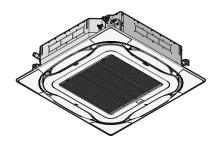


# Installation and operation manual

# **VRV** system air conditioner



**FXFQ20BVEB** 

**FXFQ25BVEB** 

**FXFQ32BVEB** 

**FXFQ40BVEB** 

**FXFQ50BVEB** 

FXFQ63BVEB

**FXFQ80BVEB** 

**FXFQ100BVEB** 

**FXFQ125BVEB** 

Installation and operation manual VRV system air conditioner

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UE – Dichiarazione di conformità in materia di sicurezza
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무무무

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заявляет, исключительно под свою ответственность, что продукция, к которой относится настоящее заявление: erklærer som eneansvarlig, at produkterne, som er omfattet af denne erklæring:

deklaruje na własną wyłączną odpowiedzialność, że produkty, których ta deklaracja dotyczy:

17 (19) deklaruje na wisaną wykączną odpowiedzałność, że produkty, ktrych la deklaracja dutyczy.
18 (19) dedaracja propriora istayune de signostowa se preiera časasala deklaraje.
19 (19) z vso odpownostjo izjavla da so izdaki, na katere se izjana manska:
20 (19) miniab oma vastukusej et iurodefin la katere se izjana manska:
21 (19) se preizapypa na cesa orrosopvacr, ve rpodymra: pa kontro se onskaracja.
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60 are in conformly with the following directules (so or egulation(s), provided that the products are used in accordance with our instructions: folgended in Rothfulm code Vorschriften emispractien, vorsatespearLt, dass dese gemisf, unsern instruktionen instruktionen instruktionen instruktionen verwerdet werden sont conformes at laaux dreadvielg ou rafjermetr(s) survair(s), a condrint que les produits scient uitsies conformerinen la ross instructions.

 spelniąą wymogi rasłępujących dyrektyw lub rozporządzeń, pod warunkiem że produkty używane są zgodnie z naszymi instrukcjami:
 stw. mi conformitale cu imaticane drest be sauregulamente, cu condita ca produsee siż fie utifizae in conformitale cu instructjunile moastre.
 v skłedu z nasłednjo drektwoj-ami) ali predpisomi-d. jod ozgojem, da se żdek uporablejo v skłedu z nastrim rawdio jed oraktwojemi) ali predpisomi-d. jod ozgojem, da se żdek uporablejo v skłedu z naśmi navodić jed oraktwojemi z jed ozgonine jed oraktwojemi z jed ozgonine отвечает требованиям упомянутых ниже директив или нормативных документов три условия эксплуатации данной продукции в соответствии

C нашими інструкциямі:
 Overbiode Deptemmeseme l'idigande direktiv(er) eller bestemmesle(r), forudstit at produkteme anvendes i overensstemmese med variente se med voros instruktioner.
 Usorinolet Destammeseme l'idigande direktiv(er) eller forskrift(er), forutsatt at produktene buikes i herhold til vare instruktioner:
 and seuza-anven indiktiviken at seustruem mulaisa, acelet prediscriptioner in trubisancer.
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 and seuza-anven indiktiviken in seustruem mulaisa, acelet perbolsy za prepopulation, sovietiven mulaisancer.
 u sklaaut sa sjedeckom direktivom(ma) ili ode-abom(e), uz uvjet da se proizvodi koniste suktadno našim uputame:
 megdeelnek az alabbi fanjvelv(ek) hek vagy egylet szabályozás (ok) hak, ha a termékeket előírés szeint hasznáják:

attirká tolian nurodydas drektyvas arba reglamentus, su salyga, kad gaminiai bus eksploatuojami laikanis mūsų instrukcijų;
adbisi skalžami derikdam tergulāmi, ak vais kaistradiajami ikik kilokiosaskala arbus instruktiodiami regludimi, ak vaistruktiodiami akab predpasmimi 22 predpokadu. Že su yvibko použivaju v. zbode s našimi pokymmi:
talimatiarimuz dogrutusunda kullanimas kosjutyja aspajdaki drektifedirektifere veja yöretinelitikare ugun oddujunu bejan eder: 22248

v poslednom platnom vydaní, degistirildígi sekliyle,

с техните изменения, ir jos tolesnes redakcijas,

ar grozījumiem,

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14 v platném znění, 15 kako je zmijenjeno amandmanima, 16 én môdostikask (endekcebseli, 17 z pôznějszyní zmrámani, 18 ou amandamentele respectíve, 19 kakor je bílo spremenjeno,

