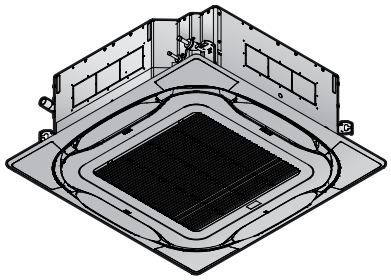
Installation and operation manual

CO_2 VRV system air conditioner



FXFN40B2VEB
FXFN50B2VEB
FXFN63B2VEB
FXFN80B2VEB

tion of conformity
onformitätserklärung
e conformité de sécurité
verklaring veiligheid

UE – Declaración de conformidad sobre seguridad
UE – Dichiarazione di conformità in materia di sicurezza
EE – Δήλωση συμμόρφωσης για την ασφάλεια
UE – Declaração de conformidade relativa à segurança

EC – Заявление о соответствии требованиям по безопасности
EU – Sikkerheds-overensstemmelseserklæring
EU – Konformitetsdeklaration för säkerhet

EU – Samsvarserklæring for sikkerhet
EU – Turvallisuuden vaatimustenmukaisuusvakuutus
EU – Bezpečnostní prohlášení o shodě

EU – Izjava o sukladnosti za sigurnost
EU – Biztonsági megfelelőségi nyilatkozat
UE – Deklaracja zgodności z wymogami bezpieczeństwa
UE – Declarație de conformitate de siguranță

EU – Varnostna izjava o skladnosti
EÜ – Ohutuse vastavusdeklaratsioon
EC – Декларация за съответствие за безопасност

EC – Декларация за съответствие за безопасност
ES – Drošības atbilstības deklarācija
EÚ – Vyhlásenie o zhode Bezpečnosť
AB – Güvenlik uygunluk beyanı

dustries Czech Republic s.r.o.

nder its sole responsibility that the products to which this declaration relates:
leinige Verantwortung, dass die Produkte, auf die sich diese Erklärung bezieht:
us sa seule responsabilité que les produits visés par la présente déclaration:
erbij op eigen verantwoordelijkheid dat de producten waarop deze verklaring betrekking heeft:
o su única responsabilidad que los productos a los que hace referencia esta declaración:
tto la propria responsabilità che i prodotti a cui è riferita questa dichiarazione:
σει της αποκλειστικής της ευθύνης ότι τα προϊόντα στα οποία αναφέρεται η παρούσα δήλωση:
o sua exclusiva responsabilidade que os produtos a que esta declaração se refere:

09 (RUS) заявляет, исключительно под свою ответственность, что продукция, к которой относится настоящее заявление:
10 (DK) erklærer som eneansvarlig, at produkterne, som er omfattet af denne erklæring:
11 (S) deklarerar i egenskap av huvudansvarig, att produkterna som berörs av denna deklaration innebär att:
12 (N) erklærer et fullstendig ansvar for at produktene som er underlagt denne erklæringen:
13 (FIN) ilmoittaa yksinomaan omalla vastuullaan, että tämän ilmoituksen tarkoittamat tuotteet:
14 (CZ) prohlašuje na svou plnou odpovědnost, že výrobky, ke kterým se toto prohlášení vztahuje:
15 (HR) izjavljuje pod isključivo vlastitom odgovornošću da su proizvodi na koje se ova izjava odnosi:
16 (H) teljes felelősségé tudatában kijelenti, hogy a termékek, melyekre e nyilatkozat vonatkozik:

17 (PL) deklaruje na własną wyłączną odpowiedzialność, że produkty, których ta deklaracja dotyczy:
18 (RO) declară pe proprie răspundere că produsele la care se referă această declarație:
19 (SLO) z vso odgovornostjo izjavlja, da so izdelki, na katere se izjava nanaša:
20 (EST) kinnitab oma vastutusel, et tooted, mille kohta käesolev deklaratsioon kehtib:
21 (BG) декларира на своя отговорност, че продуктите, за които се отнася тази декларация:
22 (LT) savo išskirtine atsakomybe pareiškia, kad gaminiai, kuriems ši deklaracija taikoma:
23 (LV) ar pilnu atbildību apliecina, ka izstrādājumi, uz kuru attiecas šī deklarācija:
24 (SK) vyhlasuje na vlastnú zodpovednosť, že výrobky, na ktoré sa vzťahuje toto vyhlásenie:
25 (TR) tek sorumluluğu kendisine ait olmak üzere, bu beyanın ilgili olduğu ürünlerin:

2VEB, FXFN50B2VEB, FXFN63B2VEB, FXFN80B2VEB,

y with the following directive(s) or regulation(s), provided that the products are used in accordance with our instructions:
ntlinie/n oder Vorschrift/en entsprechen, vorausgesetzt, dass diese gemäß unseren Instruktionen verwendet werden:
à la/aux directive(s) ou règlement(s) suivant(s), à condition que les produits soient utilisés conformément à nos instructions:
ming zijn met de volgende richtlijn(en) of verordening(en), op voorwaarde dat de producten worden gebruikt overeenkomstig onze

midad con la(s) siguiente(s) directiva(s) o reglamento(s), siempre que se utilicen de acuerdo con nuestras instrucciones:
lle direttive o ai regolamenti seguenti, a patto che i prodotti vengano usati in conformità alle nostre istruzioni:
αι με την(ις) ακόλουθη(ες) οδηγία(ες) ή κανονισμό(ούς), υπό την προϋπόθεση ότι τα προϊόντα χρησιμοποιούνται σύμφωνα με τις

rmidade com a(s) seguinte(s) diretiva(s) ou regulamento(s), desde que os produtos sejam utilizados de acordo com as nossas

09 отвечает требованиям упомянутых ниже директив или нормативных документов при условии эксплуатации данной продукции в соответствии с нашими инструкциями:
10 overholder bestemmelserne i følgende direktiv(er) eller bestemmelse(r), forudsat at produkterne anvendes i overensstemmelse med vores instruktioner:
11 uppfyller följande direktiv eller föreskrift(er), under förutsättning att produkterna används i enlighet med våra instruktioner:
12 er i overensstemmelse med følgende direktiv(er) eller forskrift(er), forutsatt at produktene brukes i henhold til våre instruksjoner:
13 ovat seuraavien direktiivien tai asetusten mukaisia, edellyttäen että tuotteita käytetään ohjeidemme mukaisesti:
14 jsou ve shodě s následujícími směrnicemi nebo předpisy za předpokladu, že tyto výrobky jsou používány v souladu s našimi pokyny:
15 u skladu sa sljedećom direktivom(ma) ili odredbom(a), uz uvjet da se proizvodi koriste sukladno našim uputama:
16 megfelelnek az alábbi irányelv(ek)nek vagy egyéb szabályozás(ok)nak, ha a termékeket előírás szerint használják:

17 spełniają wymogi następujących dyrektyw lub rozporządzeń, pod warunkiem że produkty używane są zgodnie z naszymi instrukcjami:
18 sunt în conformitate cu următoarele directive sau regulamente, cu condiția ca produsele să fie utilizate în conformitate cu instrucțiunile noastre:
19 v skladu z naslednjo direktivo(-ami) ali predpisom(-i) pod pogojem, da se izdelki uporabljajo v skladu z našimi navodili:
20 vastavad järgmise (järgmiste) direktiivi(de) ja määruse (määruste) nõuetele, tingimusel, et neid kasutatakse vastavuses meie juhistele:
21 са в съответствие със следната директива(и) или регламент(и), при условие че продуктите се използват в съответствие с нашите инструкции:
22 atitinka toliau nurodytas direktyvas arba reglamentus, su sąlyga, kad gaminiai bus eksploatuojami laikantis mūsų instrukcijų:
23 atbilst šādām direktīvām vai regulām, ja vien šie izstrādājumi tiek lietoti saskaņā ar mūsu instrukcijām:
24 sú v zhode s nasledujúcou(imi) smernicou(ami) alebo predpisom(mi) za predpokladu, že sa výrobky používajú v zhode s našimi pokynmi:
25 talimatlarımız doğrultusunda kullanılması koşuluyla aşağıdaki direktife/direktiflere veya yönetmeliğe/yönetmeliklere uygun olduğunu beyan eder:

y 2006/42/EC**
gnetic Compatibility 2014/30/EU*

01 as amended,
02 in der jeweils gültigen Fassung,
03 telles que modifiées,
04 zoals gewijzigd,
05 en su forma enmendada,
06 e successive modifiche,
07 όπως έχουν τροποποιηθεί,
08 conforme emendado,
09 в действующей редакции,
10 som tilføjet,
11 med tillägg,
12 med foretatte endringer,
13 sellaisina kuin ne ovat muutettuina,
14 v platném znění,
15 kako je izmijenjeno amandmanima,
16 és módosításaik rendelkezéseit,
17 z późniejszymi zmianami,
18 cu amendamentele respective,
19 kakor je bilo spremenjeno,
20 koos muudatustega,
21 с техните изменения,
22 ir jos tolesnes redakcijas,
23 ar grozījumiem,
24 v poslednom platnom vydaní,
25 değiştirildiği şekliyle,

visions of:
timmungen in:
aux dispositions de:
alingen van:
sposiciones de:
osizioni di:
προβλέψεις των:
posições de:
с положениями:

10 under iagttagelse af:
11 enligt bestämmelserna för:
12 i henhold til bestemmelsene i:
13 noudattaen säännöksiä:
14 za dodržení ustanovení:
15 prema odredbama:
16 követi a(z):
17 zgodnie z postanowieniami:
18 urmând prevederile:

19 v skladu z določbami:
20 vastavalt nõuetele:
21 следвайки клаузите на:
22 vadovaujantis šio dokumento nuostatomis:
23 atbilstoši šādu standartu prasībām:
24 nasledovnými ustanoveniami:
25 şu standartların hükümlerine:

EN 60335-2-40,

s set out in <A> and judged positively by <B>
ccording to the **Certificate <C>**.
vie in <A> aufgeführt und von <B> positiv
beurteilt gemäß **Zertifikat <C>**.
elles que définies dans <A> et évaluées
ositivement par <B> conformément au
Certificat <C>.
oals uiteengezet in <A> en positief beoordeeld
door <B> overeenkomstig het **Certificaat <C>**.
al como se establece en <A> y valorado
ositivamente por <B> de acuerdo con el
Certificado <C>.

