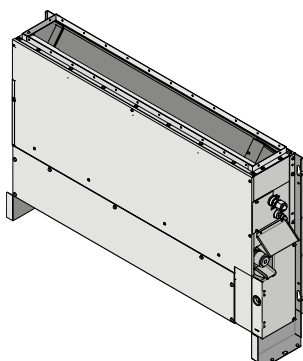




Installation manual

Split system air conditioners



FNA25A2VEB
FNA35A2VEB
FNA50A2VEB
FNA60A2VEB

FNA25A2VEB9
FNA35A2VEB9
FNA50A2VEB9
FNA60A2VEB9

Installation manual
Split system air conditioners

English

CE - DECLARACIONE DE CONFORMIDAD
CE - KONFORMITÄTSEKLERÄRING
CE - DICHAIRAZIONE DI CONFORMITA
CE - ДИКЛЭРАЦІЯ ПІДПІСЯННЯ
CE - CONFORMITÄTSEKLERÄRING

Daikin Industries Czech Republic s.r.o.

- 01 (en) declares under its sole responsibility that the air conditioning models to which this declaration relates.
- 02 (en) erklärt unter seiner alleinigen Verantwortung alle der Modelle der Klimaanlage für die diese Erklärung beschriftet ist.
- 03 (en) déclare sous sa seule responsabilité que les appareils d'air conditionné visés par la présente déclaration.
- 04 (en) verklaart hierbij te eigen oorspronkelijk verantwoordelijkheid dat de airconditioning units waaraan deze verklaring betrekking heeft.
- 05 (en) deklaara soba suja samostalno odgovornosti, da su modeli klima uređaja na koje se ova izjava odnosi.
- 06 (en) обьявляю на основании своей собственной ответственности, что модели климатических устройств, к которым относится эта декларация, соответствуют требованиям.
- 07 (en) deklaara soba suja samostalno odgovornosti da su modeli klima uređaja na koje se ova izjava odnosi.
- 08 (en) deklaara soba suja samostalno odgovornosti da su modeli klima uređaja na koje se ova izjava odnosi.

CE - DECLARACIÓN DE CONFORMIDAD
CE - ЗАЯВЛЕНИЕ О СОБЛЮДЕНИИ
CE - OVERENSSTEMMINGSERKLÄRING
CE - FORSKÄRAN OM ÖVERENSSTÄMMELSE

- 09 (en) заявляет, исполняя под свою ответственность, что модели кондиционеров воздуха, к которым относится настоящее заявление.
- 10 (en) erklærer under eget ansvar at klimaanlægsmødelerne, som denne deklaration vedrører.
- 11 (en) deklaara soba suja samostalno odgovornosti, da su modeli klima uređaja na koje se ova izjava odnosi.
- 12 (en) erklærer et tilsvarende ansvar for at de luftkonditioneringsmodeller som berøres af denne deklaration ineholder alt.
- 13 (en) inotiba, kštomam omala vstavljen, etā tēriņā ierīču modeļi, kas minēti šajā deklarācijā, satur visu nepieciešamo informāciju.
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- 15 (en) зъявляю под своєю відповідальністю, що моделі кліматичних пристроїв, до яких стосується ця декларація, відповідають вимогам.
- 16 (en) teigs teļessēģe iudābātināties, ka šie modeļi ir klimatizācijas ierīču, kurām šī deklarācija attiecinās.

CE - IZJAVA O SKLADNOSTI
CE - MEGFELTESÉGI NYILATKOZÁS
CE - DEKLARAZIJA O SPOBNOŠĆI
CE - DECLARAȚIE DE CONFORMITATE

- 17 (en) deklarije na vlastiti odgovornosti, da su modeli klima uređaja, na koje se ova izjava odnosi.
- 18 (en) deklaara soba suja samostalno odgovornosti, da su modeli klima uređaja, na koje se ova izjava odnosi.
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- 25 (en) deklaara soba suja samostalno odgovornosti, da su modeli klima uređaja, na koje se ova izjava odnosi.

CE - ATTIKTES DEKLARACIJA
CE - VEIKŠTĀJĀS DEKLARĀCIJA
CE - VYHLÁSENIE ZHODY
CE - UYGUNLUK BEYANI

- 17 (en) deklarije na vlastiti odgovornosti, da su modeli klima uređaja, na koje se ova izjava odnosi.
- 18 (en) deklaara soba suja samostalno odgovornosti, da su modeli klima uređaja, na koje se ova izjava odnosi.
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FNA25A2VEB, FNA35A2VEB, FNA50A2VEB, FNA60A2VEB,

- 01 are in conformity with the following standard(s) or other normative document(s), provided that these are used in accordance with our instructions:
- 02 (en) derien følgende Norm(en) eller anden anden Normdokument eller Dokumenten er tilsvarende, under forudsætning, at de gøres i henhold til vores instruktioner.
- 03 sont conformes à l(au)x norme(s) ou autre(s) document(s) normatifs, pour autant qu'ils soient utilisés conformément à nos instructions.
- 04 conform de volgende norm(en) of één of meer andere bindende documenten zijn, op voorwaarde dat ze worden gebruikt overeenkomstig onze instructies.
- 05 están en conformidad con la(s) siguiente(s) norma(s) u otro(s) documento(s) normativo(s), siempre que sean utilizados de acuerdo con nuestras instrucciones.
- 06 sono conformi all(elle) seguenti standardi o altri documenti normativi, a patto che vengano usati in conformità alle nostre istruzioni.
- 07 èva odobrena na to(aj) opredeljen(og) tehnološki(ah) standardu(ima), uz uvjet da se oni koriste u skladu s našim uputama.
- 08 (en) odobrena na to(aj) opredeljen(og) tehnološki(ah) standardu(ima), uz uvjet da se oni koriste u skladu s našim uputama.

