



# Installation manual

## Daikin room air conditioner



**FTXP20N5V1B9**  
**FTXP25N5V1B9**  
**FTXP35N5V1B9**

**ATXP20N5V1B9**  
**ATXP25N5V1B9**  
**ATXP35N5V1B9**

Installation manual  
Daikin room air conditioner

**English**

EU – Safety declaration of conformity  
EU – Sichebnéhl Konformitátskérítéshung  
UE – Déclaration de conformité de sécurité  
EU – Conformitátskérítéshung vóghéid

EC – Declaración de conformidad sobre seguridad  
EU – Dichiarazione di conformità in materia di sicurezza  
EE – Ahukon ophéirgæfðing yu mýr góðfæðing  
EU – Déclaration de conformité relative à sécurité

EU – Varnostna žigava o skladnosti  
EU – Odlusava vavarnostskérítéshung  
EC – Déclaracjia za sòvòetstvie za bezòpachost  
AB – Góvènik ugùnluk bývanj

Daikin Europe N.V.

- 01 0000 dédars under its sole responsibility that the products to which this declaration relates:
- 02 0000 erklärt in alleiniger Verantwortung, dass die Produkte, auf die sich diese Erklärung bezieht:
- 03 0000 déclare sous sa seule responsabilité que les produits visés par la présente déclaration:
- 04 0000 verklaart hierbij op eigen verantwoordelijkheid dat de producten waarop deze verklaring betrekking heeft:
- 05 0000 dichiara sotto la propria responsabilità che i prodotti a cui è riferita questa dichiarazione:
- 06 0000 δηλώνει κάτω από την αποκλειστική της ευθύνη ότι τα προϊόντα στα οποία αναφέρεται η παρούσα δήλωση:
- 07 0000 δηλώνει έλατω η αποκλειστική της ευθύνη ότι τα προϊόντα στα οποία αναφέρεται η παρούσα δήλωση:
- 08 0000 declara sub sua exclusivă responsabilitate că os produse a que esta declarație se referă:

FTXP20N5V1B9, FTXP35N5V1B9, FTXP20N5V1B9, ATXP20N5V1B9, ATXP35N5V1B9, ATXP35N5V1B9,

- 01 are in conformity with the following directives (or regulations), provided that the products are used in accordance with our instructions:
- 02 folgende Richtlinien oder Vorschriften entsprechen, vorausgesetzt, dass diese gemäß unseren Anweisungen verwendet werden:
- 03 sont conformes à laux directives (ou règlements) suivants, à condition que les produits soient utilisés conformément à nos instructions:
- 04 in overeenstemming zijn met de volgende richtlijnen (of verordeningen), op voorwaarde dat de producten worden gebruikt overeenkomstig onze instructies:
- 05 están en conformidad con las siguientes directivas (o reglamentos), siempre que se utilicen con nuestras instrucciones:
- 06 sono conformi alle direttive o ai regolamenti seguenti, a patto che i prodotti vengano usati in conformità alle nostre istruzioni:
- 07 σύμφωνα με τις ακόλουθες οδηγίες (ή κανονισμούς), υπό την προϋπόθεση ότι τα προϊόντα χρησιμοποιούνται σύμφωνα με τις οδηγίες μας:
- 08 estão em conformidade com as(s) seguintes directiva(s) ou regulamento(s), desde que os produtos sejam utilizados de acordo com as nossas instruções:

Machinery 2006/42/EC\*\*  
Radio Equipment 2014/53/EU\*

- 01 following the provisions of:
  - 02 gemäß der Bestimmungen für:
  - 03 conformément aux dispositions de:
  - 04 volgens de bepalingen van:
  - 05 siguiendo las disposiciones de:
  - 06 secondo le disposizioni di:
  - 07 σύμφωνα με τις διατάξεις των:
  - 08 segundo as disposições de:
  - 09 в соответствии с положениями:
- 01 Not\* as set out in <A> and judged positively by <B>
  - 02 Hinweis\* according to the Certificate <C>
  - 03 Remarque\* telles que définies dans <A> et évaluées positivement par <B> conformément au Certificat <C>
  - 04 Bemerk\* zoals uiteengezet in <A> en positief beoordeeld door <B> overeenkomstig het Certificaat <C>
  - 05 Nota\* tal como se estabelece em <A> e valorado positivamente por <B> de acordo com el Certificado <C>

<A>	TCF.RED.DAIKIN.004
<B>	-
<C>	-

- 01\*\* H Daikin Europe N.V. is authorised to compile the Technical Construction File.
  - 02\*\* A Daikin Europe N.V. hat die Berechtigung die Technische Konstruktionsakte zusammenzustellen.
  - 03\*\* Daikin Europe N.V. est autorisée à compiler le Dossier de Construction Technique.
  - 04\*\* Daikin Europe N.V. is bevoegd om het Technisch Constructiedossier samen te stellen.
  - 05\*\* Daikin Europe N.V. est autorizada a compilar el Archivo de Construcción Técnica.
  - 06\*\* Daikin Europe N.V. é autorizada a redigir o File Técnico de Construção.
- 07\*\* H Daikin Europe N.V. είναι εξουσιοδοτημένη να συντάξει τον Τεχνικό φάκελο κατασκευής.
  - 08\*\* A Daikin Europe N.V. está autorizada a compilar a documentação técnica de fabrico.
  - 09\*\* Koninaam Daikin Europe N.V. yromovorende a compilar de Technische documenten.
  - 10\*\* Daikin Europe N.V. er autorisert til å utarbeide de tekniske konstruksjonsdata.
  - 11\*\* Daikin Europe N.V. är behörigad att sammanställa den tekniska konstruktionsfilen.
  - 12\*\* Daikin Europe N.V. har tillätselse till å kompilera den Tekniska konstruktionsfilen.

Hiromitsu Iwasaki  
Director  
Ostend, 1st of August 2023

Zandvoordestraat 300, B-8400 Oostende, Belgium

UKCA – Safety declaration of conformity

Daikin Europe N.V.

declares under its sole responsibility that the products to which this declaration relates:

FTXP20N5V1B9, FTXP25N5V1B9, FTXP35N5V1B9, ATXP20N5V1B9, ATXP25N5V1B9, ATXP35N5V1B9,

are in conformity with the following directive(s) or regulation(s), provided that the products are used in accordance with our instructions:

S.I. 2008/1597: Supply of Machinery (Safety) Regulations 2008\*\*  
S.I. 2017/1206: Radio Equipment Regulations 2017\*

as amended,

following the provisions of: BS EN 60335-2-40: 2003 + A13: 2012, BS EN IEC 62311: 2020, BS EN IEC 55014-1: 2021, BS EN IEC 55014-2: 2021, BS EN IEC 61000-3-2: 2019 + A1: 2021,  
BS EN IEC 61000-3-2: 2018 + A1: 2020, BS EN 61000-3-3: 2013 + A1: 2019 + A2: 2021, BS EN IEC 61000-3-3: 2013 + A1: 2017 + A2: 2021, EN 301 489-1 V2.2.3, EN 301 489-17 V3.2.4,  
EN 300 328 V2.2.2,

\* as set out in <A> and judged positively by <B> according to the **Certificate <C>**.

\*\* Daikin Europe N.V. is authorised to compile the Technical Construction File.

<A>	TCF.RED.DAIKIN.004
<B>	-
<C>	-

## Table of contents

<b>1</b>	<b>About the documentation</b>	<b>4</b>
1.1	About this document.....	4
<b>2</b>	<b>Specific installer safety instructions</b>	<b>4</b>
<b>3</b>	<b>About the box</b>	<b>6</b>
3.1	Indoor unit.....	6
3.1.1	To remove the accessories from the indoor unit.....	6
<b>4</b>	<b>About the unit</b>	<b>6</b>
4.1	System layout.....	6
4.2	Operation range.....	7
<b>5</b>	<b>Unit installation</b>	<b>7</b>
5.1	Preparing the installation site .....	7
5.1.1	Installation site requirements of the indoor unit .....	7
5.1.2	Additional installation site requirements of the outdoor unit in cold climates .....	7
5.2	Opening the indoor unit .....	7
5.2.1	To remove the front panel.....	7
5.2.2	To re-install the front panel .....	7
5.2.3	To remove the front grille .....	7
5.2.4	To re-install the front grille .....	8
5.2.5	To remove the electrical wiring box cover.....	8
5.2.6	To open the service cover.....	8
5.3	Mounting the indoor unit.....	8
5.3.1	To install the mounting plate.....	8
5.3.2	To drill a wall hole .....	9
5.3.3	To remove the pipe port cover .....	9
5.3.4	To provide drainage .....	9
<b>6</b>	<b>Piping installation</b>	<b>11</b>
6.1	Preparing refrigerant piping.....	11
6.1.1	Refrigerant piping requirements.....	11
6.1.2	Refrigerant piping insulation .....	11
6.2	Connecting the refrigerant piping .....	11
6.2.1	Guidelines when connecting the refrigerant piping .....	11
6.2.2	To connect the refrigerant piping to the indoor unit ....	11
6.3	Checking the refrigerant piping.....	12
6.3.1	To check for leaks.....	12
6.3.2	To perform vacuum drying.....	12
<b>7</b>	<b>Electrical installation</b>	<b>12</b>
7.1	Specifications of standard wiring components .....	12
7.2	To connect the electrical wiring to the indoor unit .....	13
<b>8</b>	<b>Finishing the indoor unit installation</b>	<b>13</b>
8.1	To insulate the drain piping, refrigerant piping and interconnection cable.....	13
8.2	To pass the pipes through the wall hole.....	13
8.3	To fix the unit on the mounting plate .....	14
<b>9</b>	<b>Configuration</b>	<b>14</b>
9.1	To set a different channel of the indoor unit infrared signal receiver.....	14
<b>10</b>	<b>Commissioning</b>	<b>14</b>
10.1	Checklist before commissioning .....	14
10.2	To perform a test run .....	15
10.2.1	To perform a test run in winter season .....	15
<b>11</b>	<b>Disposal</b>	<b>15</b>
<b>12</b>	<b>Technical data</b>	<b>16</b>
12.1	Wiring diagram .....	16
12.1.1	Unified wiring diagram legend.....	16

## 1 About the documentation

## 1.1 About this document

**INFORMATION**

Make sure that the user has the printed documentation and ask him/her to keep it for future reference.

