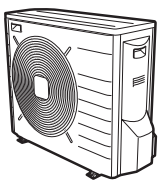




# INSTALLATION MANUAL

**Daikin Altherma low temperature Split outdoor unit**



**ERLQ004CAV3  
ERLQ006CAV3  
ERLQ008CAV3**



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## 1 About the documentation

### 1.1 About this document

#### Target audience

Authorized installers

#### Documentation set

This document is part of a documentation set. The complete set consists of:

Document	Contains...	Format
General safety precautions	Safety instructions that you must read before installing	Paper (in the box of the indoor unit)
Indoor unit installation manual	Installation instructions	
Outdoor unit installation manual	Installation instructions	Paper (in the box of the outdoor unit)
Installer reference guide	Preparation of the installation, technical specifications, good practices, reference data,...	CD (in the box of the indoor unit)
Addendum book for optional equipment	Additional info about how to install optional equipment	Paper (in the box of the indoor unit) CD (in the box of the indoor unit)

Latest revisions of the supplied documentation may be available on the regional Daikin website or via your dealer.

## 2 About the box

### 2.1 Outdoor unit

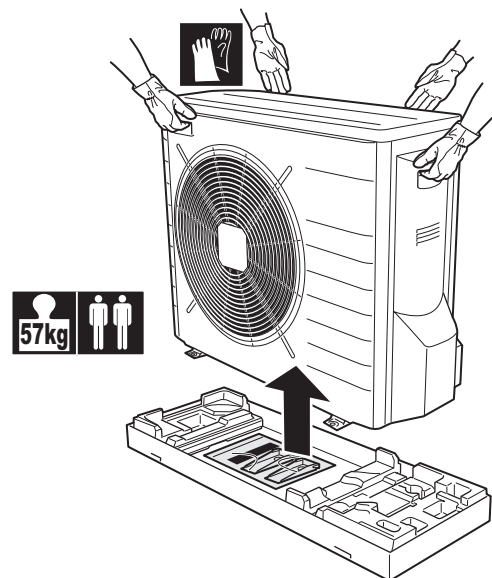
#### 2.1.1 To remove the accessories from the outdoor unit

1 Lift the outdoor unit.

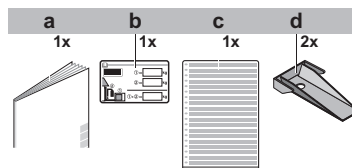


#### CAUTION

Only handle the outdoor unit as follows:



2 Remove the accessories at the bottom of the package.



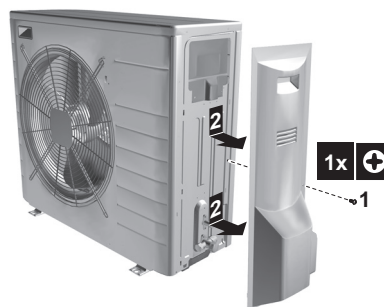
- a Outdoor unit installation manual
- b Fluorinated greenhouse gases label
- c Multilingual fluorinated greenhouse gases label
- d Unit mounting plate

## 3 Installation

### 3.1 Opening the units

#### 3.1.1 To open the outdoor unit

1 Remove 1 screw from the service cover.



2 Remove the service cover.

### 3 Installation

#### 3.2 Mounting the outdoor unit

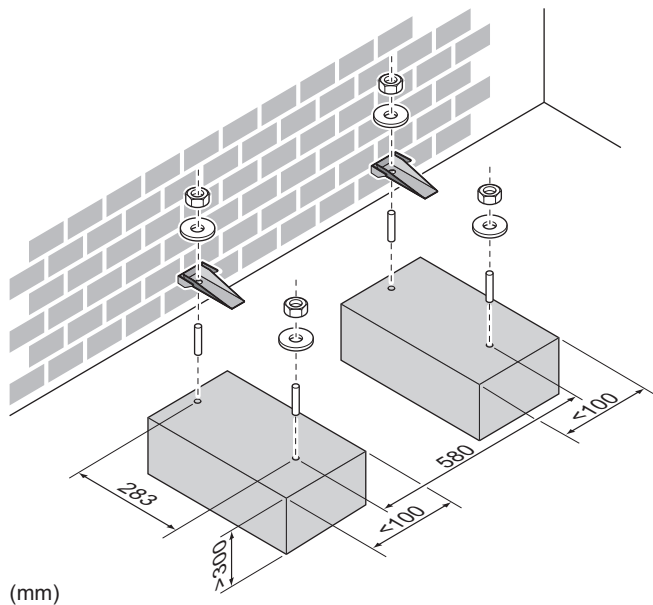
##### 3.2.1 To prepare the installation structure