EN60335-2-40,

- 01 (en) regarding the provisions of:
- 02 (en) gällande den följande bestämmelserna i:
- 03 conformément aux stipulations des:
- 04 overeenkomstig de bepalingen van:
- 05 σύμφωνα με τις διατάξεις των:
- 06 secondo le prescrizioni per:
- 07 je navedeno u odjeljku 2.40.
- 08 de acuerdo con el previso etc.
- 09 в соответствии с положениями:

19 do upotrebljavati dohoda:
20 nastavak navedene:
21 nastavak navedene:
22 nastavak navedene:
23 nastavak navedene:
24 nastavak navedene:
25 nastavak navedene:

- 06 Note* as set out in <A> and judged positively by
- 07 Hinweis* wie in <A> angegeben und von positiv beurteilt gemaß.
- 08 Remark* zoals vermeld in <A> en positief beoordeeld door
- 09 Примечание* zoals vermeld in <A> en positief beoordeeld door
- 10 Bemerk* como se establece en <A> y es valorado positivamente por
- 11 Informator* enigi <A> och godkännts av enligt Certifikat <C>
- 12 Merk* som det tekniska i <A> og gjennoms positiv bedømmelse av <C> ifølge Sertifika <C>
- 13 Huom* jotta on esitetty asiakirjassa <A> ja jotta on hyväksynyt Sertifikaatin <C> mukaisesti.
- 14 Poznámka* jak bylo uvedeno v <A> a pozitivně zjištěno v souladu s osvědčením <C>
- 15 Napomena* kako je izloženo u <A> pozitivno ocijenjeno od strane prema Certifikatu <C>

16 Megjegyzés* a(z) <A> alapján a(z) igazolta a megjelölt, a(z) <C> tanúsítvány szerint.

17 Utasítás* azonosított dokumentáció <A> pozitív értékelésével, a jóváhagyásával.

18 Noiță* în conformitate cu Certificatul <C>

19 Opomba* kaj je opredeljeno v <A> in odobreno s strani v skladu s certifikatom <C>

20 Märkus* nagu on näidatud dokumentis <A> ja heaks kiidetud järgi vastavalt sertifikaadile <C>

- 07** H DClz** er autorizat să complice tehnică Construcție File.
- 08** A DClz** este autorizat să complice tehnică de fabrica.
- 09** Kompania DClz** ymožňuje vytváreť technickú dokumentáciu.
- 10** DClz** er autoriser til at udarbejde de tekniske konstruktionsfiler.
- 11** DClz** er bemyndiget at sammensætte de tekniske konstruktionsfiler.
- 12** DClz** har tillatelse til å kompilere den tekniske konstruktionsfiler.

13** DClz** on valtuutettu laatimaan tekniikan asiakirjan.

14** Společnost DClz** má oprávnění ke kompilaci souboru technické konstrukce.

15** DClz** er ovårdet til at udarbejde de tekniske konstruktion.

16** ADClz** joggulsi til sammensette tekniske konstruktionsfiler.

17** DClz** má povolenie zbierať a spracovávať technickú dokumentáciu.

18** DClz** este autorizat să complice Dosarul Tehnic de construcție.

19** DClz** je pooblaščen za sestavo datoteke s tehnično mapo.

20** DClz** on valtuutettu laatimaan tekniikan asiakirjan.

21** DClz** er ovårdet til at udarbejde de tekniske konstruktion.

22** DClz** joggulsi til sammensette tekniske konstruktionsfiler.

23** DClz** má povolenie zbierať a spracovávať technickú dokumentáciu.

24** Spoločnosť DClz** je oprávnená vytvoriť súbor technickej konštrukcie.

25** DClz** Teknik Yapı Dosyasını derlemeye yetkilidir.

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DAIKIN INDUSTRIES CZECH REPUBLIC s.r.o.
U Nové Hospody 1/155, 301 00 Plzeň Skvrňany,
Czech Republic

Tetsuya Baba
Managing Director
Plzeň, 3rd of July 2017



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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 <http://www.daikineurope.com/support-and-manuals/product-information/>

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

The original documentation is written in English. All other languages are translations.

Technical engineering data

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

2 About the box

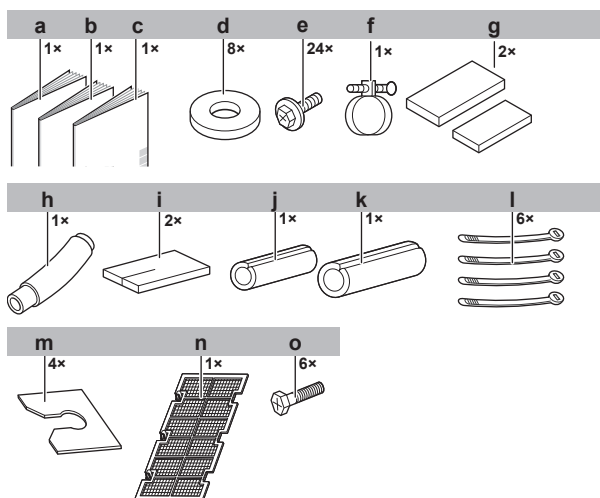
2.1 Indoor unit



WARNING: FLAMMABLE MATERIAL

The R32 refrigerant (if applicable) in this unit is mildly flammable. Refer to the outdoor unit specifications for the type of refrigerant to be used.

