Installation Guide

Pedestal Kit for FK09/FB09 and FK10/FB10

iC7 Series Frequency Converters

1 Overview

1.1 Description

The pedestal kit is designed for free-standing frequency converters in FK09, FB09, FK10, and FB10 frames. The pedestal features a front grill that enables the necessary airflow for cooling.

Free-standing drives require a pedestal and a cable entry plate for proper operation. Reuse the cable entry plate that ships with the drive 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: Pedestal Kits for FK09-FK10/FB09-FB10 Frequency Converters

Number	Description
176F4034	400 mm (15.7 in) pedestal kit for FK09a/FB09a frequency converters
176F4035	400 mm (15.7 in) pedestal kit for FK10a/FB10a frequency converters
176F4036	200 mm (7.9 in) pedestal kit for FK09c/FB09c frequency converters

1.3 Items Supplied

The following parts are contained in the kit.

Table 2: Items Supplied in Pedestal Kits

Item	Quantity
Pedestal base	1
Front cover	1
Upper front flange	1
Lower front flange	1
Side plate	2
M5x18 screw	6
M10 hex nut	2
M8 hex nut	4
M5x14 countersunk screw	12

2 Installation

2.1 Safety Information

⚠ WARNING

ELECTRIC SHOCK HAZARD

AC drives contain dangerous voltages when connected to mains voltage. Installing or servicing the drive with power connected can cause 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 regulations.

⚠ WARNING

DISCHARGE TIME (20 MINUTES)

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 20 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 backups, UPS, and DC-link connections to other drives.
- Disconnect or lock the PM motor.
- Wait for the capacitors to discharge fully. The minimum waiting time is 20 minutes.
- Before performing any service or repair work, use an appropriate voltage measuring device to make sure that the capacitors are fully discharged.

⚠ WARNING

INTERNAL FAILURE HAZARD

An internal failure in the drive can result in serious injury when the drive is not properly closed.

- Ensure that all safety covers are in place and securely fastened before applying power.

NOTICE

ELECTROSTATIC DISCHARGE

Electrostatic discharge can damage components.

- Follow standard ESD procedures.
- Ensure discharge before touching internal components, for example, by touching a grounded, conductive surface or by wearing a grounded armband.