**Target audience**

Authorised installers

**INFORMATION**

This appliance is intended to be used by expert or trained users in shops, in light industry, and on farms, or for commercial and household use by lay persons.

**Documentation set**

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

- **General safety precautions:**
  - Safety instructions that you **MUST** read before installing
  - Format: Paper (in the box of the indoor unit)
- **Indoor unit installation manual:**
  - Installation instructions
  - Format: Paper (in the box of the indoor unit)
- **Installer reference guide:**
  - Preparation of the installation, good practices, reference data,...
  - Format: Digital files on <https://www.daikin.eu>. Use the search function 🔍 to find your model.

The latest revision of the supplied documentation is published on the regional Daikin website and is available via your dealer.

The original instructions are written in English. All other languages are translations of the original instructions.

**Technical engineering data**

- A **subset** of the latest technical data is available on the regional Daikin website (publicly accessible).
- The **full set** of the latest technical data is available on the Daikin Business Portal (authentication required).

## 2 Specific installer safety instructions

Always observe the following safety instructions and regulations.

**Unit installation (see "5 Unit installation" ▶ 7)**

**WARNING**

Installation shall be done by an installer, the choice of materials and installation shall comply with the applicable legislation. In Europe, EN378 is the applicable standard.

**Installation site (see "5.1 Preparing the installation site" ▶ 7)**

**CAUTION**

- Check if the installation location can support the unit's weight. Poor installation is hazardous. It can also cause vibrations or unusual operating noise.
- Provide sufficient service space.
- Do **NOT** install the unit so that it is in contact with a ceiling or a wall, as this may cause vibrations.



### WARNING

The appliance shall be stored in a room without continuously operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater).

### Connecting the refrigerant piping (see "6.2 Connecting the refrigerant piping" ▶ 11)



### CAUTION

- No brazing or welding on site for units with R32 refrigerant charge during shipment.
- During installation of the refrigeration system, joining of parts with at least one part charged shall be performed taking into account the following requirements: inside occupied spaces non-permanent joints are NOT allowed for R32 refrigerant except for site made joints directly connecting the indoor unit to piping. Site made joints directly connecting piping to indoor units shall be of non-permanent type.



### NOTICE

- Use the flare nut fixed to the unit.
- To prevent gas leakage, apply refrigeration oil ONLY to the inside of the flare. Use refrigeration oil for R32 (FW68DA).
- Do NOT reuse joints.



### NOTICE

- Do NOT use mineral oil on flared part.
- Do NOT reuse piping from previous installations.
- NEVER install a drier to this R32 unit to guarantee its lifetime. The drying material may dissolve and damage the system.



### WARNING

Connect the refrigerant piping securely before running the compressor. If the refrigerant piping is NOT connected and the stop valve is open when the compressor is run, air will be sucked in. This will cause abnormal pressure in the refrigeration cycle, which may result in equipment damage and even injury.



### CAUTION

- Incomplete flaring may cause refrigerant gas leakage.
- Do NOT re-use flares. Use new flares to prevent refrigerant gas leakage.
- Use flare nuts that are included with the unit. Using different flare nuts may cause refrigerant gas leakage.



### CAUTION

Do NOT open the valves before flaring is complete. This would cause refrigerant gas leakage.



### DANGER: RISK OF EXPLOSION

Do NOT open the stop valves before the vacuum drying is finished.

### Charging refrigerant (see Charging refrigerant)



### WARNING

- The refrigerant inside the unit is mildly flammable, but normally does NOT leak. If the refrigerant leaks in the room and comes in contact with fire from a burner, a heater, or a cooker, this may result in fire, or the formation of a harmful gas.
- Turn OFF any combustible heating devices, ventilate the room, and contact the dealer where you purchased the unit.
- Do NOT use the unit until a service person confirms that the part from which the refrigerant leaked has been repaired.



### WARNING

- Only use R32 as refrigerant. Other substances may cause explosions and accidents.
- R32 contains fluorinated greenhouse gases. Its global warming potential (GWP) value is 675. Do NOT vent these gases into the atmosphere.
- When charging refrigerant, ALWAYS use protective gloves and safety glasses.



### NOTICE

To avoid compressor breakdown, do NOT charge more than the specified amount of refrigerant.



### WARNING

NEVER directly touch any accidental leaking refrigerant. This could result in severe wounds caused by frostbite.

### Electrical installation (see "7 Electrical installation" ▶ 12)



### WARNING

The appliance MUST be installed in accordance with national wiring regulations.



### WARNING

- All wiring MUST be performed by an authorised electrician and MUST comply with the national wiring regulation.
- Make electrical connections to the fixed wiring.
- All components procured on-site and all electrical construction MUST comply with the applicable legislation.



### WARNING

- If the power supply has a missing or wrong N-phase, equipment might break down.
- Establish proper earthing. Do NOT earth the unit to a utility pipe, surge absorber, or telephone earth. Incomplete earthing may cause electrical shocks.
- Install the required fuses or circuit breakers.
- Secure the electrical wiring with cable ties so that the cables do NOT come in contact with sharp edges or piping, particularly on the high-pressure side.
- Do NOT use taped wires, extension cords, or connections from a star system. They can cause overheating, electrical shocks or fire.
- Do NOT install a phase advancing capacitor, because this unit is equipped with an inverter. A phase advancing capacitor will reduce performance and may cause accidents.

## 3 About the box



### WARNING

ALWAYS use multicore cable for power supply cables.



### WARNING

Use an all-pole disconnection type breaker with at least 3 mm between the contact point gaps that provides full disconnection under overvoltage category III.



### WARNING

If the supply cord is damaged, it MUST be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.



### WARNING

Do NOT connect the power supply to the indoor unit. This could result in electrical shock or fire.



### WARNING

- Do NOT use locally purchased electrical parts inside the product.
- Do NOT branch the power supply for the drain pump, etc. from the terminal block. This could result in electrical shock or fire.



### WARNING

Keep the interconnection wiring away from copper pipes without thermal insulation as such pipes will be very hot.



### DANGER: RISK OF ELECTROCUTION

All electrical parts (including thermistors) are powered by the power supply. Do NOT touch them with bare hands.



### DANGER: RISK OF ELECTROCUTION

Disconnect the power supply for more than 10 minutes, and measure the voltage at the terminals of main circuit capacitors or electrical components before servicing. The voltage MUST be less than 50 V DC before you can touch electrical components. For the location of the terminals, see the wiring diagram.

**Finishing indoor unit installation (see Finishing the outdoor unit installation)**



### DANGER: RISK OF ELECTROCUTION

- Make sure that the system is earthed properly.
- Turn OFF the power supply before servicing.
- Install the switch box cover before turning ON the power supply.

**Commissioning (see "10 Commissioning" ▶ 14)**



### DANGER: RISK OF ELECTROCUTION



### DANGER: RISK OF BURNING/SCALDING



### CAUTION

Do NOT perform the test operation while working on the indoor units.

When performing the test operation, NOT ONLY the outdoor unit, but the connected indoor unit will operate as well. Working on an indoor unit while performing a test operation is dangerous.



### CAUTION

Do NOT insert fingers, rods or other objects into the air inlet or outlet. Do NOT remove the fan guard. When the fan is rotating at high speed, it will cause injury.



### A2L WARNING: MILDLY FLAMMABLE MATERIAL

The refrigerant inside this unit is mildly flammable.

## 3 About the box

### 3.1 Indoor unit



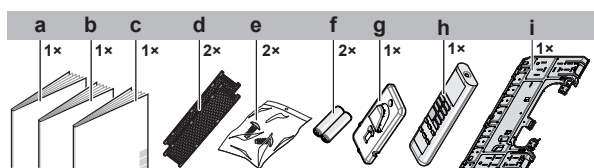
#### INFORMATION

The following figures are just examples and may NOT completely match your system layout.

#### 3.1.1 To remove the accessories from the indoor unit

1 Remove:

- the accessory bag located at the bottom of the package,
- the mounting plate attached to the back of the indoor unit.