2.1.1 To remove the accessories from the indoor unit



- a Installation manual
- b Operation manual
- c General safety precautions
- d Washers for hanger bracket
- e Screws for duct flanges
- f Metal clamp
- g Sealing pads: small and large
- h Drain hose
- i Sealing material
- j Insulation piece: Small (liquid pipe)
- k Insulation piece: Large (gas pipe)
- l Tie wraps
- m Washer fixing plate
- n Air filter
- o Levelling screws

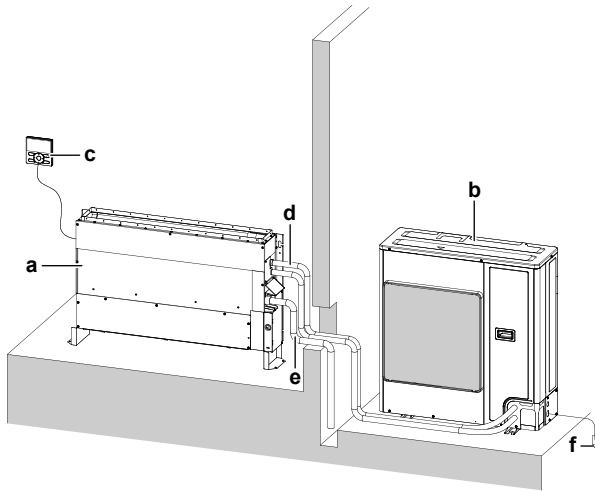
3 About the units and options

3.1 System layout



INFORMATION

The following illustration is an example and might NOT match your system layout.



- a Indoor unit
- b Outdoor unit
- c User interface
- d Refrigerant piping + interconnection cable
- e Drain pipe
- f Earth wiring

4 Preparation

4.1 Preparing the installation site

- Provide sufficient space around the unit for servicing and air circulation.
- Choose the installation location with sufficient space for carrying the unit in and out of the site.



CAUTION

Do NOT install or use in places filled with smoke, gas, chemicals etc. Sensors inside the indoor unit may detect these substances, and display a refrigerant leak abnormality.⁽¹⁾



CAUTION

Do NOT install or use in highly airtight spaces, e.g. soundproof chambers or rooms with sealed doors.⁽¹⁾



CAUTION

This unit is equipped with electrically powered safety measures, such as a refrigerant leak detector. In order to be effective, the unit must be electrically powered at all times after installation, except for short service periods.⁽¹⁾



WARNING

Do NOT install the air conditioner at any place where flammable gas may leak out. If the gas leaks out and stays around the air conditioner, a fire may break out.

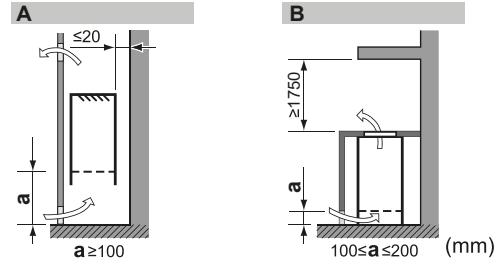
4.1.1 Installation site requirements of the indoor unit



INFORMATION

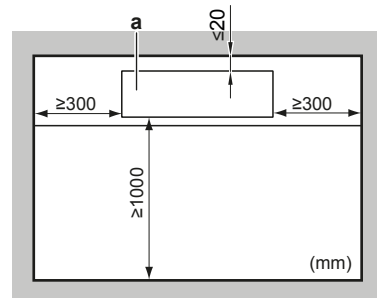
The sound pressure level is less than 70 dBA.

- Use **suspension bolts** for installation.
- Mind the following requirements:



- A Wall-mounted type
- B Floor-standing type
- a Minimum clearance

Top view:



- a Indoor unit

- Install the unit with a prebuilt fully enclosed casing with removable access panel, suction air grille and discharge grille. These removable parts shall prevent access to the unit and can ONLY be removed using a removal tool.
- In case of installation under a window sill, make sure that there is no short-circuit of air.

5 Installation

5.1 Mounting the indoor unit

5.1.1 Guidelines when installing the indoor unit



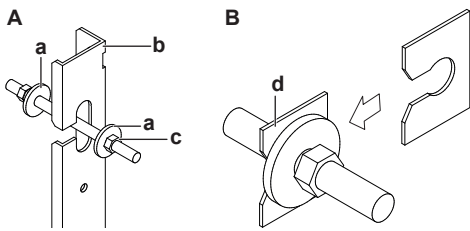
INFORMATION

Optional equipment. When installing optional equipment, also read the installation manual of the optional equipment. Depending on the field conditions, it might be easier to install the optional equipment first.

- **Wall or floor 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.
- **Suspension bolts.** Use W3/8 M10 suspension bolts for installation. Attach the hanger bracket to the suspension bolt. Fix it securely using a nut and washer from the upper and lower sides of the hanger bracket.

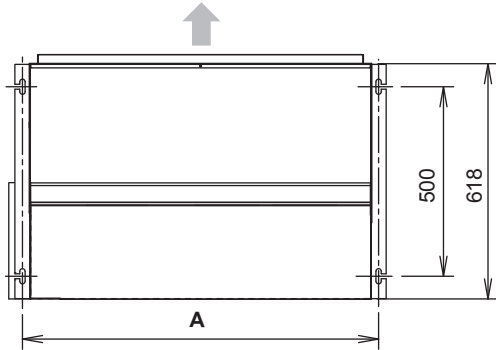
⁽¹⁾ Only for units using R32 refrigerant. Refer to the outdoor unit specifications for the type of refrigerant to be used.

5 Installation



- A** Securing the hanger bracket
- B** Securing the washers
- a** Washer (accessories)
- b** Hanger bracket
- c1** Nut (field supply)
- c2** Double nut (field supply)
- d** Washer fixing plate (accessory)

- Suspension bolt pitch for fastening to the wall:



Class	A (mm)
25&35	740
50&60	1140

Minimum floor area⁽¹⁾

To determine the minimum floor area, refer to the table or the graph below.

- 1 Depending on the amount of the total refrigerant charge in the system (m), the minimum floor area is (A_{min}).