sellaisina kuin ne ovat muutettuina,

EN 60335-2-40,

med tillägg, med foretatte endringer,

в действующей редакции,

som tilføjet,

in der jeweils gültigen Fassung, telles que modifiées, zoals gewijzigd,

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e successive modifiche, όπως έχουν τροποποιηθεί, zoals gewijzigd, en su forma enmendada,

conforme emendado,

Electromagnetic Compatibility 2014/30/EU\* Machinery 2006/42/EC\*\*

in overeenstemming zijn met de volgende richtlijn(en) of verordening(en), op voorwaarde dat de producten worden gebruikt overeenkomstig onze

συμμορφώνονται με την(ις) ακόλουθη(ες) οδηγία(ες) ή κανονισμό(ούς), υπό την προϋπάθεση ότι τα προϊόντα χρησιμοποιούνται σύμφωνα με τις οδηγίες μας estão em conformidade com a(s) seguinte(s) diretiva(s) ou regulamento(s), desde que os produtos sejam utilizados de acordo com as nossas

están en conformidad con la(s) siguiente(s) directiva(s) o reglamento(s), siempre que se utilicen de acuerdo con nuestras instrucciones:

sono conformi alle direttive o ai regolamenti seguenti, a patto che i prodotti vengano usati in conformità alle nostre istruzioni:

90 20

10 under iegitägelse aff en fligt gestämmisten för 12 inehnde til testemmissen i 13 nouddaten säämöksiä. 14 za dodziell klasmovelli. 16 prema odredhama. 16 kövel af. 17 zgodne z postamowlemiti. 18 unmänd prevederien. following the provisions of: gemäß den Bestimmungen in: conformément aux dispositions de: σύμφωνα με πςπροβλέψεις των: seguindo as disposições de: siguiendo las disposiciones de: volgens de bepalingen van: secondo le disposizioni di:

vadovaujantis šio dokumento nuostatomis: atbilstoši šādu standartu prasībām nasledovnými ustanoveniami: şu standartların hükümlerine:

vastavalt nõuetele: следвайки клаузите на: v skladu z določbami:

> 06 Nota\* as set out in <A> and judged positively by <B> according to the Certificate <C>.
> we in <A> aufgeführt und von <B> positiv beurteilt gemäß Zertifikat <C>.

в соответствии с положениями:

01 Note\*

11 Information\* 13 Huom\* 12 Merk\* da <B> ai sensi del Certificato <C>. όπως ορίζεται στο <A> και κρίκεται θετικά από τον <B> σύμφωνα με το Πιστοποιητικό <C>. conforme estabelecido em <A> e avaliado как указано в <A> и подтверждено <B> согласно come delineato in <A> e giudicato positivamente positivamente por <B> de acordo com o Certificado <C> 09 Примечание\* 07 Σημείωση\* 08 Nota\*

10 Bemærk\*

zoals uiteengezet in <A> en positief beoordeeld door <B> overeenkomstig het Certificaat <C>.

tal como se estableæ en <A> y valorado
positivamente por <B> de acuerdo con el
Certificado <C>.

04 Bemerk\*

05 Nota\*

Certificat <C>

telles que définies dans <A> et évaluées positivement par <B> conformément au

03 Remarque\* 02 Hinweis\*

16 Megjegyzés\* 17 Uwaga\* 18 Notă\* som anges i <A> och godkänts av <B> enligt
Certifikat <C>.
som det fernkommer i <A> og vurdert positivt av <B> i henhold til Sertifikatet <C>. sellaisina kuin ne on esitetty asiakirjassa <A> ja jotka <B> on hyväksynyt Sertifikaatin <C> jak było uvedeno v <A> a pozitivně zijštěno <B> v souladu s Osvědčením <C> kako je izloženo u <A> i pozitivno ocijenjeno od <B> prema Certifikatu <C> 14 Poznámka\* Cangerencers <2>
Som anibit (4A> og positivi vurderet af <B> i henhold 15 Napomena\*
til Certifikat <2>.

a(z) <A> alapján, a(z) <B> igazolta a megdelelést, 21 3a**6enexxa\*** de fal C> Ce manteñang xemint szgotne z dokumentaga <A> pozyfywną z powieja <A> pozyfywną opinią <B> i Świadectwem <C> opinią <B> i Świadectwem <C> . Kdi je določeno v K47 ii je prejelo pozitivno ozeno 24 Poznámka\*
CBV skladus Certifikatom KC;
Mis on silesatulu dokumentis K42 ja himatud 25 Not\*
Sertifikatolis dokumentis CBV, vastavati
Sertifikatadile KC). asa cum se prevede în <A> și apreciat pozitiv de <B> conform Certificatului <C> 19 Opomba\* 20 Märkus\*

както е изложено в <A> и оценено положително от kā norādīts <A> un pozitīvi novērtēts <B> saskaņā ar <B> cъrласно Сертификата <С> kaip nurodyta <A> ir teigiamai nuspręsta pagal <B> vadovaujantis Sertifikatu <C> Sertifikātu <C>.

