

Installation Instructions

Door Fan Kit for D1h–D2h/D5h–D8h Drives

VLT[®] FC Series FC 102, FC 103, FC 202, and FC 302

Description

The door fan replacement kit contains parts required to install 1 door fan in D1h–D2h/D5h–D8h drives in IP21/IP54 enclosures.

Kit Ordering Number

Kit number	Kit description
176F3168	Door fan IP21/54 120 mm x 25 mm
176F3169	Door fan IP21/54 120 mm x 38 mm

Table 1.1 Ordering Number for Door Fan Kits

Items Supplied

The door fan replacement kit contains the following items:

- 1 fan
- Installation instructions

Safety Information

Only qualified, Danfoss authorized personnel are allowed to install the parts described in these installation instructions. Handling of the drive and its parts must be done in accordance with the corresponding *operating guide*.

⚠WARNING

ELECTRICAL SHOCK HAZARD

VLT[®] FC series drives contain dangerous voltages when connected to mains voltage. Improper installation, and installing or servicing with power connected, can cause death, serious injury, or equipment failure.

To avoid death, serious injury, or equipment failure:

- Only use qualified electricians for the installation.
- Disconnect the drive from all power sources before installation or service.
- Treat the drive as live whenever the mains voltage is connected.
- Follow the guidelines in these instructions and local electrical safety codes.

⚠WARNING

DISCHARGE TIME

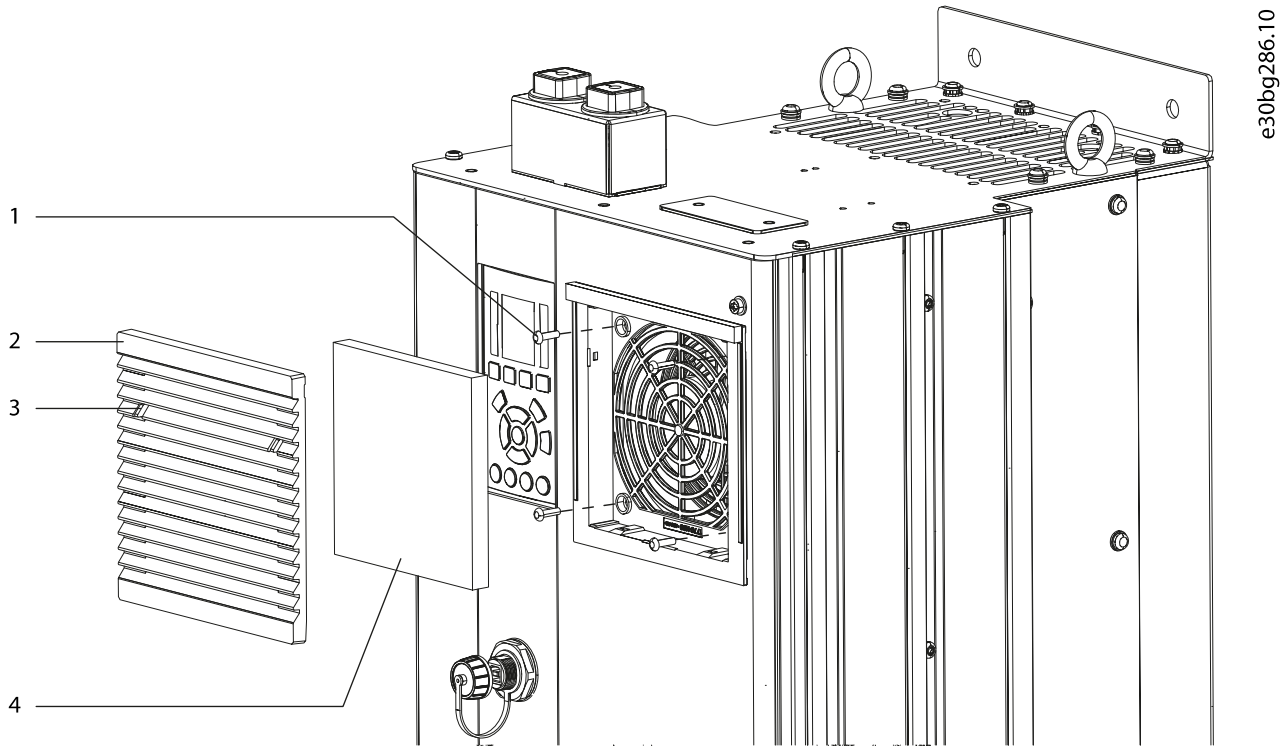
The drive contains DC-link capacitors, which can remain charged even when the drive is not powered. High voltage can be present even when the warning LED indicator lights are off. Failure to wait the specified time after power has been removed before performing service or repair work can result in death or serious injury.

- Stop the motor.
- Disconnect AC mains and remote DC-link power supplies, including battery back-ups, UPS, and DC-link connections to other drives.
- Disconnect or lock PM motor.
- Wait for the capacitors to discharge fully. The minimum waiting time is 20 minutes.
- Before performing any service or repair work, use an appropriate voltage measuring device to make sure that the capacitors are fully discharged.

Installation Instructions

Removing the Door Fan

The enclosure door includes 2 fan assemblies. If an options cabinet is present, the cabinet door includes 1 fan assembly. To remove a door fan, use the following steps. Refer to *Illustration 1.1* and *Illustration 1.2*.