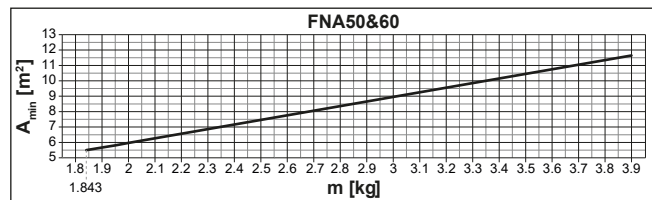
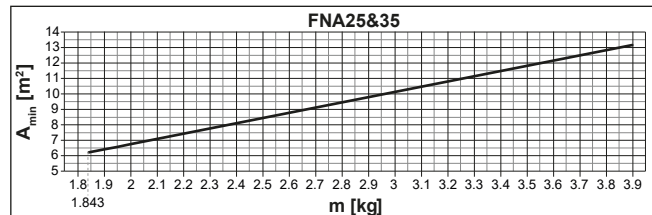


INFORMATION

- If the required exact value for the total refrigerant charge in the system (m) is not listed below, use the closest higher value.
- In case the total refrigerant charge in the system is >3.9 kg, refer to "To determine the minimum floor area" in the **General safety precaution**.

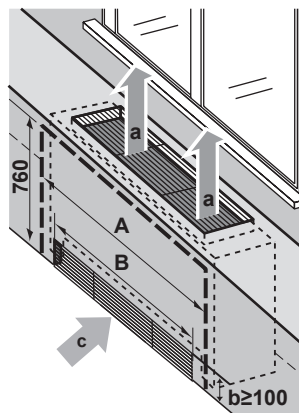
m (kg)	FNA25&35	FNA50&60
	A_{min} (m ²)	
≤ 1.842	No requirements	
1.843	6.2	5.5
1.9	6.4	5.7
2	6.8	6.0
2.1	7.1	6.3
2.2	7.4	6.6
2.3	7.8	6.9
2.4	8.1	7.2
2.5	8.4	7.5
2.6	8.8	7.8
2.7	9.1	8.1
2.8	9.5	8.4
2.9	9.8	8.7

m (kg)	FNA25&35	FNA50&60
	A_{min} (m ²)	
3	10.1	9.0
3.1	10.5	9.3
3.2	10.8	9.6
3.3	11.1	9.9
3.4	11.5	10.2
3.5	11.8	10.4
3.6	12.2	10.7
3.7	12.5	11.0
3.8	12.8	11.3
3.9	13.2	11.6



- A_{min} Minimum floor area
- m Refrigerant charge amount in the system

Floor-standing installation

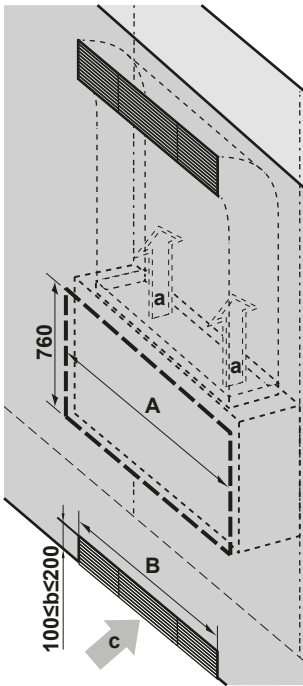


- A** Maintenance area width
- B** Air inlet grille width
- a** Air outlet direction
- b** Air inlet grille height
- c** Air inlet direction

Class	A (mm)	B (mm)
25&35	1350	660
50&60	1750	1060

⁽¹⁾ Only for units using R32 refrigerant in combination with a user interface BRC1H52*. Refer to the outdoor unit specifications for the type of refrigerant to be used.

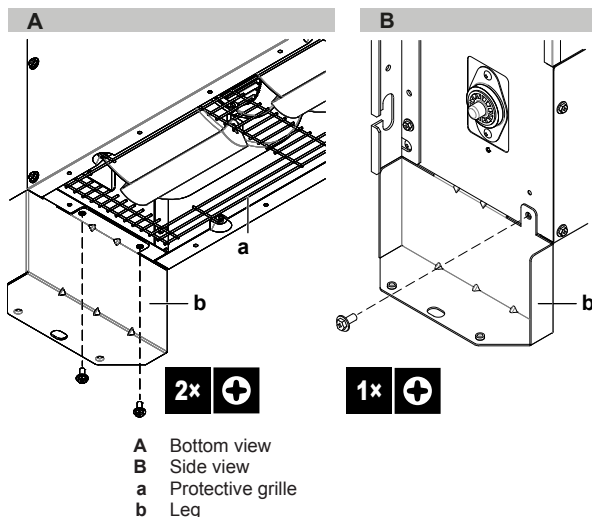
Wall-mounted installation



- A Maintenance area width
- B Air inlet grille width
- a Air outlet direction
- b Air inlet grille height
- c Air inlet direction

Class	A (mm)	B (mm)
25&35	1350	660
50&60	1750	1060

- **External static pressure.** Refer to technical documentation to ensure that the unit's external static pressure is not exceeded.
- **Removing the legs.** If it is necessary to remove the legs, follow these instructions:

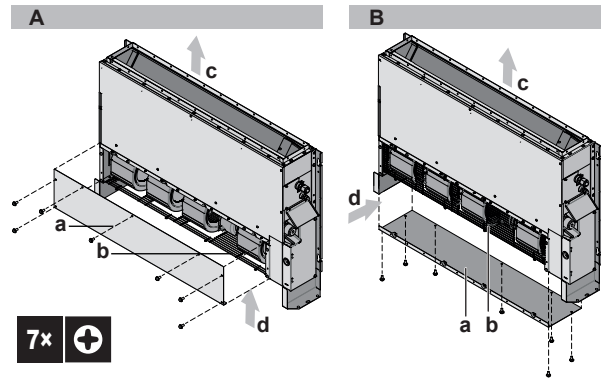


- A Bottom view
- B Side view
- a Protective grille
- b Leg

- 1 In case of bottom suction, remove the air filter.
- 2 Remove 4 screws (2 on each side) that hold both legs on the bottom side of the unit.
- 3 Remove 2 screws (1 on each side) on the side of the unit.
- 4 In case of bottom suction, reattach the filter.
- 5 In case of front suction, reinstall 2 screws on the side of the unit.