2.2 Overview of Pedestal Installation

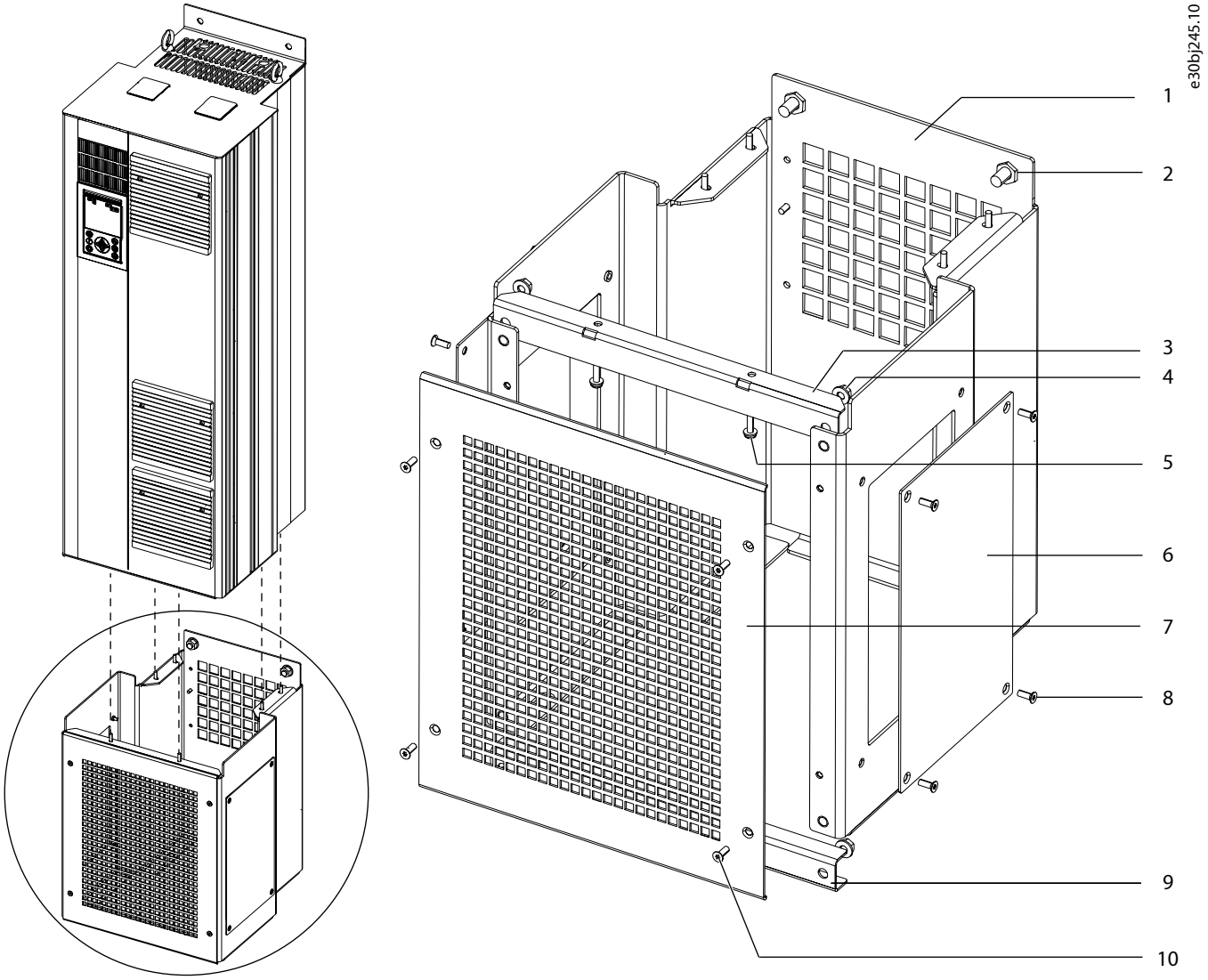

Figure 1: Overview of Pedestal Kit

1	Pedestal base	**2**	M10 hex nut
3	Upper front flange	**4**	M8 hex nut
5	M5x18 screw	**6**	Side plate
7	Front cover	**8**	M5x14 countersunk screw
9	Lower front flange	**10**	M5x14 countersunk screw

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.
- Ensure that the angle from the top of the frequency converter to the lifting cable is 65° 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

Use the following steps to secure the pedestal to the floor before installing the frequency converter.

1. Determine proper placement of the pedestal and frequency converter, considering the operating environment, and cable access requirements.
2. Use the dimension drawings to create mounting holes for the pedestal. See Figure 2 and Figure 3.
3. Set the pedestal base on the floor and fasten with 4 M12 bolts through the mounting holes.

   Torque the bolts to 35 Nm (310 in-lb).
4. Position the upper and lower front flanges in the pedestal base and fasten with 4 M8 hex nuts, 2 per flange.