06 **Nota*** come delineato in <A> e giudicato positivamente da <B> ai sensi del **Certificato <C>**.
07 **Σημείωση*** όπως ορίζεται στο <A> και κρίνεται θετικά από τον <B> σύμφωνα με το **Πιστοποιητικό <C>**.
08 **Nota*** conforme estabelecido em <A> e avaliado positivamente por <B> de acordo com o **Certificado <C>**.
09 **Примечание*** как указано в <A> и подтверждено <B> согласно Свидетельству <C>.
10 **Bemærk*** Som anført i <A> og positivt vurderet af <B> i henhold til **Certifikat <C>**.
11 **Information*** som anges i <A> och godkänts av <B> enligt **Certifikat <C>**.
12 **Merk*** som det fremkommer i <A> og vurdert positivt av <B> i henhold til **Sertifikatet <C>**.
13 **Huom*** sellaisina kuin ne on esitetty asiakirjassa <A> ja jotka <B> on hyväksynyt **Sertifikaatin <C>** mukaisesti.
14 **Poznámka*** jak bylo uvedeno v <A> a pozitivně zjištěno <B> v souladu s **Osvědčením <C>**.
15 **Napomena*** kako je izloženo u <A> i pozitivno ocijenjeno od <B> prema **Certifikatu <C>**.
16 **Megjegyzés*** a(z) <A> alapján, a(z) <B> igazolta a megfelelést, a(z) <C> **tanúsítvány** szerint.
17 **Uwaga*** zgodnie z dokumentacją <A>, pozytywną opinią <B> i **Świadectwem <C>**.
18 **Notă*** asa cum se prevede în <A> și apreciat pozitiv de <B> conform **Certificatului <C>**.
19 **Opomba*** Kot je določeno v <A> in je prejelo pozitivno oceno <B> v skladu s **Certifikatom <C>**.
20 **Märkus*** Mis on sätestatud dokumendis <A> ja hinnatud vastuvõetuks dokumendis <B>, vastavalt **Sertifikaadile <C>**.
21 **Забележка*** както е изложено в <A> и оценено положително от <B> съгласно **Сертификата <C>**.
22 **Pastaba*** kaip nurodyta <A> ir teigiamai nuspręsta pagal <B>, vadovaujantis **Sertifikatu <C>**.
23 **Piezīmes*** kā norādīts <A> un pozitīvi novērtēts <B> saskaņā ar **Sertifikātu <C>**.
24 **Poznámka*** ako bolo stanovené v <A> a kladne posúdené <B> podľa **Osvedčenia <C>**.
25 **Not*** <A>'de belirtildiği ve <C> **Sertifikasına** göre <B> tarafından olumlu görüş bildirildiği üzere.

<A>	DAIKIN.TCF.038/03-2025
<B>	TÜV (NB0197)
<C>	60180396

is authorised to compile the Technical Construction File.
hat die Berechtigung die Technische Konstruktionsakte zusammenzustellen.
est autorisé à compiler le Dossier de Construction Technique.
is bevoegd om het Technisch Constructiedossier samen te stellen.
está autorizado a compilar el Archivo de Construcción Técnica.
è autorizzata a redigere il File Tecnico di Costruzione.

07** Η DICz*** είναι εξουσιοδοτημένη να συντάξει τον Τεχνικό φάκελο κατασκευής.
08** A DICz*** está autorizada a compilar a documentação técnica de fabrico.
09** Компания DICz*** уполномочена составить Комплект технической документации.
10** DICz*** er autoriseret til at udarbejde de tekniske konstruktionsdata.
11** DICz*** är bemyndigade att sammanställa den tekniska konstruktionsfilen.
12** DICz*** har tillatelse til å kompilere den Tekniske konstruksjonsfilen.

13** DICz*** on valtuutettu laatimaan Teknisen asiakirjan.
14** Společnost DICz*** má oprávnění ke kompilaci souboru technické konstrukce.
15** DICz*** je ovlašten za izradu Datoteke o tehničkoj konstrukciji.
16** A DICz*** jogosult a műszaki konstrukciós dokumentáció összeállítására.
17** DICz*** ma upoważnienie do zbierania i opracowywania dokumentacji konstrukcyjnej.
18** DICz*** este autorizat să compileze Dosarul tehnic de construcție.

19** DICz*** je pooblaščen za sestavo datoteke s tehnično mapo.
20** DICz*** on volitatud koostama tehnilist dokumentatsiooni.
21** DICz*** е оторизирана да състави Акта за техническа конструкция.
22** DICz*** yra įgaliota sudaryti šį techninės konstrukcijos failą.
23** DICz*** ir autorizēts sastādīt tehnisko dokumentāciju.
24** Spoločnosť DICz*** je oprávnená vytvoriť súbor technickej konštrukcie.
25** DICz*** Teknik Yapı Dosyasını derlemeye yetkilidir.

kin Industries Czech Republic s.r.o.

DAIKIN

Minoru Shoji
Managing Director
Pilsen, 1st of April 2025

DAIKIN INDUSTRIES CZECH REPUBLIC s.r.o.
U Nové Hospody 1155/1, 301 00 Plzeň Skvrňany, Czech Republic

Table of Contents

1 About the documentation

1.1 About this document

WARNING

Make sure installation, servicing, maintenance, repair and applied materials follow the instructions from Daikin (including all documents listed in “Documentation set”) and, in addition, comply with applicable legislation and are performed by qualified persons only. In Europe and areas where IEC standards apply, EN/IEC 60335-2-40 is the applicable standard.

Target audience

Authorised installers + end users

INFORMATION

This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial 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 and operation manual:**
  - Installation and operation instructions
  - Format: Paper (in the box of the indoor unit)
- **Installer and user reference guide:**
  - Preparation of the installation, good practices, reference data,…
  - Detailed step-by-step instructions and background information for basic and advanced usage
  - 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.

Scan the QR code below to find the full documentation set and more information about your product on the Daikin website.

FXFN-B

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.

General installation requirements

WARNING

Make sure installation, servicing, maintenance, repair and applied materials follow the instructions from Daikin (including all documents listed in “Documentation set”) and, in addition, comply with applicable legislation and are performed by qualified persons only. In Europe and areas where IEC standards apply, EN/IEC 60335-2-40 is the applicable standard.

NOTICE

Make sure to install all necessary countermeasures in case of refrigerant leakage according to standard EN378.

Installation site (see "12.1 Preparing the installation site" [▶ 12])

CAUTION

Appliance NOT accessible to the general public, install it in a secured area, protected from easy access.

This unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment.

CAUTION

Excessive concentrations of refrigerant R744 (CO_2) in a closed room can lead to unconsciousness and oxygen deficiency. Take appropriate measures.

CAUTION

This equipment is NOT intended for use in residential locations and will NOT guarantee to provide adequate protection to radio reception in such locations.

WARNING

Install the unit ONLY in locations where the doors of the occupied space are NOT tight fitting.

Refrigerant piping installation (see "13 Piping installation" [▶ 16])

CAUTION

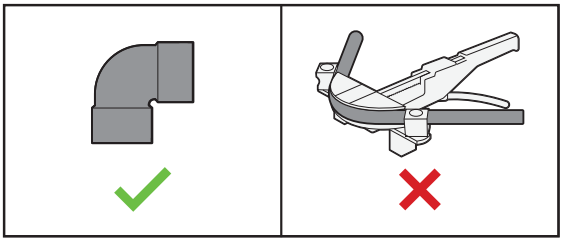
Install the refrigerant piping or components in a position where they are unlikely to be exposed to any substance which may corrode components containing refrigerant, unless the components are constructed of materials that are inherently resistant to corrosion or are suitably protected against corrosion.

WARNING

- Use K65 piping for high-pressure applications with a working gauge pressure of 120 bar or 90 bar, depending on its location in the system.
- Use K65 unions and fittings approved for a working gauge pressure of 120 bar or 90 bar, depending on its location in the system.
- ONLY brazing is allowed for connection of pipes. No other types of connections are allowed.
- Expanding of pipes is NOT allowed.

CAUTION

NEVER bend high pressure piping! Bending can reduce the pipe thickness and thus weaken the piping. ALWAYS use K65 fittings.



Electrical installation (see "14 Electrical installation" [▶ 17])

WARNING

ALWAYS use multicore cable for power supply cables.

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.

WARNING

If NOT factory installed, a main switch or other means for disconnection, having a contact separation in all poles providing full disconnection under overvoltage category III condition, MUST be installed in the fixed wiring.

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.

Commissioning (see "15 Commissioning" [▶ 18])

WARNING

If the panels on the indoor units are not installed yet, make sure to power OFF the system after finishing the test run. To do so, turn OFF operation via the user interface. Do NOT stop operation by turning OFF the circuit breakers.