If the unit is installed directly on the floor, prepare 4 sets of M8 or M10 anchor bolts, nuts and washers (field supply) as follows:

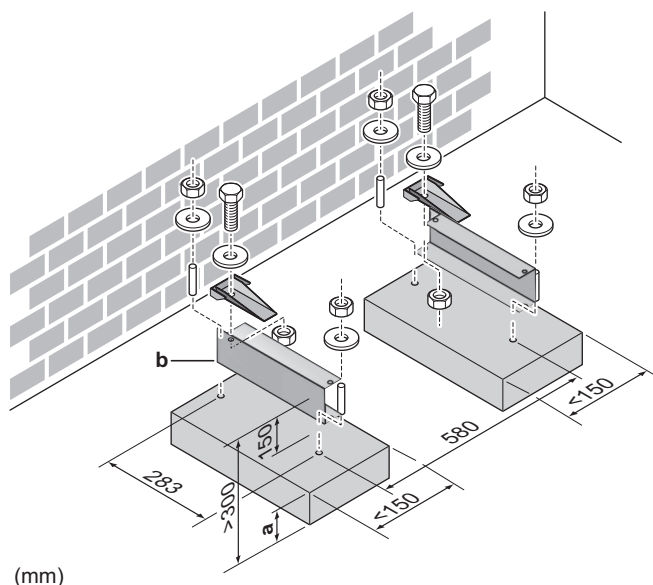


#### INFORMATION

The maximum height of the upper protruding part of the bolts is 15 mm.

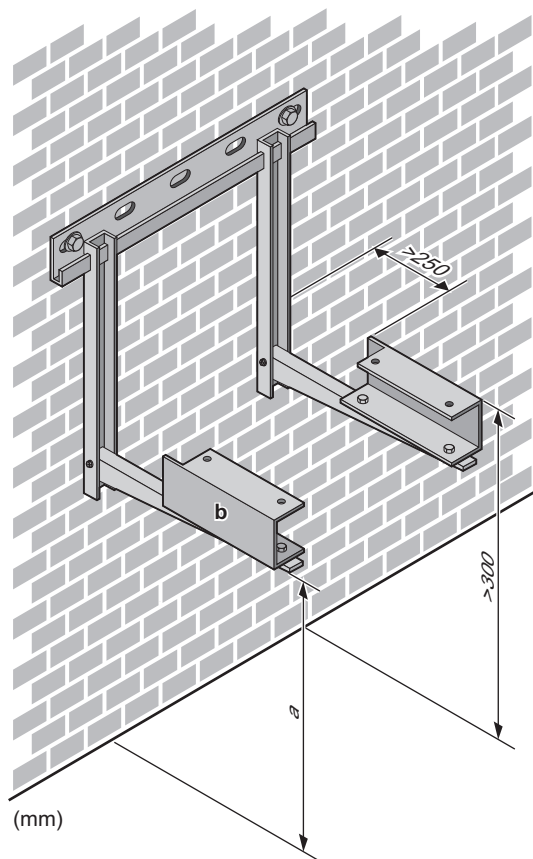


In order to guarantee good operation of the unit in areas with risk of snowfall, a minimum of 15 cm needs to be assured below the bottom plate of the unit. It is recommended to construct a pedestal with the same height as the maximum snowfall height. On this pedestal it is then recommended to install the EKFT008CA option kit to guarantee the minimum space of 15 cm below the bottom plate of the unit.

