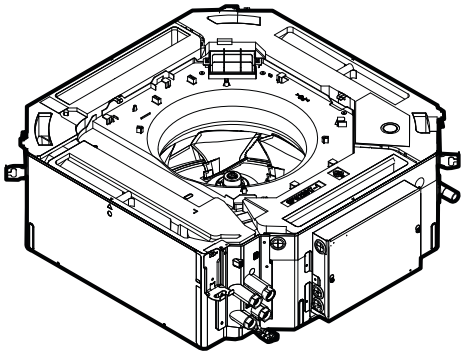
Installation and operation manual

Fan coil units



FWC06D
FWC07D
FWC08D
FWC09D

Installation and operation manual
Fan coil units

English

EU – Safety declaration of conformity
EU – Sicherheits-Konformitätserklärung
UE – Déclaration de conformité de sécurité
EU – Conformiteitsverklaring veiligheid

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

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

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

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

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

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

Daikin Europe N.V.

01 declares under its sole responsibility that the products to which this declaration relates:
02 erklärt in alleinige Verantwortung, dass die Produkte, auf die sich diese Erklärung bezieht:
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06 dichiara sotto la propria responsabilità che i prodotti a cui è riferita questa dichiarazione:
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08 declara sob sua exclusiva responsabilidade que os produtos a que esta declaração se refere:
09 заявляет, исключительно под свою ответственность, что продукция, к которой относится настоящее заявление:
10 erklærer som eneansvarlig, at produkterne, som er omfattet af denne erklæring:
11 deklarerar i egenskap av huvudansvarig, att produkterna som berörs av denna deklaration innebär att:
12 erklærer et fullstendig ansvar for at produktene som er underlagt denne erklæringen:
13 ilmoittaa yksinomaan omalla vastuullaan, että tämän ilmoituksen tarkoittamat tuotteet:
14 prohlašuje na svou plnou odpovědnost, že výrobky, ke kterým se toto prohlášení vztahuje:
15 izjavljuje pod isključivo vlastitom odgovornošću da su proizvodi na koje se ova izjava odnosi:
16 teljes felelőssége tudatában kijelenti, hogy a termékek, melyekre e nyilatkozat vonatkozik:
17 deklaruje na własną wyłączną odpowiedzialność, że produkty, których ta deklaracja dotyczy:
18 declară pe proprie răspundere că produsele la care se referă această declarație:
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20 vastavad järgmise (järgmiste) direktiivi(de) ja määruse (määruste) nõuetele, tingimusel, et neid kasutatakse vastavuses meie juhistele:
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23 atbilst šādām direktīvām vai regulām, ja vien šie izstrādājumi tiek lietoti saskaņā ar mūsu instrukcijām:
24 sú v zhode s nasledujúcou(imi) smernicou(ami) alebo predpisom(mi) za predpokladu, že sa výrobky používajú v zhode s našimi pokynmi:
25 talimatlarımız doğrultusunda kullanılması koşuluyla aşağıdaki direktife/direktiflere veya yönetmeliğe/yönetmeliklere uygun olduğunu beyan eder:

FWC*DATN5V3--, FWC*DAFN5V3--, FWC*DATT5V3--, FWC*DAFT5V3--, FWC*DATV5V3--, FWC*DAFV5V3--, (*=06,07,08,09),

01 are in conformity with the following directive(s) or regulation(s), provided that the products are used in accordance with our instructions:
02 folgender/n Richtlinie/n oder Vorschrift/en entsprechen, vorausgesetzt, dass diese gemäß unseren Instruktionen verwendet werden:
03 sont conformes à la/aux directive(s) ou règlement(s) suivant(s), à condition que les produits soient utilisés conformément à nos instructions:
04 in overeenstemming zijn met de volgende richtlijn(en) of verordening(en), op voorwaarde dat de producten worden gebruikt overeenkomstig onze instructies:
05 están en conformidad con la(s) siguiente(s) directiva(s) o reglamento(s), siempre que se utilicen de acuerdo con nuestras instrucciones:
06 sono conformi alle direttive o ai regolamenti seguenti, a patto che i prodotti vengano usati in conformità alle nostre istruzioni:
07 συμμορφώνονται με την(ις) ακόλουθη(ες) οδηγία(ες) ή κανονισμό(ούς), υπό την προϋπόθεση ότι τα προϊόντα χρησιμοποιούνται σύμφωνα με τις οδηγίες μας:
08 estão em conformidade com a(s) seguinte(s) diretiva(s) ou regulamento(s), desde que os produtos sejam utilizados de acordo com as nossas instruções:
09 отвечает требованиям упомянутых ниже директив или нормативных документов при условии эксплуатации данной продукции в соответствии с нашими инструкциями:
10 overholder bestemmelserne i følgende direktiv(er) eller bestemmelse(r), forudsat at produkterne anvendes i overensstemmelse med vores instruktioner:
11 uppfyller följande direktiv eller föreskrift(er), under förutsättning att produkterna används i enlighet med våra instruktioner:
12 er i overensstemmelse med følgende direktiv(er) eller forskrift(er), forutsatt at produktene brukes i henhold til våre instruksjoner:
13 ovat seuraavien direktiivien tai asetusten mukaisia, edellyttäen että tuotteita käytetään ohjeidemme mukaisesti:
14 jsou ve shodě s následujícími směrnicemi nebo předpisy za předpokladu, že tyto výrobky jsou používány v souladu s našimi pokyny:
15 u skladu sa sljedećom direktivom(ma) ili odredbom(a), uz uvjet da se proizvodi koriste sukladno našim uputama:
16 megfelelnek az alábbi irányelv(ek)nek vagy egyéb szabályozás(ok)nak, ha a termékeket előírás szerint használják:
17 spełniają wymogi następujących dyrektyw lub rozporządzeń, pod warunkiem że produkty używane są zgodnie z naszymi instrukcjami:
18 sunt în conformitate cu următoarele directive sau regulamente, cu condiția ca produsele să fie utilizate în conformitate cu instrucțiunile noastre:
19 v skladu z naslednjo direktivo(-ami) ali predpisom(-i) pod pogojem, da se izdelki uporabljajo v skladu z našimi navodili:
20 vastavad järgmise (järgmiste) direktiivi(de) ja määruse (määruste) nõuetele, tingimusel, et neid kasutatakse vastavuses meie juhistele:
21 са в съответствие със следната директива(и) или регламент(и), при условие че продуктите се използват в съответствие с нашите инструкции:
22 atitinka toliau nurodytas direktyvas arba reglamentus, su sąlyga, kad gaminiai bus eksploatuojami laikantis mūsų instrukcijų:
23 atbilst šādām direktīvām vai regulām, ja vien šie izstrādājumi tiek lietoti saskaņā ar mūsu instrukcijām:
24 sú v zhode s nasledujúcou(imi) smernicou(ami) alebo predpisom(mi) za predpokladu, že sa výrobky používajú v zhode s našimi pokynmi:
25 talimatlarımız doğrultusunda kullanılması koşuluyla aşağıdaki direktife/direktiflere veya yönetmeliğe/yönetmeliklere uygun olduğunu beyan eder:

Low Voltage 2014/35/EU
Electromagnetic Compatibility 2014/30/EU*
Machinery 2006/42/EC**

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

01 following the provisions of:
02 gemäß den Bestimmungen in:
03 conformément aux dispositions de:
04 volgens de bepalingen van:
05 siguiendo las disposiciones de:
06 secondo le disposizioni di:
07 σύμφωνα με τις προβλέψεις των:
08 seguindo as disposições de:
09 в соответствии с положениями:
10 under iagttagelse af:
11 enligt bestämmelserna för:
12 i henhold til bestemmelsene i:
13 noudattaen säännöksiä:
14 za dodržení ustanovení:
15 prema odredbama:
16 követi a(z):
17 zgodnie z postanowieniami:
18 urmând prevederile:
19 v skladu z določbami:
20 vastavalt nõuetele:
21 следвайки клаузите на:
22 vadovaujantis šio dokumento nuostatomis:
23 atbilstoši šādu standartu prasībām:
24 nasledovnými ustanoveniami:
25 şu standartların hükümlerine:

EN 60335-2-40,

01 Note*	as set out in <A> and judged positively by <B> according to the **Certificate <C>**.	06 Nota*	come delineato in <A> e giudicato positivamente da <B> ai sensi del **Certificato <C>**.	11 Information*	som anges i <A> och godkänts av <B> enligt **Certifikat <C>**.	16 Megjegyzés*	a(z) <A> alapján, a(z) <B> igazolta a megfelelést, a(z) <C> **tanúsítvány** szerint.	21 Забележка*	както е изложено в <A> и оценено положително от <B> съгласно **Сертификата <C>**.
02 Hinweis*	wie in <A> aufgeführt und von <B> positiv beurteilt gemäß **Zertifikat <C>**.	07 Σημείωση*	όπως ορίζεται στο <A> και κρίνεται θετικά από τον <B> σύμφωνα με το **Πιστοποιητικό <C>**.	12 Merk*	som det fremkommer i <A> og vurdert positivt av <B> i henhold til **Sertifikatet <C>**.	17 Uwaga*	zgodnie z dokumentacją <A>, pozytywną opinią <B> i **Świadectwem <C>**.	22 Pastaba*	kaip nurodyta <A> ir teigiamai nuspręsta pagal <B>, vadovaujantis **Sertifikatu <C>**.
03 Remarque*	telles que définies dans <A> et évaluées positivement par <B> conformément au **Certificat <C>**.	08 Nota*	conforme estabelecido em <A> e avaliado positivamente por <B> de acordo com o **Certificado <C>**.	13 Huom*	sellaisina kuin ne on esitetty asiakirjassa <A> ja jotka <B> on hyväksynyt **Sertifikaatin <C>** mukaisesti.	18 Notă*	așa cum se prevede în <A> și apreciat pozitiv de <B> conform **Certificatului <C>**.	23 Piezīmes*	kā norādīts <A> un pozitīvi novērtēts <B> saskaņā ar **Sertifikātu <C>**.
04 Bemerk*	zoals uiteengezet in <A> en positief beoordeeld door <B> overeenkomstig het **Certificaat <C>**.	09 Примечание*	как указано в <A> и подтверждено <B> согласно Свидетельству **<C>**.	14 Poznámka*	jak bylo uvedeno v <A> a pozitivně zjištěno <B> v souladu s **Osvědčením <C>**.	19 Opomba*	Kot je določeno v <A> in je prejelo pozitivno oceno <B> v skladu s **Certifikatom <C>**.	24 Poznámka*	ako bolo stanovené v <A> a kladne posúdené <B> podľa **Osvedčenia <C>**.
05 Nota*	tal como se establece en <A> y valorado positivamente por <B> de acuerdo con el **Certificado <C>**.	10 Bemærk*	Som anført i <A> og positivt vurderet af <B> i henhold til **Certifikat <C>**.	15 Napomena*	kako je izloženo u <A> i pozitivno ocijenjeno od <B> prema **Certifikatu <C>**.	20 Märkus*	Mis on sätestatud dokumendis <A> ja hinnatud vastuvõetuks dokumendis <B>, vastavalt **Sertifikaadile <C>**.	25 Not*	<A>'de belirtildiği ve <C> **Sertifikasına** göre <B> tarafından olumlu görüş bildirildiği üzere.

<A>	**TCF DT23-402**
<B>	-
<C>	-

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2P491002-11Q

DAIKIN

Hideki Hara
Director
Ostend, 1st of August 2024

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

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1 About the documentation

1.1 About this document

Target audience

Authorised installers + end users

INFORMATION

This appliance is intended to be used in commercial, industrial or business environment.

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)
  - Format: Digital files on https://www.daikin.eu. Use the search function to find your model.

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

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

Technical engineering data

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

1.2 Meaning of warnings and symbols

DANGER

Indicates a situation that results in death or serious injury.

DANGER: RISK OF ELECTROCUTION

Indicates a situation that could result in electrocution.

DANGER: RISK OF BURNING/SCALDING

Indicates a situation that could result in burning/scalding because of extreme hot or cold temperatures.

WARNING

Indicates a situation that could result in death or serious injury.

CAUTION

Indicates a situation that could result in minor or moderate injury.

NOTICE

Indicates a situation that could result in equipment or property damage.

INFORMATION

Indicates useful tips or additional information.

Symbols used on the unit:

Symbol	Explanation
	Before installation, read the installation and operation manual, and the wiring instruction sheet.

1.3 General

If you are NOT sure how to install or operate the unit, contact your dealer.

WARNING

Improper installation or attachment of equipment or accessories could result in electrical shock, short-circuit, leaks, fire or other damage to the equipment. ONLY use accessories, optional equipment and spare parts made or approved by Daikin unless otherwise specified.

WARNING

Make sure installation, testing and applied materials comply with applicable legislation (on top of the instructions described in the Daikin documentation).

WARNING

This unit contains electrical and hot parts.

DANGER: RISK OF ELECTROCUTION

Do NOT operate the fan coil units with wet hands. An electrical shock may result.

WARNING

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

WARNING

Tear apart and throw away plastic packaging bags so that nobody, especially children, can play with them. **Possible consequence:** suffocation.

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

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

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.

CAUTION

Do NOT touch the air inlet or aluminium fins of the unit.

CAUTION

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

WARNING

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

DANGER: RISK OF ELECTROCUTION

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

CAUTION

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

2 Specific installer safety instructions

Always observe the following safety instructions and regulations.

WARNING

Make sure installation, servicing, maintenance and repair comply with instructions from Daikin and with applicable legislation (for example national gas regulation) and are executed ONLY by authorised persons.

WARNING

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

WARNING

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

WARNING

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

CAUTION

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

NOTICE

- The pipework shall be securely mounted and guarded protected from physical damage.
- Keep the pipework installation to a minimum.