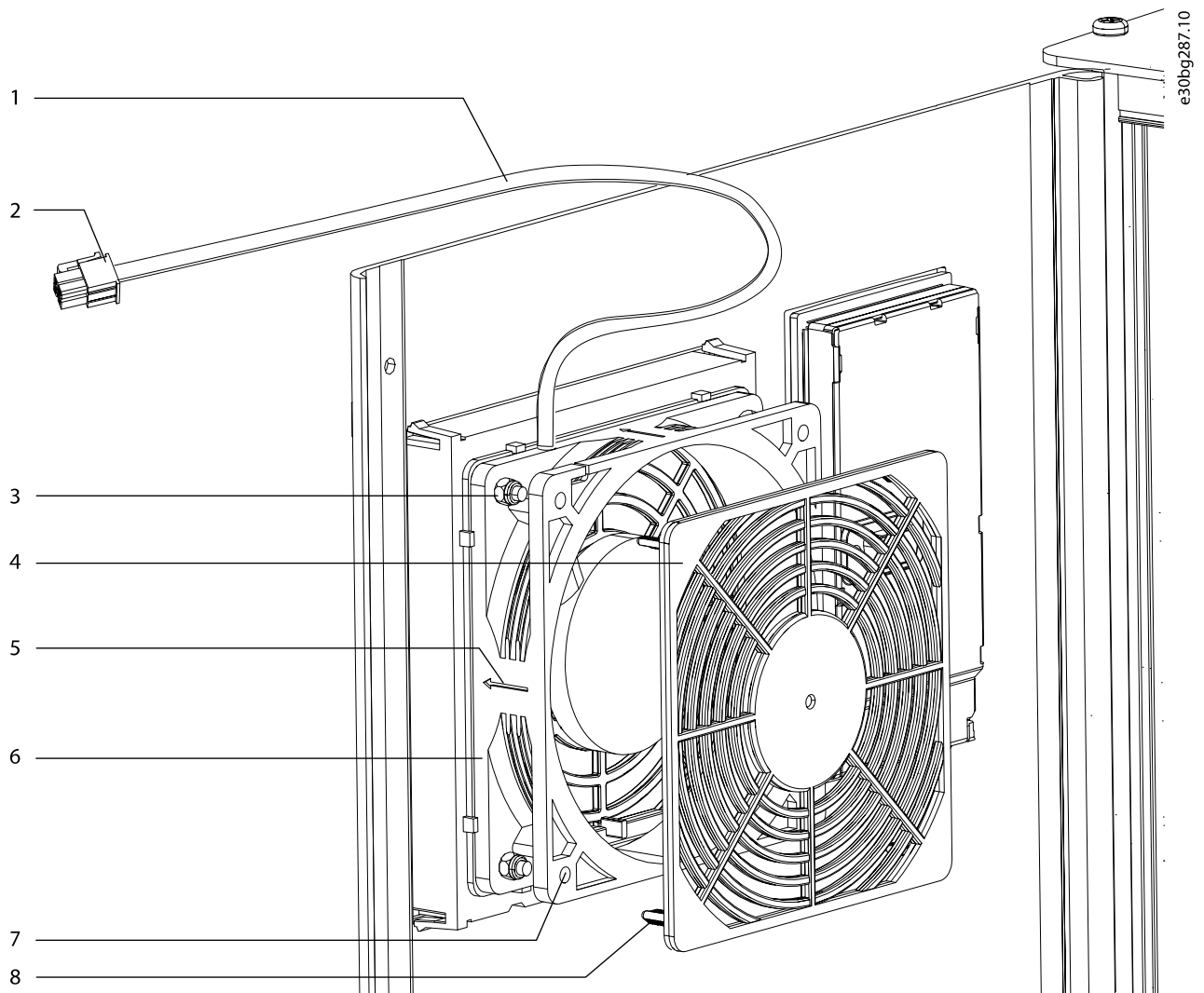


1	Screw (T20)	3	Release tab
2	Fan front grill	4	Fan filter

Illustration 1.1 Front View of Door Fan Assembly

1. Pinch together the release tabs on the fan front grill and remove the grill from the enclosure door.
2. Remove the fan filter.
3. Open the enclosure door and unplug the in-line connector attaching the fan cable.
4. Release the cable from the cable guides.
5. Detach 4 screws (T20) from the corners of the fan. When removing the screws, hold each nut (7 mm) with a wrench on the opposite side of the door.
6. Remove the fan from the enclosure door.
7. Using a pliers, pinch together the post in each corner of the fan guard to release it from the fan.

Installing the Door Fan



1	Fan cable	5	Air direction arrow
2	Cable connector	6	Fan
3	Nut (7 mm)	7	Hole for corner post
4	Fan guard	8	Corner post

Illustration 1.2 Interior View of Door Fan Assembly

NOTICE

FAN DIRECTION

To ensure proper cooling, position the fan so that the air direction arrow points away from the internal drive components when the door is closed.

To install a replacement door fan, use the following steps. Refer to *Illustration 1.2*.

1. Align the posts on the fan guard with the holes in the corners of the fan and press to attach the guard to the fan.
2. Position the fan in the door of the enclosure. Check that the air direction arrow points away from the interior of the drive when the door is closed. See *Illustration 1.2*.

3. Replace 4 screws (T20) in the corners of the fan, securing each with a nut (7 mm).
4. Route the fan cable through the cable guides and attach the in-line cable connector.
5. Replace the filter over the fan on the outside of the door. See *Illustration 1.1*.
6. Reposition the fan grill over the filter and press to snap in place.

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