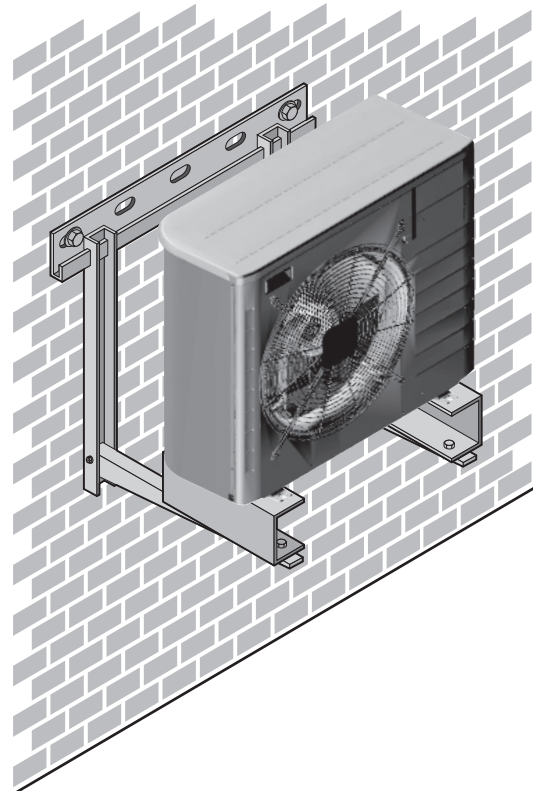


- a Maximum snowfall height
- b EKFT008CA option kit

If the unit is installed on brackets to the wall, it is advised to use the EKFT008CA option kit and to install the unit as follows:



- a Maximum snowfall height
- b EKFT008CA option kit



## 3.2.2 To prepare drain work

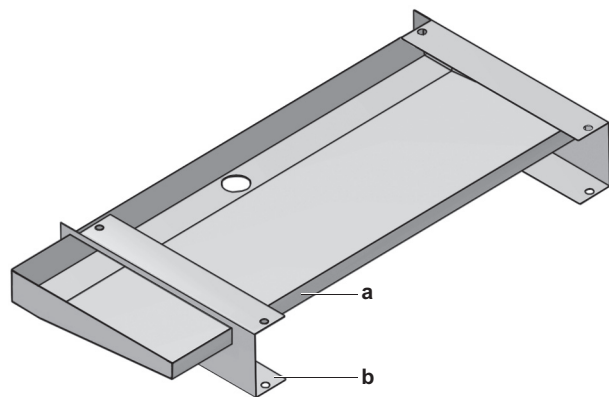
Make sure that condensation water can be evacuated properly.



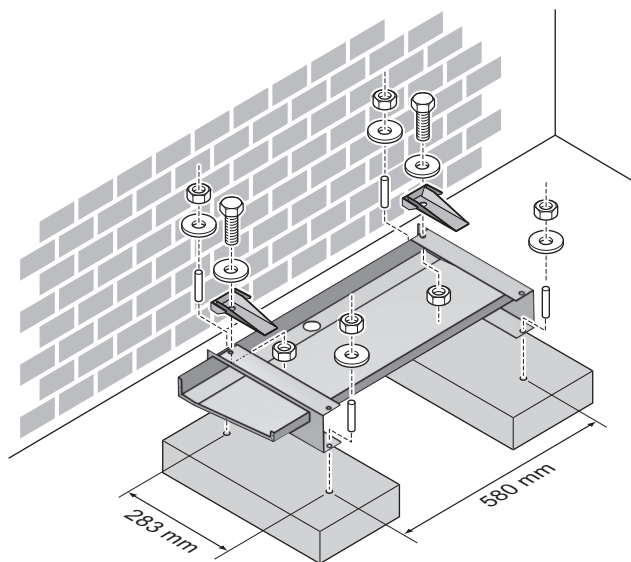
### NOTICE

If the drain holes of the outdoor unit are blocked up, provide space of at least 300 mm below the outdoor unit.

An additional drain pan kit (EKDP008CA) can be used to gather the drain water. The drain pan kit consists of:



- a Drain pan
- b U-beams



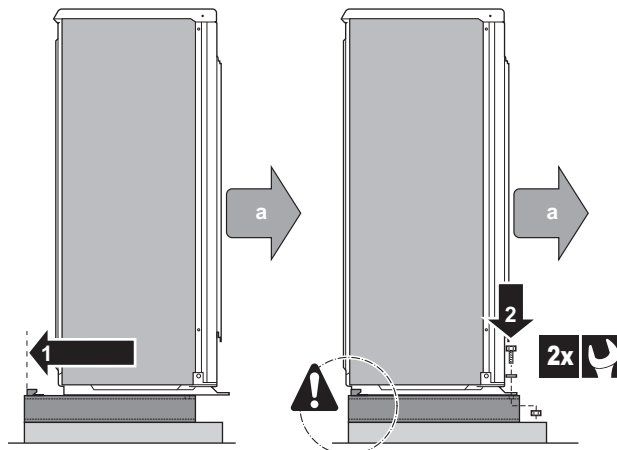
## 3.2.3 To install the outdoor unit



### CAUTION

Do NOT remove the protective cardboard before the unit is installed properly.

