

# Installation Instructions

## Fan Replacement

### VLT® AutomationDrive FC 360

The instructions provide information about fan replacement in the VLT® 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® AutomationDrive FC 360 Service Manual*.

#### Items Supplied

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

Enclosure	Power range [kW]	Code number
J1	0.37-1.5	132B0275
J1	2.2	132B0276
J2	3.0-5.5	132B0277
J3	7.5	132B0278
J4	11-15	132B0279
J5	18.5-22	132B0280
J6	30-45	132B0295
J7	55-75	132B0313

#### 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.

1. Stop the motor.
2. 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.
3. 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

### Enclosure Types J1, J2 and J4

1. Grab the centre handle on the fan and use a flat-edged screw driver to release the retaining lever.

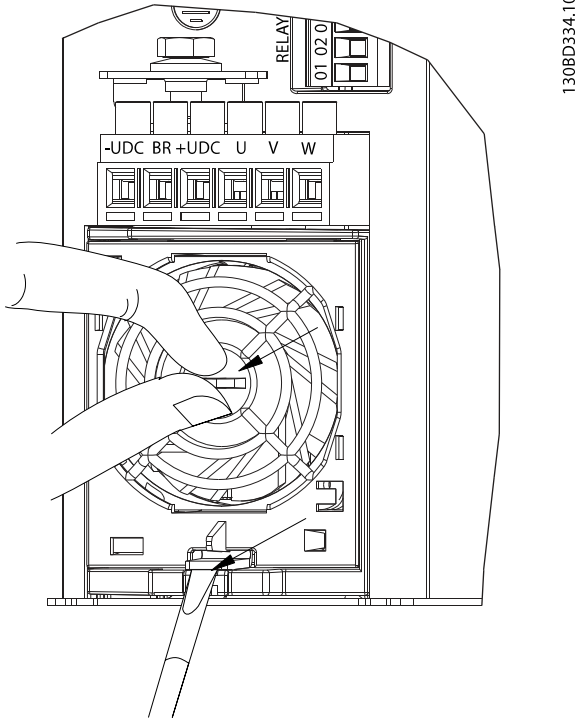


Illustration 1.1 Removing Fan on Enclosure Types J1, J2 and J4

2. Unplug the fan cable

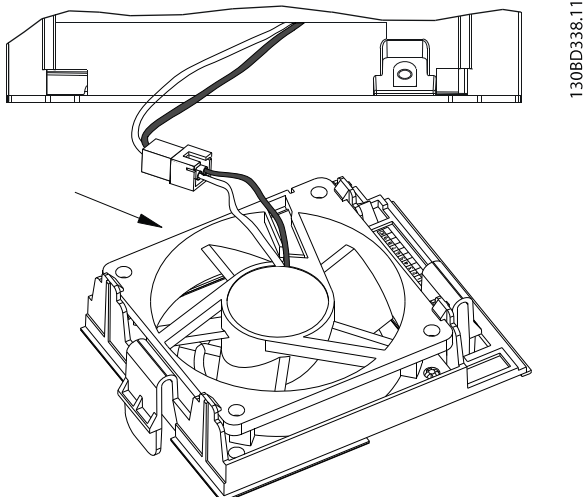


Illustration 1.2 Fan Cable Plug. Plug Location Depends on Fan Type

3. Connect the new fan cable and click the new fan into place.

### Enclosure Type J3

1. Remove the M3x6 screw in the bottom right corner.

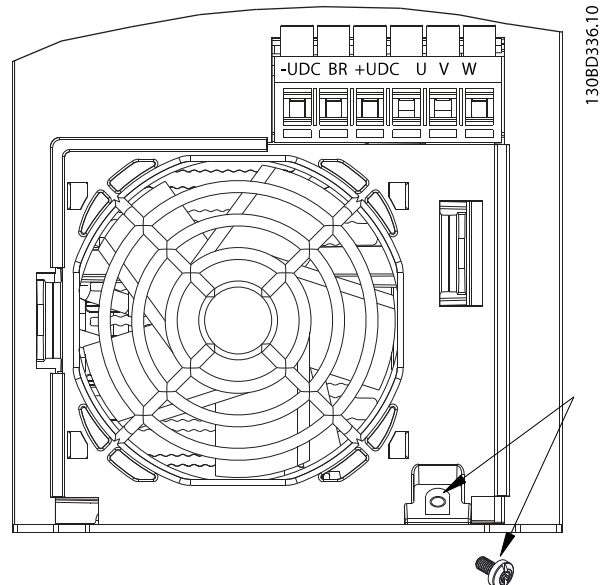


Illustration 1.3 Removing Fan Screw on Enclosure Type J3

2. Press the levers on each side of the fan and pull the fan outwards.

