 4 x fast inputs at up to 150 kHz
- MQTT protocol

PLC500

Programmable logic controllers

- Standard, Edge Device and Motion Controller versions
- IMX Dual Core 1 GHz Processor + Coprocessor @ 240 MHz
- RAM / flash memory: 1 GB / 4 GB
- Extremely compact and modular design
- Control of up to 32 axes in the Motion Controller version
- Digital inputs / digital outputs: 8 / 8 (PNP)
- 4 x fast inputs at up to 150 kHz
- Protocols supported: CANopen / Modbus-RTU / Modbus-TCP / EtherNet/IP / EtherCAT / PROFINET
- MicroSD card slot
- USB Host input
- USB programming input
- 2 x Gigabit Ethernet ports
- Up to 08 local expansions supported
- MQTT protocol

Operator interfaces

MT

Operator interfaces

- Available sizes: 4.3” and 7”
- Low energy consumption
- Lifespan of over 30,000 hours of running time
- Resistive touchscreen
- Free EasyBuilder Pro programming software
- Remote access to HMI via EasyAccess 2.0 activation card
- 10/100 Base-T Ethernet port
- 128 MB RAM
- 256 MB flash memory
- RS232 and RS485 communication supported

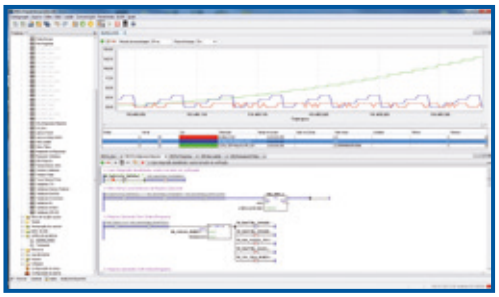
cMTx

Operator interfaces

- Available sizes: 7”, 10.1” and 15.6”
- Capacitive screen for 15.6” models
- Programming function activation via CODESYS®
- Remote access to HMI via EasyAccess 2.0 activation card
- MQTT protocol
- Multi-touch screen
- 4 GB RAM
- 1 GB flash memory
- 10.1” models support Wi-Fi connection module
- Modbus-RTU and TCP/CANopen and SAE J1939

Free software applications

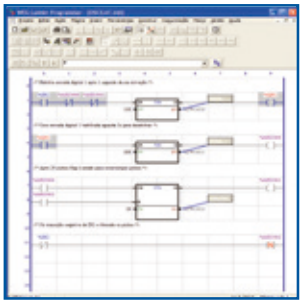
WPS



WEG Programming Suite

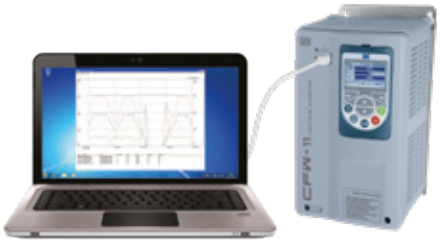
- Integrated tool, same software, enabling programming and monitoring of PLC, servo drive and frequency inverters
- Logic monitoring and on-line charts, recipe edition, handling of the SD card files
- Software application development
- SoftPLC logic programming using ladder language according to IEC 61131-3
- Mathematical PLC blocks, counters, timers
- Saving of software application (via SoftPLC)
- USB or Bluetooth® connection
- Communication with the inverter, servo drive and soft-starter lines
- Parameter setting, control and indication
- Programming wizard
- On-line help and monitoring

WLP



WEG Ladder Programmer

- Software application development
- Function programming
- SoftPLC
- Ladder language
- Mathematical PLC control blocks
- Online monitoring and help
- USB connection



SuperDrive G2

- USB connection with inverter, servo drive and soft-starters
- Parameter setting, control and indication
- Saving of software application (via SoftPLC)
- Online help and monitoring

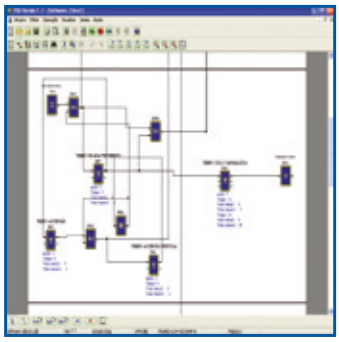
Free software applications

Trace function

- Customizable tool that monitors and stores variable logs in the inverter memory, activated by an event (e.g., overload)
- Registration and graphical view of the inverter variables
- Excellent tool for troubleshooting in remote locations
- Oscilloscope simulation
- Included with SuperDrive G2 and WPS software

