

## Installation Instructions

# Pedestal Kit for F-size Enclosures VLT® FC Series FC 102, FC 103, FC 202, and FC 302

The pedestal is used to allow airflow into the F-size enclosure to provide proper cooling. These instructions detail the mounting of an F-size enclosure onto a pedestal.

More installation information, such as ambient conditions, cooling requirements, and dimensions can be found in the operating instructions, design guide, and installation drawings.

### Safety Instructions

#### **⚠ WARNING**

##### **ELECTRICAL SHOCK HAZARD**

VLT® 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.

To avoid 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 (including when the frequency converter is tripped or waiting for a command).
- Follow the guidelines in these instructions and local electrical safety codes.

#### **⚠ CAUTION**

##### **HEAVY LOAD**

Unbalanced loads can fall and cause equipment damage, serious injury, or death. Make sure to center the I-beam above the unit. The angle from the top of the frequency converter to the lifting cables must be 65° or greater. Failure to take proper lifting precautions increases risk or equipment damage, serious injury, or death.

Before lifting the frequency converter, be sure to:

- Check the weight of the unit.
- Ensure that the lifting device is suitable for the task.
- Move the unit using a hoist, crane, or forklift with the appropriate rating.
- Always lift the unit using the dedicated lifting eyes.

#### **⚠ 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 indicator lights are off. Failure to wait for a minimum of 40 minutes after power has been removed before performing service or repair work can result in death or serious injury.

1. Stop the motor.
2. Disconnect AC mains and remote DC-link supplies, including battery back-ups, UPS, and DC-link connections to other frequency converters.
3. Disconnect or lock PM motor.
4. Wait 40 minutes for the capacitors to discharge.
5. Before performing any service or repair work, use an appropriate voltage measuring device to make sure that the capacitors are fully discharged.

### Positioning the Pedestal

1. Place the pedestal in the desired location, paying attention to the following:
  - Ambient conditions
  - Cooling requirements
  - Unit dimensions and door clearances
2. Pull the mains and motor cables up through the pedestal.
3. Bolt the pedestal to the floor.

## Creating an Entry for Cables

Cables are connected from the bottom of the pedestal, through a metal gland plate, and into the cabinet. The gland plates must be fitted to the unit to ensure the specified degree of protection.

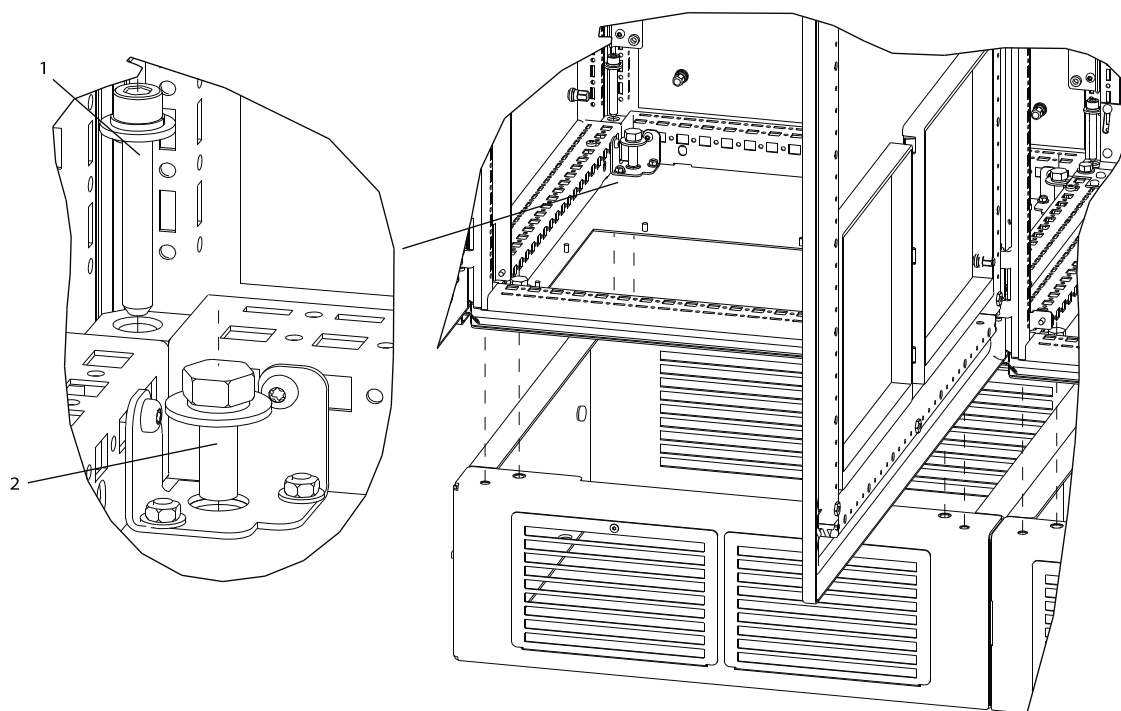
1. Open the mains cabinet and remove the nuts from the mains gland plate.
2. Remove the mains gland plate.
3. Open the motor cabinet and remove the nuts from the motor gland plate.
4. Remove the motor gland plate.
5. Use a sheet metal punch to create entry holes in the mains and motor plates. Refer to the gland plate dimensions in the operating instructions.