- a Installation manual
- b Operation manual
- c General safety precautions
- d Titanium apatite deodorising and silver particle filter
- e Indoor unit fixing screw (M4x12L). Refer to "8.3 To fix the unit on the mounting plate" ▶ 14].
- f Dry battery AAA.LR03 (alkaline) for user interface
- g User interface holder
- h User interface
- i Mounting plate

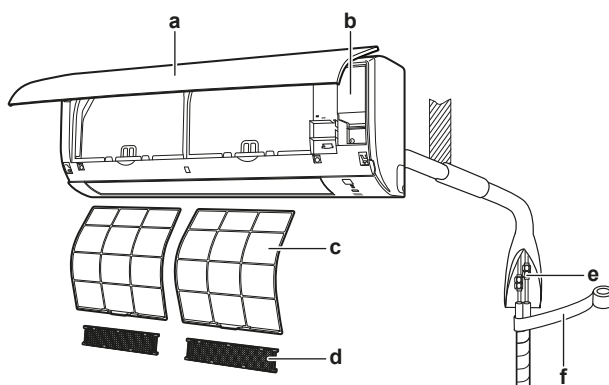
## 4 About the unit



### A2L WARNING: MILDLY FLAMMABLE MATERIAL

The refrigerant inside this unit is mildly flammable.

### 4.1 System layout



- a Indoor unit
- b Service lid
- c Air filter
- d Titanium apatite deodorizing and silver particle filter
- e Refrigerant piping, drain hose and interconnection cable
- f Insulation tape



## 4.2 Operation range

Use the system in the following temperature and humidity ranges for safe and effective operation.

Operation mode	Operation range
Cooling <sup>(a)(b)</sup>	<ul style="list-style-type: none"> <li>Outdoor temperature: -10~48°C DB</li> <li>Indoor temperature: 18~32°C DB</li> <li>Indoor humidity: ≤80%</li> </ul>
Heating <sup>(a)</sup>	<ul style="list-style-type: none"> <li>Outdoor temperature: -15~24°C DB</li> <li>Indoor temperature: 10~30°C DB</li> </ul>
Drying <sup>(a)</sup>	<ul style="list-style-type: none"> <li>Outdoor temperature: -10~48°C DB</li> <li>Indoor temperature: 18~32°C DB</li> <li>Indoor humidity: ≤80%</li> </ul>

<sup>(a)</sup> A safety device might stop the operation of the system if the unit runs outside its operation range.

<sup>(b)</sup> Condensation and water dripping might occur if the unit runs outside its operation range.

## 5 Unit installation

### 5.1 Preparing the installation site



#### WARNING

The appliance shall be stored in a room without continuously operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater).



#### WARNING

The appliance using R32 refrigerant shall be stored so as to prevent mechanical damage and in a well-ventilated room without continuously operating ignition sources (e.g. open flames, an operating gas appliance, or an operating electric heater). The room size shall be as specified in the General safety precaution.

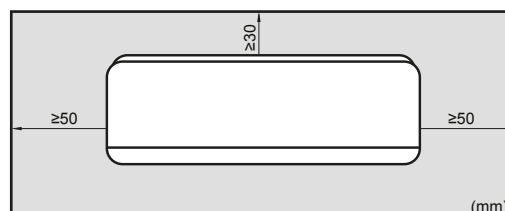
#### 5.1.1 Installation site requirements of the indoor unit



#### INFORMATION

The sound pressure level is less than 70 dBA.

- **Air flow.** Make sure nothing blocks the air flow.
- **Drainage.** Make sure condensation water can be evacuated properly.
- **Wall insulation.** When conditions in the wall exceed 30°C and a relative humidity of 80%, or when fresh air is inducted into the wall, then additional insulation is required (minimum 10 mm thickness, polyethylene foam).
- **Wall strength.** Check whether the wall or the floor is strong enough to support the weight of the unit. If there is a risk, reinforce the wall or the floor before installing the unit.
- **Spacing.** Install the unit at least 1.8 m from the floor and keep the following requirements in mind for distances from the walls and the ceiling:



#### 5.1.2 Additional installation site requirements of the outdoor unit in cold climates

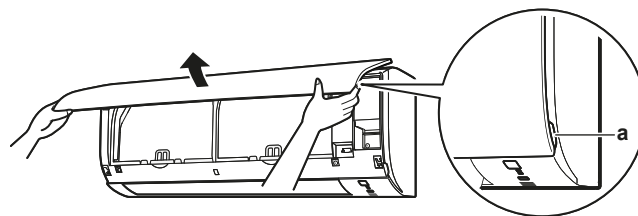
Protect the outdoor unit against direct snowfall and take care that the outdoor unit is NEVER snowed up.

In heavy snowfall areas it is very important to select an installation site where the snow will NOT affect the unit. If lateral snowfall is possible, make sure that the heat exchanger coil is NOT affected by the snow. If necessary, install a snow cover or shed and a pedestal.

### 5.2 Opening the indoor unit

#### 5.2.1 To remove the front panel

- 1 Hold the front panel by the panel tabs on both sides and open it.

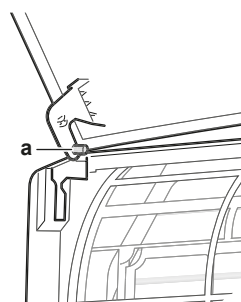


a Panel tabs

- 2 Remove the front panel by sliding it to the left or the right and pulling it toward you.

**Result:** The front panel shaft on 1 side will be disconnected.

- 3 Disconnect the front panel shaft on the other side in the same manner.



a Front panel shaft

#### 5.2.2 To re-install the front panel

- 1 Attach the front panel. Align the shafts with the slots and push them all the way in.
- 2 Close the front panel slowly; press at both sides and at the centre.

#### 5.2.3 To remove the front grille



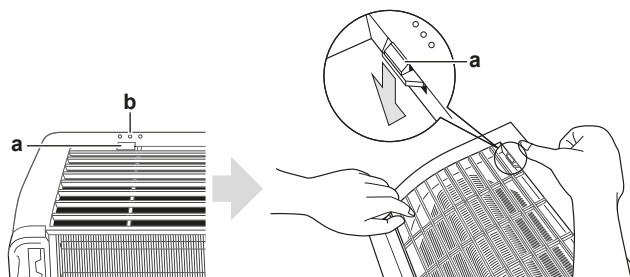
#### CAUTION

Wear adequate personal protective equipment (protective gloves, safety glasses,...) when installing, maintaining or servicing the system.

- 1 Remove the front panel to remove the air filter.

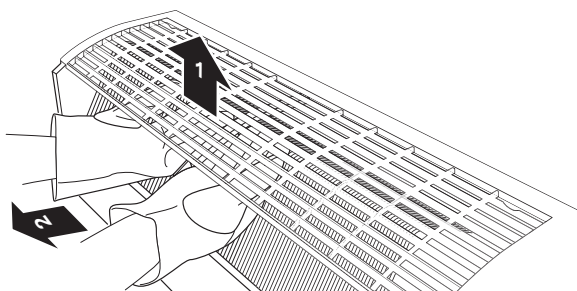
## 5 Unit installation

- Remove 2 screws (class 20~35) or 3 screws (class 50~71) from the front grille.
- Push down the 3 upper hooks marked with a symbol with 3 circles.



- a Upper hook  
b Symbol with 3 circles

- We recommend opening the flap before removing the front grille.
- Place both hands under the centre of the front grille, push it up and then toward you.

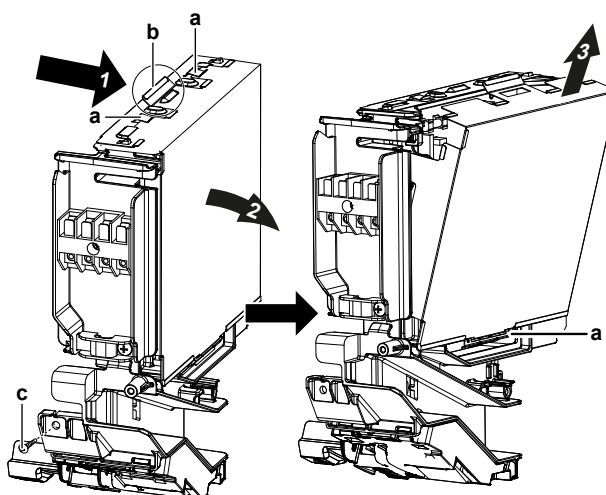


### 5.2.4 To re-install the front grille

- Install the front grille and firmly engage the 3 upper hooks.
- Install 2 screws back on the front grille.
- Install the air filter and then mount the front panel.

### 5.2.5 To remove the electrical wiring box cover

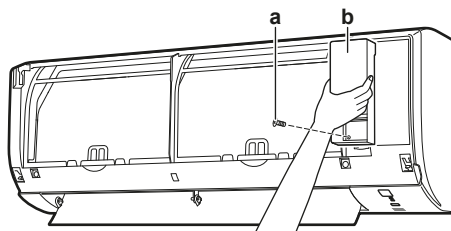
- Remove the front grille.
- Remove 1 screw from the electrical wiring box.
- Open the electrical wiring box cover by pulling the protruding part on the top of the cover.
- Unhook the tab on the bottom and remove the electrical wiring box cover.



- a Tab  
b Protruding part on the top of the cover  
c Screw

### 5.2.6 To open the service cover

- Remove 1 screw from the service cover.
- Pull out the service cover horizontally away from the unit.