For the user

3 User safety instructions

Always observe the following safety instructions and regulations.

3.1 General

WARNING

If you are NOT sure how to operate the unit, contact your installer.

WARNING

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.

Children SHALL NOT play with the appliance.

Cleaning and user maintenance SHALL NOT be made by children without supervision.

WARNING

To prevent electrical shocks or fire:

- Do NOT rinse the unit.
- Do NOT operate the unit with wet hands.
- Do NOT place any objects containing water on the unit.

CAUTION

- Do NOT place any objects or equipment on top of the unit.
- Do NOT sit, climb or stand on the unit.

- Units are marked with the following symbol:

This means that electrical and electronic products may NOT be mixed with unsorted household waste. Do NOT try to dismantle the system yourself: dismantling the system, treatment of the refrigerant, of oil and of other parts MUST be done by an authorised installer and MUST comply with applicable legislation.

Units MUST be treated at a specialised treatment facility for reuse, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. For more information, contact your installer or local authority.

- Batteries are marked with the following symbol:

This means that the batteries may NOT be mixed with unsorted household waste. If a chemical symbol is printed beneath the symbol, this chemical symbol means that the battery contains a heavy metal above a certain concentration.

Possible chemical symbols are: Pb: lead (>0.004%).

Waste batteries MUST be treated at a specialised treatment facility for reuse. By ensuring waste batteries are disposed of correctly, you will help to prevent potential negative consequences for the environment and human health.

3.2 Instructions for safe operation

WARNING

Do NOT modify, disassemble, remove, reinstall or repair the unit yourself as incorrect dismantling or installation may cause an electrical shock or fire. Contact your dealer.

CAUTION

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

CAUTION

- NEVER touch the internal parts of the controller.
- Do NOT remove the front panel. Some parts inside are dangerous to touch and appliance problems may happen. For checking and adjusting the internal parts, contact your dealer.

WARNING

This unit contains electrical and hot parts.

WARNING

Before operating the unit, be sure the installation has been carried out correctly by an installer.

CAUTION

It is unhealthy to expose your body to the air flow for a long time.

CAUTION

To avoid oxygen deficiency, ventilate the room sufficiently if equipment with burner is used together with the system.

CAUTION

Do NOT operate the system when using a room fumigation-type insecticide. Chemicals could collect in the unit, and endanger the health of people who are hypersensitive to chemicals.

CAUTION

ALWAYS use the user interface to adjust the position of the flaps and louvers. When the flaps and louvers are swinging and you move them forcibly by hand, the mechanism will break.

WARNING

NEVER touch the air outlet or the horizontal/vertical blades while the swing flap is in operation. Fingers may become caught or the unit may break down.

CAUTION

NEVER expose little children, plants or animals directly to the airflow.

WARNING

Do NOT place a flammable spray bottle near the air conditioner and do NOT use sprays near the unit. Doing so may result in a fire.

Maintenance and service (see "7 Maintenance and service" [▶ 9])

WARNING: ⇨•⇦ System contains refrigerant under very high pressure.

The system MUST be serviced by qualified persons ONLY.

CAUTION: Pay attention to the fan!

It is dangerous to inspect the unit while the fan is running.

Make sure to turn OFF the main switch before executing any maintenance task.

WARNING

NEVER replace a fuse with a fuse of a wrong ampere ratings or other wires when a fuse blows out. Use of wire or copper wire may cause the unit to break down or cause a fire.

CAUTION

After a long use, check the unit stand and fitting for damage. If damaged, the unit may fall and result in injury.

CAUTION

Before accessing terminal devices, make sure to interrupt all power supply.

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.

DANGER: RISK OF ELECTROCUTION

To clean the air conditioner or air filter, be sure to stop operation and turn all power supplies OFF. Otherwise, an electrical shock and injury may result.

WARNING

Be careful with ladders when working in high places.

WARNING

Do NOT let the indoor unit get wet.
Possible consequence: Electrical shock or fire.

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 warning label for persons performing service and maintenance.

CAUTION

Turn off the unit before cleaning the unit exterior and air filter.

About the refrigerant (see "7.3 About the refrigerant" [▶ 11])

WARNING

The R744 refrigerant (CO_2) inside the unit is odourless, non-flammable and normally does NOT leak.

If the refrigerant leaks in high concentrations in the room, it may have negative effects on its occupants such as asphyxiation and carbon dioxide poisoning. 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.

Troubleshooting (see "8 Troubleshooting" [▶ 11])

WARNING

Stop operation and shut OFF the power if anything unusual occurs (burning smells etc.).

Leaving the unit running under such circumstances may cause breakage, electrical shock or fire. Contact your dealer.

4 About the system

WARNING

Do NOT modify, disassemble, remove, reinstall or repair the unit yourself as incorrect dismantling or installation may cause an electrical shock or fire. Contact your dealer.

NOTICE

The appliance shall be stored so as to prevent mechanical damage.

NOTICE

Do NOT use the system for other purposes. In order to avoid any quality deterioration, do NOT use the unit for cooling precision instruments, food, plants, animals, or works of art.

NOTICE

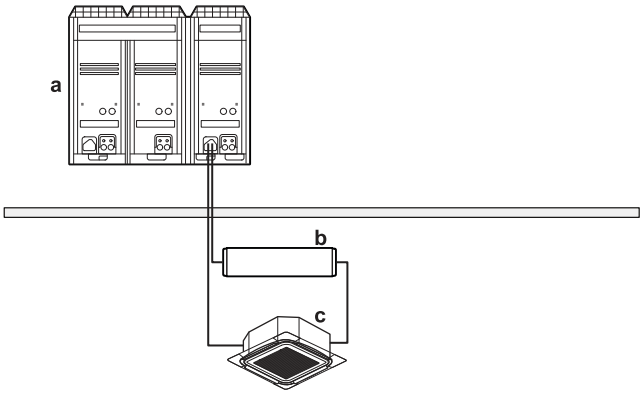
For future modifications or expansions of your system:

A full overview of allowable combinations (for future system extensions) is available in technical engineering data and should be consulted. Contact your installer to receive more information and professional advice.

4.1 System layout

INFORMATION

The following figure is an example and may NOT completely match your system layout.



a Main outdoor unit
b BEV2 unit
c Indoor unit for air conditioning

INFORMATION

- The maximum installation distance between the indoor unit and the BEV2 unit depends on the length of the included transmission and power supply cables.
- Make sure to install the units so the cables reach both units terminals.
- The maximum installation height difference between the indoor unit and the BEV2 unit is ≤0.5 m.

5 User interface

CAUTION

- NEVER touch the internal parts of the controller.
- Do NOT remove the front panel. Some parts inside are dangerous to touch and appliance problems may happen. For checking and adjusting the internal parts, contact your dealer.

NOTICE

Do NOT wipe the controller operation panel with benzine, thinner, chemical dust cloth, etc. The panel may get discoloured or the coating peeled off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. Wipe it with another dry cloth.

NOTICE

NEVER press the button of the user interface with a hard, pointed object. The user interface may be damaged.

NOTICE

NEVER pull or twist the electric wire of the user interface. It may cause the unit to malfunction.

This operation manual offers a non-exhaustive overview of the main functions of the system.

For more information about the user interface, see the operation manual of the installed user interface.

6 Operation

6.1 Operation range

INFORMATION

For the operation limits see the technical data of the connected outdoor unit.

6.2 About operation modes

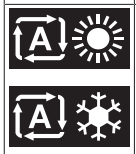
INFORMATION

Depending on the installed system, some operation modes will not be available.

- The air flow rate may adjust itself depending on the room temperature or the fan may stop immediately. This is not a malfunction.
- If the main power supply is turned off during operation, operation will restart automatically after the power turns back on again.
- **Setpoint.** Target temperature for the Cooling, Heating, and Auto operation modes.
- **Setback.** A function that keeps the room temperature in a specific range when the system is turned off (by the user, the schedule function, or the OFF timer).

6.2.1 Basic operation modes

The indoor unit can operate in various operation modes.

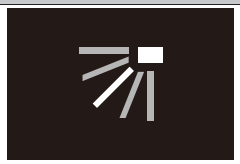
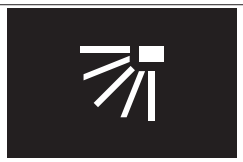
Icon	Operation mode
	Cooling. In this mode, cooling will be activated as required by the setpoint, or by Setback operation.
	Heating. In this mode, heating will be activated as required by the setpoint, or by Setback operation.
	Fan only. In this mode, air circulates without heating or cooling.
	Dry. In this mode, the air humidity will be lowered with a minimal temperature decrease. The temperature and fan speed are controlled automatically and cannot be controlled by the controller. Dry operation will not function if the room temperature is too low.
	**Auto.** In Auto mode, the indoor unit automatically switches between heating and cooling mode, as required by the setpoint.

6.2.2 Special heating operation modes

Operation	Description
Defrost	To prevent a loss of heating capacity due to frost accumulation in the outdoor unit, the system will automatically switch to defrost operation. During defrost operation, the indoor unit fan will stop operation, and the following icon will appear on the home screen:  The system will resume normal operation after approximately 6 to 8 minutes.
Hot start	During hot start, the indoor unit fan will stop operation, and the following icon will appear on the home screen: 

6.2.3 Adjusting the airflow direction

The following airflow directions can be set:

Direction	Screen
Fixed position. The indoor unit blows air in 1 of 5 fixed positions.	
Swing. The indoor unit alternates between the 5 positions.	
Auto. The indoor unit adjusts its airflow direction according to movement sensed by a movement sensor.	

