

Installation Instructions

AC Fuse Replacement for E1h–E4h Drives

Description

E1h–E4h drives are available with 3 optional AC fuses. The AC fuse replacement kit contains all components required to install 1 AC fuse.

Kit Part Numbers

This installation instruction describes replacement procedures for the following spare part kits.

Part number	Kit description
176F6639	Fuse for 380–500 V (T5) drives
176F6640	Fuse for 525–690 V (T7) drives

Table 1.1 Part Numbers for AC Fuse Replacement Kits

Items Supplied

This AC fuse replacement kit for E1h–E4h enclosure sizes contains the following:

- 1 fuse
- 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.

NOTICE

ELECTROSTATIC DISCHARGE

Follow proper ESD precautions to prevent damage to sensitive components.

Removing the AC Fuse

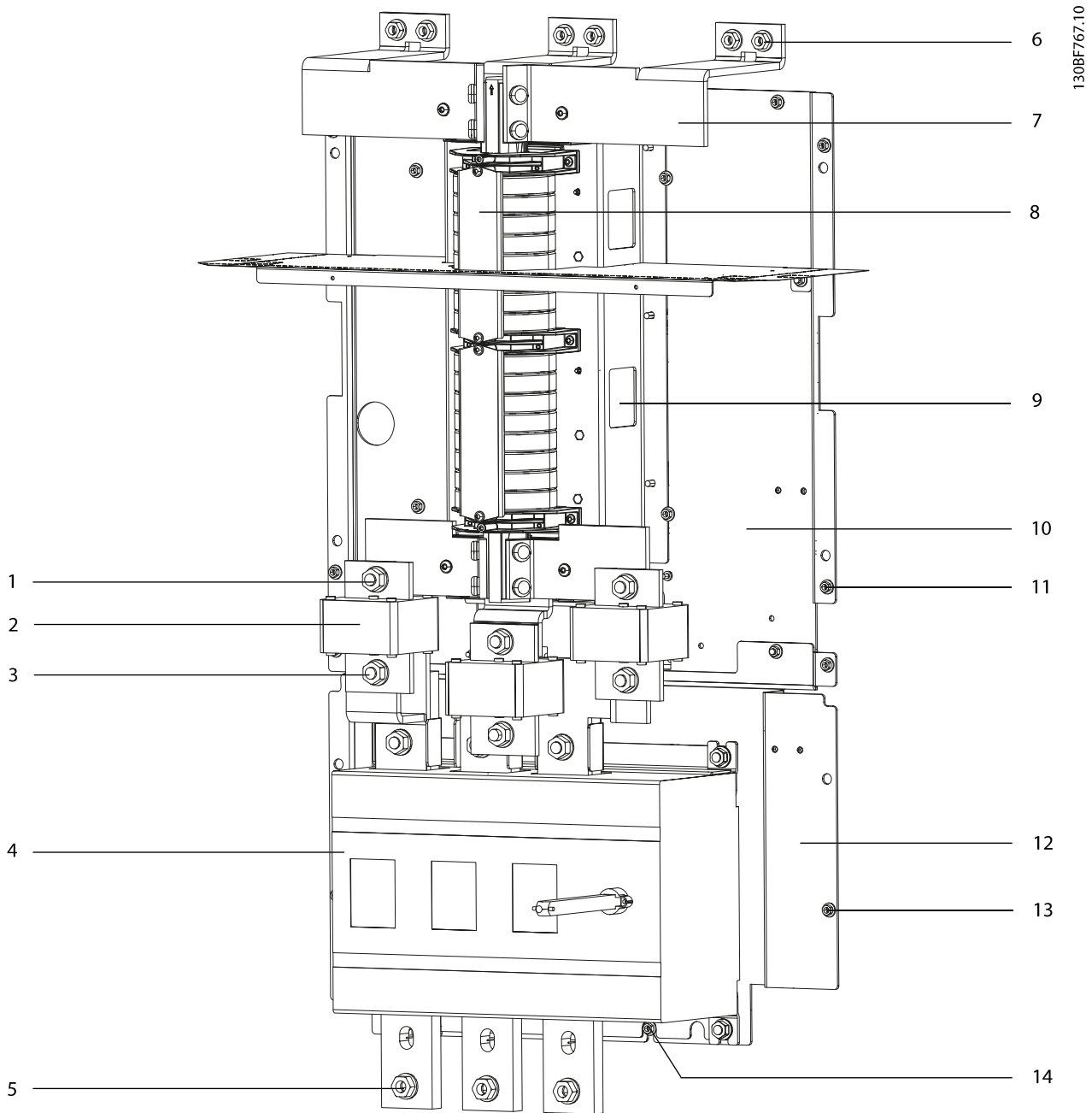
To remove and replace an AC fuse, use the following procedures. Refer to *Illustration 1.1*. Based on the input options present, the drive configuration can vary from the illustration.

1. Remove the front cover, if present, depending on the enclosure.
2. Remove 1 nut (17 mm) and bolt from the bottom of the AC fuse. In some drives, the fastener is a stud, not a bolt.
3. Remove 1 nut (17 mm) from the top of the AC fuse.
4. Lift the fuse from the drive.

Installing the AC Fuse

1. Position the new fuse in the drive.
2. Secure 1 nut (17 mm) at the top of the AC fuse.

3. Secure 1 nut (17 mm) and bolt at the bottom of the AC fuse. In some drives, the fastener is a stud, not a bolt.
4. Replace the front cover, if present, depending on the enclosure.



1	Nut (17 mm) in upper fuse	8	RFI filter
2	AC fuse	9	RFI cable access
3	Nut (17 mm) in lower fuse	10	Upper input plate
4	Disconnect	11	Nut (8 mm) in upper input plate
5	Nut (17 mm) at terminal L1	12	Lower input plate
6	Nut (30 mm) at upper RFI filter	13	Nut (8 mm) in lower input plate
7	AC input busbar	14	Nut (8 mm)

Illustration 1.1 Split Input Plate with Optional AC Fuses, RFI Filter, and Disconnect

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