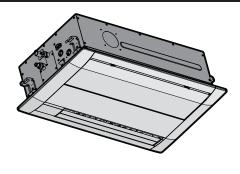


### Installation and operation manual

### **VRV** system air conditioner



FXKQ20AMVEB FXKQ25AMVEB FXKQ32AMVEB FXKQ40AMVEB FXKQ50AMVEB FXKQ63AMVEB

Samsvarserklæring for sikkerhet Turvallisuuden vaatimustenmukaisuusvakuutus Bezpečnostni prohlášeni o shodě EC – Заявление о соответствии требованиям по безопасности EU – Sikkerheds-overensstemmelseserklæring EU – Konformitetsdeklaration för säkerhet Dichiarazione di conformità in materia di sicurezza U – Safety declaration of conformity
U – Sicherheits-Konformitätserklärung
E – Déclaration de conformité de sécurité
U – Conformiteitsverklaring veiligheid

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

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

## Daikin Europe N.V.

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

# FXKQ20AMVEB, FXKQ25AMVEB, FXKQ32AMVEB, FXKQ40AMVEB, FXKQ50AMVEB, FXKQ63AMVEB

 C нашими інструкциямі:
 Overbiode Deptemmeseme l'idigande direktiv(er) eller bestemmesle(r), forudstit at produkteme anvendes i overensstemmese med variente se med voros instruktioner.
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 and seuza-anven indiktiviken at sexultera mulaisa, acelet production en tablication en training avoid service service service service service mulaisa, acelet perfosits or production en training in order perfosits or production en training in order doming) il ode-doming), uz uvjet da se proizvoif koniste suktadno nasim uputame:
 Indiana service substruction in any variet service ser отвечает требованиям упомянутых ниже директив или нормативных документов три условия эксплуатации данной продукции в соответствии 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 conforms conformation are presented, used as the second instruction reverented, wender sort conforms as lateur directives conformating to undergrand(s) survail(s), a conform to be products so entitled so conformation as natural conforms.

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

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attirká tolian nurodydas drektyvas arba reglamentus, su sajyga, kad gaminiai bus eksploatubjami laikamis mūsų instrukcijų;
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talimatiarimz dogrutusunta kullanimas kosjulyja aspajdaki drektifeidirektifere veja yūramindijakjoremeliklere uygun oktugunu besjan eder:

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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 kandekazéseli, 17 z pôznějszyní zmiamani, 18 ou amandamentele respectíve, 19 kakor je bílo spremenjeno,

sellaisina kuin ne ovat muutettuina,

EN 60335-2-40,

в действующей редакции, med tillägg, med foretatte endringer,

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,

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 oratwojem zadrase prajazuse majazuse.
 z osa conserczene (asupazuse meje juhislete:
 z osa conserczene coc cnegnara poprarmae/lo) mm permatent/lo), npw ycrosiew se rpogymrme ce arozonaen se coonserczene.

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

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

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:

> come delineato in <A> e giudicato positivamente 07 Σημείωση\* 06 Nota\* в соответствии с положениями:

01 Note\*

09 Примечание\* 10 Bemærk\* 08 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>. 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> telles que définies dans <A> et évaluées positivement par <B> conformément au Certificat <C>

> 03 Remarque\* 02 Hinweis\*

04 Bemerk\*

05 Nota\*

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> 14 Poznámka\* Cangerencery <C>
Som anibit (4A> og positivt vurderet af <B> i henhold 15 Napomena\*
ill Certifikat <C> 13 Huom\* 12 Merk\* как указано в <A> и подтверждено <B> согласно da <B> al sensi del Centificato <C>. όπως ορίζεται στο <A> και κρίνεται θετικά από τον <B> σύμφωνα με το Πιστοποιητικό <C>. conforme estabelecido em <A> e avaliado positivamente por <B> de acordo com o Certificado <C>

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kā norādīts <A> un pozitīvi novērtēts <B> saskaņā ar 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. Sertifikātu <C>.

