Tall Pedestal Kit for FK11/FB11 and FK12/FB12

iC7 Series Frequency Converters

1 Overview

1.1 Description

The pedestal kit contains all parts required to install the tall pedestal for FK11/FB11 and FK12/FB12 frequency converters. The pedestal is 400 mm (15.7 in) and replaces the standard 200 mm (7.9 in) pedestal that ships with the frequency converter. A pedestal and cable entry plate are required for proper operation of the frequency converter. The pedestal features a front grill to allow proper airflow for cooling. Reuse the cable entry plate that ships with the frequency converter to maintain the IP21/Type 1 or IP54/Type 12 protection rating.

1.2 Kit Numbers

Use these instructions with the following kits.

Table 1: Tall Pedestal Kits (400 mm)

Number	Kit Description
176F4044	Pedestal kit for FK11/FB11 frequency converters
176F4037	Pedestal kit for FK12/FB12 frequency converters

1.3 Items Supplied

The following parts are contained in the kit.

Table 2: Items Supplied in Tall Pedestal Kits

Item	Quantity
Pedestal	1
Front panel	1
Front top bracket	1
Front bottom bracket	1
Locking brackets	2
M10x22 screw	6
M8 hex nut	4
M5x14 countersunk screw	6
M10 nylon-insert lock nut	2

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 ⚠

DISCHARGE TIME (40 MINUTES)

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 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 frequency converters.
- Disconnect or lock the motor.
- Disconnect any brake option.
- Disconnect any DC connector option.
- Wait 40 minutes for the DC-link capacitors to discharge fully.
- Before performing any service or repair work, measure the voltage level to verify that the capacitors are fully discharged.

⚠ WARNING ⚠

ELECTRICAL SHOCK HAZARD

The frequency converter contains 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.

NOTICE

ELECTROSTATIC DISCHARGE

Electrostatic discharge can damage components.