<A> DAIKIN.TCF.024H6/01-2019

**TÜV (NB0197** 

**%** 

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ako bolo stanovené v <A> a kladne posúdené <B> podľa Osvedčenia <C> <A>de belirtikigi ve <C> Sertifikasina göre <B> tarafindan olumlu görüş bildirikidiği üzere.

19\*\* DIC2\*\*\*ie poobleščen za seštavo datdele s tehnično mapo.

DIC2\*\*\*on vilotida kovsame allamilist dókumenlabiskomi.

19\*\* DIC2\*\*\*no vilotida kovsame allamilist dókumenlabiskomi.

20\*\* DIC2\*\*\*na ladioda sudanyti šį technirės konstrukcijos falię.

21\*\* DIC2\*\*\*na ladioda sudanyti šį technirės konstrukcijos falię.

22\*\* DIC2\*\*\*na ladiodas sastadit eliminės konstrukcijos falię.

24\*\* Spokorost DIC2\*\*\* e optavinera vykord subro technichej konstrukcie.

25\*\* DIC2\*\*\* Hadiodas sastadit elimines vykord subro technichej konstrukcie.

26\*\* DIC2\*\*\* Hadio Vaspami defaminey vykolditidi. \*\*\*\*\*\*\*

\*\*\*DICz = Daikin Industries Czech Republic s.r.o.

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DIC,\*\*\* and the Beachtigung die Fachtische Konstruktionstabet zusammerzustellen.

DIC,\*\*\* est auturise ab compiler ie Dosselr de Construction Technique.

DIC,\*\*\* is bevogd om heit Technisch Construction Technique.

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> Yasuto Hiraoka Managing Director

DAIKIN INDUSTRIES CZECH REPUBLIC S.r.o. Pilsen, 1st of October 2022 U Nové Hospody 1/1155, 301 00 Pizeň Skvrňany, Czech Republic

# UKCA - Safety declaration of conformity

Daikin Industries Czech Republic s.r.o.

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

FXFQ20BVEB, FXFQ25BVEB, FXFQ32BVEB, FXFQ40BVEB, FXFQ50BVEB, FXFQ63BVEB, FXFQ80BVEB, FXFQ100BVEB, FXFQ125BVEB,

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

S.I. 2008/1597: Supply of Machinery (Safety) Regulations 2008\*\* S.I. 2016/1091: Electromagnetic Compatibility Regulations 2016\*

as amended

following the provisions of:

BS EN 60335-2-40,

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

\*\* DICz\*\*\* is authorised to compile the Technical Construction File.

\*\*\* DICz = Daikin Industries Czech Republic s.r.o.

<A> DAIKIN.TCF.024H6/01-2019 ô **%** 

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### 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 <a href="https://www.daikin.eu">https://www.daikin.eu</a>. Use the search function Q to find your model.

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

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



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 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



### **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.

### Unit installation (see "12 Unit installation" [▶ 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.

### Refrigerant piping installation (see "13 Piping installation" [▶ 15])



### **CAUTION**

Piping MUST be installed according to instructions given in "13 Piping installation" [ 15]. Only mechanical joints (e.g. braze+flare connections) that are compliant with the latest version of ISO14903 can be used



### 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.

### Electrical installation (see "14 Electrical installation" [> 16])



### **WARNING**

ALWAYS use multicore cable for power supply cables.

### **WARNING**

- All wiring MUST be performed by an authorised electrician and MUST comply with the applicable 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**

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



### **WARNING**

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

### 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



### 

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.
- In case of accidental refrigerant leaks, make sure there are no naked flames. The refrigerant itself is entirely safe, non-toxic and noncombustible, but it will generate toxic gas when it accidentally leaks into a room where combustion air from fan heaters, gas cookers, etc. is present. ALWAYS have qualified service personnel confirm that the point of leakage has been repaired or corrected before resuming operation.



