

DATASHEET

Variable Speed Drives



Main Features

Reference : EUCFW110760T4OYZ
 Product code : 12711173
 Product line : CFW11

Basic data

Power supply : 380-480 V
 Input minimum-maximum voltage :
 Number of phases :
 Input :
 Output :

| Supply voltage range | 380-480 V | | 380-480 V | |
|--------------------------|-------------|------------|-------------|------------|
| | Normal (ND) | Heavy (HD) | Normal (ND) | Heavy (HD) |
| Overload regime | | | | |
| Rated current | 760A | 600 | | |
| Overload current at 60 s | 836A | 900A | | |
| Overload current at 3 s | 1140A | 1200.0 | | |

Maximum applicable motor

| Voltage/Frequency | Power (HP / kW) [1] | |
|-------------------|----------------------|---------------------|
| | Normal Overload (ND) | Heavy Overload (HD) |

Dynamic braking [2] : Standard without braking
 Electronic supply : Internal
 Safety Stop : Yes
 RFI internal filter [3] : With filter (C3 category)
 External filter :
 Link Inductor :
 Memory card : Included in the product
 USB port : Standard in the product
 Line frequency : 50/60Hz
 Line frequency range (minimum - maximum) : 48-62 Hz
 Phase unbalance : Less or equal to 3% of input rated line voltage
 Transient voltage and overvoltage : Category III
 Rated current of single-phase input
 - Overload (ND) :
 - Overload (HD) :
 Rated current of three-phase input
 - Overload (ND) : 760A
 - Overload (HD) : 600A
 Power factor :
 Displacement factor : 0,98
 Rated efficiency :
 Maximum connections (power up cycles - on/off) per hour : 60
 DC power supply :
 Standard switching frequency
 - Overload ND : 2 kHz
 - Overload HD : 2 kHz
 Selectable switching frequency :
 Real-time clock : Yes, in the HMI
 COPY Function : Yes, by HMI/MMF
 Dissipated power:

| Mounting type | Overload | | Overload (*) | |
|---------------|----------|----|--------------|----|
| | ND | HD | ND | HD |
| Surface | | | | |
| Flange | | | | |

Source available to the user

Output voltage :
 Maximum capacity :

Control/performance data

Power supply : Switched-mode power supply
 Control method : V/f, VVW, Vector and PM motor
 Encoder interface : Only with 'Slot 2' accessory
 Control output frequency : 0 to 300 Hz
 Frequency resolution : Equivalent to 1 rpm
 V/F Control
 - Speed resolution : 1% of rated speed

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Control/performance data

| | |
|-----------------------------|------------------------|
| - Speed range | : 1:20 |
| VVW Control | |
| - Speed resolution | : 1% of rated speed |
| - Speed range | : 1:30 |
| Sensorless vector control | |
| - Speed resolution | : 0,5% of rated speed |
| - Speed range | : 1:100 |
| Vector control with encoder | |
| - Speed resolution | : 0,05% of rated speed |
| - Speed range | : Up to 0 rpm |

Analog inputs

| | |
|-------------------------------|--------------------------------|
| Quantity (standard) | : 2 |
| Levels | : 0-10V, 0/4-20mA and -10-+10V |
| Impedance | |
| - Impedance for voltage input | : 400 k Ω |
| - Impedance for current input | : 500 Ω |
| Function | : Programmable |
| Maximum allowed voltage | : \pm 30 Vcc |

Digital inputs

| | |
|--------------------------------------|-----------------------|
| Digital inputs - Quantity (standard) | : 6 |
| Activation | : Active low and high |
| Maximum low level | : 3 V |
| Minimum high level | : 18 V |
| Input current | : 11 mA |
| Maximum input current | : 13,5 mA |
| Function | : Programmable |
| Maximum allowed voltage | : 30 Vcc |

Analog outputs

| | |
|--|-------------------------------------|
| Analogic outputs - Quantity (standard) | : 2 |
| Levels | : 0 to 10V, 0 to 20mA and 4 to 20mA |
| RL for voltage output | : 10 k Ω |
| RL for current output | : 500 Ω |
| Function | : Programmable |

Digital outputs

| | |
|---------------------------------------|------------------|
| Digital outputs - Quantity (standard) | : 3 NO/NC relays |
| Maximum voltage | : 240 Vca |
| Maximum current | : 1 A |
| Function | : Programmable |

Communication

- Modbus-RTU (with accessory: RS485-01; RS485-05; CAN/RS485-01; RS232-01 or RS232-05)
- Modbus/TCP (with accessory: MODBUSTCP-05)
- Profibus DP (with accessory: PROFDP-05)
- Profibus DPV1 (with accessory: PROFIBUS DP-01)
- Profinet (with accessory: PROFINETIO-05)
- CANopen (with accessory: CAN/RS485-01 or CAN-01)
- DeviceNet (with accessory: DEVICENET-05; CAN/RS485-01 or CAN-01)
- EtherNet/IP (with accessory: ETHERNET/IP-05 or ETHERNETIP-2P-05)
- EtherCAT (with accessory: ETHERCAT-01)
- BACnet (with accessory: RS485-01 or CAN/RS485-01)