- **Install suction cover and air filter (accessory)**

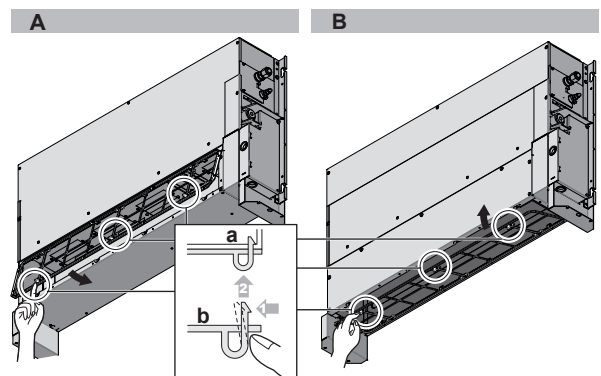
- 6 In case of front suction, remove the protective grille and the suction cover from the front side.



7x ⊕

- A Removing the suction cover
- B Reattaching the suction cover
- a Suction cover
- b Protective grille
- c Air inlet
- d Air outlet

- 7 Remove one leg on the opposite side of the electronic component box.
- 8 Reattach the removed suction cover to the bottom side.
- 9 Attach the protective grille to the front side.
- 10 Reattach the leg if necessary.
- 11 Attach the air filter (accessory) by pushing down the hooks (2 hooks for 25+35 type, 3 hooks for 50+60 type).



- A Front suction
- B Bottom suction
- a Main unit
- b Filter

- **Install the unit temporarily.**

- 12 Attach the hanger bracket to the suspension bolt.
- 13 Fix the unit securely.
- 14 Adjust the unit to fit between the walls.

- **Level.** Make sure the unit is level at all four corners using a level or a water-filled vinyl tube.

- 15 Tighten the upper nut.

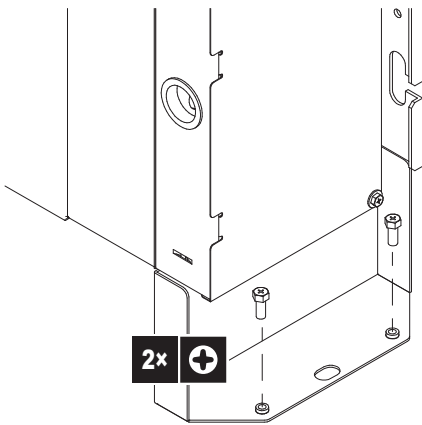


NOTICE

Do NOT install the unit tilted. **Possible consequence:** If the unit is tilted against the direction of the condensate flow (the drain piping side is raised), the float switch might malfunction and cause water to drip.

- **Fixing the unit.** Level the unit with the levelling screws (accessory). If the floor is too uneven to level the unit, place the unit on a flat and levelled base. If the unit is in danger of falling over, fasten it to the wall using factory-made holes or to the floor using floor fasteners (field supply).

5 Installation



5.1.2 Guidelines when installing the ducting



WARNING

If one or more rooms are connected to the unit using a duct system, make sure:

- there are no operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater) in case the floor area is less than A_{min} specified in the General safety precautions;
- no auxiliary devices, which may be a potential ignition source, are installed in the duct work (example: hot surfaces with a temperature exceeding 700°C and electric switching device);
- only auxiliary devices approved by the manufacturer are used in the duct work;
- an air inlet or outlet is connected directly with a room by ducting. Do NOT use spaces such as a false ceiling as a duct for the air inlet or outlet.



WARNING

Do NOT install operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater) in the duct work.

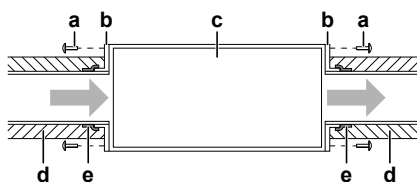


CAUTION

- Make sure the installation of the duct does NOT exceed the setting range of the external static pressure for the unit. Refer to the technical datasheet of your model for the setting range.
- Make sure to install the canvas duct so vibrations are NOT transmitted to the duct or ceiling. Use a sound-absorbing material (insulation material) for the lining of the duct and apply vibration insulation rubber to the hanging bolts.
- When welding, make sure NOT to spatter onto the drain pan or the air filter.
- If the metal duct passes through a metal lath, wire lath or metal plate of the wooden structure, separate the duct and wall electrically.
- Install the outlet grille in a position where the airflow will not come into direct contact with people.
- Do NOT use booster fans in the duct. Use the function to adjust the fan rate setting automatically. For setting refer to the installation manual of the used user interface.

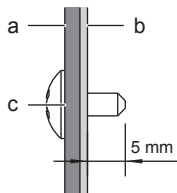
The ducting is to be field supplied.

- **Air inlet side.** Attach the duct and intake-side flange (field supply). For connecting the flange, use 7 accessory screws.



- a Connection screw (accessory)
- b Flange (field supply)
- c Main unit
- d Insulation (field supply)
- e Aluminium tape (field supply)

- **Fixing screws.** When installing an air inlet duct, select fixing screws that stick out 5 mm on the inside of the flange to protect the air filter from damage during maintenance of the filter.