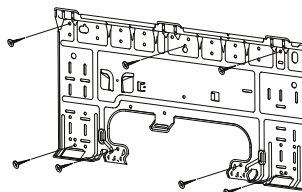


- a Service cover screw  
b Service cover

## 5.3 Mounting the indoor unit

### 5.3.1 To install the mounting plate

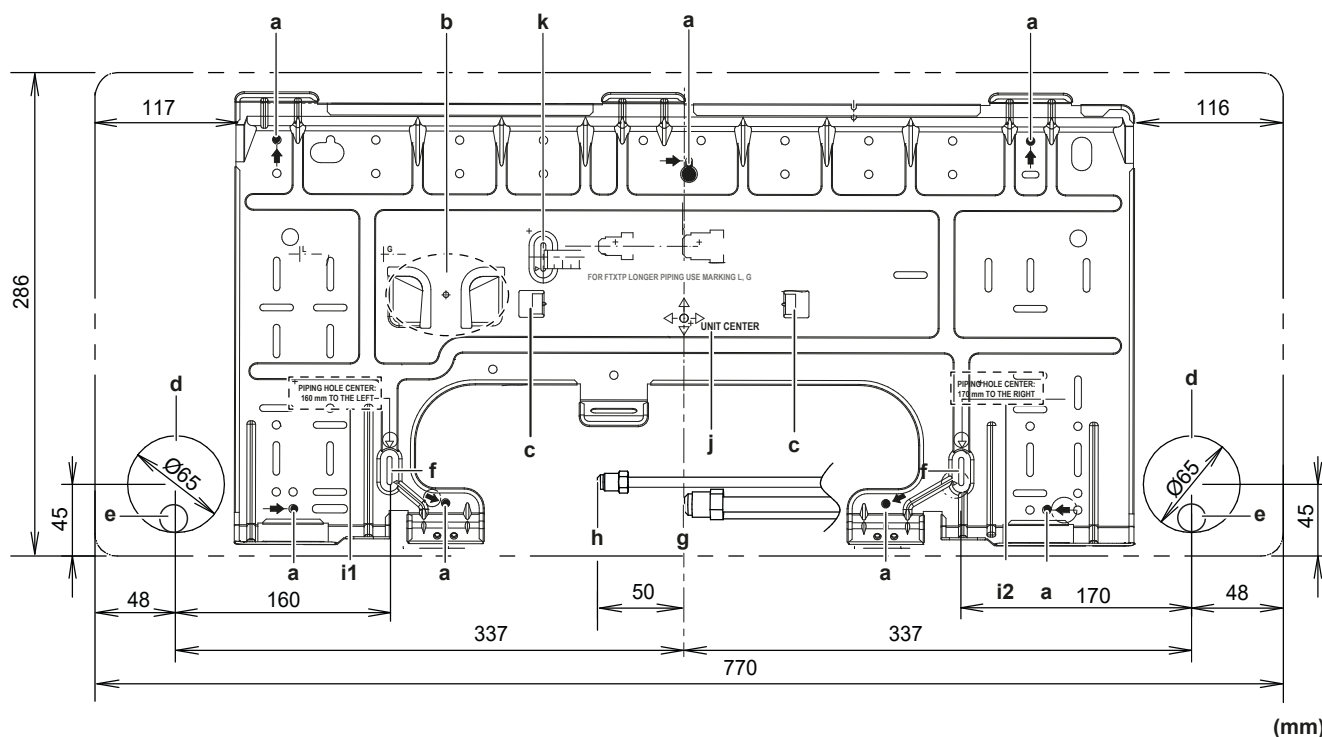
- Install the mounting plate temporarily.
- Level the mounting plate.
- Mark the centres of the drilling points on the wall using a tape measure. Position the end of tape measure at symbol ">".
- Finish the installation by securing the mounting plate on the wall using M4×25L screws (field supply).



#### INFORMATION

The removed pipe port cover can be kept in the mounting plate pocket.





- a Recommended mounting plate fixing spots  
b Pocket for the pipe port cover  
c Tabs for placing a spirit level  
d Through-the-wall hole Ø65 mm  
e Drain hose position  
f Position for tape measure at symbol ">"

- g Gas pipe end  
h Liquid pipe end  
i1 Piping hole center: 160 mm to the left  
i2 Piping hole center: 170 mm to the right  
j Unit center  
k Use tape measure as shown

### 5.3.2 To drill a wall hole



#### CAUTION

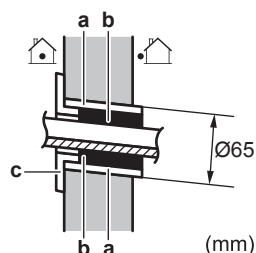
For walls containing a metal frame or a metal board, use a wall embedded pipe and wall cover in the feed-through hole to prevent possible heat, electrical shock, or fire.



#### NOTICE

Be sure to seal the gaps around the pipes with sealing material (field supply), in order to prevent water leakage.

- Bore a 65 mm large feed-through hole in the wall with a downward slope towards the outside.
- Insert a wall embedded pipe into the hole.
- Insert a wall cover into the wall pipe.



- a Wall embedded pipe  
b Putty  
c Wall hole cover

- After completing wiring, refrigerant piping and drain piping, do NOT forget to seal the gap with putty.

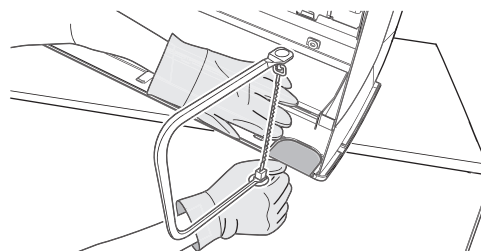
### 5.3.3 To remove the pipe port cover



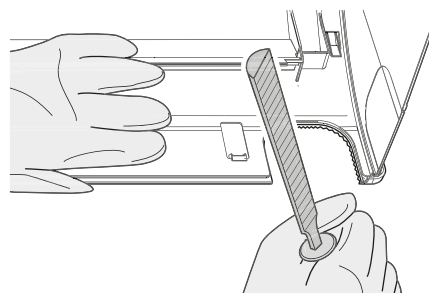
#### INFORMATION

To connect the piping on right-side, right-bottom, left-side or left-bottom, the pipe port cover MUST be removed.

- Cut off the pipe port cover from inside the front grille using a coping saw.



- Remove any burrs along the cut section using a half round needle file.



#### NOTICE

Do NOT use nippers to remove the pipe port cover, as this would damage the front grille.

### 5.3.4 To provide drainage

Make sure condensation water can be evacuated properly. This involves:

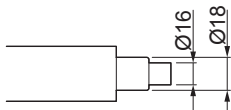
- General guidelines
- Connecting the drain piping to the indoor unit

## 5 Unit installation

- Checking for water leaks

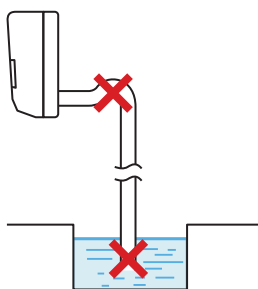
### General guidelines

- **Pipe length.** Keep drain piping as short as possible.
- **Pipe size.** If drain hose extension or embedded drain piping is required, use appropriate parts that match the hose front end.

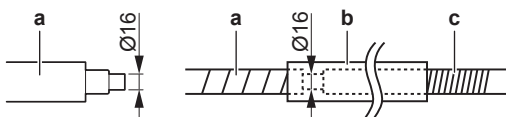


### NOTICE

- Install the drain hose with a downward slope.
- Traps are NOT permitted.
- Do NOT put the end of the hose in water.

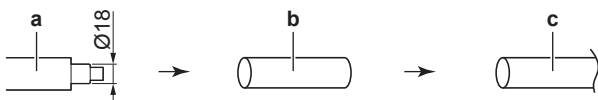


- **Drain hose extension.** To extend the drain hose, use a field supplied hose with inner Ø16 mm. Do NOT forget to use a heat insulation tube on the indoor section of the extension hose.



- a Drain hose supplied with the indoor unit
- b Heat insulation tube (field supply)
- c Extension drain hose

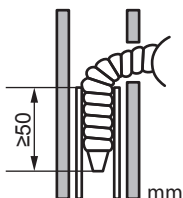
- **Rigid polyvinyl chloride pipe.** When connecting a rigid polyvinyl chloride pipe (nominal Ø13 mm) directly to the drain hose as with embedded piping work, use a field supplied drain socket (nominal Ø13 mm).



- a Drain hose supplied with the indoor unit
- b Drain socket with nominal Ø13 mm (field supply)
- c Rigid polyvinyl chloride pipe (field supply)

- **Condensation.** Take measures against condensation. Insulate the complete drain piping in the building.

- 1 Insert the drain hose in the drain pipe as shown in the following figure, so it will NOT be pulled out of the drain pipe.



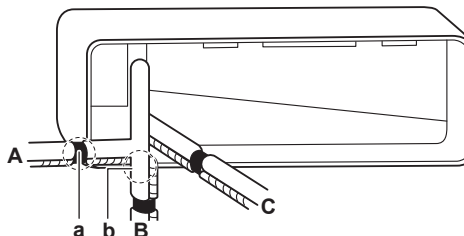
### To connect the piping on right side, right-back, or right-bottom



#### INFORMATION

The factory default is right-side piping. For left-side piping, remove the piping from the right side and install it on the left side.

