

# Installation Instructions

## Door Fan Replacement for E1h/E2h Drives

### Description

The door fan replacement kit contains all parts required to install 1 door fan for E1h/E2h drives in IP21/IP54 enclosures.

### Kit Part Number

| Part number | Kit description                            |
|-------------|--|
| 176F3169    | Door fan assembly for IP21/IP54 enclosures |
| 176F6636    | Door fan assembly for E1h/E2h drives       |

Table 1.1 Part Numbers for the Door Fan Kit

### Items Supplied

The door fan replacement kit contains the following:

- 1 fan
- Installation instructions

### Safety Instructions

Only qualified, Danfoss authorized personnel are allowed to install the parts described in these installation instructions. Disassembly and reassembly of the drive must be done in accordance with the corresponding *service manual*.

#### **⚠ WARNING**

#### **ELECTRICAL SHOCK HAZARD**

VLT® 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 40 minutes 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 40 minutes for capacitors to discharge fully.
- Before performing any service or repair work, use an appropriate voltage measuring device to make sure that the capacitors are fully discharged.

### Removing the Door Fan

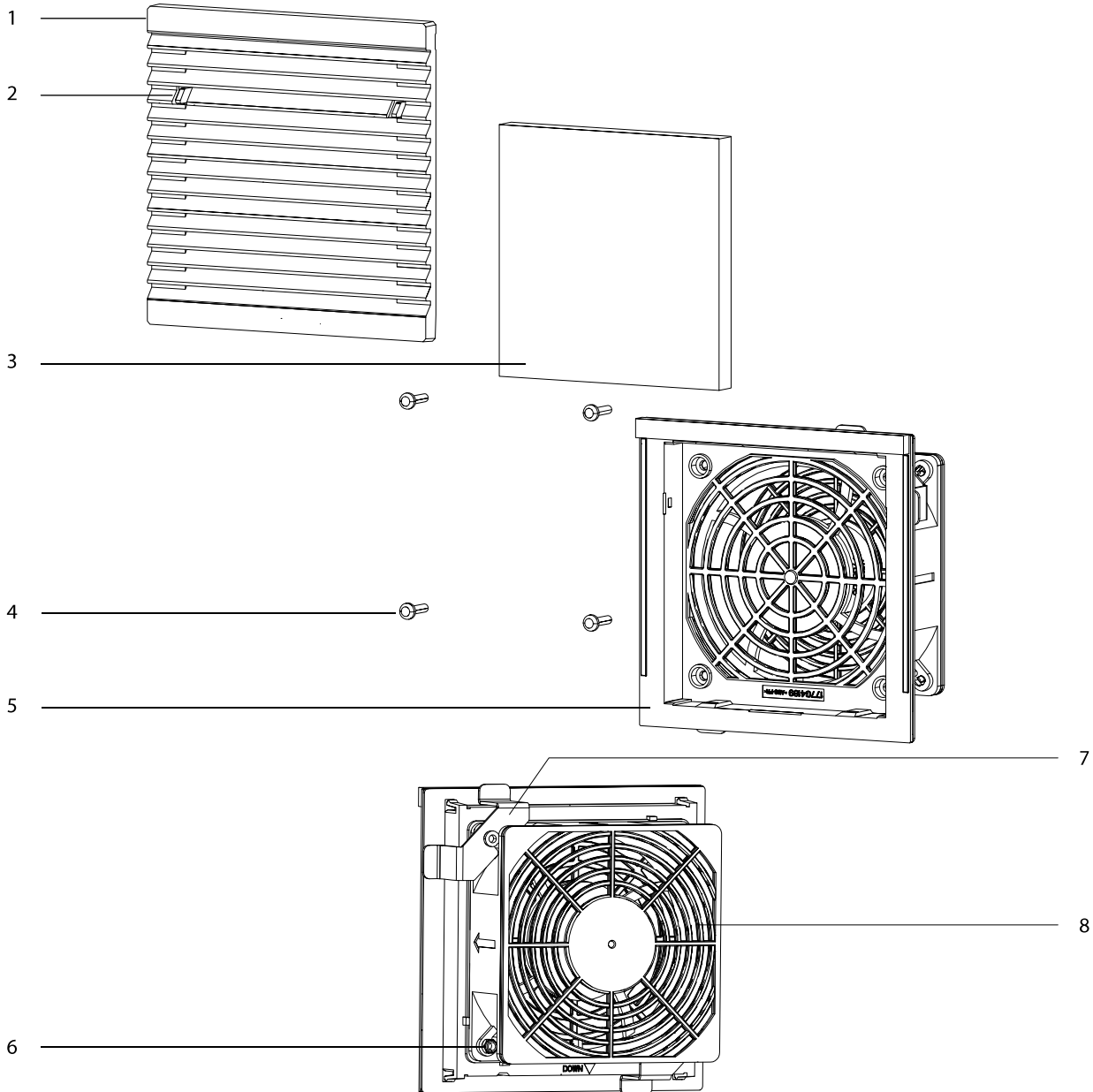
The enclosure door includes 2 fan assemblies at the door top. To remove and replace the door fan, use the following procedures. Refer to *Illustration 1.1*.

1. Pinch together the release tabs on the front grill and remove the grill from the enclosure door.
2. Remove the filter.
3. Inside the enclosure door, unplug the in-line connector attaching the fan cable.
4. Detach 4 screws (T20), 2 nuts, and 2 corner brackets from the corners of the fan. When removing the screws, hold each nut (7 mm) with a wrench on the opposite side of the fan.
5. Remove the fan from the enclosure door.

### Installing the Door Fan

1. Position the fan in the door of the enclosure. Check that the air direction arrows point away from the internal drive components when the door is closed.
2. On the inner side of the door, replace the 2 brackets at opposite corners of the fan and secure with 2 screws (T20).

3. Replace 2 screws in the remaining 2 corners of the fan, securing each with a nut (7 mm).
4. Reconnect the in-line cable connector attaching the fan cable.
5. Replace the filter over the fan on the outside of the door.
6. Reposition the fan grill over the filter and press to snap in place.



|   |             |   |                     |
|---|-------------|---|---------------------|
| 1 | Front grill | 5 | Door fan front view |
| 2 | Release tab | 6 | Nut (7 mm)          |
| 3 | Filter      | 7 | Corner bracket      |
| 4 | Screw (T20) | 8 | Door fan back view  |

### Illustration 1.1 Door Fan Assembly

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