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CBV skladus Certifikatom KC;
Mis on silesatulu dokumenicis CAP ja himatud 25 Not\*
Sertifikatolis dokumenicis CBV, vastavati
Sertifikatadile CC;

asa cum se prevede în <A> și apreciat pozitiv de <B> conform Certificatului <C>

19 Opomba\*

16 Megjegyzés\*

11 Information\*

17 Uwaga\*

18 Notă\*

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AIKIN

Director

Ostend, 1st of March 2024 Zandvoordestraat 300, B-8400 Oostende, Belgium

Hiromitsu Iwasaki DATKIN DIDATKIN EUROPE N.V. IN DATKIN DATKIN DATKIN

# UKCA - Safety declaration of conformity

### Daikin Europe N.V.

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

FXKQ20AMVEB, FXKQ25AMVEB, FXKQ32AMVEB, FXKQ40AMVEB, FXKQ50AMVEB, FXKQ63AMVEB,

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>.

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

<A> DAIKIN. TCF. 030B15/02-2024 ô **%** 

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Ostend, 1st of March 2024 DATKT, Zandvoordestraat 300, B-8400 Oostende, Belgium DATKTIN DATKTIN DATKTIN

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### 1 About the documentation

### 1.1 About this document



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### 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 Q 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 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 the latest technical data is available on the Daikin Business Portal (authentication required).

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### 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.



- 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



### **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

### For the user

### **User safety instructions** 3

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.



### **MARNING**

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.

VRV system air conditioner 3P747532-1A - 2023.11



### **MARNING**

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



### 

 Do NOT modify, disassemble, remove, reinstall or repair the unit vourself 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.



### 

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.



### 

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.



### **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.



### / 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.

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.



### **⚠** 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.



### **MARNING**

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.



### 

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

### **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.

### 

Be careful with ladders when working in high places.



### **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, air filter and suction grille.



### **№ WARNING**

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

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



### 

- 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.

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



### 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:

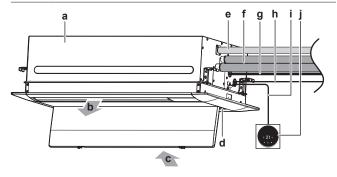
A full overview of allowable combinations (for future system extensions) is available in technical engineering data and should be consulted. Contact your installer to receive more information and professional advice.

### 4.1 Components



### **INFORMATION**

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



- Indoor unit
- Discharge air
- Suction air
- Air filter
- Drain pipe
- Refrigerant piping Power supply cable
- Interconnection cable
- User interface cable
- User interface

### **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.

### Operation 6

### 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

| 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.                    |  |  |
| <b>?</b> •  | 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.  |  |  |
| A 🔆   | <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)/01</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>4</b> / <b>8</b> / <b>3</b>  |

What. The system directs the airflow differently, depending on the user selection.



### **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.



### **INFORMATION**

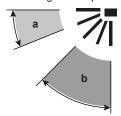
For setting procedure of the airflow direction, see the reference guide or the manual of the used user interface.

### 1 Vertical airflow

The following vertical airflow directions can be set by the user interface:

| Direction  | Display    |  |
|--|------------|--|
| <b>Fixed position</b> . The indoor unit blows air in 1 of 5 fixed positions. | <b>₹</b> / |  |
| <b>Swing</b> . The indoor unit alternates between the 5 positions.           | 7/1        |  |

**Note:** Recommended position of the horizontal blades (flaps) varies according to the operation mode.



- a Cooling operation
- b Heating operation

### 2 Horizontal airflow

The following horizontal airflow directions can be set by the user interface:

| Direction  | Display                                 |
|--|---|
| <b>Fixed position</b> . The indoor unit blows air in 1 of 5 fixed positions. |   |
| <b>Swing</b> . The indoor unit alternates between the 5 positions.           | <b>1</b>   \(\bar{\pi}  \(\bar{\pi}  \) |



### **INFORMATION**

When the unit is installed in a corner of a room, the direction of the louvers should be facing away from the wall. Efficiency will drop if a wall blocks the air.

### 6.2.3 Adjusting the airflow direction

When. Adjust the airflow direction as desired.

### 7 Maintenance and service

### 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/vertical 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.

### 6.3 To operate the system



### INFORMATION

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

### 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 and the unit exterior.



### **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

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.



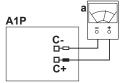
### NOTICE

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.