INFORMATION

Depending on system layout and organisation, Auto airflow direction may not be available.

INFORMATION

For setting procedure of the airflow direction, see the reference guide or the manual of the used user interface.

Automatic airflow control

Cooling	Heating
▪ When the room temperature is lower than the controller's setpoint for cooling operation (including auto operation). ▪ When the indoor units run in Continuous operation, and the airflow direction is downward.	▪ When starting operation. ▪ When the room temperature is higher than the controller's setpoint for heating operation (including auto operation). ▪ At defrost operation.
▪ When the indoor units run continuously for a long time and the airflow direction is Horizontal.	

WARNING

NEVER touch the air outlet or the horizontal blades while the swing flap is in operation. Fingers may become caught or the unit may break down.

NOTICE

Avoid operating in the horizontal direction. It may cause dew or dust to settle on the ceiling or flap.

6.2.4 Active circulation airflow

Use active circulation airflow to heat or cool the room more quickly.

INFORMATION

For setting procedure of the active circulation airflow, see the reference guide or the manual of the used user interface.

6.3 To operate the system

INFORMATION

For setting of the operation mode, airflow direction, active circulation airflow or other settings, see the reference guide or operation manual of the user interface.

7 Maintenance and service

7.1 Precautions for maintenance and service

CAUTION

See "3 User safety instructions" [▶ 5] to acknowledge all related safety instructions.

NOTICE

NEVER inspect or service the unit by yourself. Ask a qualified service person to perform this work. However, as end user, you may clean the air filter, suction grille, air outlet and outside panels.

NOTICE

Maintenance MUST be done by an authorised installer or service agent.

We recommend performing maintenance at least once a year. However, applicable legislation might require shorter maintenance intervals.

NOTICE

Do NOT wipe the controller operation panel with benzine, thinner, chemical dust cloth, etc. The panel may get discoloured or the coating peeled off. If it is heavily dirty, soak a cloth in water-diluted neutral detergent, squeeze it well and wipe the panel clean. Wipe it with another dry cloth.

NOTICE

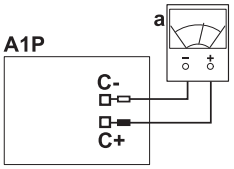
When cleaning the heat exchanger, make sure to remove the electronic components above it. Water or detergent might deteriorate the insulation of electronic components and result in burnout of these components.

Following symbols may occur on the indoor unit:

Symbol	Explanation
	Measure the voltage at the terminals of main circuit capacitors or electrical components before servicing.

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 warning label for persons performing service and maintenance.



A1P Main printed circuit board
a Multimeter
C Residual voltage measuring points

7.2 Cleaning the air filter, suction grille, air outlet and outside panels

CAUTION

Turn off the unit before cleaning the air filter, suction grille, air outlet and outside panels.

NOTICE

- Do NOT use gasoline, benzene, thinner polishing powder or liquid insecticide. **Possible consequence:** Discoloration and deformation.
- Do NOT use water or air of 50°C or higher. **Possible consequence:** Discoloration and deformation.
- Do NOT scrub firmly when washing the blade with water. **Possible consequence:** The surface sealing peels off.

7.2.1 To clean the air filter

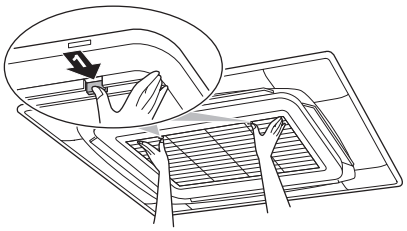
When to clean the air filter:

- Rule of thumb: Clean every 6 months. If the air in the room is extremely contaminated, increase the cleaning frequency.
- Depending on the settings, the user interface can display the **"Time to clean filter"** notification. Clean the air filter when the notification is displayed.
- If the dirt becomes impossible to clean, change the air filter (= optional equipment).

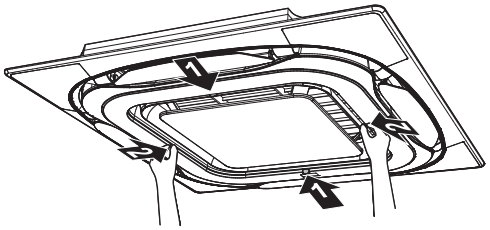
How to clean the air filter:

1 Open the suction grille.

Standard panel:

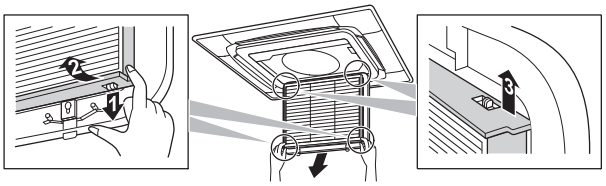


Design panel:

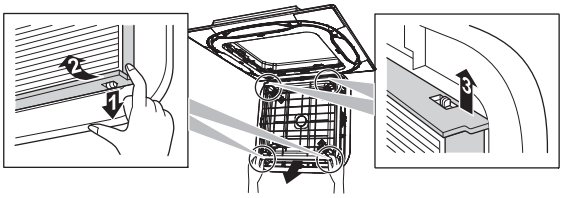


2 Remove the air filter.

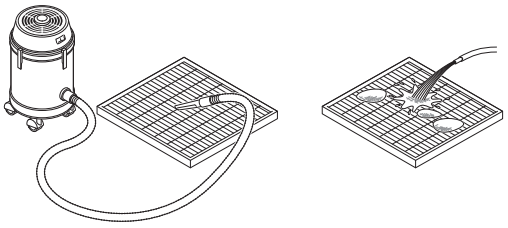
Standard panel:



Design panel:



3 Clean the air filter. Use a vacuum cleaner or wash with water. If the air filter is very dirty, use a soft brush and neutral detergent.



4 Dry the air filter in the shadow.

5 Reattach the air filter and close the suction grille.

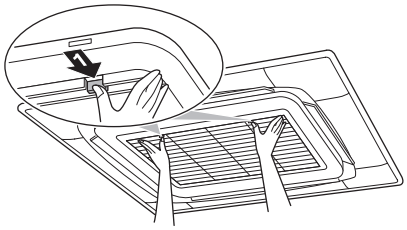
6 Turn ON the power.

7 To remove warning screens, see the reference guide of the user interface.

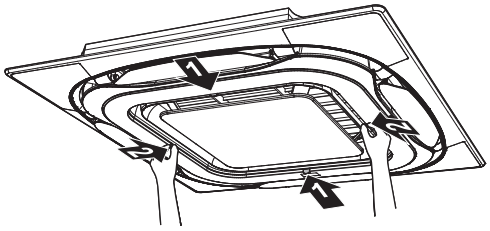
7.2.2 To clean the suction grille

1 Open the suction grille.

Standard panel:

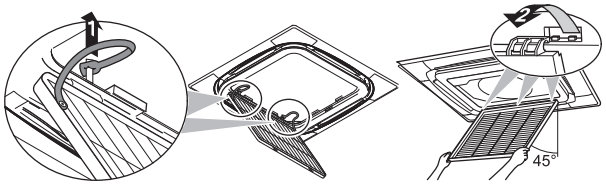


Design panel:

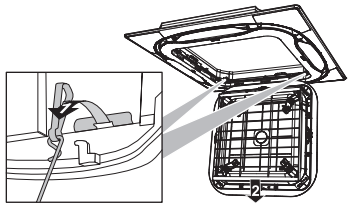


2 Remove the suction grille.

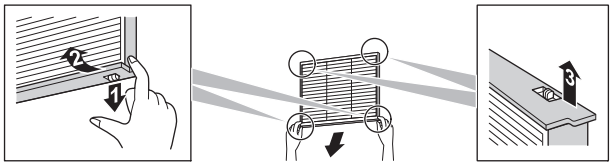
Standard panel:



Design panel:



3 Remove the air filter.



4 Clean the suction grille. Wash with a soft bristle brush, and water or neutral detergent. If the suction grille is very dirty, use a typical kitchen cleaner, leave it on for 10 min, then wash it with water.

5 Reattach the air filter (step 3 in reverse order).

6 Reattach the suction grille and close it (step 2 and 1 in reverse order).

7.2.3 To clean the air outlet and outside panels

WARNING

Do NOT let the indoor unit get wet. **Possible consequence:** Electrical shock or fire.

Clean with a soft cloth. If it is difficult to remove stains, use water or neutral detergent.

7.3 About the refrigerant

This product contains refrigerant gases.

Refrigerant type: R744 (CO_2)

WARNING

The R744 refrigerant (CO_2) inside the unit is odourless, non-flammable and normally does NOT leak.

If the refrigerant leaks in high concentrations in the room, it may have negative effects on its occupants such as asphyxiation and carbon dioxide poisoning. 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.

8 Troubleshooting

If one of the following malfunctions occurs, take the measures shown below and contact your dealer.

WARNING

Stop operation and shut OFF the power if anything unusual occurs (burning smells etc.).

Leaving the unit running under such circumstances may cause breakage, electrical shock or fire. Contact your dealer.

The system MUST be repaired by a qualified service person.

Malfunction	Measure
If a safety device such as a fuse, a circuit breaker or a residual current device frequently actuates or the ON/OFF switch does NOT function properly.	Turn OFF all main power supply switches to the unit.
If water leaks from the unit.	Stop operation.
The operation switch does NOT function properly.	Turn OFF the power supply.
If the user interface displays ⚠.	Notify your installer and report the error code. To display an error code see the reference guide of the user interface.