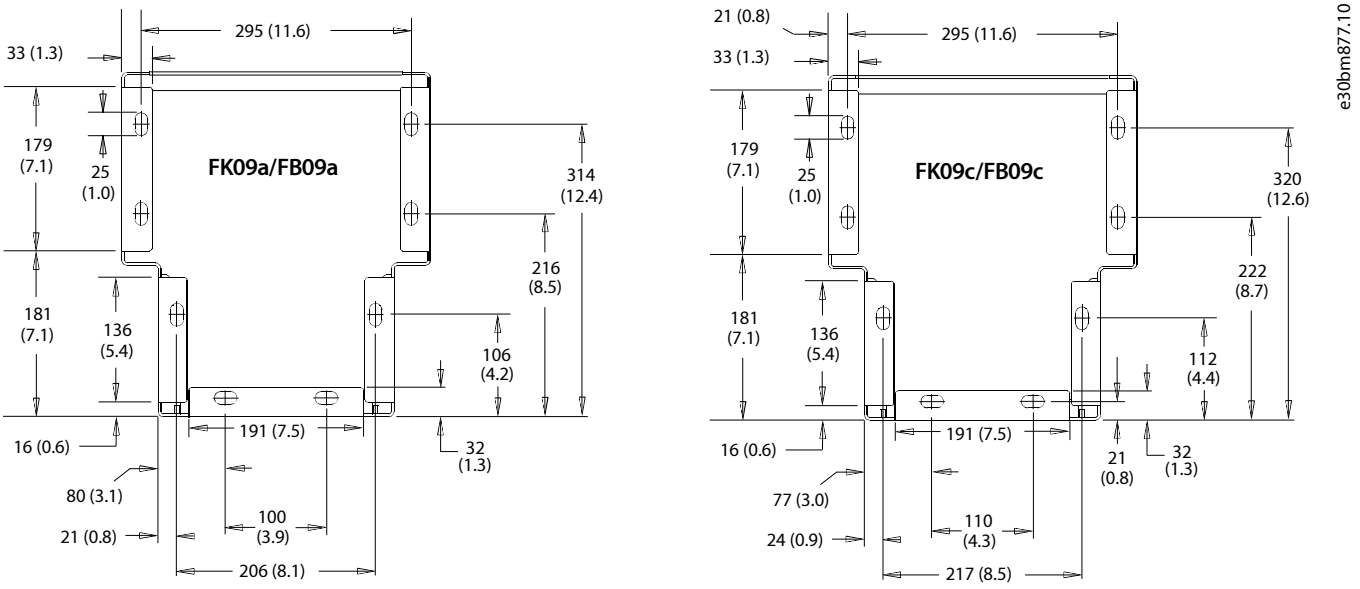

Figure 2: Dimensions for Pedestal Mounting Holes (FK09/FB09 Frames)

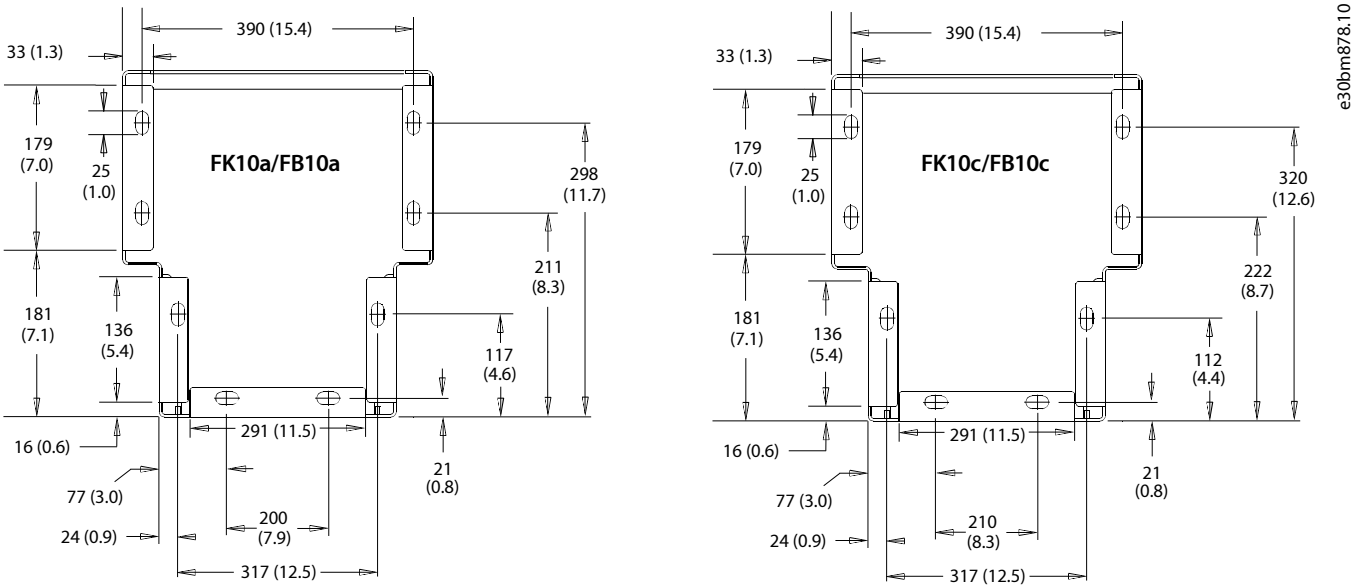

Figure 3: Dimensions for Pedestal Mounting Holes (FK10/FB10 Frames)

2.5 Attaching the Frequency Converter

After attaching the pedestal to the floor, attach the frequency converter to the pedestal using the following steps. See Figure 4.

⚠ WARNING

TIPPING PRECAUTION

If the frequency converter is not secured, the frequency converter can tip and cause serious personal injury.

- After attaching the pedestal to the frequency converter, secure the top of the frequency converter to the wall or mounting panel.

Procedure

1. Position the frequency converter on the pedestal base.
2. Secure 2 M10 nuts over the threaded studs at the back of the pedestal, securing the pedestal to the frequency converter.
3. Fasten 2 M5 screws through the back flange of the pedestal base into the flange on the lower end of the frequency converter.
4. To secure the frequency converter to the wall or mounting panel, fasten 2 M10 bolts (not supplied) in the mounting holes at the top of the frequency converter. Use 1 bolt per mounting hole.

