

# Installation Instructions

## Mains, Motor and DC Link Terminals

### VLT<sup>®</sup> AutomationDrive FC 360

The instructions provide information about the replacement of the mains terminals, motor terminals, and DC link terminals in the VLT<sup>®</sup> AutomationDrive FC 360.

Only Danfoss-authorized, qualified personnel is allowed to repair this equipment. The personnel must be familiar with the instructions and safety measures described in the *VLT<sup>®</sup> AutomationDrive FC 360 Service Manual*.

#### Items Supplied

Items supplied depend on ordered code number and enclosure type of the frequency converter.

Code number	Items supplied
132b0297	<ul style="list-style-type: none"> <li>Mains terminal, enclosure type J6</li> </ul>
132b0298	<ul style="list-style-type: none"> <li>Motor terminal, enclosure type J6</li> </ul>
132b0299	<ul style="list-style-type: none"> <li>DC link terminal, enclosure type J6</li> </ul>
132b0315	<ul style="list-style-type: none"> <li>Mains and motor terminal, enclosure type J7, 55 kW (3-phase block)</li> </ul>
132b0316	<ul style="list-style-type: none"> <li>DC link terminal, enclosure type J7, 55 kW (2-phase block)</li> </ul>
132b0317	<ul style="list-style-type: none"> <li>Terminal for DC link, mains or motor, enclosure type J7, 75 kW (1 single-phase block supplied per order)</li> </ul>

#### Tools Required

- Screwdrivers:
  - Flat-edged
  - T10
  - T20
  - T25
  - T30
- N8 socket wrench
- N10 socket wrench
- N5 Allen key

#### Safety Instructions

### **⚠ WARNING**

#### DISCHARGE TIME

The frequency converter contains DC-link capacitors, which can remain charged even when the frequency converter is not powered. Failure to wait the specified time after power has been removed before performing service or repair work, could result in death or serious injury.

- Stop the motor.
- Disconnect AC mains, permanent magnet type motors, and remote DC-link power supplies, including battery back-ups, UPS, and DC-link connections to other frequency converters.
- Wait for the capacitors to discharge fully, before performing any service or repair work. The duration of waiting time is specified in *Table 1.1*.

Voltage [V]	Minimum waiting time (minutes)	
	4	15
380-480	0.37-7.5 kW	11-75 kW

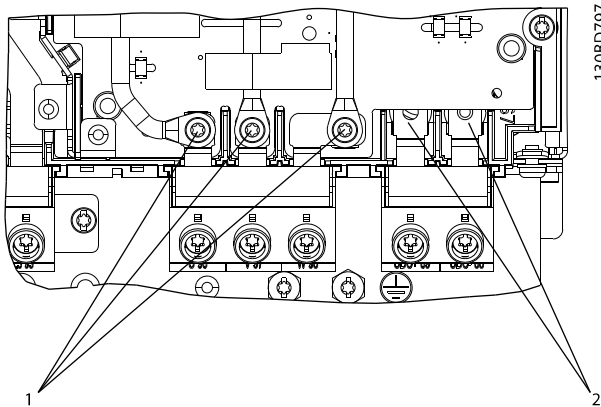
High voltage may be present even when the warning LEDs are off!

Table 1.1 Discharge Time

## Installation

### Replacing motor and DC link terminals for enclosure type J6

1. Follow the instructions in *VLT® AutomationDrive FC 360 Service Manual* to remove the power control card.
2. Unscrew the 3 M4x18 (T20) screws holding the busbar to motor terminals, and remove the motor terminals.
3. Unscrew the 2 M4x12 (T20) screws holding the DC link terminal and remove the DC link terminal.
4. Install new motor or DC link terminals in reverse order.