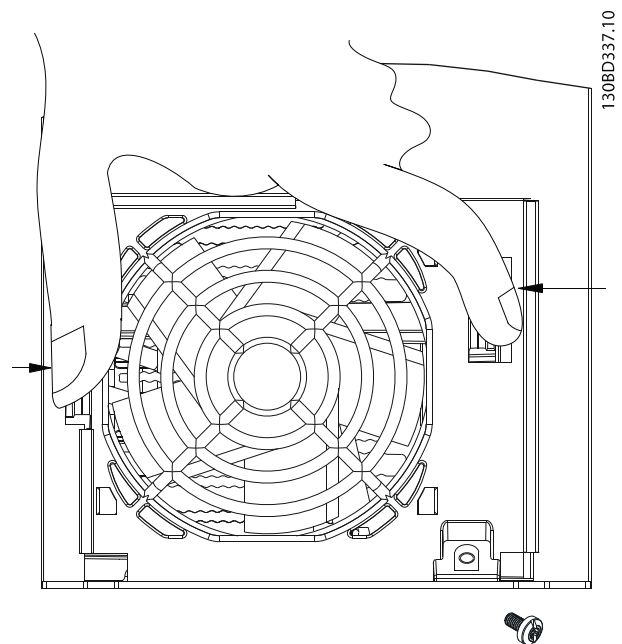
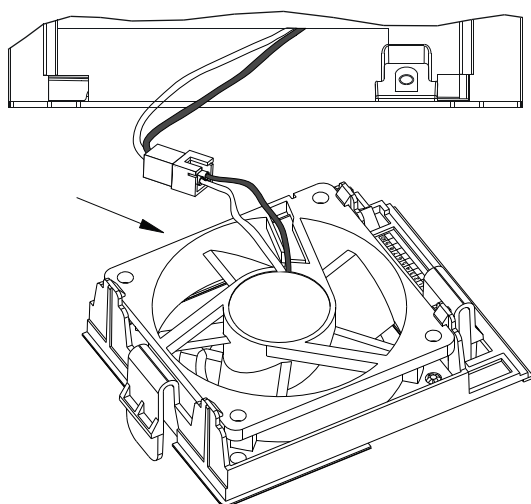


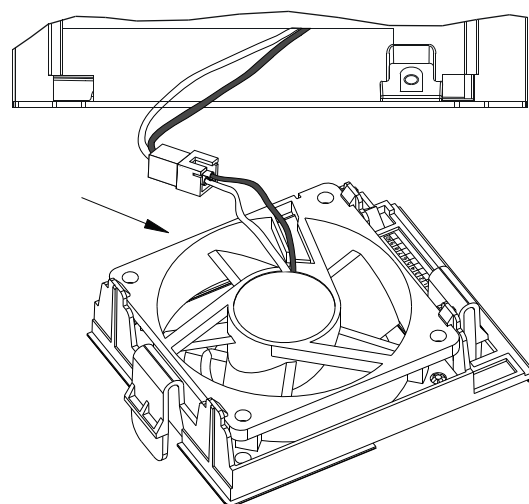
Illustration 1.4 Pulling out Fan on Enclosure Type J3

3. Unplug the fan cable



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Illustration 1.5 Fan Cable Plug. Plug Location Depends on Fan Type



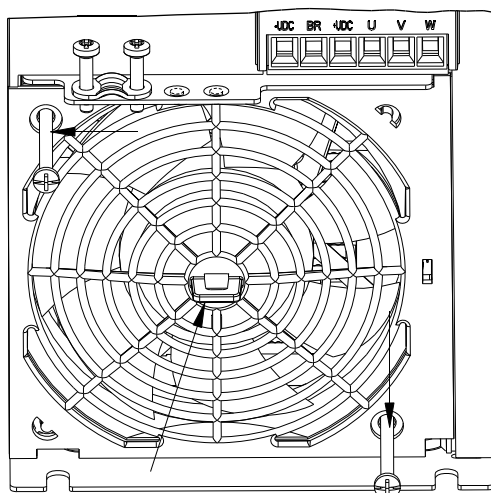
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Illustration 1.7 Fan Cable Plug. Plug Location Depends on Fan Type

4. Install the new fan in reverse order.

#### Enclosure Type J5

1. Remove M4x50 screws in the bottom right and upper left corners.



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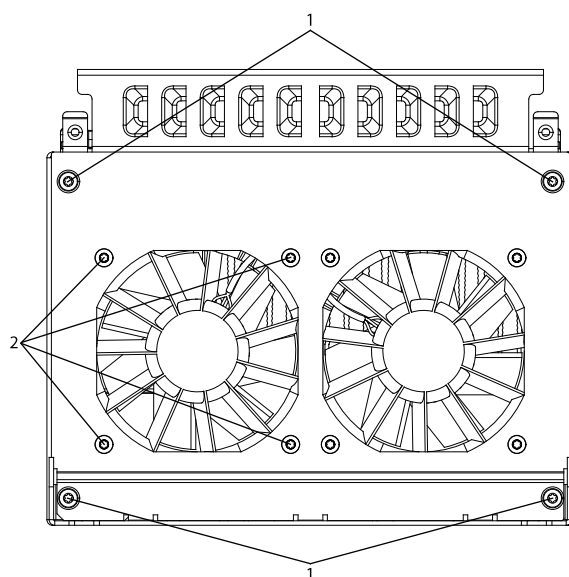
Illustration 1.6 Removing Fan Screws on Enclosure Type J5

2. Grab the centre handle and pull the fan outwards.
3. Unplug the fan cable

#### Enclosure Types J6 and J7

**Note:** If a fan does not function, first check the fan extension cable for damages. Replace it if necessary.

1. Remove the 4 screws (T20, M5x10, torque 2.3 Nm) on the fan top plate, as shown in .
2. Unplug the fan cable, and remove the 4 screws (T20, M5x12 self-cutting) for the defective fan.



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1	Screws for the top plate
2	Screws for a fan

Illustration 1.8 Fan Top Plate

3. Install the new fan in reverse order.

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