- 1 Lift the outdoor unit as described in To remove the accessories from the outdoor unit.
- 2 Install the outdoor unit as follows:



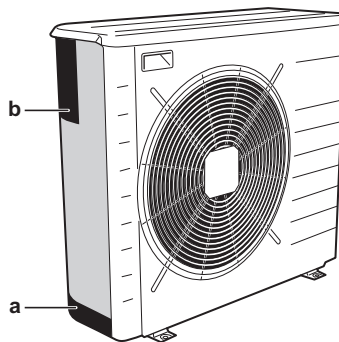
- a Air outlet



### NOTICE

The pedestal **MUST** be aligned with the backside of the U-beam.

- 3 Remove the protective cardboard and instruction sheet.



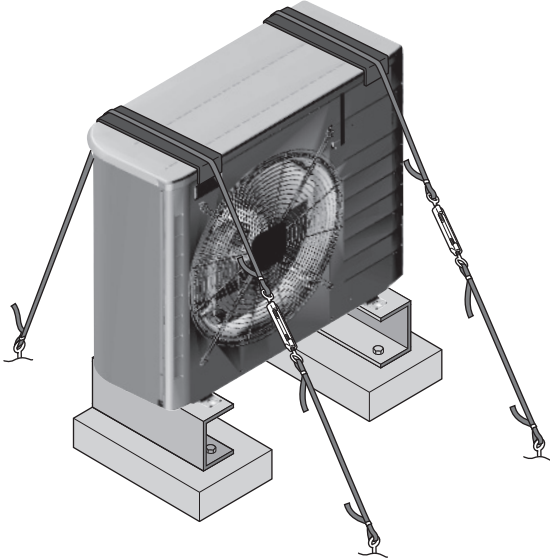
- a Protective cardboard
- b Instruction sheet



## 3 Installation

### 3.2.4 To prevent the outdoor unit from falling over

- 1 Prepare 2 cables as indicated in the following illustration (field supply).
- 2 Place the 2 cables over the outdoor unit.
- 3 Insert a rubber sheet between the cables and the outdoor unit to prevent the cable from scratching the paint (field supply).
- 4 Attach the cable's ends. Tighten those ends.



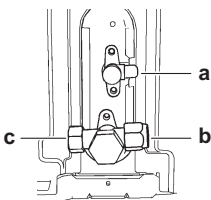
### 3.3 Connecting the refrigerant piping



**DANGER: RISK OF BURNING**

#### 3.3.1 To connect the refrigerant piping to the outdoor unit

- 1 Connect the liquid refrigerant connection from the indoor unit to the liquid stop valve of the outdoor unit.



- a Liquid stop valve
- b Gas stop valve
- c Service port

- 2 Connect the gas refrigerant connection from the indoor unit to the refrigerant stop valve of the outdoor unit.

### 3.4 Checking the refrigerant piping

#### 3.4.1 To check for leaks



#### NOTICE

- Do NOT exceed the maximum operation pressure of 4000 kPa (40 bar).
- Only use recommended bubble test solution.

- 1 Charge the system with nitrogen gas up to a gauge pressure of at least 200 kPa (2 bar).
- 2 Check for leaks by applying the bubble test solution to all connections.
- 3 Discharge all nitrogen gas.

#### 3.4.2 To perform vacuum drying

- 1 Vacuum the system until the pressure on the manifold indicates  $-0.1$  MPa ( $-1$  bar).
- 2 Leave as is for 4-5 minutes and check the pressure:

If the pressure...	Then...
Does not change	There is no moisture in the system. This procedure is finished.
Increases	There is moisture in the system. Go to the next step.

- 3 Evacuate for at least 2 hours to a pressure on the manifold of  $-0.1$  MPa ( $-1$  bar).
- 4 After turning OFF the pump, check the pressure for at least 1 hour.
- 5 If you do NOT reach the target vacuum or cannot maintain the vacuum for 1 hour, do the following:
  - Check for leaks again.
  - Perform vacuum drying again.