- 1 Attach the drain hose with adhesive vinyl tape to the bottom of the refrigerant pipes.
- 2 Wrap the drain hose and the refrigerant pipes together using insulation tape.



- A Right-side piping
- B Right-bottom piping
- C Right-back piping
- a Remove the pipe port cover here for right side piping
- b Remove the pipe port cover here for right-bottom piping

### To connect the piping on left side, left-back, or left-bottom



#### INFORMATION

The factory default is right-side piping. For left-side piping, remove the piping from the right side and install it on the left side.

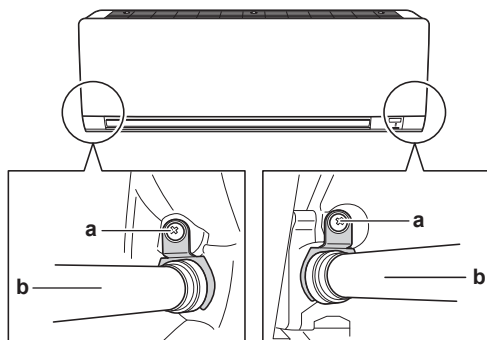
- 1 Remove the insulation fixing screw on the right side and remove the drain hose.
- 2 Remove the drain plug on the left side and attach it to the right side.



#### NOTICE

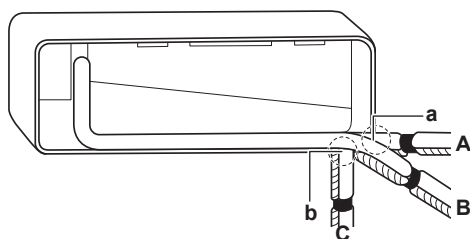
Do NOT apply lubricating oil (refrigerant oil) to the drain plug when inserting it. The drain plug may deteriorate and cause drain leakage from the plug.

- 3 Insert the drain hose on the left side and do not forget to tighten it with the fixing screw; otherwise water leakage may occur.



- a Insulation fixing screw
- b Drain hose

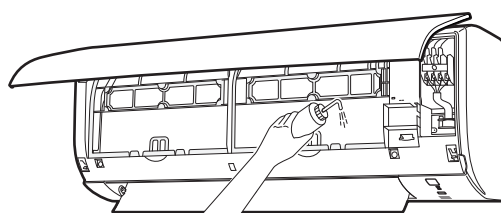
- 4 Attach the drain hose to the refrigerant piping bottom side using adhesive vinyl tape.



- A Left-side piping  
B Left-back piping  
C Left-bottom piping  
a Remove the pipe port cover here for left-side piping  
b Remove the pipe port cover here for left-bottom piping

## To check for water leaks

- 1 Remove the air filters.
- 2 Gradually pour approximately 1 l of water in the drain pan, and check for water leaks.



# 6 Piping installation

## 6.1 Preparing refrigerant piping

### 6.1.1 Refrigerant piping requirements



#### NOTICE

The piping and other pressure-containing parts shall be suitable for refrigerant. Use phosphoric acid deoxidised seamless copper for refrigerant piping.

- Foreign materials inside pipes (including oils for fabrication) must be  $\leq 30$  mg/10 m.


### Refrigerant piping diameter

Use the same diameters as the connections on the outdoor units:

Pipe outer diameter (mm)	
Liquid piping	Gas piping
$\varnothing 6.4$	$\varnothing 9.5$

### Refrigerant piping material

- Piping material:** phosphoric acid deoxidised seamless copper
- Flare connections:** Only use annealed material.
- Piping temper grade and thickness:**

Outer diameter ( $\varnothing$ )	Temper grade	Thickness (t) <sup>(a)</sup>	
6.4 mm (1/4")	Annealed (O)	$\geq 0.8$ mm	

<sup>(a)</sup> Depending on the applicable legislation and the maximum working pressure of the unit (see "PS High" on the unit name plate), larger piping thickness might be required.

## 6.1.2 Refrigerant piping insulation

- Use polyethylene foam as insulation material:
  - with a heat transfer rate between 0.041 and 0.052 W/mK (0.035 and 0.045 kcal/mh°C)
  - with a heat resistance of at least 120°C
- Insulation thickness:

Pipe outer diameter ( $\varnothing_p$ )	Insulation inner diameter ( $\varnothing_i$ )	Insulation thickness (t)
6.4 mm (1/4")	8~10 mm	$\geq 10$ mm



If the temperature is higher than 30°C and the humidity is higher than RH 80%, the thickness of the insulation materials should be at least 20 mm to prevent condensation on the surface of the insulation.

## 6.2 Connecting the refrigerant piping

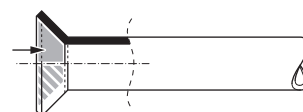


**DANGER: RISK OF BURNING/SCALDING**

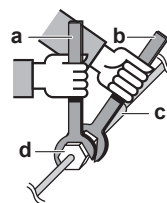
### 6.2.1 Guidelines when connecting the refrigerant piping

Take the following guidelines into account when connecting pipes:

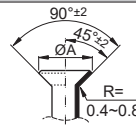
- Coat the flare inner surface with ether oil or ester oil when connecting a flare nut. Tighten 3 or 4 turns by hand, before tightening firmly.



- ALWAYS use 2 wrenches together when loosening a flare nut.
- ALWAYS use a spanner and torque wrench together to tighten the flare nut when connecting the piping. This to prevent nut cracking and leaks.



- a Torque wrench  
b Spanner  
c Piping union  
d Flare nut

Piping size (mm)	Tightening torque (N•m)	Flare dimensions (A) (mm)	Flare shape (mm)
$\varnothing 6.4$	15~17	8.7~9.1	
$\varnothing 9.5$	33~39	12.8~13.2	
$\varnothing 12.7$	50~60	16.2~16.6	

### 6.2.2 To connect the refrigerant piping to the indoor unit



A2L

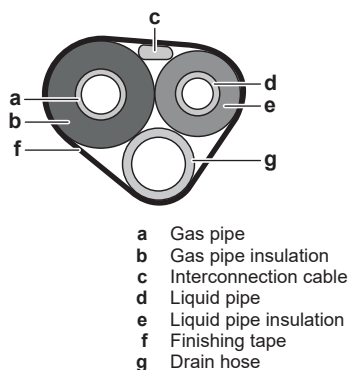
**WARNING: MILDLY FLAMMABLE MATERIAL**

The refrigerant inside this unit is mildly flammable.

## 7 Electrical installation

- **Pipe length.** Keep refrigerant piping as short as possible.

- 1 Connect refrigerant piping to the unit using **flare connections**.
- 2 **Insulate** the refrigerant piping, interconnection cable and drain hose on the indoor unit as follows:



### NOTICE

Make sure to insulate all refrigerant piping. Any exposed piping might cause condensation.

## 6.3 Checking the refrigerant piping

### 6.3.1 To check for leaks

### NOTICE

Do NOT exceed the unit's maximum working pressure (see "PS High" on the unit name plate).

- 1 Charge the system with nitrogen gas up to a gauge pressure of at least 200 kPa (2 bar). It is recommended to pressurize to 3000 kPa (30 bar) in order to detect small leaks.
- 2 Check for leaks by applying the bubble test solution to all connections.

### NOTICE

ALWAYS use a recommended bubble test solution from your wholesaler.

NEVER use soap water:

- Soap water may cause cracking of components, such as flare nuts or stop valve caps.
- Soap water may contain salt, which absorbs moisture that will freeze when the piping gets cold.
- Soap water contains ammonia which may lead to corrosion of flared joints (between the brass flare nut and the copper flare).

- 3 Discharge all nitrogen gas.

### 6.3.2 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 Vacuum the system for at least 2 hours to a manifold pressure of -0.1 MPa (-1 bar).

- 4 After turning the pump OFF, 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.

## 7 Electrical installation



### DANGER: RISK OF ELECTROCUTION



### WARNING

ALWAYS use multicore cable for power supply cables.



### WARNING

Use an all-pole disconnection type breaker with at least 3 mm between the contact point gaps that provides full disconnection under overvoltage category III.



### WARNING

If the supply cord is damaged, it MUST be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.



### WARNING

Do NOT connect the power supply to the indoor unit. This could result in electrical shock or fire.



### WARNING

- Do NOT use locally purchased electrical parts inside the product.
- Do NOT branch the power supply for the drain pump, etc. from the terminal block. This could result in electrical shock or fire.



### WARNING

Keep the interconnection wiring away from copper pipes without thermal insulation as such pipes will be very hot.

## 7.1 Specifications of standard wiring components



### NOTICE

We recommend using solid (single-core) wires. If stranded wires are used, slightly twist the strands to consolidate the end of the conductor for either direct use in the terminal clamp or insertion in a round crimp-style terminal. Details are described in "Guidelines when connecting the electrical wiring" in the installer reference guide.

Component		
Power supply cable	Voltage	220~240 V
	Phase	1~
	Frequency	50 Hz
	Wire sizes	Must comply with applicable legislation
Interconnection cable		Minimum cable section of 2.5 mm <sup>2</sup> and applicable for 220~240 V
Recommended field fuse		20 A
Earth leakage circuit breaker		Must comply with applicable legislation

## 7.2 To connect the electrical wiring to the indoor unit



### WARNING

Provide adequate measures to prevent that the unit can be used as a shelter by small animals. Small animals that make contact with electrical parts can cause malfunctions, smoke or fire.