If the system does NOT operate properly except for the above mentioned cases and none of the above mentioned malfunctions is evident, investigate the system in accordance with the following procedures.

INFORMATION

Refer to the reference guide located on https://www.daikin.eu for more troubleshooting tips. Use the search function 🔍 to find your model.

After checking all the items above, if it is impossible to fix the problem yourself, contact your installer and state the symptoms, the complete model name of the unit (with manufacturing number if possible) and the installation date.

9 Relocation

Contact your dealer to remove and reinstall the entire unit. Moving units requires technical expertise.

10 Disposal

NOTICE

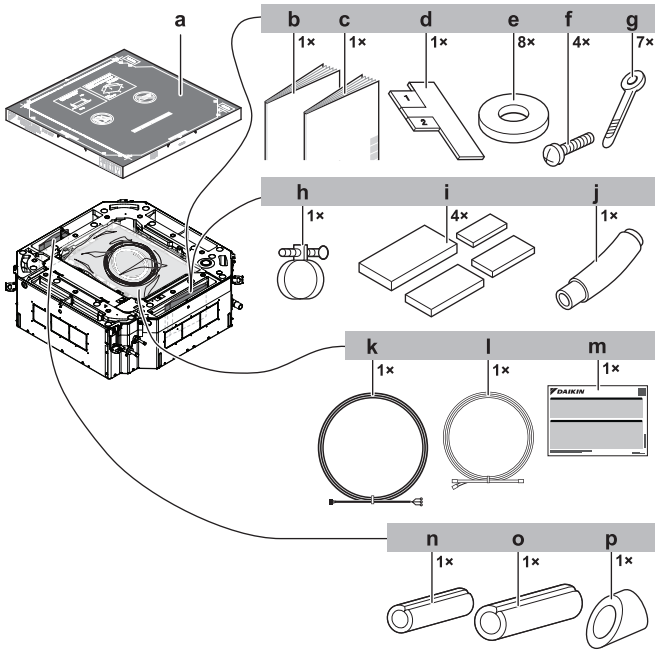
Do NOT try to dismantle the system yourself: dismantling of the system, treatment of the refrigerant, oil and other parts MUST comply with applicable legislation. Units MUST be treated at a specialised treatment facility for reuse, recycling and recovery.

For the installer

11 About the box

11.1 Indoor unit

11.1.1 To remove the accessories from the indoor unit



a Paper pattern for installation (top part of packing box)
b General safety precautions
c Indoor unit installation and operation manual
d Installation guide
e Washers for hanger brackets
f Screws (to temporarily attach the paper pattern for installation to the indoor unit)
g Tie wraps
h Metal clamp
i Sealing pads: Large (drain pipe), medium 1 (gas pipe), medium 2 (liquid pipe), small (electrical wiring)
j Drain hose
k Power supply cable
l Communication cable
m Addendum for auto cleaning panel installation manual
n Insulation piece: Small (liquid pipe)
o Insulation piece: Large (gas pipe)
p Insulation piece (drain pipe)

12 Unit installation

NOTICE

Make sure to install all necessary countermeasures in case of refrigerant leakage according to standard EN378.

12.1 Preparing the installation site

12.1.1 Installation site requirements of the indoor unit

CAUTION

This equipment is NOT intended for use in residential locations and will NOT guarantee to provide adequate protection to radio reception in such locations.

CAUTION

Appliance NOT accessible to the general public, install it in a secured area, protected from easy access.

This unit, both indoor and outdoor, is suitable for installation in a commercial and light industrial environment.

NOTICE

- The professional installer shall evaluate the EMC situation before installation, if the equipment is installed closer than 30 m to a residential location.
- Special installation measures are NOT required to minimize EMC (electro-magnetic) emissions.

NOTICE

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

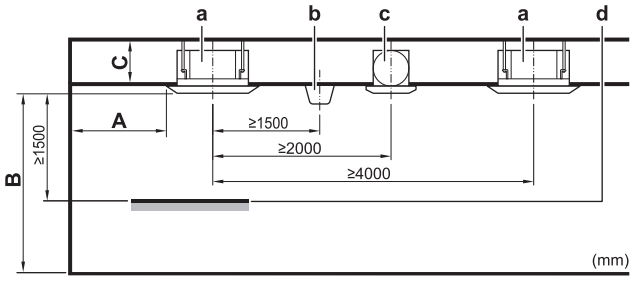
INFORMATION

Equipment meets the requirement for commercial and light-industrial location when professionally installed and maintained.

CAUTION

Excessive concentrations of refrigerant R744 (CO_2) in a closed room can lead to unconsciousness and oxygen deficiency. Take appropriate measures.

- **Spacing**. Mind the following requirements:

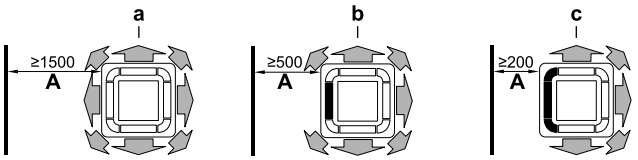


A Minimum distance to the wall (see below)
B Minimum and maximum distance to the floor (see below)
C **40~63 class:**
≥269 mm: In case of installation with standard decoration panel
≥311 mm: In case of installation with design decoration panel
≥349 mm: In case of installation with auto cleaning decoration panel
≥319 mm: In case of installation with standard panel + fresh air intake kit
≥361 mm: In case of installation with design panel + fresh air intake kit
80 class:

≥311 mm: In case of installation with standard decoration panel
≥353 mm: In case of installation with design decoration panel
≥391 mm: In case of installation with auto cleaning decoration panel
≥361 mm: In case of installation with standard panel + fresh air intake kit
≥403 mm: In case of installation with design panel + fresh air intake kit

a Indoor unit
b Lighting (the figure shows ceiling-mounted lighting, but recessed lighting is also allowed)
c Air fan
d Static volume (example: table)

- **A: Minimum distance to the wall**. Depends on the air flow directions towards the wall.



a Air outlet and corners open
b Air outlet closed, corners open (optional blocking pad kit required)
c Air outlet and corners closed (optional blocking pad kit required)

- **B: Minimum and maximum distance to the floor**:
  - Minimum: 2.5 m to avoid accidental touching.
  - Maximum: Depends on the airflow directions and the capacity class. See "16.1 Field setting" [▸ 19].

INFORMATION

Maximum distance to the floor for the 3-way and the 4-way airflow (which require an optional blocking pad kit) may differ. See the installation manual of the optional blocking pad kit.

INFORMATION

Some options may require additional service space. Sees the installation manual of the used option before installation.

12.2 Mounting the indoor unit

12.2.1 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.

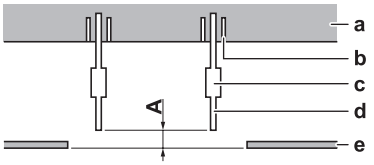
- **Decoration panel**. Install the decoration panel always **after** installing the unit.

NOTICE

After installing the decoration panel:

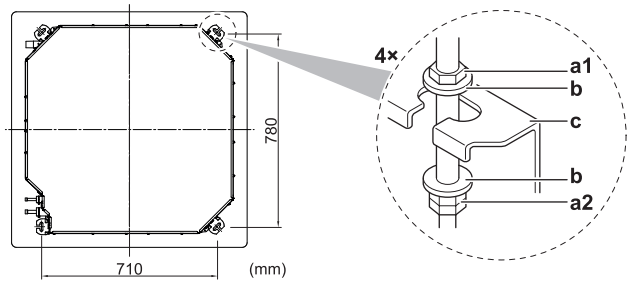
- Make sure there is no gap between the unit body and the decoration panel. **Possible consequence:** Air might leak and cause dew drop.
- Make sure no oil remains on the plastic parts of the decoration panel. **Possible consequence:** Degradation and damage of plastic parts.

- **Ceiling strength**. Check whether the ceiling is strong enough to support the weight of the unit. If there is a risk, reinforce the ceiling before installing the unit.
  - For existing ceilings, use anchors.
  - For new ceilings, use sunken inserts, sunken anchors or other field supplied parts.



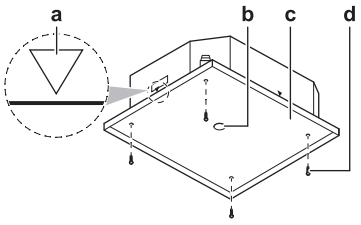
A **50~100 mm**: In case of installation with standard panel
100~150 mm: In case of installation with fresh air intake kit or design panel
130~180 mm: In case of installation with auto cleaning decoration panel
a Ceiling slab
b Anchor
c Long nut or turnbuckle
d Suspension bolt
e Suspended ceiling

- **Suspension bolts.** Use M8~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.



a1 Nut (field supply)
a2 Double nut (field supply)
b Washer (accessories)
c Hanger bracket (attached to the unit)

- **Paper pattern for installation** (upper part of the packing). Use the paper pattern to determine the correct horizontal positioning. It contains the necessary dimensions and centers. You can attach the paper pattern to the unit.