Available on the website: www.weg.net

Clic Edit V3



- Clic02 3rd programming
- Language in Portuguese Ladder or FBD type
- Online monitoring and editing

Available on the website: www.weg.net

Motor start and protection

CWB

Contactors

- Modern solution for currents up to 225 A (AC-3)
- 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
- Also available with extended voltage range electronic coils
- More compact assemblies of motor starters
- Developed according to IEC 60947 and UL 60947 international standards
- Wide range of accessories

CWM

Contactors

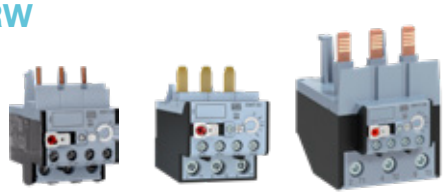
- Options from 9 to 800 A (AC-3)
- 3-pole and 4-pole contactors
- Quick mounting on 35 mm DIN rail or screw mounting
- Contactors available in several command voltages and frequencies (AC or DC)
- Direct mounting of contactors on overload relays up to 105 A
- Wide range of accessories
- Easy connection 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

Motor 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
- Automatic, local (manual) or remote reset via 24 V signal
- 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 (Ue ≤ 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

Motor start and protection

RTW17, RMW17, 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) or multifunction (ERWT)
  - Voltage monitoring relays: single monitoring (RMW17) or multifunction (ERMW)
  - Level relays: filling and draining (RNW)

SRW01

Smart relays

- Reliability and accuracy in monitoring, operation and protection of low voltage electric motors
- Supply voltage: 24 VAC / VDC or 110/240 VAC / VDC
- Plug & Play philosophy
- Modular design
- Communication networks: Modbus-RTU, Profibus-DP, DeviceNet or EtherNet
- USB port
- Free WLP programming software (WEG Ladder Programming)
- Optional:
  - 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, CSW-M 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

LTW

Tower lights

- Modular product that allows the assembly of up to 5 indication modules
- Easy identification of machine and equipment status
- Continuous or flashing indication modules
- Audible module (buzzer)
- Degree of protection IP55

Electrical circuits protection

MMW

Multimeters of electrical quantities

- Measurement of electrical quantities, THD, individual harmonics and direct and reverse energy
- Memory for up to 10 years of records depending on the version
- LED display, alphanumeric LCD or graphic LCD
- Communication with isolated RS485 serial output, Modbus-RTU protocol, and a version with Modbus-TCP Ethernet port and MQTT (IoT ready)
- 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
- Compatible with the WEG Energy Management software

CE

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

CE

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

Electrical circuits protection

FNH

aR ultra-fast fuses and gL/gG circuits protection

- Class aR (690 or 800 V) - short-circuit protection
- 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
- Technical specification according to IEC 60269 standard
- High breaking capacity

CE

ABW/ABWC

Air circuit breakers

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

CE

VBW

Vacuum circuit breakers

- Rated voltage of 17.5 kV and 24 kV
- Distance between poles: 150 mm for the 17.5 kV model and 230 mm for the 24 kV model
- Short-circuit breaking capacity up to 21 kA for the 24 kV model and 31.5 kA for the17.5 kV model

Electrical circuits protection

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 V) e 150 kA (415 V)
- Broad range of internal and external accessories
- Trigger options:
  - Adjustable thermal and fixed magnetic
  - Adjustable thermal and magnetic
  - Eletronic LSI
  - Magnetic only
- Network communication: Modbus (optional)

AGW

Molded-case circuit breakers

- Designed in compliance with IEC 60947-2 standard
- Breaking capacity from 18 to 45 kA @ 380 V
- Available in 5 frames and currents from 15 to 800 A
- Complete range of accessories
- Fixed magnetic and thermal protections