- a Air inlet duct
- b Inside of the flange
- c Fixing screw

- **Filter.** Be sure to attach an air filter inside the air passage on the intake side. Use an air filter with dust collecting efficiency $\geq 50\%$ (gravimetric method). The included filter is not used when the intake duct is attached.
- **Air outlet side.** Connect the duct according to the inside dimension of the outlet-side flange.
- **Air leaks.** Wind aluminium tape around the intake side flange and duct connection. Make sure there are no air leaks at any other connection.
- **Insulation.** Insulate the duct to prevent condensation from forming. Use glass wool or polyethylene foam 25 mm thick.

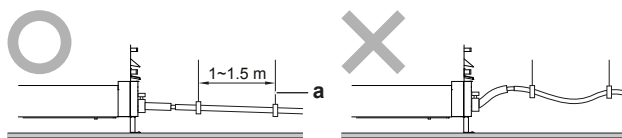
5.1.3 Guidelines when installing the drain piping

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

- General guidelines
- Connecting the drain piping to the indoor unit
- Checking for water leaks

General guidelines

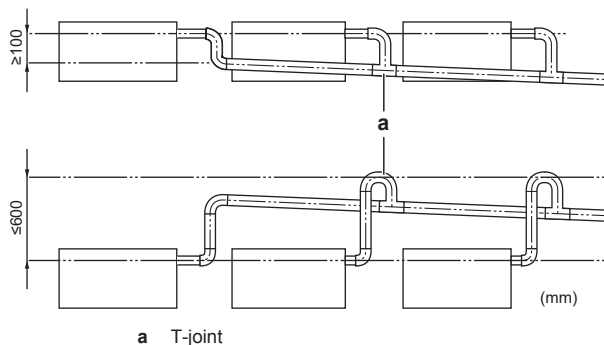
- **Pipe length.** Keep drain piping as short as possible.
- **Pipe size.** Keep the pipe size equal to or greater than that of the connecting pipe (vinyl pipe of 20 mm nominal diameter and 26 mm outer diameter).
- **Slope.** Make sure the drain piping slopes down (at least 1/100) to prevent air from being trapped in the piping. Use hanging bars as shown.



- a Hanging bar
- O Allowed
- X Not allowed

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

- **Rising piping.** If necessary to make the slope possible, you can install rising piping.
 - Drain hose inclination: 0~75 mm to avoid stress on the piping and to avoid air bubbles.
 - Rising piping: ≤300 mm from the unit, ≤625 mm perpendicular to the unit.
- **Combining drain pipes.** You can combine drain pipes. Make sure to use drain pipes and T-joints with the correct gauge for the operating capacity of the units.



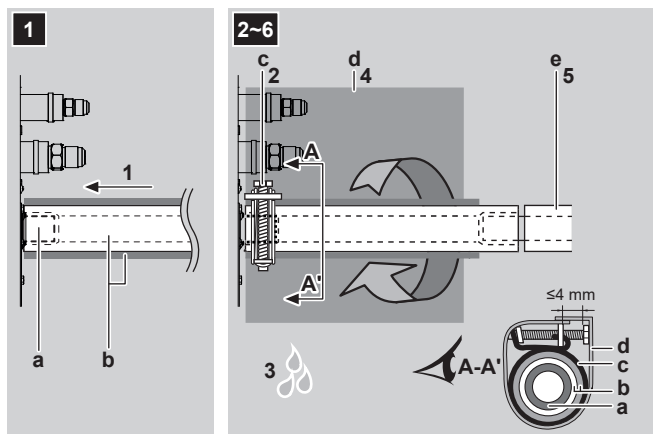
To connect the drain piping to the indoor unit



NOTICE

Incorrect connection of the drain hose might cause leaks, and damage the installation space and surroundings.

- 1 Push the drain hose as far as possible over the drain pipe connection.
- 2 Tighten the metal clamp until the screw head is less than 4 mm from the metal clamp part.
- 3 Check for water leaks (see "To check for water leaks" [▷ 9]).
- 4 Wind the large sealing pad (= insulation) around the metal clamp and drain hose, and fix it with tie wraps.
- 5 Connect the drain piping to the drain hose.



- a Drain pipe connection (attached to the unit)
- b Drain hose (accessory)
- c Metal clamp (accessory)
- d Large sealing pad (accessory)
- e Drain piping (field supply)

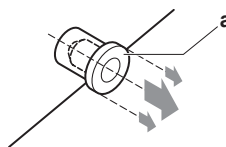


NOTICE

- Do NOT remove the drain pipe plug. Water might leak out.
- Use the drain outlet only to discharge the water if the drain pump is not used or before maintenance.
- Insert and remove the drain plug gently. Excessive force may deform the drain socket of the drain pan.

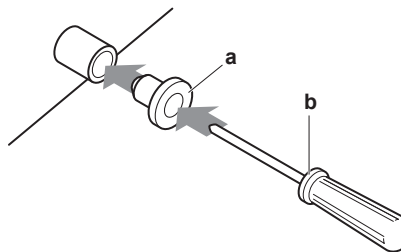
Pull out the plug.

- Do NOT wiggle the plug up and down.



Push in the plug.

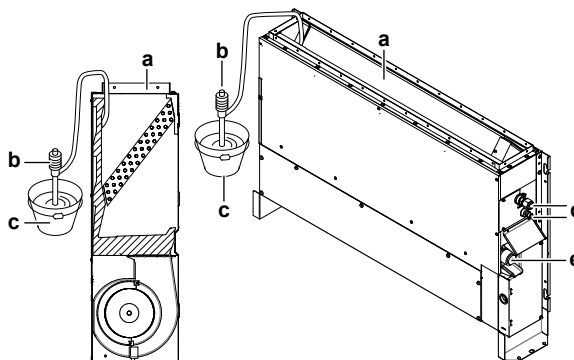
- Set the plug and push it in using a Phillips screwdriver.