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

2.2 Overview of Pedestal Installation

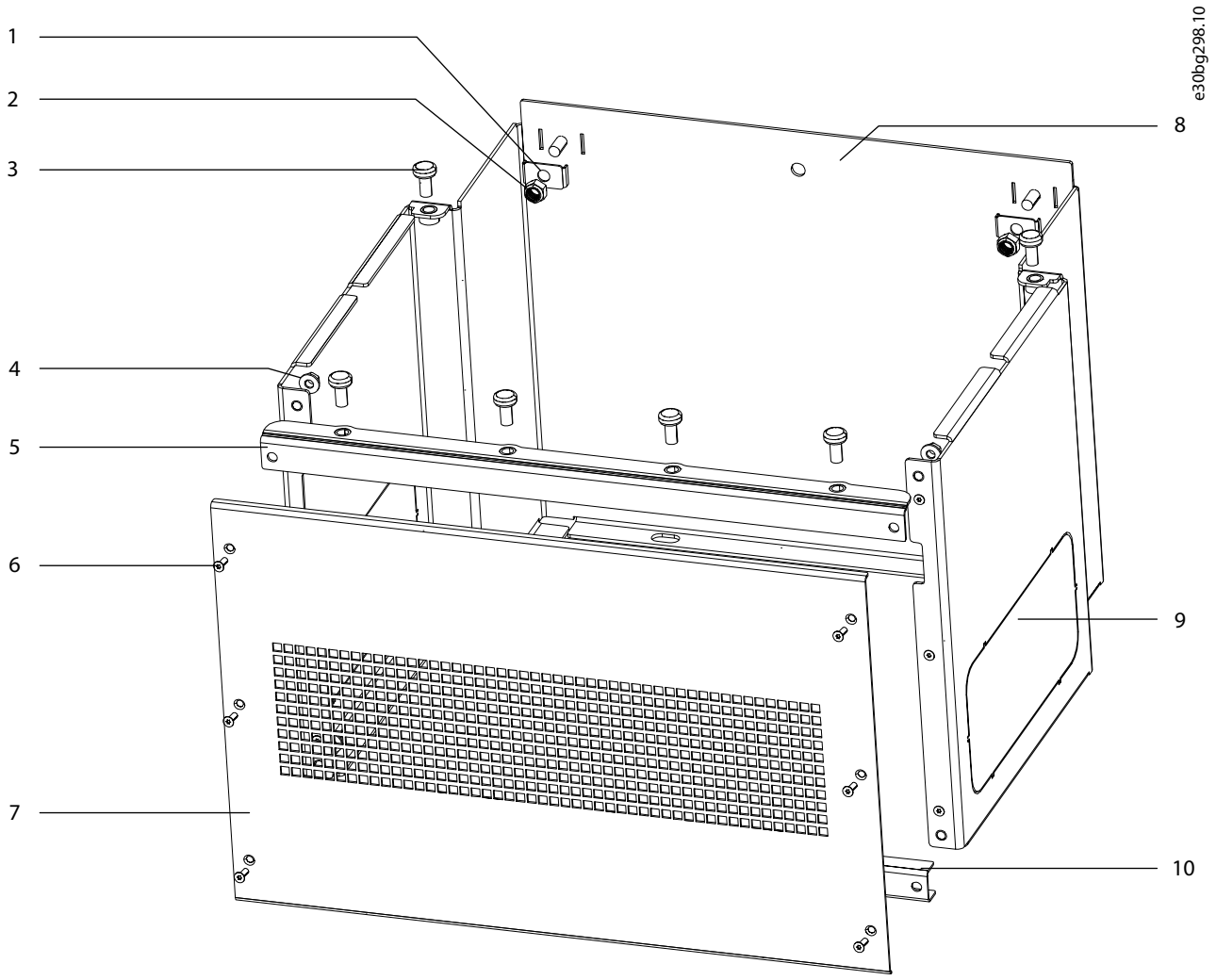

Illustration 1: Pedestal Kit Overview

1	Locking bracket	6	M5x14 countersunk screws
2	M10 nylon-insert lock nut	7	Front panel
3	M10x22 screws	8	Pedestal
4	M8 nut	9	Pedestal cutout
5	Front top bracket	10	Front bottom bracket

2.3 Lifting the Frequency Converter

⚠ WARNING ⚠

LIFTING PRECAUTIONS

The frequency converter is heavy. Failure to follow local safety regulations for lifting heavy weights can cause death, personal injury, or property damage.

- Ensure that the lifting equipment is in proper working condition.
- Check the weight of the frequency converter and verify that the lifting equipment can safely lift the weight.
- Always lift the frequency converter using the dedicated eye bolts at the top of the frequency converter. To avoid bending the eye bolts, use a bar. Maximum diameter of bar: 20 mm (0.8 in).
- Ensure that the angle from the top of the frequency converter to the lifting cable is 60° or greater.
- Test lift the frequency converter approximately 610 mm (24 in) to verify the proper center of gravity lift point. Reposition the lifting point if the frequency converter is not level.
- Never walk under suspended loads.

2.4 Securing the Pedestal to the Floor

The pedestal must be secured to the floor using 6 bolts before installing the frequency converter.

1. Access the mounting holes by removing the front panel of the pedestal.
2. Set the pedestal on the floor and secure using 6 bolts through the mounting holes. Refer to Illustration 2.