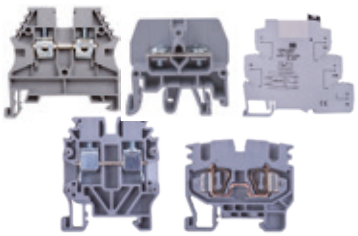
DWB/DWA

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
- Capacidade de interrupção de curto-circuito até 80 kA (380/415 V)
- Models with adjustable thermal and magnetic releases
- Broad range of internal and external accessories
- DWB1000 and DWA1600 with Modbus-RTU, NFC and LSIG electronic protection

Electrical connectors

BTW



CE

Terminal blocks

- Screw line: cables from 0.5 to 240 mm^2
- Cage clamp line: cables from 0.5 to 10 mm^2
- Push-in line: cables 0.5 to 10 mm^2
- Lug line: cables 0.5 to 10 mm^2
- Wide range of accessories
- Relay line:
  - Single 6 A or double 8 A reversible contact
  - Plug-in relay
- Mini terminal screw line: cables 0.5 to 4 mm^2
- Mini terminal cage clamp line cables: 0.5 to 2.5 mm^2
- 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

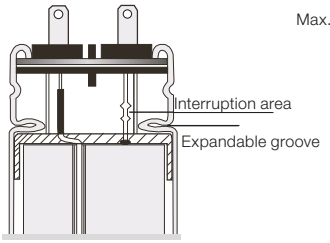


Fig. 1 Internal view of UCWs

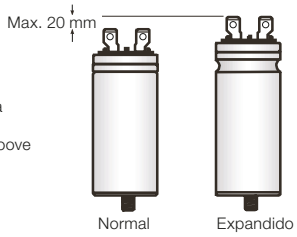


Fig. 2 UCW normal x UCW expanded

UCW

Single-phase capacitive units

- Power up to 10 kVAr, diameters from 40 to 75 mm and 535 VAC
- 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
- Fast-on and Phillips terminals
- Heavy duty or ultra heavy duty versions

MCW

Three-phase capacitor modules

- Power: up to 60 kVAr and 480 VAC
- Single phase capacitive units in delta connection
- 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 VAC
- Capacitors connected in delta
- General protection with “NH” fuses or circuit breakers
- Electronic timing relay that protects the capacitors in the reenergizing

BCWA

Automatic capacitor bank

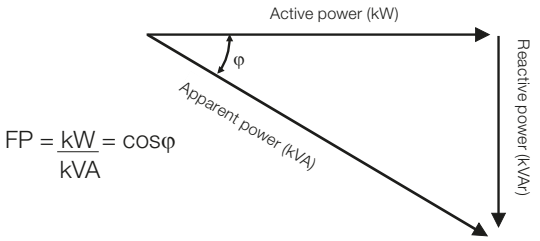
- Power: 20 to 120 kVAr
- Voltages: 220 V to 480 V 60 Hz
- General and 7-stage protection circuit breaker, with automatic PF controller
- Optimized, facilities with grid-connected photovoltaic system
- Distribution of the stage powers for greater accuracy in correction
- Optimized for installations with grid-connected photovoltaic system or conventional installations in need of PF correction

Power factor correction

Power factor | *Energy efficiency factor*

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)

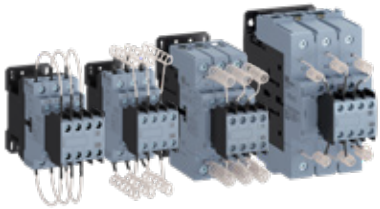


$$FP = \frac{kW}{kVA} = \cos\varphi$$

(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 100 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

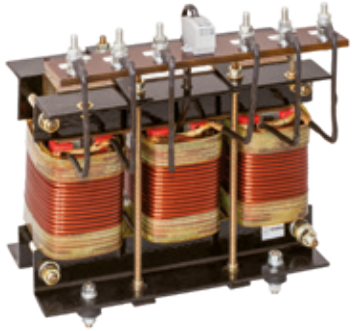
PFW

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, 440 and 480 (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
- Application as a filter for harmonic distortions in the capacitor bank