Protections available

- Output overcurrent/short circuit
- Power supply phase loss
- Under/Overvoltage in power
- Overtemperature
- Motor overload
- IGBT's modules overload
- Fault/External alarm
- Breaking resistor overload
- CPU or memory failure
- Output phase-ground short circuit

Operation interface (HMI)

| | |
|-----------------------------------|------------------------------|
| Availability | : |
| Installation | : |
| Number of HMI buttons | : |
| Display | : |
| Indication accuracy | : |
| Speed resolution | : |
| Standard HMI degree of protection | : IP56 |
| HMI battery type | : CR2032 |
| HMI battery life expectancy | : 10 years |
| Remote HMI type | : Detachable of the inverter |

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Operation interface (HMI)

Remote HMI frame : Accessory
 Remote HMI degree of protection : IP56

Ambient conditions

Enclosure : IP20
 Degree of pollution : 2
 Temperature :
 - Minimum :
 - Nominal [4] :
 Current reduction factor [5] :
 Relative humidity (non-condensing) :
 - Minimum : 5%
 - Maximum : 90%
 Altitude :
 - Rated conditions : 1000 m (3281 ft)
 - Maximum altitude allowed for operation : 4000 m (13123 ft)
 Current Reduction factor[6] :
 - Current derating factor (for altitudes above rated) : 1% for each 100 m above
 - Voltage derating factor (for altitudes above 2000 m / 6562 ft) : 1,1% for each 100 m above

Sustainability policies

RoHS : Yes
 Conformal Coating :

Dimensions

Size : G
 Height :
 Width :
 Depth :
 Weight :

Mechanical installation

Mounting position : Surface or flange
 Fixing screw :
 Tightening torque :
 Allows side-by-side assembly :
 Minimum spacing around the inverter :
 - Top :
 - Bottom :
 - Front :
 - Side :

Electrical connections

Cable gauges and tightening torque:

| | Recommended cable gauge to 75 °C (167 °F) | Recommended tightening torque |
|-----------|---|-------------------------------|
| Power | | |
| Braking | | |
| Grounding | | |
| Control | | |

Additional specifications

Maximum breaking current :
 Minimum resistance for the brake resistor :
 Recommended aR fuse :
 Recommended aR fuse :
 Recommended circuit breaker :
 Recommended circuit breaker :

Standards

| | |
|-------------------------------|---|
| Safety | <ul style="list-style-type: none"> - UL 508C - Power conversion equipment. - UL 840 - Insulation coordination including clearances and creepage distances for electrical equipment. - EN 61800-5-1 - Safety requirements electrical, thermal and energy. - EN 50178 - Electronic equipment for use in power installations - EN 60204-1 - Safety of machinery. Electrical equipment of machines. Part 1: General requirements. Note: To have a machine in accordance with this standard, the machine manufacturer is responsible for installing an emergency stop device and supply disconnecting device. - EN 60146 (IEC 146) - Semiconductor converters. - EN 61800-2 - Adjustable speed electrical power drive systems - Part 2: General requirements - Rating specifications for low voltage adjustable frequency AC power drive systems. |
| Electromagnetic compatibility | EN 61800-3 - Adjustable speed electrical power drive systems - Part 3: EMC product standard including specific test methods. |



- EN 55011 - Limits and methods of measurement of radio disturbance characteristics of industrial, scientific and medical (ISM) radio-frequency equipment.
- CISPR 11 - Industrial, scientific and medical (ISM) radio-frequency equipment - Eletromagnetic disturbance characteristics - Limits and methods of measurement.
- EN 61000-4-2 - Eletromagnetic compatibility (EMC) - Part 4: Testing and measurement techniques - Section 2: Electrostatic discharge immunity test.
- EN 61000-4-3 - Eletromagnetic compatibility (EMC) - Part4: Testing and measurement techniques - Section 3: Radiated, radio-frequency, electromagnetic field immunity test.
- EN 61000-4-4 - Eletromagnetic compatibility (EMC) - Part4: Testing and measurement techniques - Section 4: Electrical fast transient/burst immunity test.
- EN 61000-4-5 - Eletromagnetic compatibility (EMC) - Part4: Testing and measurement techniques - Section 5: Surge immunity test.
- EN 61000-4-6 - Eletromagnetic compatibility (EMC) - Part4: Testing and measurement techniques - Section 6: Immunity to conducted disturbances, induced by radio-frequency fields.

