### 5.1 Identification of the Power Terminals and Grounding Points

The power terminals can be different between both models, depending on the model of the inverter, according to Figure 4. The maximum tightening torque of the power terminals and grounding points must be checked in Figure 4.

![Image of power terminals and grounding points](image-url)

**Figure 4**

- **Identification of the Power Terminals and Grounding Points**

#### 5.2 Circuit Breakers, Fuses, Bounding and Power Cables

- Use proper cable lugs for the power and grounding connection cables. Refer to Table 10 for recommended wiring, circuit breakers and fuses.

- When connecting the inverter to the power source, use a disconnect device for the inverter power supply. This device must cut off the power to the inverter in case of fault conditions or for maintenance.

- Insert independent conduits for the physical separation of signal, control and power cables (Refer to Chapter 9 ELECTRICAL INSTALLATION).

#### 5.3 Power Connections

- Use proper cable lugs for the power and grounding connection cables.

### 6. Mechanical Installation

#### 6.1 Environmental Conditions

- Temperature: From (0) ºC to 40 ºC (32 ºF to 104 ºF).

- Humidity: Non-condensing.

- Altitude: From 0 m to 2000 m (0 ft to 6600 ft).

- Pollution degree: 2 (acc. to EN 61800-5-1, IEC 61800-5-1), with non-conductive pollution. Conductive pollution must not originate through the accumulated residue.

#### 6.2 Dimensions, Positioning and Mounting

- The maximum tightening torque for the power terminals and grounding points must be checked in Figure 4.

![Image of dimensions and positioning](image-url)

**Figure 2**

- **Dimensions, Positioning and Mounting**

#### 6.3 Surface Mounting

- Figure 3 illustrates the CFW300 installation procedure for surface mounting. The bolts and the tightening torque used for mounting the inverter CFW300 on the surface are specified in Figure 2.

![Image of surface mounting](image-url)

**Figure 3**

- **Surface Mounting**

### 6.5 DIN Rail Mounting

- The CFW300 inverter can also be mounted directly on a 25 mm rail in accordance with DIN EN 50333. Figure 4 illustrates the installation procedure of the CFW300 in DIN rail.

#### 6.6 Electrical Installation

- Power supply wiring information is very important for proper installation. Comply with applicable local regulations for electrical installation.

- Make sure the power supply is disconnected before starting the installation.

- Provide other devices for those purposes.

#### 6.7 Notes

- The input power supply voltage must be compatible with the inverter rated voltage.

- Power terminals are not available in the Table 4 and 11 models, and must not be installed in the output (U, V, W)

![Image of DIN rail mounting](image-url)

**Figure 4**

- **DIN Rail Mounting**

### 5.3 Power Connections

- Use proper cable lugs for the power and grounding connection cables.

- When connecting the inverter to the power source, use a disconnect device for the inverter power supply. This device must cut off the power to the inverter in case of fault conditions or for maintenance.

- Insert independent conduits for the physical separation of signal, control and power cables (Refer to Chapter 9 ELECTRICAL INSTALLATION).

### 3.1 Input Connections

- Provide a disconnect device for the inverter power supply. This device must cut off the power in case of emergency during maintenance for isolating.

- The power supply that feeds the inverter must have a solid grounded metal casing.

- The CFW300 inverter may be used in UL747 (related to the building code) because it is grounded on the grounded bus, in ground networks. In ground networks, does not include such systems of return (Delta code general networks), because these type of networks damage the inverter.

### 3.3 Special Power Cables

- Use proper cable lugs for the power and grounding connection cables.

- When connecting the inverter to the power source, use a disconnect device for the inverter power supply. This device must cut off the power to the inverter in case of fault conditions or for maintenance.

- Insert independent conduits for the physical separation of signal, control and power cables (Refer to Chapter 9 ELECTRICAL INSTALLATION).

### 3.1 Input Connections

- Provide a disconnect device for the inverter power supply. This device must cut off the power in case of emergency during maintenance for isolating.
3.9.3.1 Short Circuit Current Ratings (SCCR)

TheFNH00-20K-A and FNH00-35K-A modules of delivering not more than two axes (SCCR) are symmetrical 332 V, 480 V, 50 Hz, when protected by fusible or circuit breakers as specified in Table 10. It is the case of the FNH00-20K-A and FNH00-35K-A power supplies with current capacity over the specified, it is necessary to use protection circuits, such as fuses or circuit breakers, proper for those power supplies.