Safety

3-stage safety foot switch

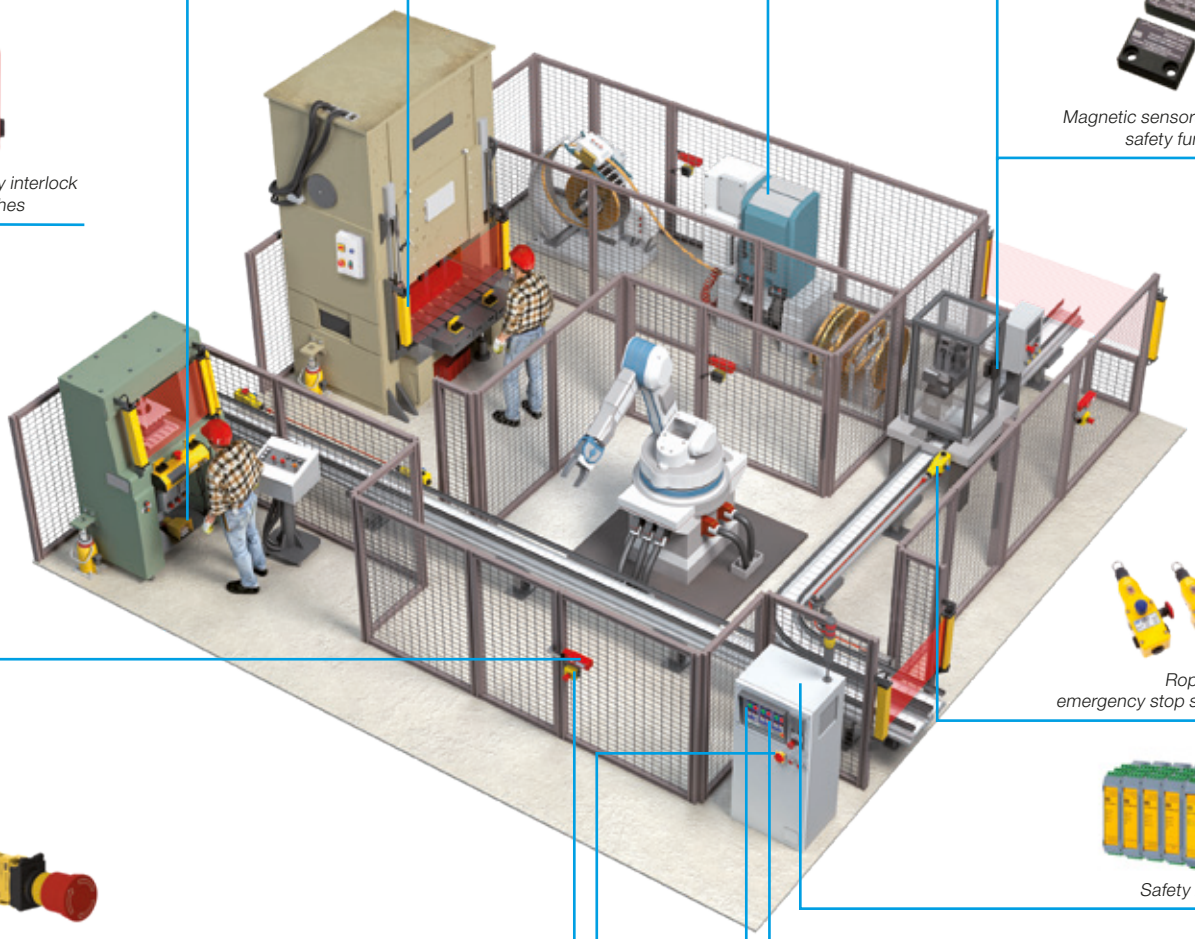
Safety light screens

Limit switches

Magnetic safety switch with radio frequency

Magnetic sensors with safety function

Safety interlock switches



Rope pull emergency stop switch

Safety relays

Emergency-stop push-button with monitored contact

Safety PLC

Compact switch-disconnectors

Contactors for safety applications

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
- Supply voltage: 24 VDC
- 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

CEC

Rope pull emergency stop switches

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

M5

Magnetic sensors with safety function

- Used to monitor grilles, doors, gates or the like
- Power supply directly on the safety relay (model M5)
- Coded actuator
- Protection rating IP67 and IP69K
- Category 4/PL e/SIL 3 – with WEG safety relay