- a Drain plug
- b Phillips screwdriver

To check for water leaks

Gradually pour approximately 1 l of water in the drain pan, and check for water leaks.



- a Air outlet
- b Portable pump
- c Bucket
- d Refrigerant pipes
- e Drain outlet

5.2 Connecting the refrigerant piping



DANGER: RISK OF BURNING/SCALDING

5.2.1 To connect the refrigerant piping to the indoor unit



CAUTION

Install the refrigerant piping or components in a position where they are unlikely to be exposed to any substance which may corrode components containing refrigerant, unless the components are constructed of materials that are inherently resistant to corrosion or are suitably protected against corrosion.



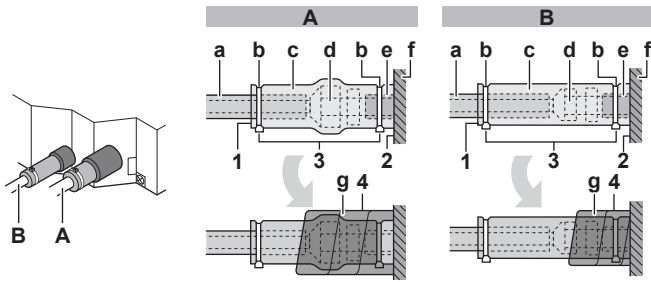
WARNING: FLAMMABLE MATERIAL

The R32 refrigerant (if applicable) in this unit is mildly flammable. Refer to the outdoor unit specifications for the type of refrigerant to be used.

- **Pipe length.** Keep refrigerant piping as short as possible.
- **Flare connections.** Connect refrigerant piping to the unit using flare connections.

5 Installation

- **Insulation.** Insulate the refrigerant piping on the indoor unit as follows:



- A** Gas piping
B Liquid piping

- a** Insulation material (field supply)
b Tie wrap (accessory)
c Insulation pieces: Large (gas pipe), small (liquid pipe) (accessories)
d Flare nut (attached to the unit)
e Refrigerant pipe connection (attached to the unit)
f Unit
g Sealing pads: Medium 1 (gas pipe), medium 2 (liquid pipe) (accessories)

- 1 Turn up the seams of the insulation pieces.
- 2 Attach to the base of the unit.
- 3 Tighten the tie wraps on the insulation pieces.
- 4 Wrap the sealing pad from the base of the unit to the top of the flare nut.



NOTICE

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

5.2.2 To check for leaks



NOTICE

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



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).

- 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.
- 3 Discharge all nitrogen gas.

5.3 Connecting the electrical wiring



DANGER: RISK OF ELECTROCUTION



WARNING

ALWAYS use multicore cable for power supply cables.



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.

5.3.1 Specifications of standard wiring components

Component	Specification
Interconnection cable (indoor↔outdoor)	Minimum cable section of 2.5 mm ² and applicable for 230 V H05RN-F (60245 IEC 57)
User interface cable	Vinyl cords with 0.75 to 1.25 mm ² sheath or cables (2-core wires) H03VV-F (60227 IEC 52) Maximum 500 m

5.3.2 To connect the electrical wiring to the indoor unit

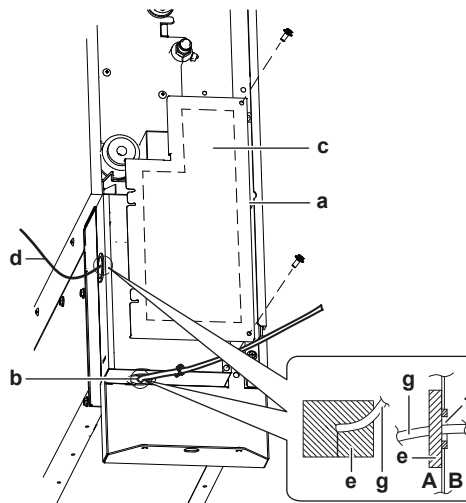
It is important to keep the power supply and the transmission wiring separated from each other. In order to avoid any electrical interference the distance between both wirings should ALWAYS be at least 50 mm.



NOTICE

Be sure to keep the power line and transmission line apart from each other. Transmission wiring and power supply wiring may cross, but may NOT run parallel.

- 1 Remove the service cover.



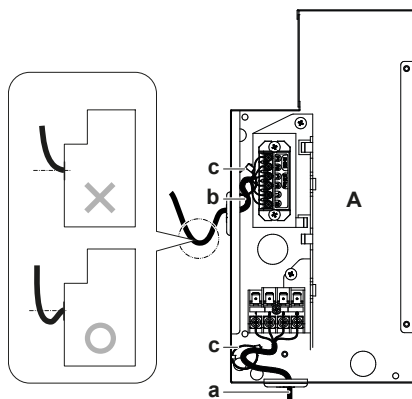
- A** Outside the unit
B Inside the unit
a Control box cover
b Connection of interconnection cable (including earth)
c Wiring diagram
d Connection of user interface wiring
e Sealing material (accessory)
f Opening for cables
g Wire

- 2 **User interface cable:** Route the cable through the frame, connect the cable to the terminal block, and fix the cable with a cable tie.
- 3 **Interconnection cable (indoor↔outdoor):** Route the cable through the frame, connect the cable to the terminal block (make sure the numbers match with the numbers on the outdoor unit, and connect the earth wire), and fix the cable with a cable tie.

- 4 Wrap the cables with the sealing material (accessory) to prevent water from entering the unit. Seal all gaps to prevent small animals from entering the system.

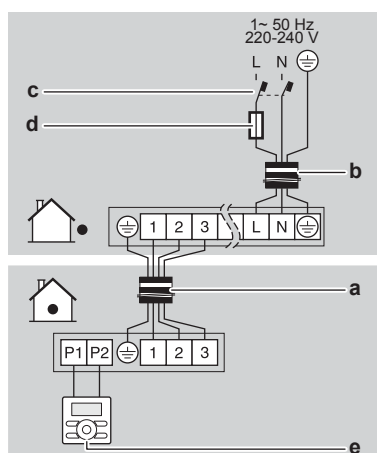
WARNING

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.