## Attaching the Unit to the Pedestal

### **NOTICE**

**Make sure not to damage the mains and motor cables while positioning the frequency converter on the pedestal.**

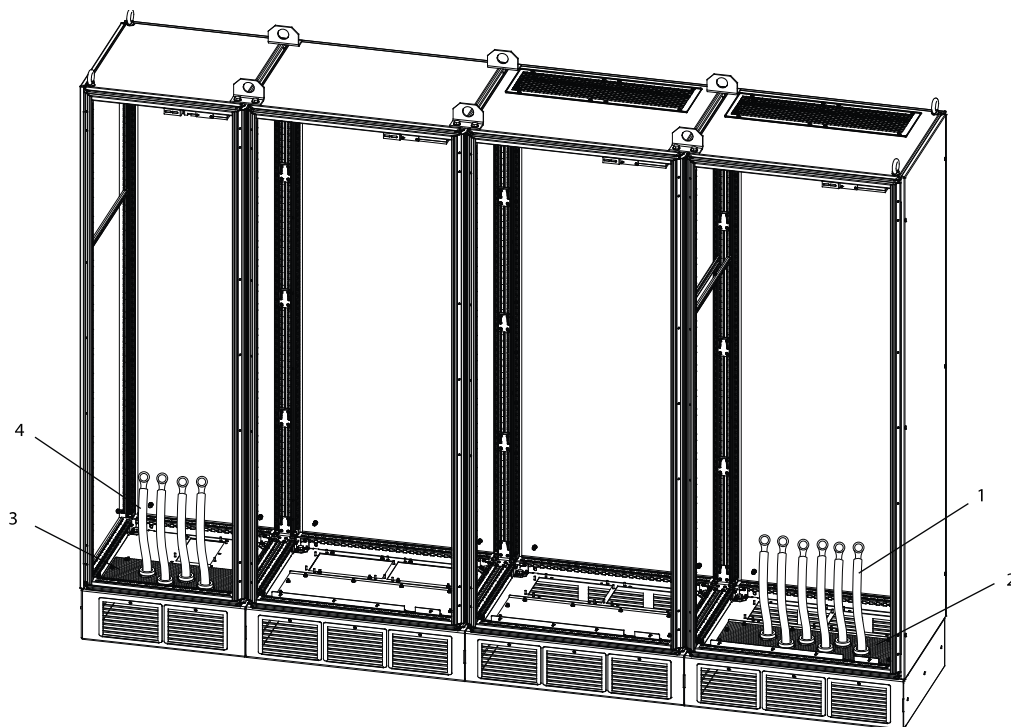
1. Lift the frequency converter and position it on the pedestal.
2. Verify that there is 225 mm (9 in) top clearance for air exhaust.
3. Verify that the air intake at the bottom front of the unit is not obstructed.
4. Install an M8x60 mm bolt with lock washer and flat washer through the frame and into the threaded hole at each corner of the base. To ensure correct IP21/IP54 enclosure protection, the M8x60 bolts must go through the frame. Install 4 bolts per cabinet. Torque to 9.6 Nm (85 in-lb). See *Illustration 1.1*.
5. Install an M10x30 mm bolt with captive lock washer and flat washer through each corner of the base plate and into the threaded hole in the base. Install 4 bolts per cabinet. Torque to 19 Nm (169 in-lb). See *Illustration 1.1*.
6. Reattach the mains and motor gland plates as shown in *Illustration 1.2*.



1308D651.10

1	M8x60 mm bolt with lock washer and flat washer	2	M10x30 mm bolt with captive lock washer and flat washer
---	--	---	---

Illustration 1.1 Location of Corner Fasteners for a Pedestal Installation



1308E059.10

1	Motor cables	3	Mains gland plate
2	Motor gland plate	4	Mains cables

Illustration 1.2 Attaching the Gland Plates

.....  
Danfoss can accept no responsibility for possible errors in catalogues, brochures and other printed material. Danfoss reserves the right to alter its products without notice. This also applies to products already on order provided that such alterations can be made without subsequential changes being necessary in specifications already agreed. All trademarks in this material are property of the respective companies. Danfoss and the Danfoss logotype are trademarks of Danfoss A/S. All rights reserved.  
.....

Danfoss A/S  
Ulsnaes 1  
DK-6300 Graasten  
vlt-drives.danfoss.com