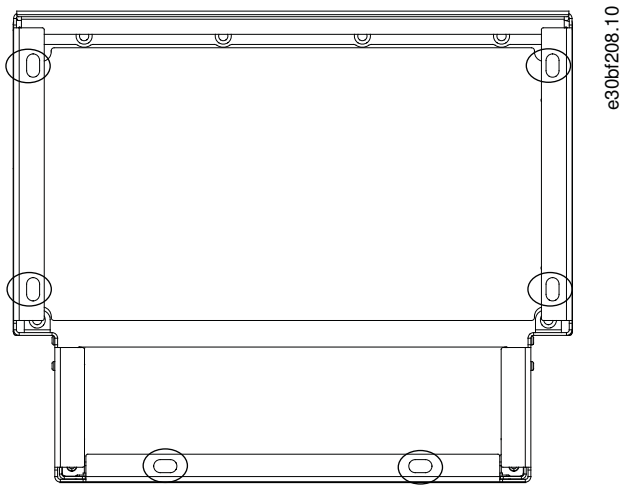

Illustration 2: Pedestal-to-Floor Mounting Points

2.5 Attaching the Frequency Converter

After the pedestal is secured to the floor, use the following steps to attach the frequency converter to the pedestal.

⚠ WARNING ⚠

TOP SUPPORT REQUIRED

After attaching the pedestal to the frequency converter, secure the top of the frequency converter to prevent it from tipping. The frequency converter can cause serious personal injury if it is not secured.

1. Lift the frequency converter and position it on the pedestal.
2. Slide the 2 bolts in the rear of the pedestal into the 2 slotted holes in the rear of the cabinet.

   Position the frequency converter by adjusting the rear bolts up or down.
3. Loosely secure the frequency converter with 2 M10 nylon-insert lock nuts and locking brackets.

   See Illustration 3.

4. Verify that the top clearance for air exhaust is at least 225 mm (9 in).
5. Verify that the air intake at the bottom front of the frequency converter is unobstructed.
6. Around the top of the pedestal, secure the cabinet using 6 M10x22 screws.

   Refer to Illustration 4.

7. Loosely tighten each fastener until all are installed.

   Torque each fastener to 19 Nm (169 in-lb).