- A Indoor PCB (assembly)
a Power supply and earth wiring
b Transmission and user interface wiring
c Clamps
X Not allowed
O Allowed

- 5 Reattach the service cover.



- a Interconnection cable
b Power supply cable
c Earth leakage circuit breaker
d Fuse
e User interface

6 Commissioning

NOTICE

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

6.1 Checklist before commissioning

After the installation of the unit, first check the items listed below. Once all checks are fulfilled, the unit must be closed. Power-up the unit after it is closed.

- You read the complete installation instructions, as described in the **installer reference guide**.

<input type="checkbox"/>	The indoor units are properly mounted.
<input type="checkbox"/>	In case a wireless user interface is used: The indoor unit decoration panel with infrared receiver is installed.
<input type="checkbox"/>	The outdoor unit is properly mounted.
<input type="checkbox"/>	There are NO missing phases or reversed phases .
<input type="checkbox"/>	The system is properly earthed and the earth terminals are tightened.
<input type="checkbox"/>	The fuses or locally installed protection devices are installed according to this document, and have NOT been bypassed.
<input type="checkbox"/>	The power supply voltage matches the voltage on the identification label of the unit.
<input type="checkbox"/>	There are NO loose connections or damaged electrical components in the switch box.
<input type="checkbox"/>	The insulation resistance of the compressor is OK.
<input type="checkbox"/>	There are NO damaged components or squeezed pipes on the inside of the indoor and outdoor units.
<input type="checkbox"/>	There are NO refrigerant leaks .
<input type="checkbox"/>	The correct pipe size is installed and the pipes are properly insulated.
<input type="checkbox"/>	The stop valves (gas and liquid) on the outdoor unit are fully open.

6.2 To perform a test run

This task is only applicable when using the BRC1E52 or BRC1E53 user interface. When using any other user interface, see the installation manual or service manual of the user interface.

NOTICE

Do NOT interrupt the test run.

INFORMATION

Backlight. To perform an ON/OFF action on the user interface, the backlight does not need to be lit. For any other action, it needs to be lit first. The backlight is lit for ± 30 seconds when you press a button.

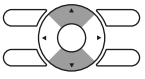
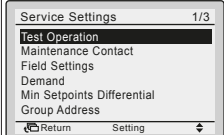
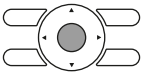
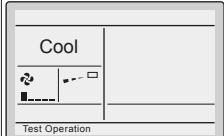
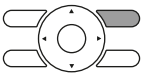
- 1 Perform introductory steps.

#	Action
1	Open the liquid stop valve and gas stop valve by removing the cap and turning counterclockwise with a hex wrench until it stops.
2	Close the service cover to prevent electric shocks.
3	Turn ON power for at least 6 hours before starting operation to protect the compressor.
4	On the user interface, set the unit to cooling operation mode.

- 2 Start the test run

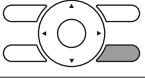
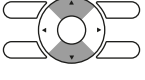
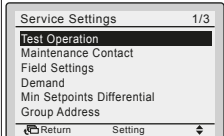
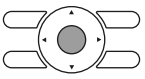
#	Action	Result
1	Go to the home menu.	
2	Press at least 4 seconds. 	The Service Settings menu is displayed.

7 Disposal

#	Action	Result
3	Select Test Operation. 	
4	Press. 	Test Operation is displayed on the home menu. 
5	Press within 10 seconds. 	Test run starts.

3 Check operation for 3 minutes.

4 Stop the test run.

#	Action	Result
1	Press at least 4 seconds. 	The Service Settings menu is displayed.
2	Select Test Operation. 	
3	Press. 	The unit returns to normal operation, and the home menu is displayed.



NOTICE

When the indoor unit fan rotates and the operation light flashes after trial operation, there is a risk of refrigerant leakage. In that case, immediately ventilate the room and contact your dealer.⁽¹⁾

6.3 Error codes when performing a test run

If the installation of the outdoor unit has NOT been done correctly, the following error codes may be displayed on the user interface:

Error code	Possible cause
Nothing displayed (the currently set temperature is not displayed)	<ul style="list-style-type: none"> The wiring is disconnected or there is a wiring error (between power supply and outdoor unit, between outdoor unit and indoor units, between indoor unit and user interface). The fuse on the outdoor or indoor unit PCB has blown.
A0	Refrigerant leak detected. ⁽¹⁾
CH	Abnormality of refrigerant leakage sensor. ⁽¹⁾
E3, E4 or L8	<ul style="list-style-type: none"> The stop valves are closed. The air inlet or air outlet is blocked.

Error code	Possible cause
E7	There is a missing phase in case of three-phase power supply units. Note: Operation will be impossible. Turn OFF the power, recheck the wiring, and switch two of the three electrical wires.
L4	The air inlet or air outlet is blocked.
U0	The stop valves are closed.
U2	<ul style="list-style-type: none"> There is a voltage imbalance. There is a missing phase in case of three-phase power supply units. Note: Operation will be impossible. Turn OFF the power, recheck the wiring, and switch two of the three electrical wires.
U4 or UF	The inter-unit branch wiring is not correct.
UA	The outdoor and indoor unit are incompatible.

7 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.


















8 Technical data

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


8.1 Wiring diagram

8.1.1 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

⁽¹⁾ Only for units using R32 refrigerant. Refer to the outdoor unit specifications for the type of refrigerant to be used.

Symbol	Meaning	Symbol	Meaning
	Residual current device		

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
		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)
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

Symbol	Meaning
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
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





ERC



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