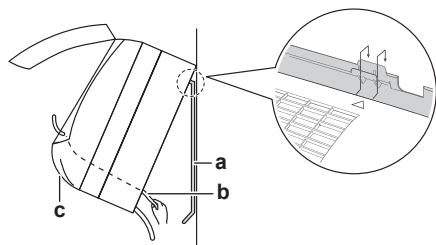


### NOTICE

- Keep the power line and transmission line apart from each other. Transmission wiring and power supply wiring may cross, but may NOT run parallel.
- In order to avoid any electrical interference, the distance between both wirings should ALWAYS be at least 50 mm.

Electrical work should be carried out in accordance with the installation manual and the national electrical wiring rules or code of practice.

- Set the indoor unit on the mounting plate hooks. Use the "△" marks as a guide.

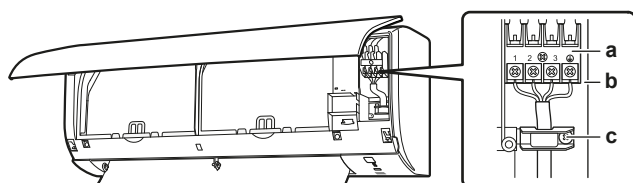


- a Mounting plate (accessory)
- b Interconnection cable
- c Wire guide

- Open the front panel, and then the service cover. Refer to "5.2 Opening the indoor unit" [p. 7].
- Pass the interconnection cable from the outdoor unit through the feed-through wall hole, through the back of the indoor unit and through the front side.

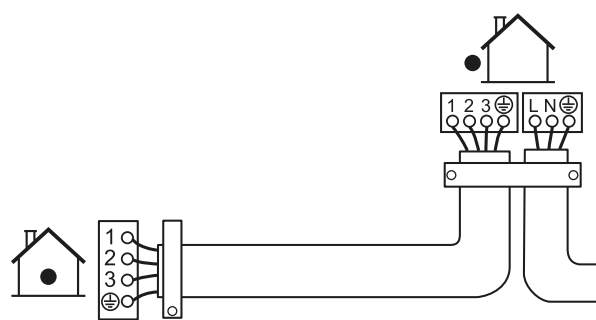
**Note:** In case the interconnection cable was stripped in advance, cover the ends with insulating tape.

- Bend the end of the cable up.



- a Terminal block
- b Electrical component block
- c Cable clamp

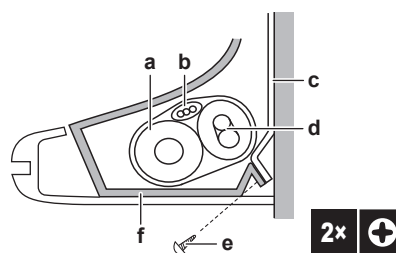
- Strip the wire ends approximately 15 mm.
- Match wire colours with terminal numbers on the indoor unit terminal blocks and firmly screw the wires to the corresponding terminals.
- Connect the earth wire to the corresponding terminal.
- Firmly fix the wires with the terminal screws.
- Pull the wires to make sure that they are securely attached, then retain the wires with the wire retainer.
- Shape the wires so that the service cover fits securely, then close the service cover.



## 8 Finishing the indoor unit installation

### 8.1 To insulate the drain piping, refrigerant piping and interconnection cable

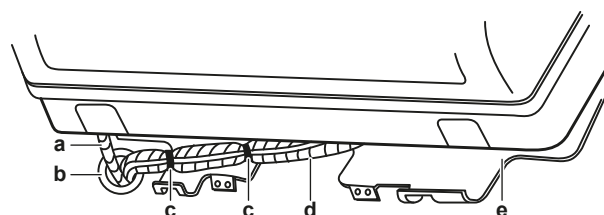
- After the drain piping, refrigerant piping and the electrical wiring are finished, wrap refrigerant piping, interconnection cable and drain hose together using insulation tape. Overlap at least half the width of the tape with each turn.



- a Drain hose
- b Interconnection cable
- c Mounting plate (accessory)
- d Refrigerant piping
- e Indoor unit fixing screw M4×12L (accessory)
- f Bottom frame

### 8.2 To pass the pipes through the wall hole

- Shape the refrigerant pipes along the pipe path marking on the mounting plate.



- a Drain hose
- b Caulk this hole with putty or caulking material
- c Adhesive vinyl tape
- d Insulation tape
- e Mounting plate (accessory)

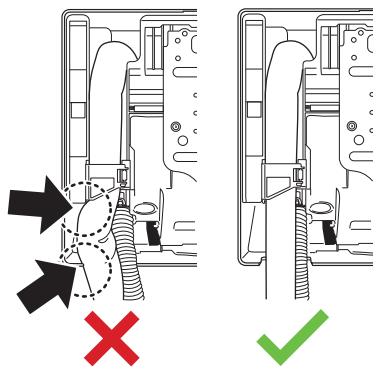


### NOTICE

- Do NOT bend refrigerant pipes.
- Do NOT push the refrigerant pipes onto the bottom frame or the front grille.



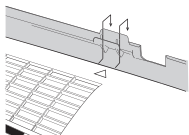
## 9 Configuration



- 2 Pass the drain hose and refrigerant piping through the wall hole and seal the gap with a putty.

### 8.3 To fix the unit on the mounting plate

- 1 Set the indoor unit on the mounting plate hooks. Use the "△" marks as a guide.



- 2 Press the bottom frame of the unit with both hands to set it on the bottom hooks of the mounting plate. Make sure that the wires do NOT get squeezed anywhere.

**Note:** Take care that the interconnection cable does NOT get caught in the indoor unit.

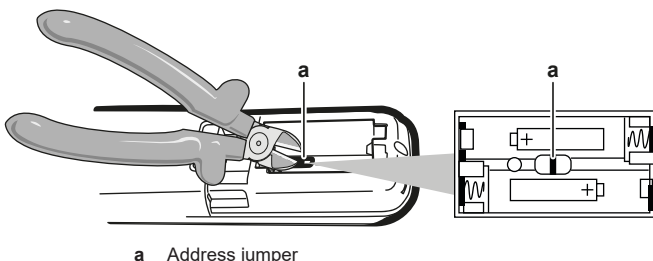
- 3 Press the bottom edge of the indoor unit with both hands until it is firmly caught by the mounting plate hooks.
- 4 Secure the indoor unit to the mounting plate using 2 indoor unit fixing screws M4×12L (accessory).

## 9 Configuration

### 9.1 To set a different channel of the indoor unit infrared signal receiver

In case 2 indoor units are installed in 1 room, different addresses for 2 user interfaces can be set.

- 1 Remove the batteries from the user interface.
- 2 Cut the address jumper.



a Address jumper



#### NOTICE

Be careful NOT to damage any of the surrounding parts when cutting the address jumper.

- 3 Turn the power supply on.

**Result:** The flap of the indoor unit will open and close to set the reference position.



#### INFORMATION

In case you could NOT complete the setting in time, turn the power supply off and wait at least 1 minute before turning the power supply back on.

- 4 Press simultaneously:

Model	Buttons
FTXP and ATPX	and

- 5 Press:

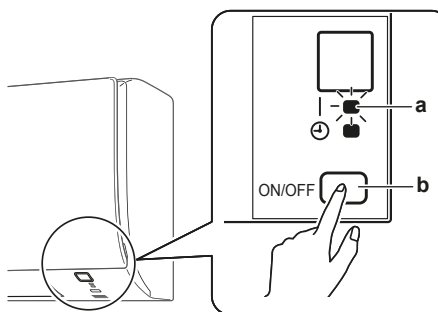
Model	Buttons
FTXP and ATPX	

- 6 Select:

Model	Symbol
FTXP and ATPX	

- 7 Press:

Model	Button
FTXP and ATPX	



- a Operation lamp  
b Indoor unit ON/OFF switch

- 8 Press the indoor unit ON/OFF switch while the operation lamp is blinking.

Jumper	Address
Factory setting	1
After cutting with nippers	2



#### INFORMATION

If the setting could NOT be completed while the operation lamp was blinking, repeat the setting process from the beginning.

- 9 When the setting is complete, press:

Model	Button
FTXP and ATPX	Keep  pressed for about 5 seconds.

**Result:** The user interface will return to the previous screen.

## 10 Commissioning



#### NOTICE

ALWAYS operate the unit with thermistors and/or pressure sensors/switches. If NOT, burning of the compressor might be the result.

### 10.1 Checklist before commissioning

- 1 After the installation of the unit, check the items listed below.