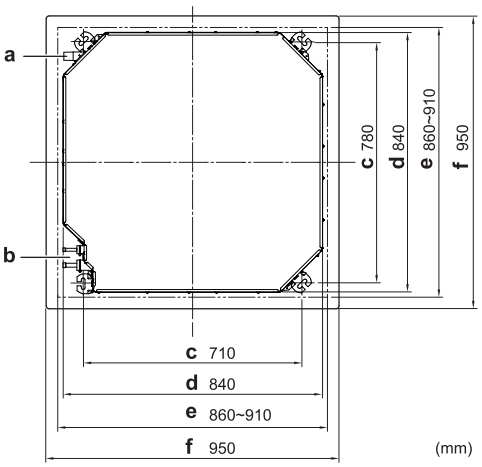


a Centre of the unit
b Centre of the ceiling opening
c Paper pattern for installation (upper part of the packing)
d Screws (accessories)

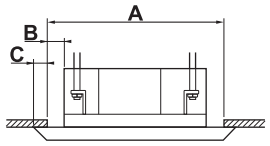
- **Ceiling opening and unit**:
  - Make sure the ceiling opening is within the following limits:

    Minimum: 860 mm to be able to fit the unit.

    Maximum: 910 mm to ensure enough overlap between the decoration panel and the suspended ceiling. If the ceiling opening is larger, add extra ceiling material.
  - Make sure the unit and its hanger brackets (suspension) are centered within the ceiling opening.

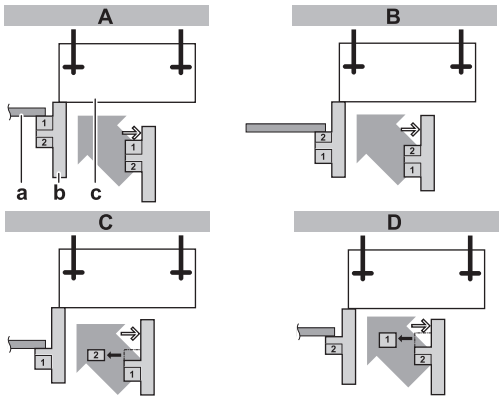


a Drain piping
b Refrigerant piping
c Hanger bracket pitch (suspension)
d Unit
e Ceiling opening
f Decoration panel

Example	If A[a]	Then	
		B[a]	C[a]
	860 mm	10 mm	45 mm
	910 mm	35 mm	20 mm

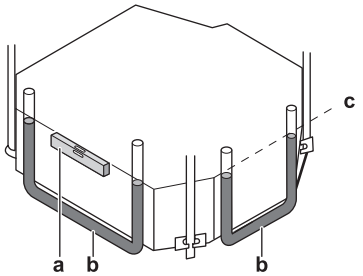
[a] **A:** Ceiling opening
B: Distance between the unit and the ceiling opening
C: Overlap between the decoration panel and the suspended ceiling

- **Installation guide**. Use the installation guide to determine the correct vertical position.



A In case of installation with standard decoration panel
B In case of installation with fresh air intake kit
C In case of installation with auto cleaning decoration panel
D In case of installation with design decoration panel
a Suspended ceiling
b Installation guide (accessory)
c Unit

- **Level**. Make sure the unit is level at all 4 corners using a level or a water-filled vinyl tube.



a Level
b Vinyl tube
c Water level

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.

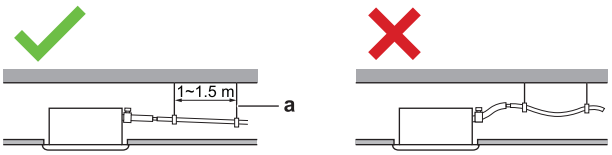
12.2.2 Guidelines when installing the drain piping

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

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

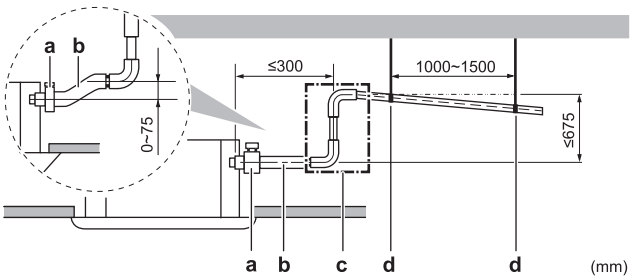
General guidelines

- **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 25 mm nominal diameter and 32 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.



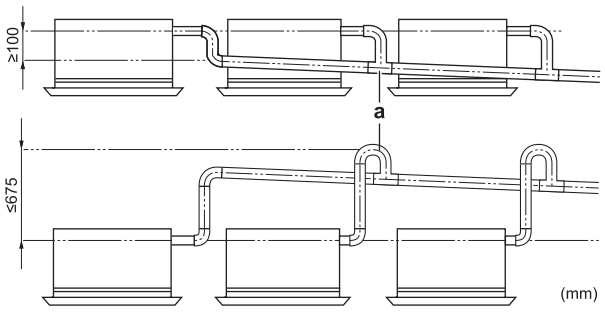
a Hanging bar
✓ Allowed
✗ Not allowed

- **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, ≤675 mm perpendicular to the unit.



a Metal clamp (accessory)
b Drain hose (accessory)
c Rising drain piping (vinyl pipe of 25 mm nominal diameter and 32 mm outer diameter) (field supply)
d Hanging bars (field supply)

- **Combining drain pipes.** You can combine drain pipes. Make sure to use drain pipes and T-joints with a correct gauge for the operating capacity of the units.



a T-joint

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.

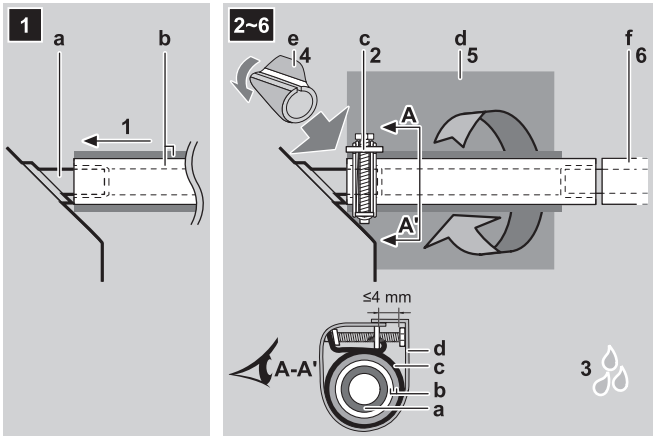
2 Tighten the metal clamp until the screw head is less than 4 mm from the metal clamp part.

3 Check for water leaks (see "To check for water leaks" [▸ 15]).

4 Install the insulation piece (drain pipe).

5 Wind the large sealing pad (= insulation) around the metal clamp and drain hose, and fix it with tie wraps.

6 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 Insulation piece (drain pipe) (accessory)
f Drain piping (field supply)

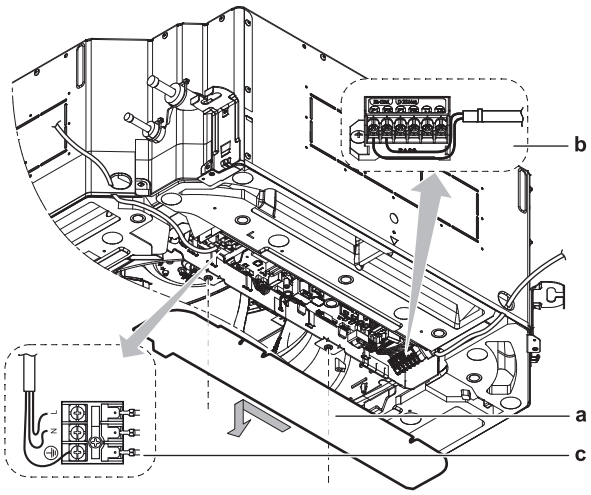
To check for water leaks

The procedure differs depending on whether installation of the system is already completed. When installation of the system is not yet completed, temporarily connect the user interface and power supply to the unit.

When installation of the system is not yet completed

1 Temporarily connect electrical wiring.

- Remove the service cover.
- Connect the user interface.
- Connect the power supply.
- Reattach the service cover.

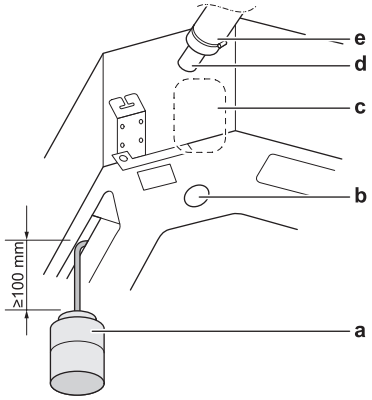


a Service cover with wiring diagram
b User interface terminal block
c Power supply terminal block

2 Turn ON the power.

3 Start fan only operation (see the reference guide or the service manual of the user interface).

4 Gradually pour approximately 1 l of water through the air discharge outlet, and check for leaks.



a Plastic watering can
b Service drain outlet (with rubber plug). Use this outlet to drain water from the drain pan
c Drain pump location
d Drain pipe connection
e Drain pipe

5 Turn OFF the power.

6 Disconnect the electrical wiring.

- Remove the service cover.
- Disconnect the power supply.
- Disconnect the user interface.
- Reattach the service cover.

When installation of the system is already completed

1 Start cooling operation (see the reference guide or the service manual of the user interface).

2 Gradually pour approximately 1 l of water through the water inlet, and check for leaks (see "When installation of the system is not yet completed" [▸ 15]).

13 Piping installation

13.1 Preparing refrigerant piping

13.1.1 Refrigerant piping requirements

NOTICE

Refrigerant R744 requires strict cautions for keeping the system clean and dry. Foreign materials (including mineral oils or moisture) should be prevented from getting mixed into the system.

NOTICE

The piping and other pressure-containing parts shall be suitable for refrigerant and oil. Use K65 (or equivalent) copper-iron alloy tube system for high-pressure applications with a working pressure of 120 bar gauge at the air conditioner side and 90 bar gauge at the refrigeration side.