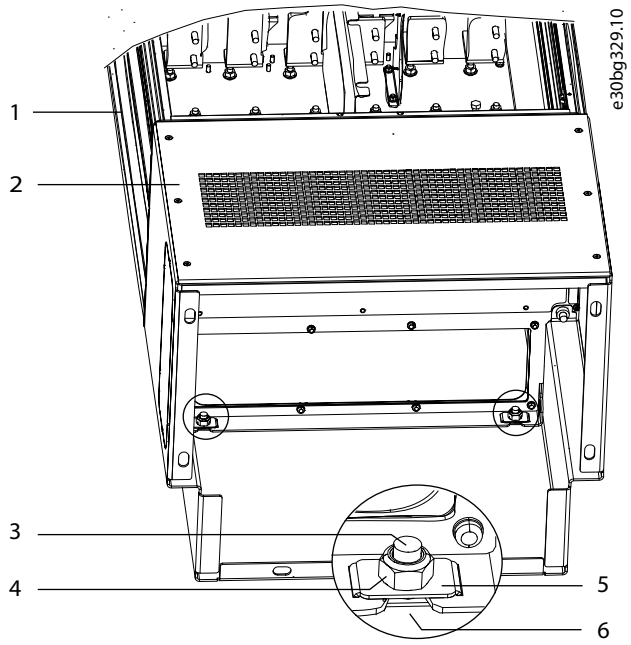

Illustration 3: Pedestal-to-Cabinet Back Mounting Points

1	Cabinet	4	M10 nylon insert lock nut
2	Pedestal	5	Locking bracket
3	Bolt at rear of pedestal	6	Slotted hole in cabinet

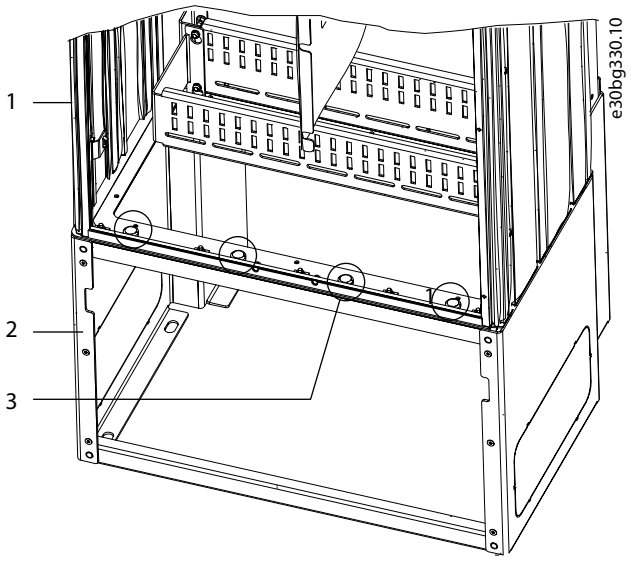

Illustration 4: Pedestal-to-Cabinet Front Mounting Points

1	Cabinet	3	M10x22 screws (rear corner bolts not shown)
2	Pedestal		

8. To secure the top of the frequency conveter, fasten 3 M10 bolts at the upper back edge of the cabinet.

2.6 Creating Cable Openings

The cable entry plate provides cable entry and cable termination points, and must be installed to maintain the IP21/Type 1 or IP54/Type 12 protection rating. The cable entry plate is placed between the frequency converter cabinet and the pedestal.

Depending on stud orientation, the plate can be installed from inside the cabinet or by taking off the front cover of the pedestal. To prepare and install the cable entry plate, use the following steps. Refer to Illustration 5.

1. Create cable entry holes in the plate using a sheet metal punch.
2. If installing the cable entry plate through the pedestal, remove 6 M5x14 countersunk screws that secure the pedestal front plate.
3. Insert the cable entry plate using 1 of the following methods:
   a. Slide the cable entry plate through the slot in the front of the pedestal.
   b. Insert the cable entry plate through the cabinet, angling the plate until it slides under the slotted brackets.
4. Align the studs on the cable entry plate to the holes in the pedestal and secure with 10 M5 nuts.

Torque each nut to 2.3 Nm (20 in-lb)

5. Fasten the front plate to the pedestal with 6 M5x14 countersunk screws.

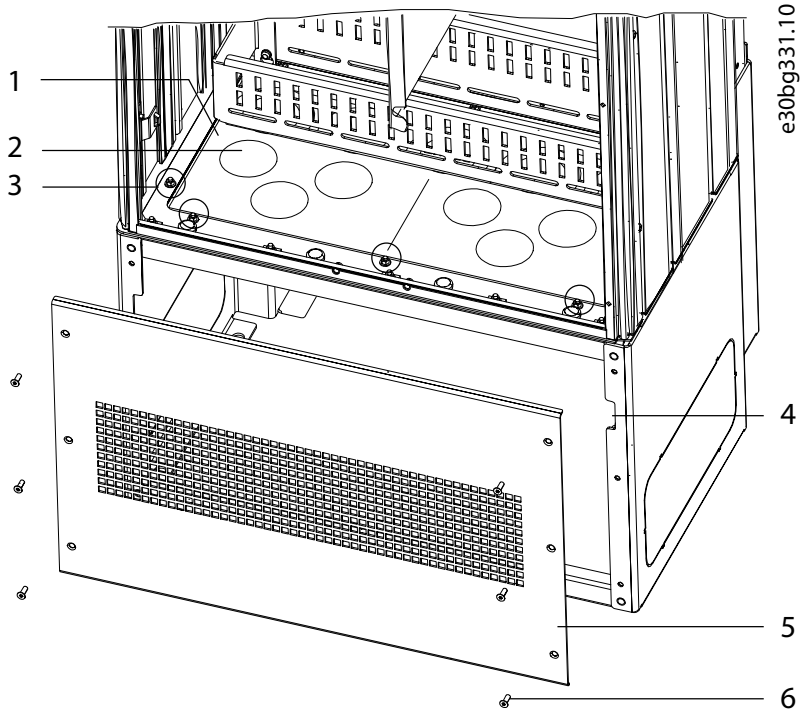

Illustration 5: Cable Entry Plate Installation

1	Cable entry plate	4	Slot in pedestal
2	Cable entry hole	5	Front cover
3	M5 nut	6	M5 countersunk screw

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