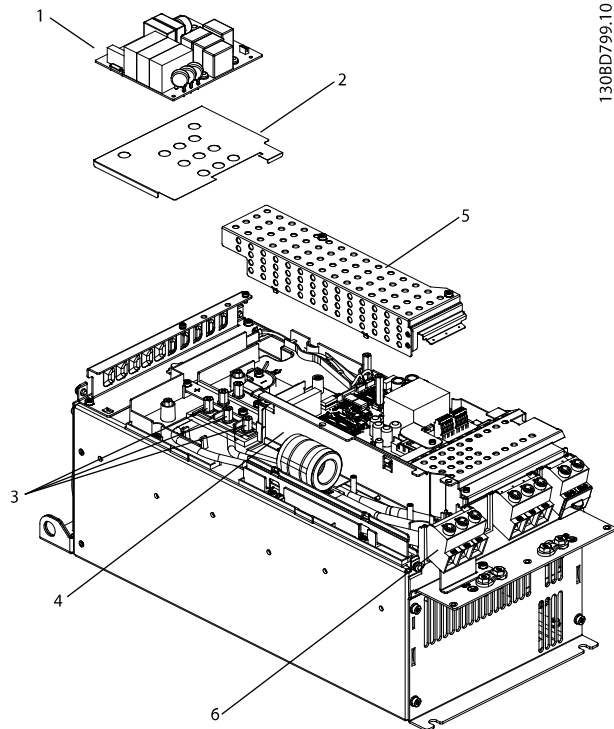
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1	Screws (T20, M4x18), holding the busbar to motor terminal
2	Screws (T20, M4x12), holding the DC link terminal

Illustration 1.1 Motor Terminals and DC Link Terminals for J6

### Replacing mains terminals for enclosure type J6

1. Follow the instructions in *FC 360 Service Manual* to remove the power control card.
2. Follow the instructions in *FC 360 Service Manual* (see the chapter on power card replacement) to remove:
  - RFI auxiliary card
  - Mains terminal (L1, L2, L3) screws (3xM4) on rectifier module
  - Mains input cover
  - Mains input screen and cable

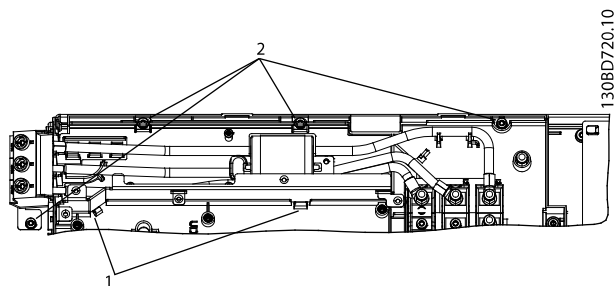


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1	RFI auxiliary card
2	Insulation foil
3	Mains terminal screws on rectifier module
4	Mains input screen and cable
5	Mains input cover
6	Mains terminals

Illustration 1.2 Mains Terminals and Related Components for J6

3. Remove mains terminals and cables.



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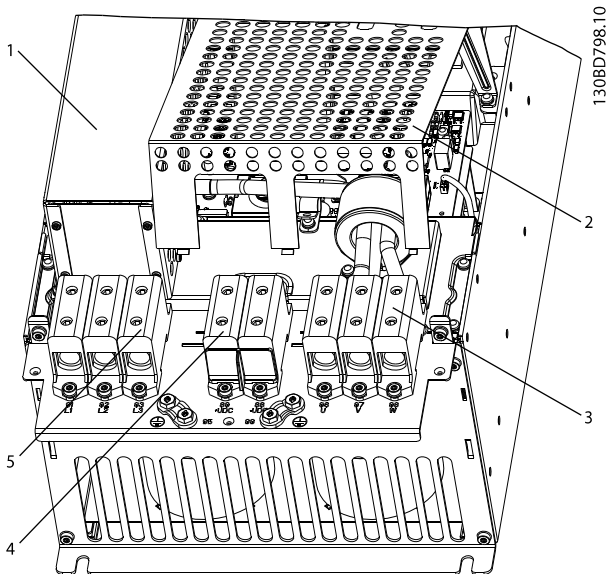
Illustration 1.3 Mains Terminals and Cables

4. Install new mains terminals in reverse order.

Replacing mains terminals, motor terminals, and DC link terminals for enclosure type J7

**NOTICE**

- 55 kW terminals are supplied in 3-phase and 2-phase blocks.
  - 75 kW terminals are supplied in single-phase blocks.
1. Follow the instructions in *FC 360 Service Manual* to remove the power control card of the frequency converter.
  2. Follow the instructions in *FC 360 Service Manual* (see chapter on power card replacement) to remove the following components:
    - EMC screen plate
    - RFI filter assembly (only needed when replacing a mains terminal).



1	RFI filter assembly
2	EMC screen plate
3	Motor terminals
4	DC link terminals
5	Mains terminals

Illustration 1.4 J7 Terminal Overview

3. Unscrew the 2 M5x10 screws (T20) on the defective terminal, and remove the terminal.
4. Install the new terminal in reverse order.

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