

AC Fuse Replacement for Fx09-Fx12

iC7 Series Frequency Converters

1 Overview

1.1 Description

Fx09-Fx12 frequency converters can include 3 optional AC fuses. This kit contains 1 replacement AC fuse.

1.2 Kit Numbers

Table 1: Numbers for AC Fuse Replacement Kits

Kit number	Description	Mains voltage	Current rating	Frame
176F3170	Fuse 315A 700V square body	380-480/500 V	206A	Fx09
176F3171	Fuse 350A 700V square body	380-480/500 V	245A	Fx09
176F3172	Fuse 400A 700V square body	380-480/500 V	302A	Fx09
176F3938	Fuse 475A 550V square body	380-480/500 V	385A	Fx09
176F8335	Fuse 630A 700V square body	380-480/500 V	395A	Fx10
176F8335	Fuse 630A 700V square body	380-480/500 V	480A	Fx10
176F3174	Fuse 800A 700V square body	380-480/500 V	588A	Fx10
176F3858	Fuse 1000A 700V square body	380-480/500 V	658A, 736A	Fx10
176F6639	Fuse 1250A 700V square body	380-480/500 V	799A	Fx11
176F6639	Fuse 1250A 700V square body	380-480/500 V	893A, 1000	Fx12
176F4033	Fuse 1800 A 700 V square body	380-480/500 V	1120, 1260	Fx12

1.3 Items Supplied

AC fuse replacement kit contains the following items.

Table 2: Items Supplied in AC Fuse Replacement Kit

Item	Quantity
Fuse	1
Installation instructions	1

2 Installation

2.1 Safety Information

NOTICE

QUALIFIED PERSONNEL

Only qualified, Danfoss authorized personnel are allowed to install the parts described in these installation instructions.

- Disassembly and reassembly of the frequency converter must be done in accordance with the service guide.
- Use the standard fastener torque values from the service guide, unless the torque value is specified in these instructions.

⚠ WARNING ⚠

ELECTRICAL SHOCK HAZARD

Danfoss frequency converters 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.

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

⚠ WARNING ⚠

DISCHARGE TIME

The frequency converter contains DC-link capacitors, which can remain charged even when the frequency converter 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 frequency converters.
- Disconnect or lock the motor.
- Disconnect any brake option.
- Disconnect any DC-connector option.
- Wait for the capacitors to discharge fully. The minimum waiting time is listed on the frequency converter label and also in the following discharge time table.
- Before performing any service or repair work, use an appropriate voltage measuring device to make sure that the capacitors are fully discharged.

Table 3: Discharge Time

Frame	Minimum waiting time
Fx09–Fx10	20 minutes
Fx11–Fx12	40 minutes

NOTICE

ELECTROSTATIC DISCHARGE

Electrostatic discharge can damage components.

- Ensure discharge before touching internal frequency converter components, for example by touching a grounded, conductive surface or by wearing a grounded armband.

2.2 Removing the AC Fuse

To remove an AC fuse, use the following steps. See [Illustration 1](#). Depending on the input options present, the frequency converter may look different from the illustration.

Procedure

1. Remove the front cover or open the cabinet.
2. Remove 1 nut from the bottom of the AC fuse.

In some frequency converters you may need to remove 1 nut and stud from the bottom of the AC fuse.