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

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
- 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...125 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 and CE
- Units assembled and tested at the factory

CPSW

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 VDC power supply
- Push-in terminals
- Safety category SIL 3 / PL e / Cat 4

Safety

PISW

3-stage safety pedals

- 3 actuation stages
- Monitored contact block with positive trip
- Guard to avoid inadvertent actuation
- Must be used with the CSD201 relay and CP-D/CPA-D/CPW22 emergency stop relay
- Protection degree IP65

PMSW-I

Inductive sensors

- Cylindrical shape
- Detection of metal parts
- Models:
  - (F1) distance extends - M12, M18 and M30
  - (SC) Reduced size - M12, M18 and M30
  - (AL) aluminum detection - M50 and M70
- Protection against overload
- Metal housing (F1 line and reduced size)
- Plastic housing (Aluminum detection)
- 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)

Industrial sensors and power supplies

PSS24W

CE

Switched-mode power supplies

- Output voltage: 24 VDC
- 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

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 and metalic material
- Complies with international standards IEC/EN 60947-5-1 (and UL 508 for LSW-P)
- Positive opening on the NC (normally closed) contacts
- Can be used for indication, detection, limitation, monitoring and rigid object counting
- Thermoplastic housings and metalic housing
- Double insulation
- IP65 protection rating

Building & Infrastructure

MDW and MDWP

Miniature circuit breakers 3 and 6 kA

- Curves B and C
- Rated currents: 2 to 63 A
- 1, 2, 3 and 4 poles
- Short-circuit breaking capacity:
  - 3 kA - NBR NM 60898 (residential purpose)
  - 5 kA - IEC/EN 60947 (industrial purpose)
- Padlock (optional)
- Auxiliary contact block (optional MDW)
- Auxiliary contact block with *Alarm* function (optional MDWS)
- Remote disconnect coil (optional MDW)
- Undervoltage release (optional MDW)

MDWS

Miniature circuit breakers 6 kA

- Currents: 2 to 63 A
- Curves B, C and D
- 1 pole (1P), 2 poles (2P), 3 poles (3P), 4 poles (4P), 1 pole with neutral (1P + N) and 3 poles with neutral (3P + N)

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 electrical circuits with rated currents up to 100 A
- Two, three and four poles
- Compliance with IEC 60947-3 standard
- Lock with padlock may be included (optional)
- Auxiliary contact block (optional)

RDWS and RDWH

Residual current devices

- Current leakage protection
- RDWS model AC
- RDWH model A
- 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

TTW01-QD

Modular panels tested according to NBR IEC 61439

- According to the requirements of NBR IEC 61439-1/2/3
- Simplified installation and operations
- Robust, compact structure with excellent paint finish
- Metallic panels in a single assembly, allowing faster mounting and greater robustness in handling and maintenance
- Wide range of mounting kits, allowing a great variety of arrangements
- Wall and flush versions with optional base plate
- Modular component capacity of up to 315 poles of DIN miniature circuit breakers
- Compatible with molded-case circuit breakers with current ratings up to 630 A

TTW01

Type-tested assembly system NBR IEC 61439

- According to the requirements of NBR IEC 61439-1/2/3
- Operational safety
- Performance reliability
- Fast manufacture and short lead time
- Panel assembled by integrators with WEG quality guarantee
- Modularity – expansion without requiring electrical/mechanical intervention on the existing panel
- Rated current: main busbar up to 5,000 A
- Short-circuit current: 65 kA/1s; 80 kA/0.3 s
- Mounting: 1, 2 and 3b
- Configurations of distribution boards or motor starters with drives
- Compatible with feeders via the BWW04 shielded busbar
- Busbars and insulators standardized by the original manufacturer (WEG), ensuring greater precision and reliability in the assemblies carried out by integrators
- Wide network of qualified integrators to serve the various industries and LV distribution in general

BWW

Shielded busbars

- Reduced installation space in relation to the conventional cable method
- Engineering design of the lines prepared by WEG, and manufacturing of customized parts according to the application requirements
- Full WEG support to designers and end customers for specification and application in projects
- Installation time up to 80% shorter than required for conventional cabled 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 120 kA

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Global Presence

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