### **∴** 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.



### 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.



### 

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



### **MARNING**

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" [> 10])



### 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.



### 

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.



### 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.



### 

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



### **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.

### **CAUTION**

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

### **CAUTION**

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

### **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.

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



### / WARNING

- The refrigerant in the system is safe and normally does NOT leak. If the refrigerant leaks in the room, contact with a fire of a burner, a heater or a cooker may result in a harmful gas.
- Turn OFF any combustible heating devices, ventilate the room and contact the dealer where you purchased the unit.

### 4 About the system

 Do NOT use the system until a service person confirms that the portion where the refrigerant leaks is 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.

### About the system

The indoor unit of this VRV system air conditioner can be used for heating/cooling applications.



### **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.
- In case of accidental refrigerant leaks, make sure there are no naked flames. The refrigerant itself is entirely safe, non-toxic and non-combustible, but it will generate toxic gas when it accidentally leaks into a room where combustion air from fan heaters, gas cookers, etc. is present. ALWAYS have qualified service personnel confirm that the point of leakage has been repaired or corrected before resuming operation.



### 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:

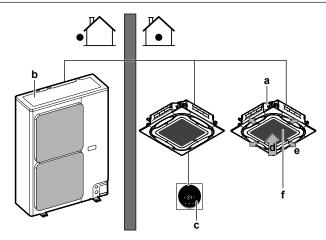
A full overview of allowable combinations (for future system extensions) is available in technical engineering data and should be consulted. Contact your installer to receive more information and professional advice.

### 4.1 System layout



### **INFORMATION**

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



- Indoor unit
- Outdoor unit
- User interface
- Suction air
- Discharge air
- Suction grille and air filter

### User interface



### 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.



### **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.

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

### 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.

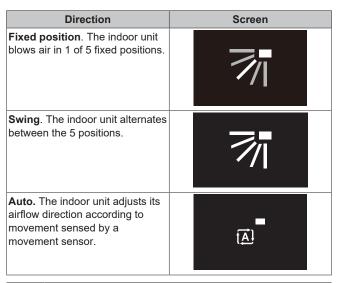
Icon	Operation mode	
**	<b>Cooling.</b> In this mode, cooling will be activated as required by the setpoint, or by Setback operation.	
	<b>Heating.</b> In this mode, heating will be activated as required by the setpoint, or by Setback operation.	
2	Fan only. In this mode, air circulates without heating or cooling.	
••	<b>Dry.</b> 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.	
	<b>Auto.</b> 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:
	<b>6/0 X</b>
	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:
	<b>6/0</b> /3

### 6.2.3 Adjusting the airflow direction

The following airflow directions can be set:





### **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

### When the room temperature is • When starting operation. lower than the controller's setpoint for cooling operation

When the indoor units run in Continuous operation, and the airflow direction is downward.

(including auto operation).

- Heating
- 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.

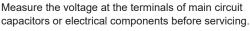
Following symbols may occur on the indoor unit:

### Symbol



Explanation

Measure the voltage at the terminals of n





### **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.

# 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

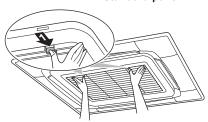
### When to clean the air filter:

- 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).

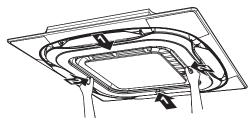
### How to clean the air filter:

1 Open the suction grille.

### Standard panel:



### Design panel:



2 Remove the air filter.

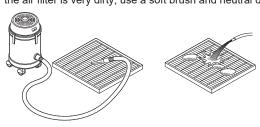
### Standard panel:



### 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.



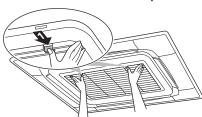
4 Dry the air filter in the shadow.

- 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.

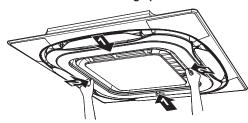
### 7.2.2 To clean the suction grille

1 Open the suction grille.

### Standard panel:



Design panel:



2 Remove the suction grille.

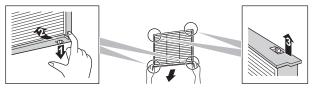
### Standard panel:







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

### $\triangle$

### **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 fluorinated greenhouse gases. Do NOT vent gases into the atmosphere.

Refrigerant type: R410A

Global warming potential (GWP) value: 2087.5



### NOTICE

Applicable legislation on **fluorinated greenhouse gases** requires that the refrigerant charge of the unit is indicated both in weight and CO<sub>2</sub> equivalent.