### 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
  - Multimeter
  - Residual voltage measuring points

### 7.2 Cleaning the unit exterior and air filter



### **CAUTION**

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



### 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 exterior



### **WARNING**

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

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

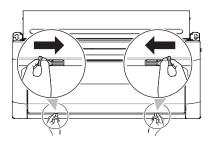
### 7.2.2 To clean the air filter

### When to clean the air filter:

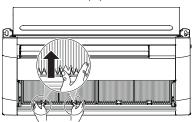
- Rule of thumb: Clean every 6 months. If the air in the room is extremely contaminated, increase the cleaning frequency.
- Depending on the settings, the user interface can display the "Time to clean filter" notification. Clean the air filter when the notification is displayed.
- If the dirt becomes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

### How to clean the air filter:

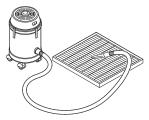
1 Open the panel. Simultaneously slide the two knobs and open the decoration panel carefully.



2 Remove the air filters. Holding the filter knob unhook the filter from the unit (2 places on each filter) and remove the filter.



3 Clean the air filters. 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 filters in the shadow.
- 5 Reattach the air filters and close panel.
- 6 Turn ON the power.
- 7 To remove warning screens, see the reference guide of the user interface.

### 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  $\text{CO}_2$  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 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 <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.

FXKQ-A VRV system air conditioner 3P747532-1A – 2023.11 DAIKIN

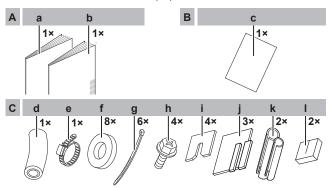
### For the installer

### 11 About the box

### 11.1 Indoor unit

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

1 Remove the accessories A, B, C:



- Located under the unit
- Installation and operation manual
- h General safety precautions
- В Located under the unit
- Paper pattern for installation
- Located on the side of the unit
- Drain hose
- Metal clamp
- f Clamp washer for hanger bracket
- Tie wraps
- Screw
- Clamp washer for hanger bracket
- Sealing pad: Large (drain piping), medium (gas piping) and small (liquid piping)
- Insulation piece: Large (gas pipe), small (liquid pipe)
- Sealing pad (for covering the cable bushing)

### 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.



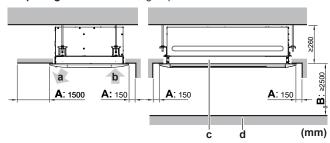
### CAUTION

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.

- Take care that in the event of a water leak, water cannot cause any damage to the installation space and surroundings.
- Choose a location where the operation noise or the hot/cold air discharged from the unit will not disturb anyone and the location is selected according the applicable legislation.

- Drainage. Make sure condensation water can be evacuated properly.
- Paper pattern for installation (accessory). Use the paper pattern when selecting the installation location. It contains the dimensions of the unit and locations of suspension bolts and piping connection side.
- Spacing. Mind the following requirements:



- Minimum distance to the wall
  - Minimum: 1.5 m on the air outlet side and 150 mm on the other sides
- Minimum and maximum distance to the floor Minimum: 2.5 m to avoid accidental touching. Maximum: 3.5 m. See "16.1 Field setting" [ 18].
- Air outlet
- b Air inlet
- c d Indoor unit
- Floor



### **INFORMATION**

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

### 12.2 Mounting the indoor unit

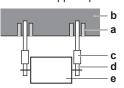
### 12.2.1 Guidelines when installing the indoor unit



### **INFORMATION**

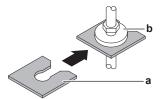
Optional equipment. When installing optional equipment, also read the installation manual of the optional equipment. Depending on the field conditions, it might be easier to install the optional equipment first.

- 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.



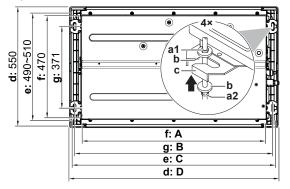
- Anchor
- Ceiling slab
- Long nut or turnbuckle
- d Suspension bolt
- Indoor unit
- Suspension bolts and unit. Use M10 suspension bolts for installation. Attach the hanger bracket to the suspension bolt. Fix it securely using a nut and washer on the top and bottom of the hanger bracket. Attached clamp washer for hanger bracket

(accessory) can be used to prevent the washer for hanger bracket (accessory) from falling during installation. Remove the clamp washer for hanger bracket after the unit is mounted.