**ATENTION!**

The opening of the branch circuit protective device may be an indication that a fault current has been interrupted. To reduce the risk of fire or electric shock, current-carrying parts and other components of the inverter or cabinet should be kept separate and removed from damaged conductors. If it is impossible to remove damaged conductors, the entire equipment must be replaced.

3.9.2 Power Supply Reactances

In order to prevent damage to the inverter and achieve the expected useful life, you must have a minimum line impedance that provides a line voltage drop of 1%. For more details, refer to the user's manual available at www.weg.net.

3.9.4 Dynamic Braking

**NOTE:**

The dynamic braking is available on DO models from frame size 8 onward.

Refer to Table 10 for the following specifications of the dynamic braking: maximum current, minimum braking resistance, current and cable gauge.

Refer to the user's manual available at www.weg.net for correct installation, rating and proection.

3.9.6.1.2 Output Connections

The characteristics of the cable used to connect the motor to the inverter, as well as its interception and routing, are extremely important to avoid electromagnetic interference in other equipment. Keep motor cables away from other cables (signal cables, power supply, etc.), according to Table 4. For more information, refer to the user's manual available at www.weg.net.

**DANGER!**

The inverter must be connected to a protective ground (PE). Use a minimum wire gauge for ground connection equal to the indicated in Table 10. Continuous connection of the ground bar to the inverter at common grounding point (IFG) is not allowed.

**NOTE:**

The inverter must be connected to a protective ground (PE). Use a minimum wire gauge for ground connection equal to the indicated in Table 10. Continuous connection of the ground bar to the inverter at common grounding point (IFG) is not allowed. The protective ground (PE) conductor must be grounded to a separate point and not connected to the motor or control cables. The protective ground conductor must be sized in accordance with the maximum current of the equipment or circuit and the length of the ground lead. The protective ground conductor must be sized in accordance with the maximum current of the equipment or circuit and the length of the ground lead. The protective ground conductor must be sized in accordance with the maximum current of the equipment or circuit and the length of the ground lead.

3.9.6.3 Parameters of the RFI Filter

For further information about the RFI filter kit accessory model, refer to Table 6.

The Figure 7 demonstrates the connection of the filter to the inverter:

For the correct connection of the control, use:

- Use of the control cable with the same specification as the motor cable (AWG).
- Maximum length: 0.4 ft (0.13 m).
- Winding of the connection of the output phase and separated from the other wiring (power, command, 20 V, etc.)
- Winding, connectors, and cables of electromechanical braking installed close to the inverter may occasionally generate interference in the control circuit. To eliminate this effect, the power supply cables to the motor or control cables must be connected to the rated power in parallel with the control cables.
- Power supply cables to the motor or control cables must be connected to the rated power in parallel with the control cables.
- Power supply cables to the motor or control cables must be connected to the rated power in parallel with the control cables.

3.9.6.4 Conformal Installation

The CFW300 inverter series, when properly installed, meet the requirements of the directive of the electromagnetic compatibility (EMC): 2004/108/EC.

These inverter series were developed for professional applications only. Therefore, the emission limits of harmonic currents established by the EN50163 or DIN EN 61000-3-2 standards are not applicable.

3.9.6.5.2 Output Power of the Inverter

The CFW300 inverter series, when properly installed, meet the requirements of the directive of the electromagnetic compatibility (EMC): 2004/108/EC.

These inverter series were developed for professional applications only. Therefore, the emission limits of harmonic currents established by the EN50163 or DIN EN 61000-3-2 standards are not applicable.

3.9.6.6 Using the Inverter

Emission and Immunity Levels

**NOTE:**

The inverter is an equipment that can be used or installed in environments that include domestic installations, as well as establishments directly connected without intermediate transformers to a low-voltage power supply network, which supplies buildings used for domestic purposes. The inverter is intended for use in the Second Environment.

Second Environment: all installations other than those directly connected to a low-voltage power supply networks that supply buildings used for domestic purposes.

3.9.6.7.1 Emissions

The inverter is an equipment that can be used or installed in environments that include domestic installations, as well as establishments directly connected without intermediate transformers to a low-voltage power supply network, which supplies buildings used for domestic purposes. The inverter is intended for use in the Second Environment.

Second Environment: all installations other than those directly connected to a low-voltage power supply networks that supply buildings used for domestic purposes.

3.9.6.7.2 Immunity

The inverter is an equipment that can be used or installed in environments that include domestic installations, as well as establishments directly connected without intermediate transformers to a low-voltage power supply network, which supplies buildings used for domestic purposes. The inverter is intended for use in the Second Environment.

Second Environment: all installations other than those directly connected to a low-voltage power supply networks that supply buildings used for domestic purposes.