Formula to calculate the quantity in  ${\rm CO_2}$  equivalent tonnes: GWP value of the refrigerant  $\times$  total refrigerant charge [in kg]/1000

Contact your installer for more information.



### **WARNING**

- The refrigerant in the system is safe and normally does NOT leak. If the refrigerant leaks in the room, contact with a fire of a burner, a heater or a cooker may result in a harmful gas.
- Turn OFF any combustible heating devices, ventilate the room and contact the dealer where you purchased the unit
- Do NOT use the system until a service person confirms that the portion where the refrigerant leaks is repaired.

### 8 Troubleshooting

If one of the following malfunctions occur, 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 <a href="https://www.daikin.eu">https://www.daikin.eu</a> for more troubleshooting tips. Use the search function  $\mathcal Q$  to find your model.

If after checking all above items, 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 (possibly listed on the warranty card).

### 9 Relocation

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

### 10 Disposal



### NOTICE

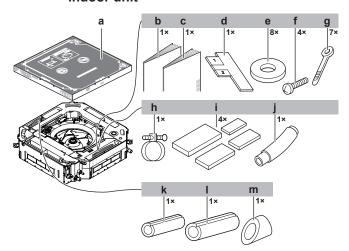
Do NOT try to dismantle the system yourself: dismantling of the system, treatment of the refrigerant, oil and other parts MUST comply with applicable legislation. Units MUST be treated at a specialised treatment facility for reuse, recycling and recovery.

### 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 (upper part of packing)
- **b** General safety precautions
- c Indoor unit installation and operation manual
- d Installation guide
- e Washers for hanger brackets
- Screws (to temporarily attach the paper pattern for installation to the indoor unit)
- **g** Cable ties
- h Metal clamp
- Sealing pads: Large (drain pipe), medium 1 (gas pipe), medium 2 (liquid pipe), small (electrical wiring)
- j Drain hose
- k Insulation piece: Small (liquid pipe)
- I Insulation piece: Large (gas pipe)
- m Insulation piece (drain pipe)

### 12 Unit installation

### 12.1 Preparing the installation site

# 12.1.1 Installation site requirements of the indoor unit



### INFORMATION

The sound pressure level is less than 70 dBA.

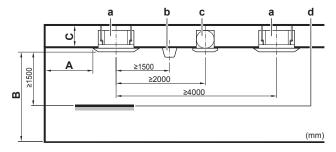


### CAUTION

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.

• Spacing. Mind the following requirements:



- A Minimum distance to the wall (see below)
- B Minimum and maximum distance to the floor (see below)

### 20~63 class:

≥227 mm: In case of installation with standard panel ≥269 mm: In case of installation with design panel

≥307 mm: In case of installation with self-cleaning panel ≥277 mm: In case of installation with standard panel + fresh air intake kit

≥319 mm: In case of installation with design panel + fresh air intake kit

### 80~100 class:

≥269 mm: In case of installation with standard panel ≥311 mm: In case of installation with design panel

≥349 mm: In case of installation with self-cleaning 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

### 125 class:

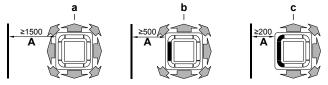
 $\geq\!311$  mm: In case of installation with standard decoration panel

≥353 mm: In case of installation with design decoration panel

≥391 mm: In case of installation with self-cleaning 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
- 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 airflow directions towards the wall.



- a Air outlet and corners open
- Air outlet closed, corners open (optional blocking pad kit required)
- Air outlet and corners closed (optional blocking pad kit required)
- . B: Minimum and maximum distance to the floor:
  - Minimum: 2.7 m to avoid accidental touching.
  - Maximum: Depends on the airflow directions and the capacity class. See "16.1 Field setting" [> 18].



### **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.

- In case of installation with a fresh air intake kit. Install the fresh air intake kit always before installing the unit.
- Decoration panel. Install the decoration panel always after installing the unit.

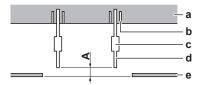


### NOTICE

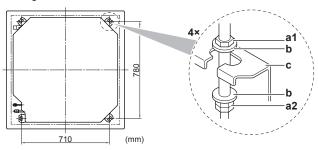
After installing the decoration panel:

- 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.