- a Clamp washer for hanger bracket (accessory)
- **b** Washer for hanger bracket (accessory)

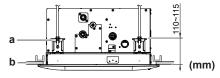
### Top view



- a1 Top nut (field supply)
- a2 Bottom double nut (field supply)
- **b** Washer for hanger bracket (accessory)
- c Hanger bracket (attached to the unit)
- d Decoration panel dimensions
- e Ceiling opening dimensions
- f Indoor unit dimensions
- g Suspension bolt pitch

|       | •      | •      |           |        |
|-------|--------|--------|-----------|--------|
| Class | A (mm) | B (mm) | C (mm)    | D (mm) |
| 20~32 | 840    | 903    | 860~910   | 950    |
| 40~63 | 1240   | 1303   | 1260~1310 | 1350   |

### Side view

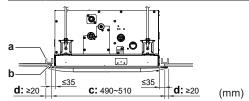


- a Suspension bolt
- **b** Ceiling



### **NOTICE**

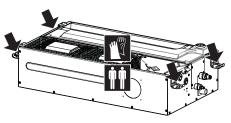
Make sure the decoration panel overlaps the ceiling opening by at least 20 mm. The distance between the indoor unit and the ceiling opening must be ≤35 mm; if it is more, install additional ceiling material or repair the ceiling.



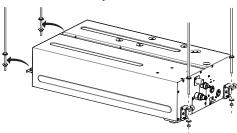
- **a** Frame
- **b** Additional ceiling material
- c Ceiling opening
- d Ceiling overlapping part of the decorative panel

### To mount the indoor unit

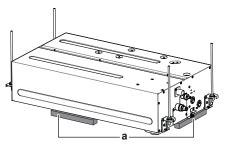
1 Handle the unit only by the hanger brackets.



- 2 Temporarily hang the unit on the 2 suspension bolts on one side
- 3 Insert the remaining 2 suspension bolts into the hanger bracket and fix it securely with the bottom washer and nut.



4 Make sure that the unit is level.



a Level



(mm)

### **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.

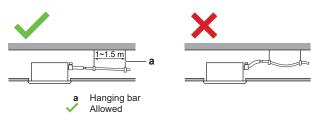
### 12.2.2 Guidelines when installing the drain piping

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

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

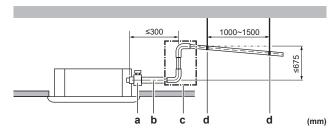
### General guidelines

- 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.

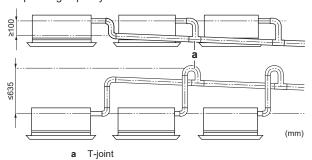


### X Not allowed

- Condensation. Take measures against condensation. Insulate the complete drain piping in the building.
- Rising piping. If necessary to make the slope possible, you can install rising piping.
  - Drain hose inclination: 0~75 mm to avoid stress on the piping and to avoid air bubbles.
  - Rising piping: ≤300 mm from the unit, ≤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 the correct gauge for the operating capacity of the units.

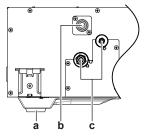


### To connect the drain piping to the indoor unit



### NOTICE

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

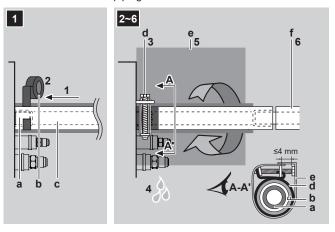


- a Drain outlet for maintenance
- **b** Drain pipe connection
- c Refrigerant pipes

### **Drain piping connection**

- 1 Push the drain hose as far as possible over the drain pipe connection.
- Wrap the vinyl tape around the drain hose under the metal clamp, ensuring it encircles the hose 2 or 3 times. The tape should extend beyond the width of the metal clamp for proper coverage.
- 3 Tighten the metal clamp until the screw head is less than 4 mm from the metal clamp part.
- 4 Check for water leaks (see "To check for water leaks" [▶ 14]).

- Wind the large sealing pad (= insulation) around the metal clamp and drain hose, and fix it with tie wraps. Start wrapping from the tightened part of the metal clamp so that the end of the metal clamp is wrapped twice.
- 6 Connect the drain piping to the drain hose.