2 Close the unit.

3 Power up the unit.

<input type="checkbox"/>	You read the complete installation instructions, as described in the <b>installer reference guide</b> .
<input type="checkbox"/>	The <b>indoor units</b> are properly mounted.
<input type="checkbox"/>	The <b>outdoor unit</b> is properly mounted.
<input type="checkbox"/>	<b>Air inlet/outlet</b> Check that the air inlet and outlet of the unit is NOT obstructed by paper sheets, cardboard, or any other material.
<input type="checkbox"/>	There are NO <b>missing phases</b> or <b>reversed phases</b> .
<input type="checkbox"/>	The <b>refrigerant pipes</b> (gas and liquid) are thermally insulated.
<input type="checkbox"/>	<b>Drainage</b> Make sure drainage flows smoothly. <b>Possible consequence:</b> Condensate water might drip.
<input type="checkbox"/>	The system is properly <b>earthed</b> and the earth terminals are tightened.
<input type="checkbox"/>	The <b>fuses</b> or locally installed protection devices are installed according to this document, and have NOT been bypassed.
<input type="checkbox"/>	The <b>power supply voltage</b> matches the voltage on the identification label of the unit.
<input type="checkbox"/>	The specified wires are used for the <b>interconnection cable</b> .
<input type="checkbox"/>	The indoor unit receives the signals of the <b>user interface</b> .
<input type="checkbox"/>	There are NO <b>loose connections</b> or damaged electrical components in the switch box.
<input type="checkbox"/>	The <b>insulation resistance</b> of the compressor is OK.
<input type="checkbox"/>	There are NO <b>damaged components</b> or <b>squeezed pipes</b> on the inside of the indoor and outdoor units.
<input type="checkbox"/>	There are NO <b>refrigerant leaks</b> .
<input type="checkbox"/>	The correct pipe size is installed and the <b>pipes</b> are properly insulated.
<input type="checkbox"/>	The <b>stop valves</b> (gas and liquid) on the outdoor unit are fully open.

1 Press **TEMP**, **TEMP**, and **OFF** simultaneously.

2 Press **TEMP**.

3 Select **7**.

4 Press **FAN**.

5 Press **COOL** to switch the system on.

**Result:** Test run operation will stop automatically after about 30 minutes.

6 To stop operation, press **OFF**.



#### INFORMATION

Some of the functions CANNOT be used in the test run operation mode.

If a power failure occurs during operation, the system automatically restarts immediately after power is restored.

## 11 Disposal



#### NOTICE

Do NOT try to dismantle the system yourself: dismantling of the system, treatment of the refrigerant, oil and other parts MUST comply with applicable legislation. Units MUST be treated at a specialised treatment facility for reuse, recycling and recovery.

## 10.2 To perform a test run

**Prerequisite:** The power supply MUST be in the specified range.

**Prerequisite:** Test run may be performed in cooling or heating mode.

**Prerequisite:** Refer to the operation manual of the indoor unit for setting temperature, operation mode....

- 1 In cooling mode, select the lowest programmable temperature. In heating mode, select the highest programmable temperature. The test run can be disabled if necessary.
- 2 When the test run is finished, set the temperature to a normal level. In cooling mode: 26~28°C, in heating mode: 20~24°C.
- 3 Make sure that all functions and parts are working properly.
- 4 The system stops operating 3 minutes after the unit is turned OFF.

### 10.2.1 To perform a test run in winter season

When operating the air conditioner in **Cooling** mode in winter, set it to test run operation using the following method.

## 12 Technical data

## 12 Technical data



















- A **subset** of the latest technical data is available on the regional Daikin website (publicly accessible).
- The **full set** of the latest technical data is available on the Daikin Business Portal (authentication required).

### 12.1 Wiring diagram

The wiring diagram is delivered with the unit, located inside of the outdoor unit (bottom side of the top plate).

#### 12.1.1 Unified wiring diagram legend

For applied parts and numbering, refer to the wiring diagram on the unit. Part numbering is by Arabic numbers in ascending order for each part and is represented in the overview below by "\*" in the part code.

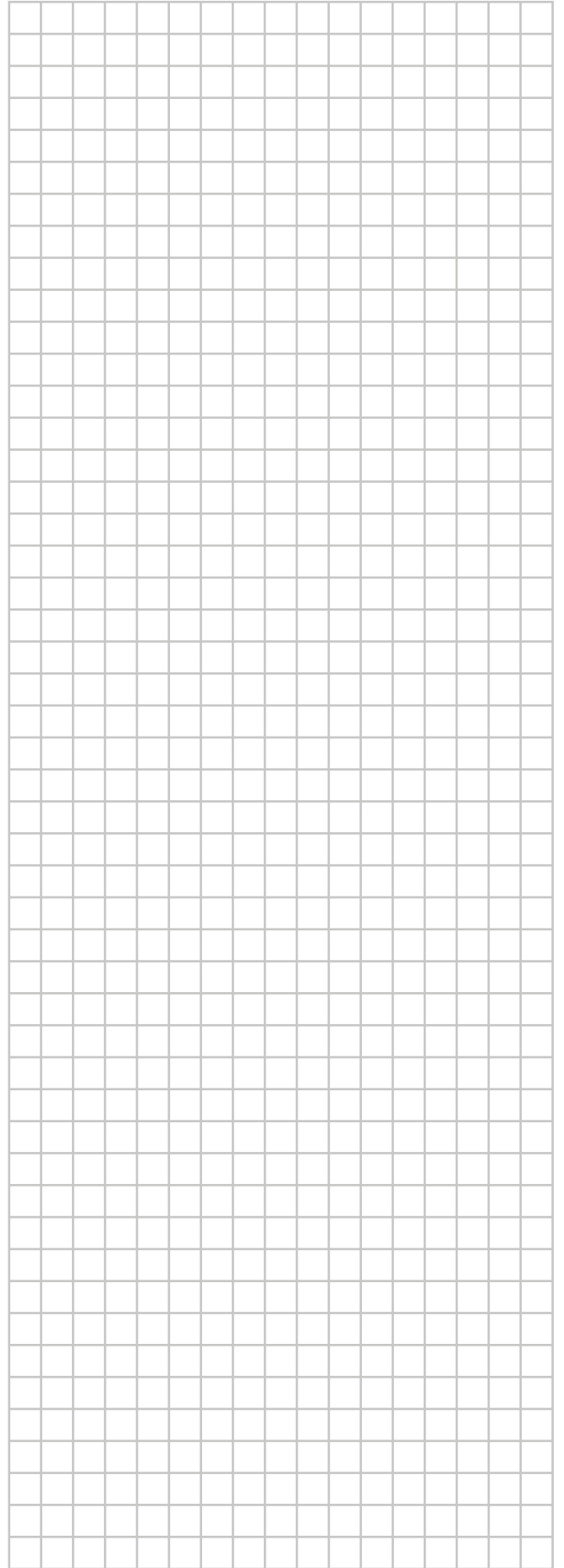
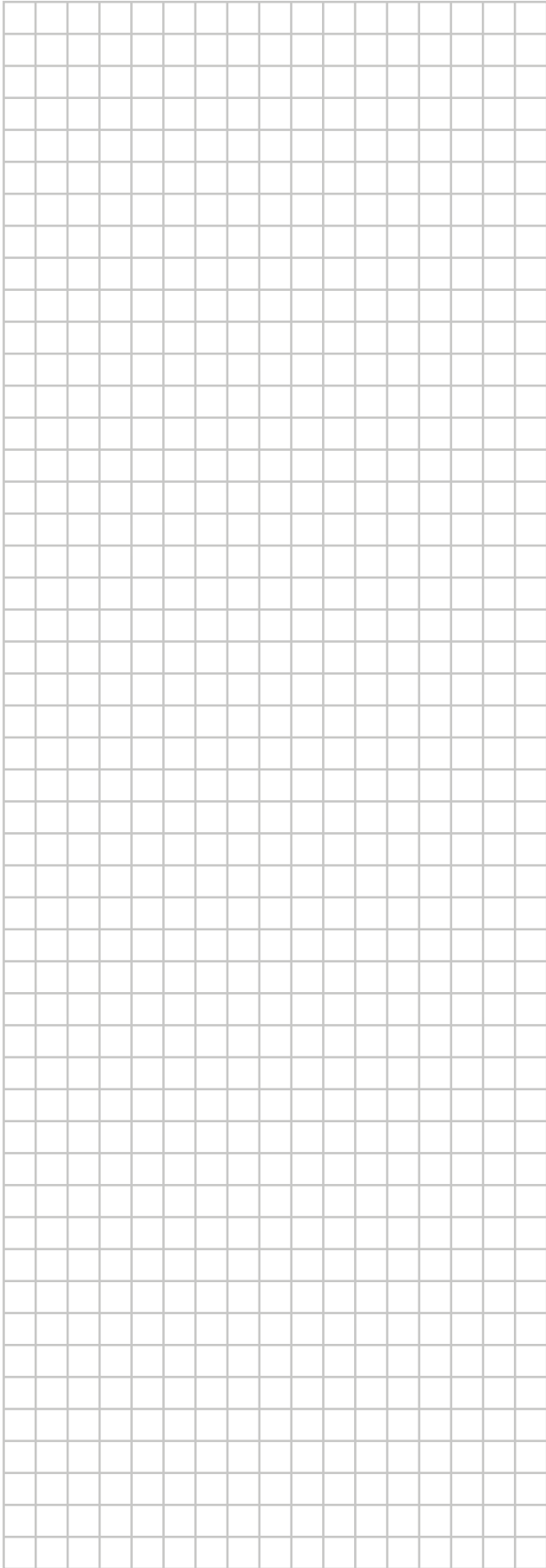
Symbol	Meaning	Symbol	Meaning
	Circuit breaker		Protective earth
	Connection		Protective earth (screw)
	Connector		Rectifier
	Earth		Relay connector
	Field wiring		Short-circuit connector
	Fuse		Terminal
	Indoor unit		Terminal strip
	Outdoor unit		Wire clamp
	Residual current device		Heater