3. Remove 1 nut from the top of the AC fuse.

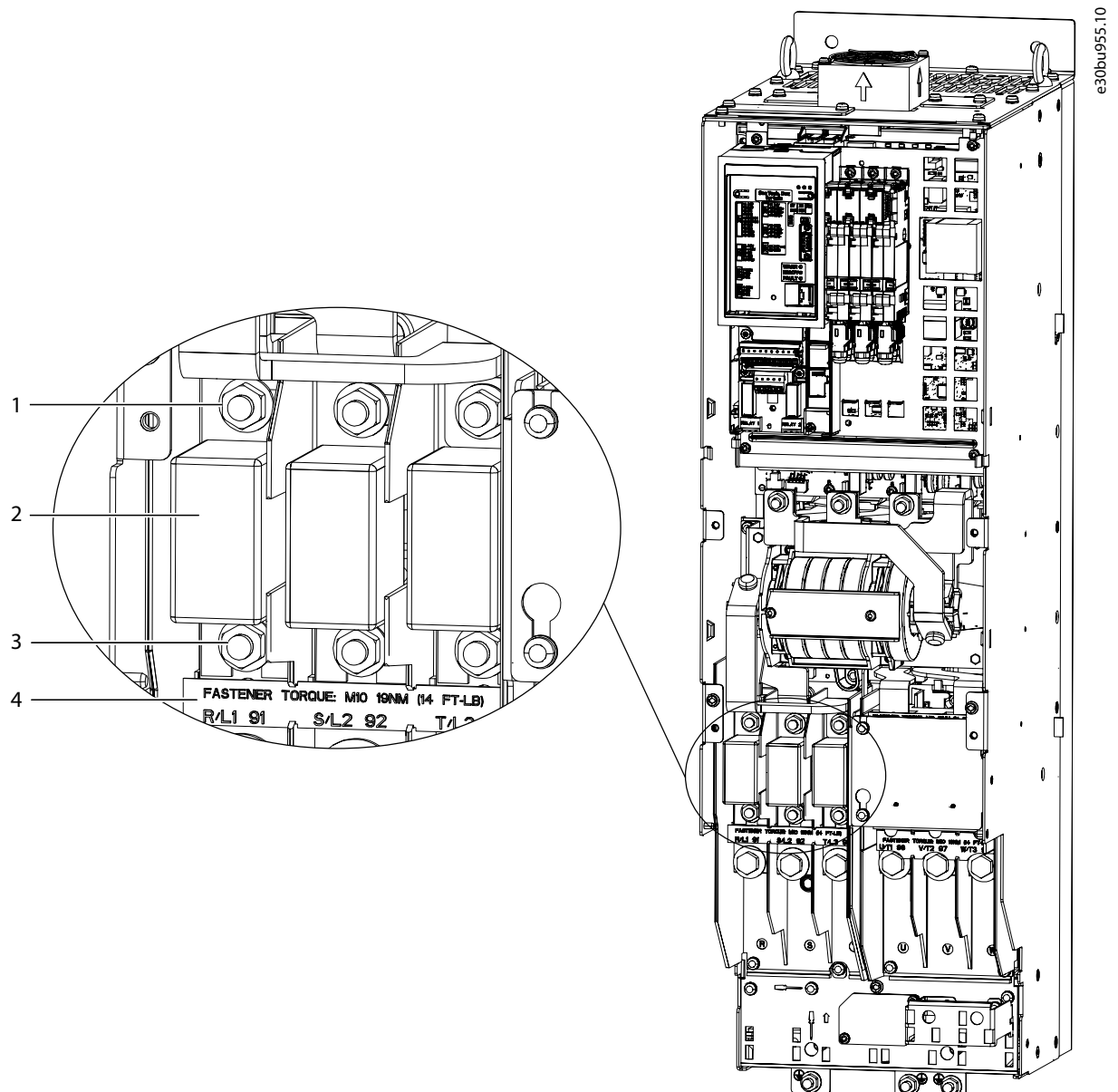


Illustration 1: Removal of AC Fuses

1	Nut	3	Nut
2	AC fuse	4	Terminal label

2.3 Installing the AC Fuse

To install the AC fuse, use the following steps.

Procedure

1. Position the new fuse in the frequency converter.
2. Secure 1 nut at the top of the AC fuse.
3. Secure 1 nut and bolt at the bottom of the AC fuse.

In some frequency converters, the fastener is a stud, not a bolt.

4. Install the front cover or close the cabinet door.

Danfoss A/S
 Ulsnaes 1
 DK-6300 Graasten
 danfossdrives.com

Any information, including, but not limited to information on selection of product, its application or use, product design, weight, dimensions, capacity or any other technical data in product manuals, catalogues descriptions, advertisements, etc. and whether made available in writing, orally, electronically, online or via download, shall be considered informative, and is only binding if and to the extent, explicit reference is made in a quotation or order confirmation. Danfoss cannot accept any responsibility for possible errors in catalogues, brochures, videos and other material.
 Danfoss reserves the right to alter its products without notice. This also applies to products ordered but not delivered provided that such alterations can be made without changes to form, fit or function of the product.
 All trademarks in this material are property of Danfoss A/S or Danfoss group companies. Danfoss and the Danfoss logo are trademarks of Danfoss A/S. All rights reserved.