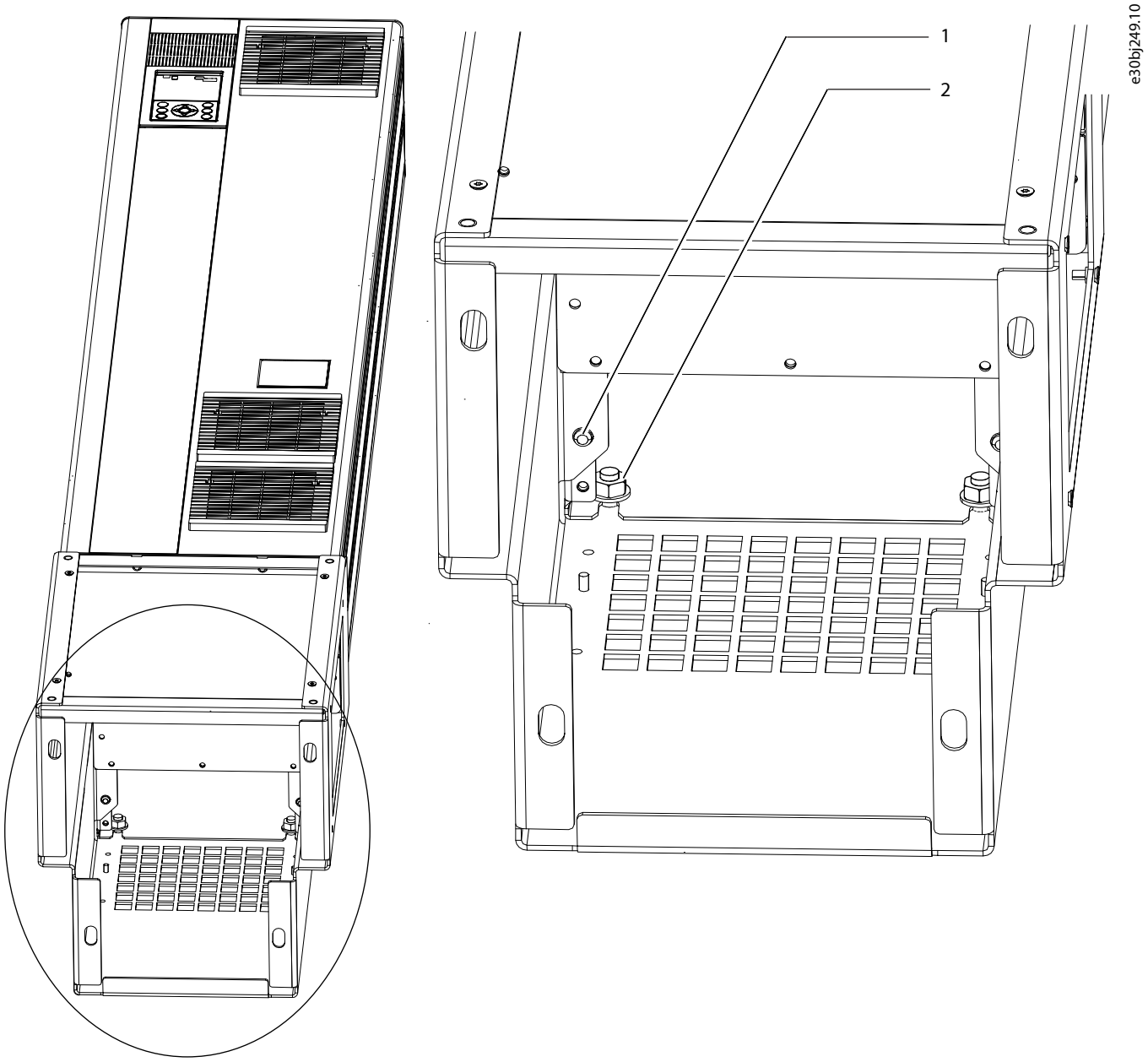

Figure 4: Pedestal-to-Frequency Converter Mounting Points

1	M5 screw in back flange	**2**	M10 nut

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. Reuse the cable entry plate that is shipped with the frequency converter.

The cable entry plate can be installed from inside the frequency converter cabinet or before attaching the front cover and side plates of the pedestal. To install the cable entry plate, use the following steps. Refer to Figure 5.

1. Create cable entry holes in the plate using a sheet metal punch.
2. Insert the cable entry plate using 1 of the following methods:
   a. Slide the cable entry plate through the pedestal front opening.

b. Insert the cable entry plate through the frequency converter cabinet angling the plate until it slides into position.