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

NOTICE

If the ability to close the stop valves for field piping is wanted, the installer MUST install a pressure relief valve on the liquid AND gas piping between the outdoor unit and the air conditioning indoor units.

Refrigerant piping diameter

Liquid piping	Gas piping
Ø9.5 mm	Ø12.7 mm

Refrigerant piping material

Piping material

K65 copper-iron alloy (CuFe2P), maximum operating pressure = 120 bar

Piping temper grade and thickness

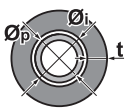
Outer diameter (Ø)	Temper grade	Thickness (t)[a]	
9.5 mm (3/8")	R420 (drawn)	≥0.65 mm	
12.7 mm (1/2")		≥0.85 mm	

[a] 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.

13.1.2 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 ($Ø_p$)	Insulation inner diameter ($Ø_i$)	Insulation thickness (t)
9.5 mm (3/8")	10~14 mm	≥10 mm
12.7 mm (1/2")	14~16 mm	≥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.

13.2 Connecting the refrigerant piping

DANGER: RISK OF BURNING/SCALDING

13.2.1 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.

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

WARNING

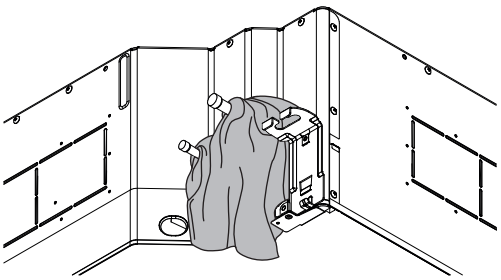
- Use K65 piping for high-pressure applications with a working gauge pressure of 120 bar or 90 bar, depending on its location in the system.
- Use K65 unions and fittings approved for a working gauge pressure of 120 bar or 90 bar, depending on its location in the system.
- ONLY brazing is allowed for connection of pipes. No other types of connections are allowed.
- Expanding of pipes is NOT allowed.

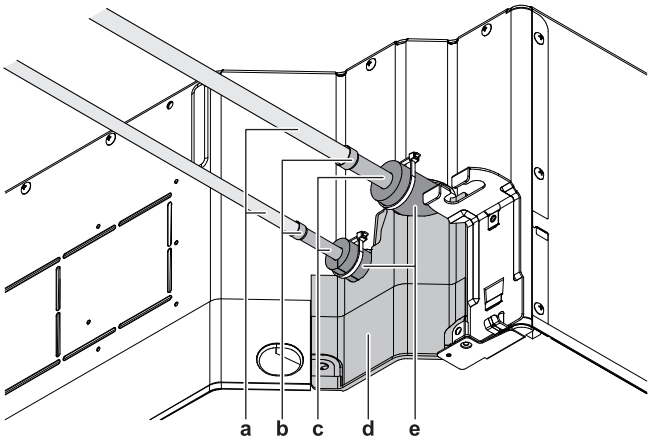
1 Insert the field pipe into the piping on the indoor unit side.

2 Connect refrigerant piping to the unit using only **brazed connections**.

NOTICE

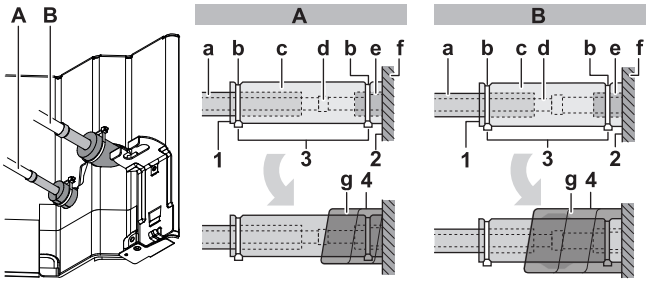
When brazing, cover the plastic hold plate (d) and thermal insulation (e) by a wet cloth and make sure the temperature does not exceed 200°C.





a Field piping
b Brazed connection
c Piping on the indoor unit side
d Plastic hold plate
e Insulation attached on the unit

3 **Insulate** the refrigerant piping on the indoor unit as follows:



A Liquid piping
B Gas piping

a Insulation material (field supply)
b Tie wraps (accessory)
c Insulation pieces: Large (gas pipe), small (liquid pipe) (accessory)
d Brazed connection
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 wrap on the insulation pieces.
4 Wrap the sealing pad from the base of the unit to the top of the brazed connection.

NOTICE

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

14 Electrical installation

DANGER: RISK OF ELECTROCUTION

CAUTION

See "2 Specific installer safety instructions" [▶ 4] to acknowledge all related safety instructions.

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.

NOTICE

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

14.1 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.

Power supply of the product	
Voltage	220~240 V/220 V
Frequency	50/60 Hz
Phase	1~
MCA[(a)]	FXFN40: 0.4 A FXFN50: 0.7 A FXFN63: 0.9 A FXFN80: 1.4 A

[(a)] MCA=Minimum circuit ampacity. Stated values are maximum values (see electrical data of indoor unit for exact values).

Wiring / circuit breaker (field supplied)	
Power supply cable	MUST comply with national wiring regulation. 3-core cable Wire size based on the current, but not less than 1.5 mm^2
Interconnection cable	Only use harmonised wire providing double insulation and suitable for applicable voltage 2-core cable Minimum size 0.75 mm^2
User interface cable	Only use harmonised wire providing double insulation and suitable for applicable voltage 2-core cable Minimum size 0.75 mm^2 Maximum length 500 m
Recommended circuit breaker	6 A
Residual current device	MUST comply with national wiring regulation

14.2 To connect the electrical wiring to the indoor unit

NOTICE

- Follow the wiring diagram (delivered with the unit, located at the inside of the service cover).
- For instructions on how to connect the optional equipment, see the installation manual delivered with the optional equipment.
- Make sure the electrical wiring does NOT obstruct proper reattachment of the service cover.

It is important to keep the power supply and the interconnection 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

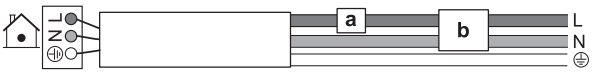
Be sure to keep the power line and interconnection line apart from each other. Interconnection wiring and power supply wiring may cross, but may NOT run parallel.

1 Remove the service cover.

2 **User interface cable**: Route the cable through the frame, connect the cable to the terminal block (symbols P1, P2) and fix the cable with a tie wrap.

3 **Interconnection cable**: Route the cable through the frame, connect the cable to the terminal block (make sure the symbols F1, F2 match with the symbols on the outdoor unit), and fix the cable with a tie wrap.

4 **Power supply cable**: Route the cable through the frame and connect the cable to the terminal block (L, N, earth).

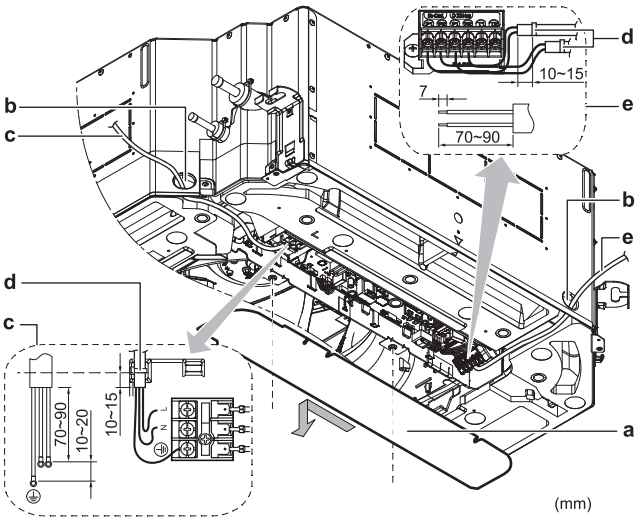


a Circuit breaker
b Residual current device

5 Divide the small sealing (accessory) and wrap it around the cables to prevent water from entering the unit.

6 Seal all gaps with a sealing material (field supply) to prevent small animals from entering the system.

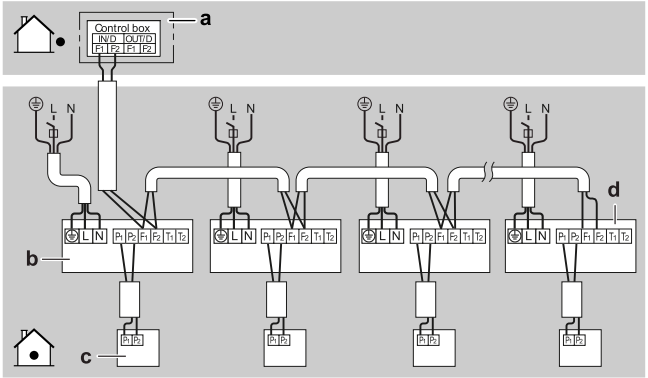
7 Reattach the service cover.



a Service cover (with wiring diagram)
b Opening for cables
c Connection of power supply
d Tie wrap
e Connection of user interface and interconnection cable

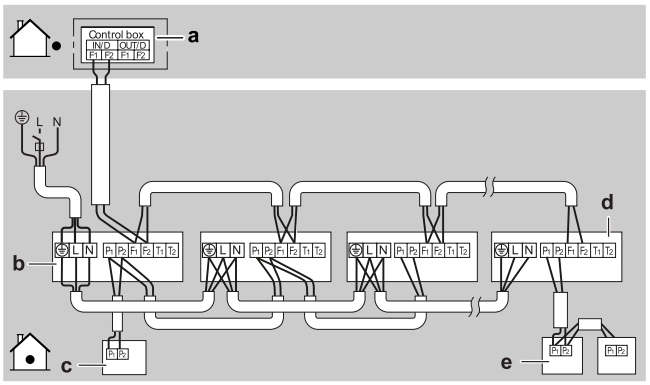
Complete system example

- **Example:** 1 user interface controls 1 indoor unit.



a Outdoor unit
b Indoor unit
c User interface
d Most downstream indoor unit

- **Example:** Group control or use with 2 user interfaces.



a Outdoor unit
b Indoor unit
c User interface (controls 3 indoor units)
d Most downstream indoor unit
e For use with 2 user interfaces

- **Setting master unit (Cooling/Heating masterhood).** In case of group control, connect the user interface wiring directly to the master unit. Do not connect user interfaces directly to slave units. Slave units are restricted in their operation by the master unit (e.g. 1 outdoor unit does not allow for 1 indoor unit to run in cooling operation while another runs in heating operation). For setting using the user interface, refer to the manual or reference guide of the user interface.
- **2 or more user interfaces:** When using 2 or more user interfaces, one must be
  set to "MAIN" and the other to "SUB". For setting procedure see the installation
  and operation manual of the used user interface.