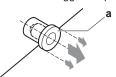


- a Drain pipe connection (attached to the unit)
- **b** Vinyl tape
- c Drain hose (accessory)
- d Metal clamp (accessory)
- e Large sealing pad (accessory)
- f Drain piping (field supply)

### Drain outlet for maintenance

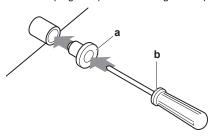
### Pull out the plug.

Do NOT wiggle the plug up and down.



### Push in the plug.

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



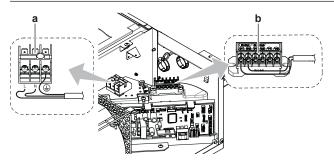
- a Drain plug
- **b** Philips screwdriver

### To check for water leaks

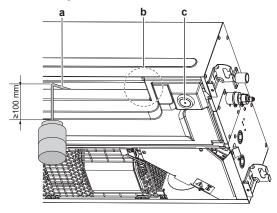
The procedure differs depending on whether installation of the system is already completed. When installation of the system is not yet completed, temporarily connect the user interface and power supply to the unit.

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

- 1 Temporarily connect electrical wiring.
  - Remove the service cover. See "14.2 To connect the electrical wiring to the indoor unit" [> 16].
  - Connect the user interface (b).
  - Connect the power supply (a).
  - Reattach the service cover. See "14.2 To connect the electrical wiring to the indoor unit" [▶ 16].



- a Power supply terminal block
- b User interface 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 water container with tube length ≥100 mm
- **b** Drain pump and float switch location
- c Service drain outlet (with rubber plug). Use this outlet to drain water from the drain pan.
- 5 Turn OFF the power.
- 6 Disconnect the electrical wiring.
  - Remove the service cover. See "14.2 To connect the electrical wiring to the indoor unit" [▶ 16].
  - Disconnect the power supply.
  - Disconnect the user interface.
  - Reattach the service cover. See "14.2 To connect the electrical wiring to the indoor unit" [> 16].

### 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" [> 14]).

### 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 piping            | Gas piping |
| 20~50 | Ø6.4 mm                  | Ø12.7 mm   |
| 63    | Ø9.5 mm                  | Ø15.9 mm   |

### Refrigerant piping material

- Piping material: phosphoric acid deoxidised seamless copper
- Flare connections: Only use annealed material.
- 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")      |              |                              | ( <u>)</u> .t |
| 12.7 mm (1/2")     |              |                              |               |
| 15.9 mm (5/8")     |              |                              |               |

(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 $(\mathcal{O}_p)$ | 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

FXKQ-A VRV system air conditioner 3P747532-1A – 2023.11 DAIKIN

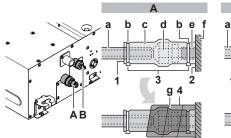
### 13.2.1 To connect the refrigerant piping to the indoor unit

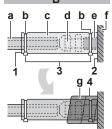


### **CAUTION**

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:





- A Gas piping
- B Liquid piping
- a Insulation material (field supply)
- **b** Tie wrap (accessory)
- Insulation pieces: Large (gas pipe), small (liquid pipe) (accessories)
- d Flare nut (attached to the unit)
- e Refrigerant pipe connection (attached to the unit)
- f Unit
- g Sealing pads: Medium (gas pipe), Small (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.
- 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

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 of the product |                        |  |  |  |  |
|-----------------------------|------------------------|--|--|--|--|
| Voltage                     | 220~240 V/220 V        |  |  |  |  |
| Frequency                   | 50/60 Hz               |  |  |  |  |
| Phase                       | 1~                     |  |  |  |  |
| MCA <sup>(a)</sup>          | FXKQ 20, 25, 32: 0.4 A |  |  |  |  |
|                             | FXKQ40: 0.6 A          |  |  |  |  |
|                             | FXKQ50: 0.9 A          |  |  |  |  |
|                             | FXKQ63: 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 <sup>2</sup>                    |
| Transmission wiring         | Only use harmonised wire providing double insulation and suitable for applicable voltage |
|                             | 2-core cable   |
|                             | Minimum size 0.75 mm²  |
| User interface cable        | Only use harmonised wire providing double insulation and suitable for applicable voltage |
|                             | 2-core cable   |
|                             | Minimum size 0.75 mm²  |
|                             | 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.