Symbol	Colour	Symbol	Colour
BLK	Black	ORG	Orange
BLU	Blue	PNK	Pink
BRN	Brown	PRP, PPL	Purple
GRN	Green	RED	Red
GRY	Grey	WHT	White
SKY BLU	Sky blue	YLW	Yellow

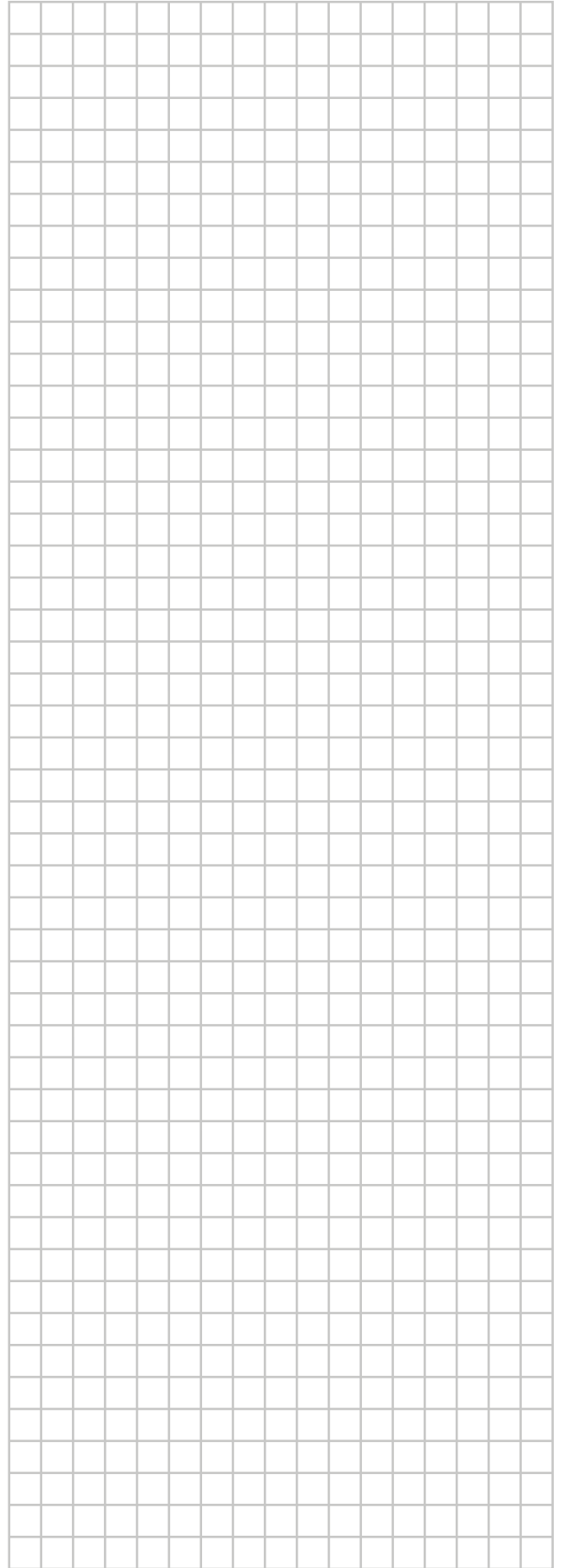
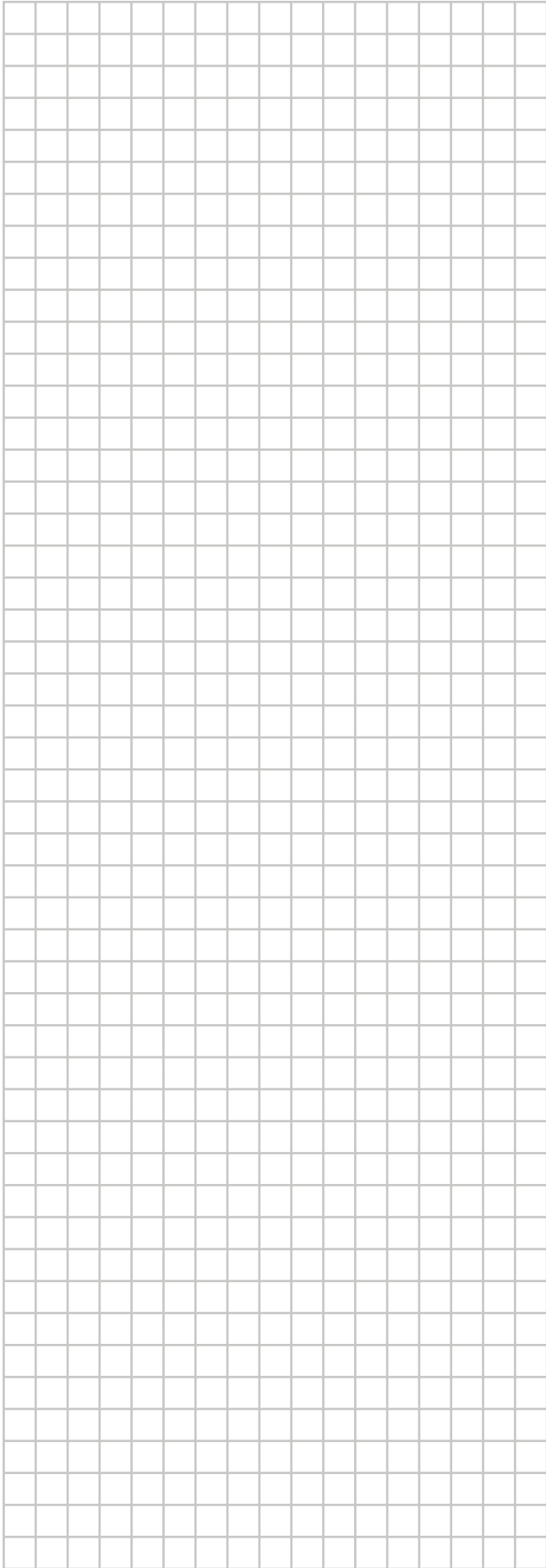
Symbol	Meaning
A*P	Printed circuit board
BS*	Pushbutton ON/OFF, operation switch
BZ, H*O	Buzzer
C*	Capacitor
AC*, CN*, E*, HA*, HE*, HL*, HN*, HR*, MR*_A, MR*_B, S*, U, V, W, X*A, K*R_*, NE	Connection, connector
D*, V*D	Diode
DB*	Diode bridge
DS*	DIP switch
E*H	Heater
FU*, F*U, (for characteristics, refer to PCB inside your unit)	Fuse
FG*	Connector (frame ground)

Symbol	Meaning
H*	Harness
H*P, LED*, V*L	Pilot lamp, light emitting diode
HAP	Light emitting diode (service monitor green)
HIGH VOLTAGE	High voltage
IES	Intelligent eye sensor
IPM*	Intelligent power module
K*R, KCR, KFR, KHuR, K*M	Magnetic relay
L	Live
L*	Coil
L*R	Reactor
M*	Stepper motor
M*C	Compressor motor
M*F	Fan motor
M*P	Drain pump motor
M*S	Swing motor
MR*, MRCW*, MRM*, MRN*	Magnetic relay
N	Neutral
n=*, N=*	Number of passes through ferrite core
PAM	Pulse-amplitude modulation
PCB*	Printed circuit board
PM*	Power module
PS	Switching power supply
PTC*	PTC thermistor
Q*	Insulated gate bipolar transistor (IGBT)
Q*C	Circuit breaker
Q*DI, KLM	Earth leak circuit breaker
Q*L	Overload protector
Q*M	Thermo switch
Q*R	Residual current device
R*	Resistor
R*T	Thermistor
RC	Receiver
S*C	Limit switch
S*L	Float switch
S*NG	Refrigerant leak detector
S*NPH	Pressure sensor (high)
S*NPL	Pressure sensor (low)
S*PH, HPS*	Pressure switch (high)
S*PL	Pressure switch (low)
S*T	Thermostat
S*RH	Humidity sensor
S*W, SW*	Operation switch
SA*, F1S	Surge arrester
SR*, WLU	Signal receiver
SS*	Selector switch
SHEET METAL	Terminal strip fixed plate
T*R	Transformer
TC, TRC	Transmitter
V*, R*V	Varistor
V*R	Diode bridge, Insulated-gate bipolar transistor (IGBT) power module

Symbol	Meaning
WRC	Wireless remote controller
X*	Terminal
X*M	Terminal strip (block)
Y*E	Electronic expansion valve coil
Y*R, Y*S	Reversing solenoid valve coil
Z*C	Ferrite core
ZF, Z*F	Noise filter







**DAIKIN ISITMA VE SOĞUTMA SİSTEMLERİ SAN.TİC. A.Ş.**

Gülsuyu Mahallesi, Fevzi Çakmak Caddesi, Burçak Sokak, No:20, 34848 Maltepe

İSTANBUL / TÜRKİYE

Tel: 0216 453 27 00

Faks: 0216 671 06 00

Çağrı Merkezi: 444 999 0

Web: [www.daikin.com.tr](http://www.daikin.com.tr)

Copyright 2023 Daikin

**DAIKIN EUROPE N.V.**

Zandvoordestraat 300, B-8400 Oostende, Belgium

3P748643-1D 2024.02