### 3.5 Charging refrigerant

#### 3.5.1 To determine the additional refrigerant amount

If the total liquid piping length is...	Then...
$\leq 10$ m	Do NOT add additional refrigerant.
$> 10$ m	Add 20 g refrigerant per extra meter (above 10 m).

#### 3.5.2 To charge refrigerant



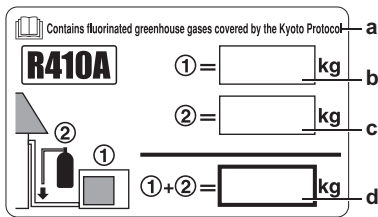
#### WARNING

Only use R410A as refrigerant. Other substances may cause explosions and accidents.

- 1 Connect the refrigerant cylinder to the service port.
- 2 Charge the additional refrigerant amount.
- 3 Open the gas stop valve.

## 3.5.3 To fix the fluorinated greenhouse gases label

1 Fill in the label as follows:



- a From the multilingual fluorinated greenhouse gases label peel off the applicable language and stick it on top of **a**.
- b Factory refrigerant charge: see unit name plate
- c Additional refrigerant amount charged
- d Total refrigerant charge

2 Fix the label on the inside of the outdoor unit near the gas and liquid stop valves.

## 3.6 Connecting the electrical wiring

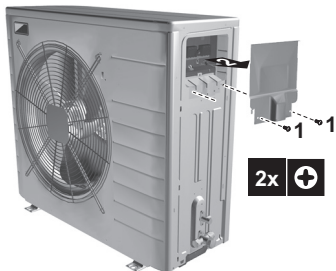
**DANGER: RISK OF ELECTROCUTION**

### 3.6.1 About electrical compliance

Only for ERLQ006CAV3+ERLQ008CAV3  
 Equipment complying with EN/IEC 61000-3-12 (European/International Technical Standard setting the limits for harmonic currents produced by equipment connected to public low-voltage systems with input current >16 A and ≤75 A per phase.).

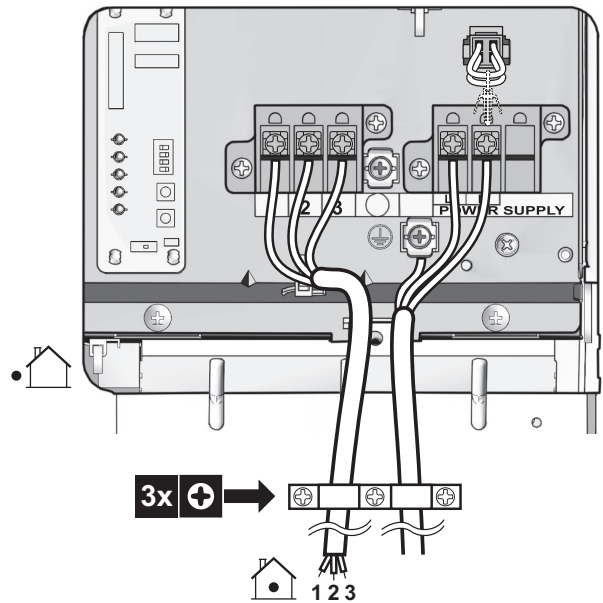
### 3.6.2 To connect the electrical wiring on the outdoor unit

- 1 Remove the 2 switch box cover screws.
- 2 Remove the switch box cover.



3 Open the wire clamp.

4 Connect the interconnection cable and power supply as follows:

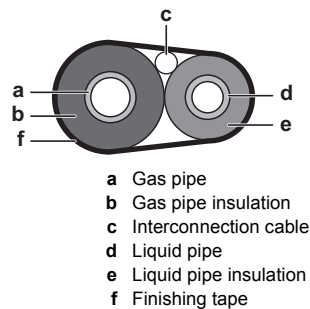


5 Install the switch box cover.

## 3.7 Finishing the outdoor unit installation

### 3.7.1 To finish the outdoor unit installation

1 Insulate and fix the refrigerant piping and interconnection cable as follows:



2 Install the service cover.

## 4 Starting up the outdoor unit

See the indoor unit installation manual for configuration and commissioning of the system.



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