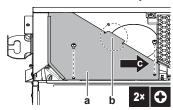
It is important to keep the power supply and the transmission wiring separated from each other. In order to avoid any electrical interference the distance between both wirings should ALWAYS be at least 50 mm.



### 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.

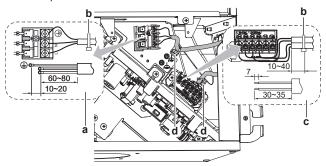
Remove the service cover. Remove the 2 screws. Hold the service cover by the handle and slide it in the direction of the arrow and then toward you.



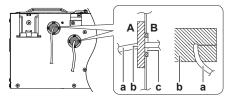
- Service cover
- a b Service cover handle
- Sliding direction of service cover
- User interface cable: Route the cable through the frame and connect it to the terminal block (P1, P2).
- 3 Transmission cable: Route the cable through the frame and connect it to the terminal block (make sure the symbols F1 and F2 match with the symbols on the outdoor unit).
- 4 Power supply cable: Route the cable through the frame and connect it to the terminal block (L, N, earth).



- Circuit breaker
- Residual current device
- Plastic clamp for tie wrap: Pass tie wraps through the plastic clamps and fasten to fix the cables.



- Connection of power supply cable
- Tie wrap (accessory)
- Connection of user interface cable and transmission cable
- d Plastic clamp for tie wrap
- Stick the sealing pads (accessory) to cover the cable bushing.



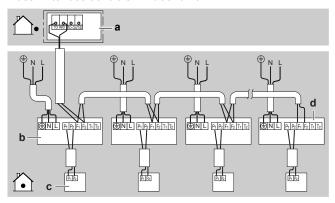
- Outside the unit
- В Inside the unit
- Cable
- b Sealing pad (accessory)
- Opening for cables
- Reattach the service cover. Slide the service cover back and fix with 2 screws.

### Complete system examples

- 1 user interface controls 1 indoor unit.
- · Group control or 2 user interfaces control 1 indoor unit

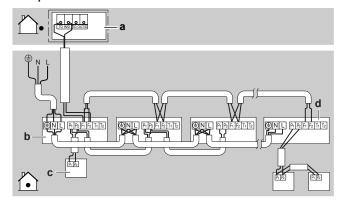
### With BS unit

### 1 user interface controls 1 indoor unit.



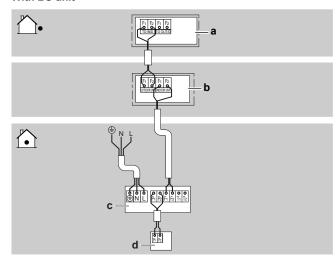
- Outdoor unit
- b Indoor unit
- User interface
- Most downstream indoor unit

### Group control or 2 user interfaces control 1 indoor unit



- Outdoor unit
- b Indoor unit
- User interface
- Most downstream indoor unit

### With BS unit



- Outdoor unit
- BS unit
- Indoor unit User interface

### Commissioning 15



### 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

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

| 3 Po | wer up the unit.  |
|------|---|
|      | You have read the complete installation and operation instructions described in the <b>installer and user reference guide</b> . |
|      | The indoor unit is properly mounted.  |
|      | The <b>outdoor unit</b> is properly mounted.  |
|      | The <b>drain piping</b> is properly installed and insulated, and drainage flows smoothly. Check for water leaks.                |
|      | Possible consequence: condensate water might drip.  |
|      | The <b>refrigerant pipes</b> (gas and liquid) are installed correctly and thermally insulated.                                  |
|      | There are NO refrigerant leaks.   |
|      | There are NO missing phases or reversed phases.   |
|      | The system is properly <b>earthed</b> and the earth terminals are tightened.  |
|      | The <b>fuses</b> or locally installed protection devices are installed according to this document, and have NOT been bypassed.  |

The power supply voltage matches the voltage on the

There are NO loose connections or damaged electrical

There are NO damaged components or squeezed pipes on the inside of the indoor and outdoor units. The stop valves (gas and liquid) on the outdoor unit are