INFORMATION

In case of group control, it is not necessary to assign a group address to the indoor unit. The group address is automatically set when the power is turned on.

15 Commissioning

NOTICE

General commissioning checklist. Next to the commissioning instructions in this chapter, a general commissioning checklist is also available on the Daikin Business Portal (authentication required).

The general commissioning checklist is complementary to the instructions in this chapter and can be used as a guideline and reporting template during commissioning and hand-over to the user.

NOTICE

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

15.1 Checklist before commissioning

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

2 Close the unit.

3 Power up the unit.

☐	You have read the complete installation and operation instructions described in the **installer and user reference guide**.

☐	**Installation** Check that the unit is properly installed, to avoid abnormal noises and vibrations when starting up the unit.
☐	**Drainage** Make sure drainage flows smoothly. **Possible consequence:** Condensate water might drip.
☐	**Field wiring** Check that the field wiring has been carried out according to the instructions described in the chapter "14 Electrical installation" [▸ 17], according to the wiring diagrams and according to the applicable national wiring regulation.
☐	**Power supply voltage** Check the power supply voltage on the local supply panel. The voltage MUST correspond to the voltage on the nameplate of the unit.
☐	**Earth wiring** Be sure that the earth wires have been connected properly and that the earth terminals are tightened.
☐	**Fuses, circuit breakers, or protection devices** Check that the fuses, circuit breakers, or the locally installed protection devices are of the size and type specified in the chapter "14 Electrical installation" [▸ 17]. Be sure that no fuse or protection device is bypassed.
☐	**Internal wiring** Visually check the switch box and the inside of the unit for loose connections or damaged electrical components.
☐	**Pipe size and pipe insulation** Be sure that correct pipe sizes are installed and that the insulation work is properly executed.
☐	**Damaged equipment** Check the inside of the unit for damaged components or squeezed pipes.
☐	**Field settings** Make sure all field settings you want are set. See "16.1 Field setting" [▸ 19].

15.2 To perform a test run

INFORMATION

- Perform the test run according to the instructions in the outdoor unit manual.
- The test run is only completed if there is no malfunction code displayed on the user interface or the outdoor unit 7-segment display.
- See the service manual for the complete list of error codes and a detailed troubleshooting guideline for each error.

NOTICE

Do NOT interrupt the test run.

16 Configuration

16.1 Field setting

Make the following field settings so that they correspond with the actual installation setup and with the needs of the user:

- Ceiling height
- Decoration panel type
- Air flow direction range
- Air volume when thermostat control is OFF
- Time to clean air filter
- Thermostat sensor selection
- Thermostat differential changeover (if remote sensor is used)
- Differential automatic changeover
- Auto-restart after power failure

INFORMATION

- The connection of optional accessories to the indoor unit might cause changes to some field settings. For more information, see the installation manual of the optional accessory.
- Following setting are only applicable when using the BRC1H52* user interface. When using any other user interface, see the installation manual or service manual of the user interface.

Setting: Ceiling height

This setting must correspond with the actual distance to the floor, capacity class and air flow directions.

- For 3-way and 2-way airflows (which require an optional blocking pad kit), see the installation manual of the optional blocking pad kit.
- For all-round airflow, use the table below.

If the distance to the floor is (m)		Then(1)		
FXFN40, FXFN50	FXFN63, FXFN80	M	SW/C1	—/C2
≤2.7	≤3.2	13 (23)	0	01
2.7<x≤3.0	3.2<x≤3.6			02
3.0<x≤3.5	3.6<x≤4.2			03

Setting: Decoration panel type

When installing or changing the decoration panel type, ALWAYS check if the correct values are set.

If the … decoration panel is used	Then(1)		
	M	SW/C1	—/C2
Standard or auto cleaning	13 (23)	15	01
Design			02

Setting: Airflow direction range

This setting must correspond with the needs of the user.

If you want set the airflow direction range to…	Then(1)		
	M	SW/C1	—/C2
Upper	13 (23)	4	01
Medium			02
Lower			03

(1) Field settings are defined as follows:
- **M**: Mode number – **First number**: for group of units – **Number between brackets**: for individual unit
- **SW**: Setting number / **C1**: First code number
- —: Value number / **C2**: Second code number
- ▒: Default

Setting: Air volume when thermostat control is OFF

This setting must correspond with the needs of the user. It determines the fan speed of the indoor unit during thermostat OFF condition.

1 If you have set the fan to operate, set the air volume speed:

If you want…		Then[1]		
		M	SW/C1	—/C2
During thermostat OFF at cooling operation	LL[2]	12 (22)	6	01
	Setup volume[2]			02
	OFF[a]			03
	Monitoring 1[2]			04
	Monitoring 2[2]			05
	Monitoring 3[2]			06
	H[2]			07
During thermostat OFF at heating operation	LL[2]	12 (22)	3	01
	Setup volume[2]			02
	OFF[a]			03
	Monitoring 1[2]			04
	Monitoring 2[2]			05
	Monitoring 3[2]			06
	H[2]			07

[a] Only use in combination with optional remote sensor or when setting **M** 10 (20), **SW/C1** 2, **—/C2** 3 is used.

Setting: Time to clean air filter

This setting must correspond with the air contamination in the room. It determines the interval at which **"Time to clean filter"** notification is displayed on the user interface.

If you want an interval of… (air contamination)	Then[1]		
	M	SW/C1	—/C2
±2500 h (light)	10 (20)	0	01
±1250 h (heavy)			02
Notification ON		3	01
Notification OFF			02

Setting: Thermostat sensor selection

This setting must correspond with how/if the remote controller thermostat sensor is used.

When the remote controller thermostat sensor is…	Then[1]		
	M	SW/C1	—/C2
Used in combination with indoor unit thermistor	10 (20)	2	01
Not used (indoor unit thermistor only)			02
Used exclusively			03

Setting: Thermostat differential changeover (if remote sensor is used)

If the system contains a remote sensor, set the increase/decrease increments.

If you want to change increments to…	Then[1]		
	M	SW/C1	—/C2
1°C	12 (22)	2	01
0.5°C			02

Setting: Differential for automatic changeover

Set temperature difference between cooling setpoint and heating setpoint in automatic mode (availability depends on the system type). Differential is cooling setpoint minus heating setpoint.

If you want to set…	Then[1]			Example
	M	SW/C1	—/C2	
0°C	12 (22)	4	01	cooling 24°C/heating 24°C
1°C			02	cooling 24°C/heating 23°C
2°C			03	cooling 24°C/heating 22°C
3°C			04	cooling 24°C/heating 21°C
4°C			05	cooling 24°C/heating 20°C
5°C			06	cooling 24°C/heating 19°C
6°C			07	cooling 24°C/heating 18°C
7°C			08	cooling 24°C/heating 17°C

Setting: Auto-restart after power failure

Depending on the needs of the user, you may disable/enable the automatic restart after a power failure.

If you want auto-restart after power failure…	Then[1]		
	M	SW/C1	—/C2
Disabled	12 (22)	5	01
Enabled			02

17 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).

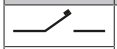
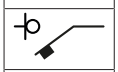
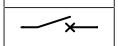
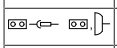
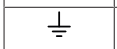
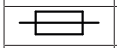
17.1 Wiring diagram

17.1.1 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.

[1] Field settings are defined as follows:
- **M**: Mode number – **First number**: for group of units – **Number between brackets**: for individual unit
- **SW**: Setting number / **C1**: First code number
- —: Value number / **C2**: Second code number
- ▒: Default

[2] Fan speed:
- **LL**: Low fan speed (set during thermostat OFF)
- **L**: Low fan speed (set by the user interface)
- **H:** High fan speed
- **Setup volume**: The fan speed corresponds to the speed the user has set (low, medium, high) using the fan speed button on the user interface.
- **Monitoring 1, 2, 3**: The fan is OFF, but runs for a short time every 6 minutes to detect the room temperature by **LL** (Monitoring 1), by **L** (Monitoring 2) or by **H** (Monitoring 3).

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

Symbol	Meaning
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
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 INDUSTRIES CZECH REPUBLIC s.r.o.
U Nové Hospody 1155/1, 301 00 Plzeň Skvrňany, Czech Republic

DAIKIN EUROPE N.V.
Zandvoordestraat 300, B-8400 Oostende, Belgium

3P672850-2C 2024.11