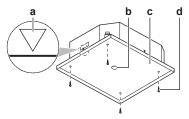
- Ceiling strength. Check whether the ceiling is strong enough to support the weight of the unit. If there is a risk, reinforce the ceiling before installing the unit.
  - For existing ceilings, use anchors.
  - For new ceilings, use sunken inserts, sunken anchors or other field supplied parts.



- 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
- 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)

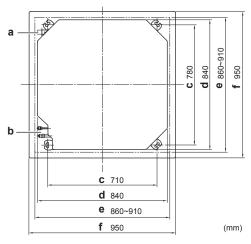
### · Ceiling opening and unit:

• 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.

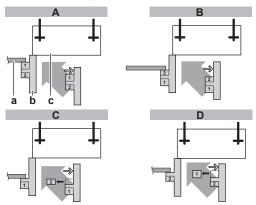
 Make sure the unit and its hanger brackets (suspension) are centered within the ceiling opening.



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

Example	If AFN	Then	
		BFN	CFN
A A	860 mm	10 mm	45 mm
C. J.	910 mm	35 mm	20 mm

 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.



### 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

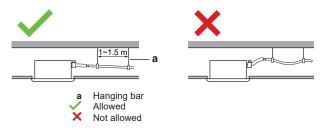
Make sure condensation water can be evacuated properly. This involves:

General guidelines

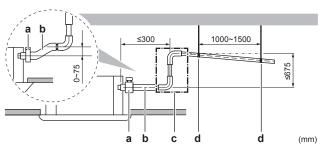
- Connecting the drain piping to the indoor unit
- · Checking for water leaks

### General guidelines

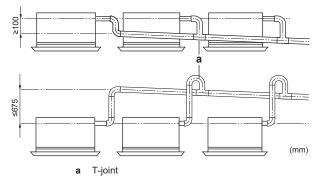
- Pipe length. Keep drain piping as short as possible.
- Pipe size. Keep the pipe size equal to or greater than that of the connecting pipe (vinyl pipe of 25 mm nominal diameter and 32 mm outer diameter).
- Slope. Make sure the drain piping slopes down (at least 1/100) to prevent air from being trapped in the piping. Use hanging bars as shown.



- 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)
- Rising drain piping (vinyl pipe of 25 mm nominal diameter and 32 mm outer diameter) (field supply)
- d Hanging bars (field supply)
- Condensation. Take measures against condensation. Insulate the complete drain piping in the building.
- 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.



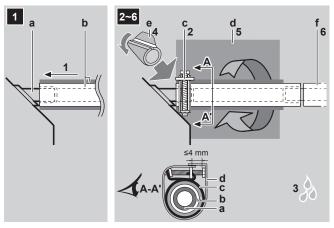
### To connect the drain piping to the indoor unit



### 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.



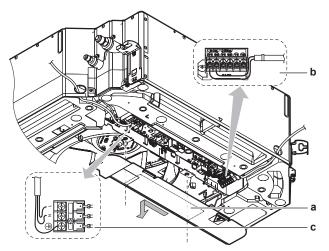
- a Drain pipe connection (attached to the unit)
- **b** Drain hose (accessory)
- c Metal clamp (accessory)
- d Large sealing pad (accessory)
- e Insulation piece (drain pipe) (accessory)
- f Drain piping (field supply)

### To check for water leaks

The procedure differs depending on whether electrical wiring is already finished. When electrical wiring is not finished yet, you need to temporarily connect the user interface and power supply to the unit

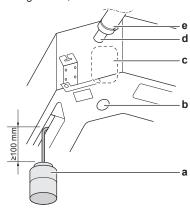
### When installation of the system is not yet completed

- 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 I 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 I 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



### CAUTION

Piping MUST be installed according to instructions given in "13 Piping installation" [> 15]. Only mechanical joints (e.g. braze+flare connections) that are compliant with the latest version of ISO14903 can be used.



### NOTICE

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

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

### Refrigerant piping diameter

For piping connections of the indoor unit use the following piping diameters:

Class	Pipe outer diameter (mm)	
	Liquid pipe	Gas pipe
20~50	Ø6.4	Ø12.7
63~125	Ø9.5	Ø15.9

### Refrigerant piping material

- · Piping material: phosphoric acid deoxidised seamless copper
- · Piping temper grade and thickness:

Outer diameter (Ø)	Temper grade	Thickness (t) <sup>(a)</sup>	
6.4 mm (1/4")	Annealed (O)	≥0.8 mm	Ø
9.5 mm (3/8")			
12.7 mm (1/2")			
15.9 mm (5/8")			

<sup>(</sup>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.