### 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
- · Air volume when thermostat control is OFF
- Time to clean air filter
- Thermostat sensor selection
- Thermostat differential changeover (if remote sensor is used)
- · Automatic changeover differential
- · Auto-restart after power failure
- T1/T2 input setting
- · Mold proof prevention operation



### **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.

| If the distance to the floor is (m)                      | Then <sup>(1)</sup> |    |    |
|--|---------------------|----|----|
|  | M                   | sw |    |
| ≤2.7   | 13 (23)             | 0  | 01 |
| 2.7 <x≤3.0< td=""><td></td><td></td><td>02</td></x≤3.0<> |                     |    | 02 |
| 3.0 <x≤3.5< td=""><td></td><td></td><td>03</td></x≤3.5<> |                     |    | 03 |

### 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

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

- M: Mode number First number: for group of units Number between brackets: for individual unit
- · SW: Setting number
- -: Value number
- Default

identification label of the unit

components in the switch box.

fully open.

П

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

| If you want              |                             | Then <sup>(1)</sup> |    |    |  |
|--------------------------|-----------------------------|---------------------|----|----|--|
|                          |                             | М                   | sw | _  |  |
| During thermostat        | LL <sup>(2)</sup>           | 12 (22)             | 6  | 01 |  |
| OFF at cooling           | Setup volume(2)             |                     |    | 02 |  |
| operation                | OFF <sup>(a)</sup>          |                     |    | 03 |  |
|                          | Monitoring 1 <sup>(2)</sup> |                     |    | 04 |  |
|                          | Monitoring 2 <sup>(2)</sup> |                     |    | 05 |  |
| During thermostat        | LL <sup>(2)</sup>           | 12 (22)             | 3  | 01 |  |
| OFF at heating operation | Setup volume <sup>(2)</sup> |                     |    | 02 |  |
|                          | OFF <sup>(a)</sup>          |                     |    | 03 |  |
|                          | Monitoring 1 <sup>(2)</sup> |                     |    | 04 |  |
|                          | Monitoring 2 <sup>(2)</sup> |                     |    | 05 |  |

 $<sup>^{\</sup>rm (a)}$  Only use in combination with optional remote sensor or when setting **M** 10 (20), **SW** 2, — 03 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 | 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 |

### Setting: Thermostat sensor selection

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

| When the remote controller thermostat           | Then <sup>(1)</sup> |    |    |  |
|---|---------------------|----|----|--|
| sensor is                                       | M                   | sw | _  |  |
| 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 <sup>(1)</sup> |    |    |
|-------------------------------------|---------------------|----|----|
|                                     | M                   | sw | _  |
| 1°C                                 | 12 (22)             | 2  | 01 |
| 0.5°C                               |                     |    | 02 |

### Setting: Automatic changeover differential

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 |         | Then <sup>(1)</sup> |    | Example                      |
|----------------|---------|---------------------|----|------------------------------|
| set            | M       | SW                  | _  |                              |
| 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<br>17°C |

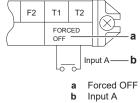
### Setting: Auto-restart after power failure

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 | Then <sup>(1)</sup> |    |    |  |
|--------------------------------------|---------------------|----|----|--|
| failure                              | M                   | sw | _  |  |
| Disabled                             | 12 (22)             | 5  | 01 |  |
| Enabled                              |                     |    | 02 |  |

### Setting: T1/T2 input setting

Remote control is available by transmission the external input to the terminals T1 and T2 on the terminal block for the user interface and the transmission wiring.



| Wiring requirements            |  |
|--------------------------------|--|
| Wiring specification           | Sheathed vinyl cord or 2-core cable                            |
| Wiring size                    | 0.75~1.25 mm <sup>2</sup>                                      |
| Wiring length                  | Maximum 100 m  |
| External contact specification | Contact that can make and break the min. load of DC15 V · 1 mA |

This setting must correspond with the needs of the user.

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

<sup>•</sup> M: Mode number - First number: for group of units - Number between brackets: for individual unit

<sup>•</sup> SW: Setting number

<sup>• —:</sup> Value number

<sup>•</sup> Default

<sup>(2)</sup> Fan speed:

<sup>•</sup> LL: Low fan speed (set during thermostat OFF)

<sup>•</sup> L: Low fan speed (set by the user interface)

<sup>•</sup> 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.