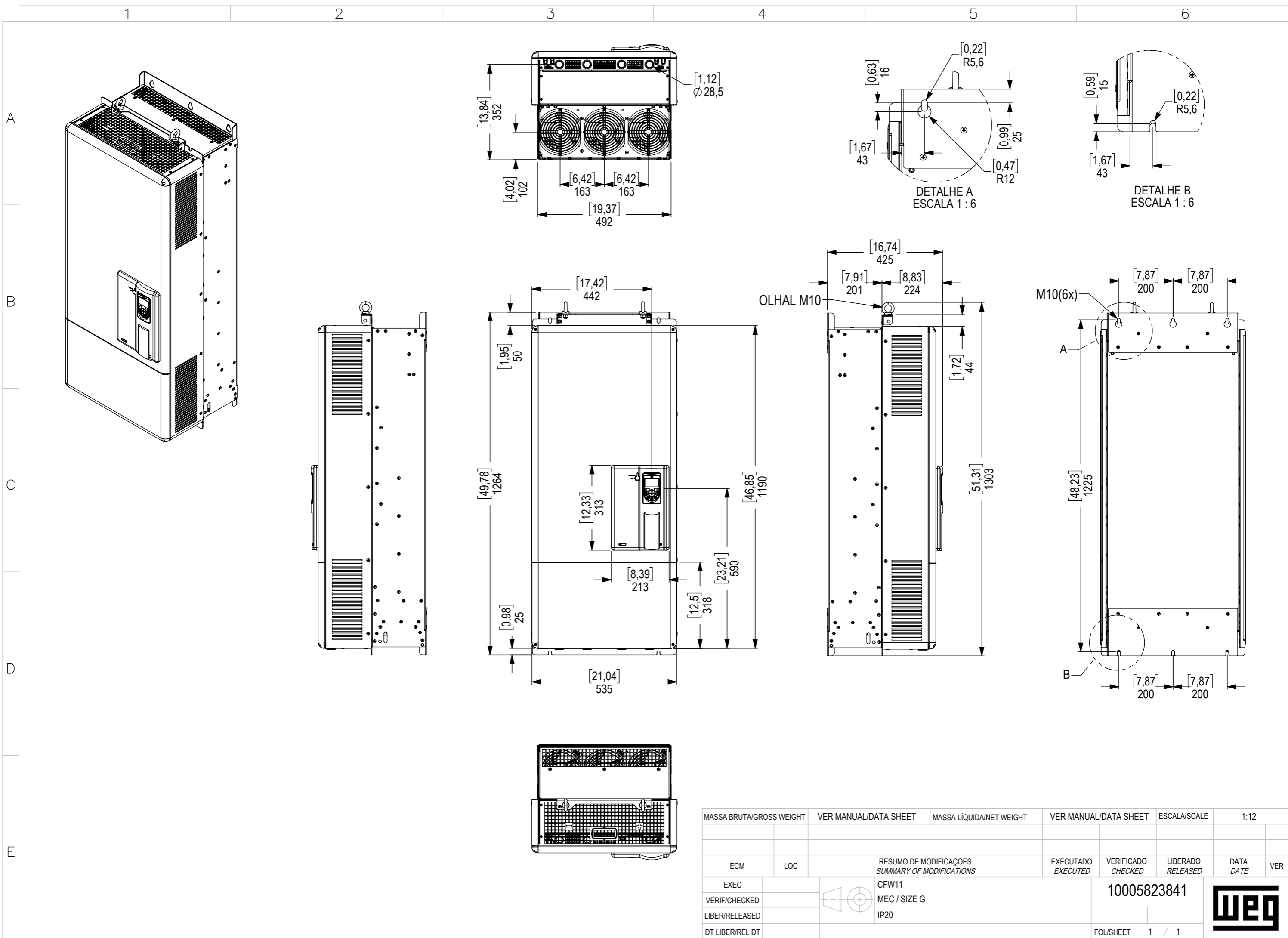
Mechanical construction

- EN 60529 - Degrees of protection provided by enclosures (IP code).
- UL 50 - Enclosures for electrical equipment.
- EN 60529 e UL 50

Certifications

Notes

- 1) Orientative motor power, valid for WEG Motors standard of IV poles. The correct sizing must be done according to the nominal current of the motor used, which must be less than or equal to the rated output current of the inverter;
- 2) Braking resistor is not included;
- 3) With category for emission level conducted;
- 4) Without derating and with minimum spaces;
- 5) For temperatures above the nominal and maximum temperature (with derating of current and minimum spaces);
- 6) For altitude over of specified;
- 7) All images are merely illustrative;
- 8) For more information, see the users manual of the CFW-11 (size G).



| | | | | | | | | | | | |
|--------------------------|--|-----------------------|--|--|--|-----------------------|--|-----------------------|--|-----------------------|--|
| MASSA BRUTA/GROSS WEIGHT | | VER MANUAL/DATA SHEET | | MASSA LÍQUIDA/NET WEIGHT | | VER MANUAL/DATA SHEET | | ESCALA/SCALE | | 1:12 | |
| ECM | | LOC | | RESUMO DE MODIFICAÇÕES SUMMARY OF MODIFICATIONS | | | | EXECUTADO EXECUTED | | VERIFICADO CHECKED | |
| EXEC | | | | CFW11 | | | | LIBERADO RELEASED | | DATA DATE | |
| VERIF/CHECKED | | | | MEC / SIZE G | | | | 10005823841 | | VER | |
| LIBER/RELEASED | | | | IP20 | | | | | | | |
| DT LIBER/REL DT | | | | | | | | FOL/SHEET | | 1 / 1 | |