### Refrigerant piping insulation 13.1.2

- 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 <sub>p</sub> )	Insulation inner diameter (Ø <sub>i</sub> )	Insulation thickness (t)
6.4 mm (1/4")	8~10 mm	≥10 mm
9.5 mm (3/8")	12~15 mm	≥13 mm
12.7 mm (1/2")	14~16 mm	≥13 mm
15.9 mm (5/8")	17~20 mm	≥13 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

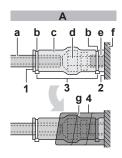


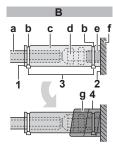
### CAUTION

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.
- Flare connections. Connect refrigerant piping to the unit using flare connections.
- · Insulation. Insulate the refrigerant piping on the indoor unit as follows:







- Gas piping
- Liquid piping
- Insulation material (field supply)
- Tie wrap (accessory)
- Insulation pieces: Large (gas pipe), small (liquid pipe) (accessories)
- Flare nut (attached to the unit)
- Refrigerant pipe connection (attached to the unit)
- Sealing pads: Medium 1 (gas pipe), medium 2 (liquid g pipe) (accessories)
- Turn up the seams of the insulation pieces.
- Attach to the base of the unit.
- Tighten the tie wraps on the insulation pieces.
- 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.

### 14 Electrical installation



DANGER: RISK OF ELECTROCUTION



### WARNING

ALWAYS use multicore cable for power supply cables.



### **WARNING**

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



### WARNING

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

### 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		
Voltage	220~240 V	
Frequency	50/60 Hz	
Phase	1~	

Power supply		
MCA <sup>(a)</sup>	FXFQ20~40: 0.5 A	
	FXFQ50: 0.6 A	
	FXFQ63: 0.7 A	
	FXFQ80: 1.2 A	
	FXFQ100: 1.3 A	
	FXFQ125: 1.4 A	

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

Components	
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 <sup>2</sup>
Transmission wiring	Only use harmonised wire providing double insulation and suitable for applicable voltage
	2-core cable
	Minimum size 0.75 mm <sup>2</sup>
User interface cable	Only use harmonised wire providing double insulation and suitable for applicable voltage
	2-core cable
	Minimum size 0.75 mm <sup>2</sup>
	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 decoration panel and the sensor kit, see the installation manual delivered with the panel or the kit.
- Make sure the electrical wiring does NOT obstruct proper reattachment of the service cover.

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.

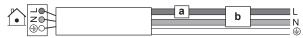


### NOTICE

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.

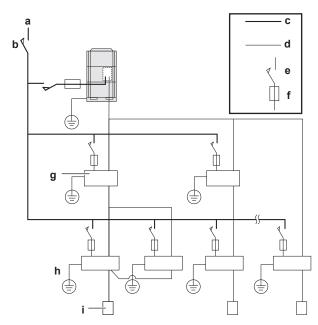
- 1 Remove the service cover.
- 2 User interface cable: Route the cable through the frame, connect the cable to the terminal block (symbols P1, P2).
- 3 Transmission cable: Route the cable through the frame, connect the cable to the terminal block (make sure the symbols F1, F2 match with the symbols on the outdoor unit). Bundle the transmission cable with the user interface cable and fix them with a tie wrap on the wiring fixture.

**4 Power supply cable**: Route the cable through the frame and connect the cable to the terminal block (L, N, earth). Fix the cable with a tie wrap on the wiring fixture.



- a Circuit breaker
- 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.

### Wiring example



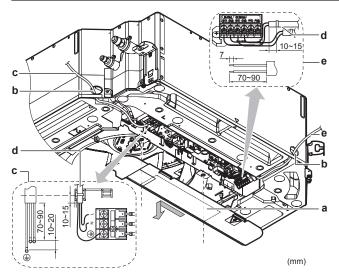
- a Power supply
- **b** Main switch
- c Power supply wiring
- d Transmission wiring
- e Switch
- f Circuit breaker
- g BS unit (only REYQ)
- h Indoor unit
- i User interface



### INFORMATION

For more system wiring examples, refer to the installer and user reference guide at https://www.daikin.eu/. (see "About this document" [> 4])

### 15 Commissioning



- a Service cover (with wiring diagram on the back)
- **b** Opening for cables
- c Connection of power supply (including earth)
- d Cable tie
- e Connection of user interface and interconnection cable

### 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" [ 16], according to the wiring diagrams and according to the applicable national wiring regulation.

	rower 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" [ 16]. Be sure that neither a fuse nor a protection device has been bypassed.
	Internal wiring
	Visually check the electrical component 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" [ 18].