<sup>•</sup> 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).

### 17 Technical data

| If you want to set                          | Then <sup>(1)</sup> |    |    |
|---|---------------------|----|----|
|   | M                   | sw | _  |
| Forced OFF                                  | 12 (22)             | 1  | 01 |
| ON/OFF Operation                            |                     |    | 02 |
| Emergency (recommended for alarm operation) |                     |    | 03 |
| Forced OFF - multi tenant                   |                     |    | 04 |
| Interlocking setting A                      |                     |    | 05 |
| Interlocking setting B                      |                     |    | 06 |

### Setting: Mold proof prevention operation



### NOTICE

When the function is disabled, mould and odour may form inside the indoor unit.

This setting must correspond with the needs of the user. It determines the fan operation time after the unit is turned off by the user interface during cooling mode.

| If you want to set the fan operation | Then <sup>(1)</sup> |    |    |
|--------------------------------------|---------------------|----|----|
| time after the unit is turned off to | M                   | sw |    |
| Disabled                             | 14 (24)             | 10 | 01 |
| 30 minutes                           |                     |    | 02 |
| 60 minutes                           |                     |    | 03 |

### 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.

| Symbol         | Meaning         | Symbol             | Meaning                  |
|----------------|-----------------|--------------------|--------------------------|
|                | Circuit breaker |                    | Protective earth         |
| -              | Connection      |                    | Protective earth (screw) |
| □-<- □, D-     | Connector       | <b>A</b> , <b></b> | Rectifier                |
| Ţ              | Earth           | -(                 | Relay connector          |
| <b># 8 8 #</b> | Field wiring    |                    | Short-circuit connector  |
|                | Fuse            | -0-                | Terminal                 |
| INDOOR         | Indoor unit     |                    | Terminal strip           |
| OUTDOOR        | Outdoor unit    | 0 •                | Wire clamp               |

| Symbol     | Meaning                 | Symbol | Meaning |
|------------|-------------------------|--------|---------|
| <b>.</b> . | 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*,<br>HN*, HR*, MR*_A, MR*_B, S*, U,<br>V, W, X*A, K*R_*, NE | Connection, connector                        |  |
| D*, V*D  | Diode  |  |
| DB*  | Diode bridge                                 |  |
| DS*  | DIP switch                                   |  |
| E*H  | Heater                                       |  |
| FU*, F*U, (for characteristics, refer to PCB inside your unit)                         | Fuse   |  |
| FG*  | Connector (frame ground)                     |  |
| H*   | Harness                                      |  |
| H*P, LED*, V*L   | Pilot lamp, light emitting diode             |  |
| HAP  | Light emitting diode (service monitor green) |  |
| HIGH VOLTAGE   | High voltage                                 |  |
| IES  | Intelligent eye sensor                       |  |
| IPM*   | Intelligent power module                     |  |
| K*R, KCR, KFR, KHuR, K*M   | Magnetic relay                               |  |
| L  | Live   |  |
| L*   | Coil   |  |
| L*R  | Reactor                                      |  |
| M*   | Stepper motor                                |  |
| M*C  | Compressor motor                             |  |
| M*F  | Fan motor                                    |  |
| M*P  | Drain pump motor                             |  |
| M*S  | Swing motor                                  |  |
| MR*, MRCW*, MRM*, MRN*   | Magnetic relay                               |  |
| N  | Neutral                                      |  |
| n=*, N=*   | Number of passes through ferrite core        |  |
| PAM  | Pulse-amplitude modulation                   |  |
| PCB*   | Printed circuit board                        |  |
| PM*  | Power module                                 |  |
| PS   | Switching power supply                       |  |
| PTC*   | PTC thermistor                               |  |

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

<sup>•</sup> M: Mode number – First number: for group of units – Number between brackets: for individual unit

<sup>•</sup> SW: Setting number

 <sup>—:</sup> Value number

<sup>•</sup> Default

| Symbol      | Meaning   |
|-------------|---|
| O*          | Insulated gate bipolar transistor   |
| Q .         | (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<br>bipolar transistor (IGBT) power<br>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  |