3. Align the studs on the cable entry plate with the holes in the pedestal and secure with 8 M5 nuts.

4. Attach the pedestal side panels with 8 M5x14 countersunk screws, 4 in each panel.

5. Attach the front cover to the pedestal by securing 4 M5x14 countersunk screws.

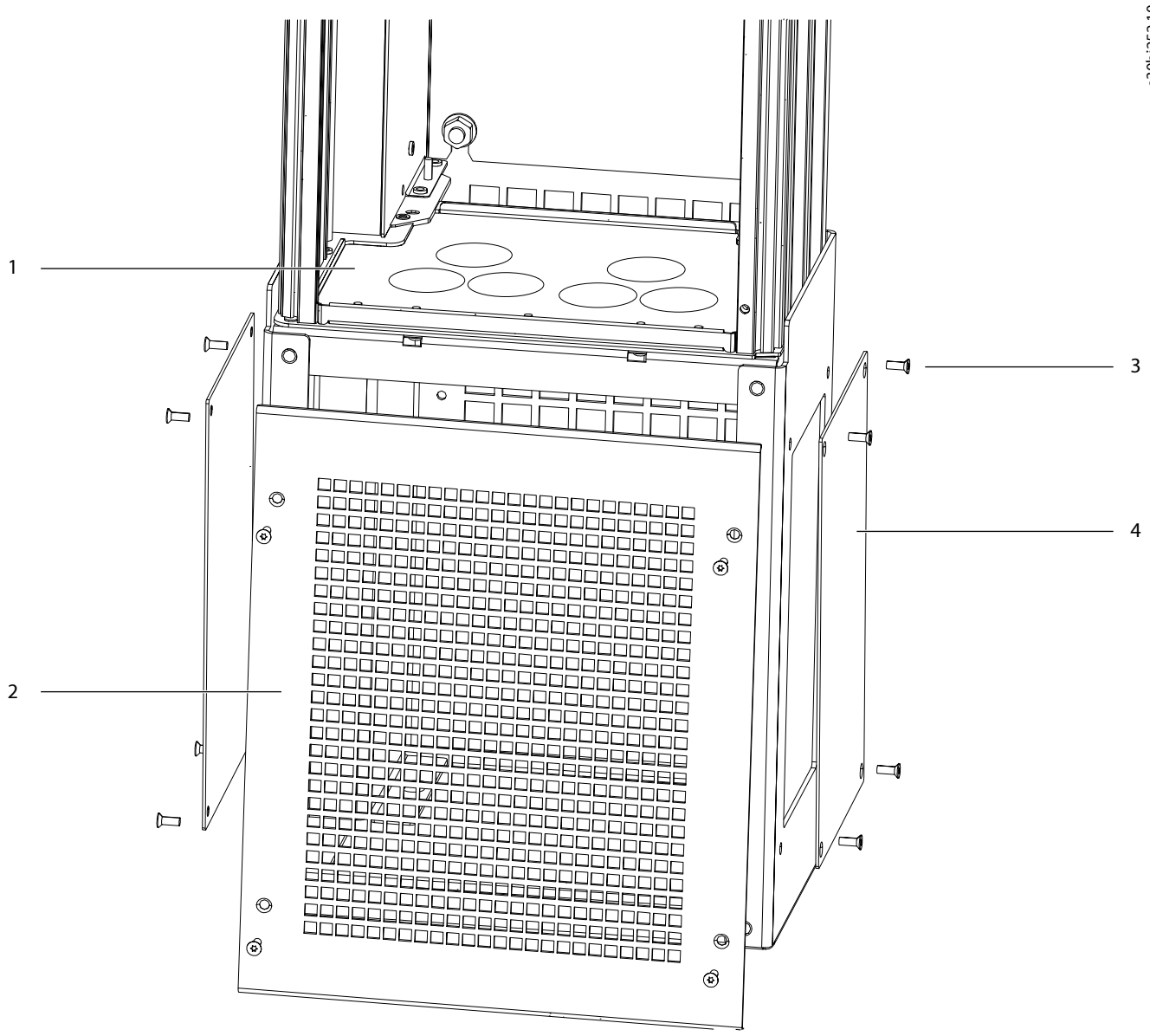

Figure 5: Cable Entry Plate and Pedestal

1	Cable entry plate	**2**	Front cover
3	Side panel	**4**	M5 x14 countersunk screw

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