### 15.2 To perform a test run



### INFORMATION

Power supply voltage

- 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
- Design decoration panel (if applicable)
- Air flow direction
- · Air volume when thermostat control is OFF
- · Time to clean air filter



### **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 4-way air flows (which require an optional blocking pad kit), see the installation manual of the optional blocking pad kit
- · For all-round air flow, use the table below.

If the distance to the floor is (m)			en <sup>(1)</sup>	
FXFQ20~63 FXFQ80~125		M	sw	
≤2.7	≤3.2	13 (23)	0	01
2.7 <x≤3.0< td=""><td>3.2<x≤3.6< td=""><td></td><td></td><td>02</td></x≤3.6<></td></x≤3.0<>	3.2 <x≤3.6< td=""><td></td><td></td><td>02</td></x≤3.6<>			02
3.0 <x≤3.5< td=""><td>3.6<x≤4.2< td=""><td></td><td></td><td>03</td></x≤4.2<></td></x≤3.5<>	3.6 <x≤4.2< td=""><td></td><td></td><td>03</td></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 <sup>(1)</sup>		
	M	sw	
Standard or self-cleaning	13	15	01
Design	(23)		02

### Setting: Airflow direction

This setting must correspond with the actual used airflow directions. See the installation manual of the optional blocking pad kit and the manual of the user interface

Default: 01 (= all-round air flow)

### Example:







- a All-round air flow
- 4-way air flow (all air outlets open, 2 corners closed)
   (optional blocking pad kit required)
- 3-way air flow (1 air outlet closed, all corners open) (optional blocking pad kit required)

### 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 <sup>(1)</sup>		
		M	sw		
During thermostat	LL <sup>(2)</sup>	12	6	01	
OFF at cooling	Setup volume <sup>(2)</sup>	(22)		02	
operation	OFF			03	
	Monitoring 1 <sup>(2)</sup>			04	
	Monitoring 2 <sup>(2)</sup>			05	
During thermostat	LL <sup>(2)</sup>	12	3	01	
OFF at heating	Setup volume <sup>(2)</sup>	(22)		02	
operation	OFF			03	
	Monitoring 1 <sup>(2)</sup>			04	
	Monitoring 2 <sup>(2)</sup>			05	

### 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	Then <sup>(1)</sup>		
(air contamination)	M	SW	_
±2500 h (light)	10 (20)	0	01
±1250 h (heavy)			02
Notification ON		3	01
Notification OFF			02

### Individual setting in a simultaneous operation system

We recommend using the optional user interface to set the slave unit.

Perform the following steps:

2 Change the second code number to 02 to perform individual setting on the slave unit.

If you want to set the slave unit as	Then <sup>(1)</sup>		
	M	sw	_
Unified setting	21(11)	01	01
Individual setting			02

- 3 Perform field setting for the master unit.
- 4 Turn off the main power supply switch.
- 5 Disconnect the remote controller from the master unit and connect it to the slave unit.
- 6 Change to individual setting.
- 7 Perform field setting for the slave unit.
- **8** Turn off the main power supply or, in case of more slave units, repeat the previous steps for all slave units.
- 9 Disconnect the user interface from the slave unit and reconnect it to the master unit.

It is not necessary to rewire the remote controller from the master unit if the optional user interface is used. (However, remove the wires attached to the user interface terminal board of the master unit)

- M: Mode number First number: for group of units Number between brackets: for individual unit
- SW: Setting number
- —: Value number
- Default
- (2) Fan speed:
  - LL: Low fan speed (set during thermostat OFF)
  - L: Low fan speed (set by the user interface)
  - 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: The fan is OFF, but runs for a short time every 6 minutes to detect the room temperature by LL (Monitoring 1) or by L (Monitoring 2).

<sup>(1)</sup> Field settings are defined as follows:

### 17 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).

### 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.

Symbol	Meaning	Symbol	Meaning
 	Circuit breaker	4	Protective earth
-	Connection		Protective earth (screw)
□ ← □ , }	Connector	(A), [Z]	Rectifier
- -	Earth	-(	Relay connector
== = ==	Field wiring		Short-circuit connector
	Fuse	-0-	Terminal
INDOOR	Indoor unit		Terminal strip
OUTDOOR	Outdoor unit	0 •	Wire clamp
	Residual current device		Heater

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

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

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

Symbol	Meaning
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













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