For the installer

3 About the box

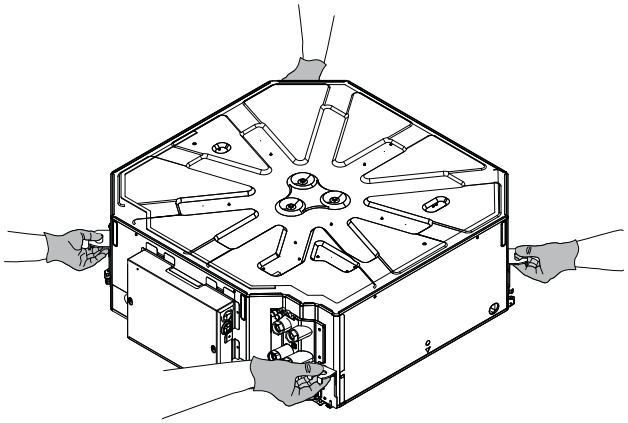
Keep the following in mind:

- At delivery, the unit MUST be checked for damage and completeness. Any damage or missing parts MUST be reported immediately to the claims agent of the carrier.
- Bring the packed unit as close as possible to its final installation position to prevent damage during transport.
- Prepare in advance the path along which you want to bring the unit to its final installation position.

3.1 To unpack and handle the fan coil unit

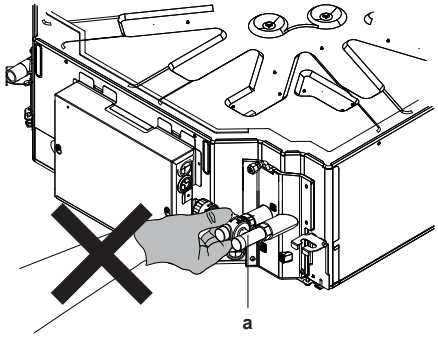
Use a sling of soft material or protective plates together with a rope when lifting the unit. This to avoid damage or scratches to the unit.

1 Lift the unit by holding onto the hanger brackets without exerting any pressure on other parts, especially on drain piping and thermal insulation.

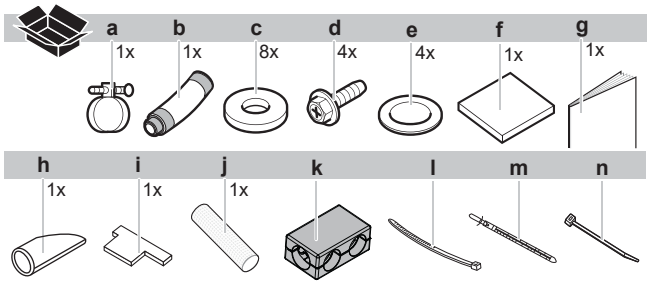


NOTICE

Do NOT lift the unit by the valve actuators (a).



3.2 To remove the accessories from the fan coil unit



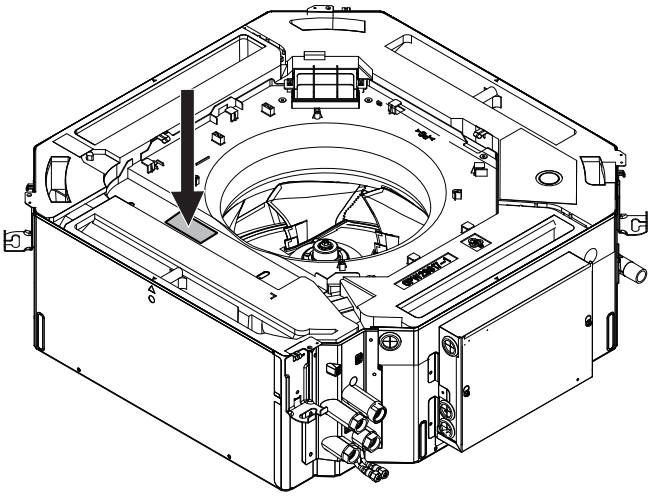
a	Metal clamp
b	Drain hose
c	Washer for hanger bracket
d	Screw
e	Gasket
f	Large sealing pad for drain hose
g	Installation and operation manual
h	Anti-sweat cover
i	Installation guide
j	Protective tube (Heat shrinkable tube)
k	Thermal insulation for valves (2 pipe: 1x and 4 pipe: 2x) (*)
l	Tie wrap for valve thermal insulation (2 pipe: 2x and 4 pipe: 4x) (*)
m	Tie wrap for fixing field cable as a spare part x2
n	Tie wrap (Heat resisting) x4
*	Only models with factory mounted valve

4 About the units and options

4.1 Identification

4.1.1 Identification label: Fan coil unit

Location



Model identification

Example: FW C 09 D A T N 5 V3 --

Code	Description
FW	Water fan coil unit
C	Cassette
D	Major model change (A to Z)
A	Minor change
T	2 pipe
F	4 pipe
N	Without valve
V	3 way valve
T	2 way valve
5	Hendek factory
V3	1 Ph / 50 Hz / 230 V
-	No option
-	Connection direction (no specific direction)

5 Unit installation

5.1 Preparing the installation site

NOTICE

The unit must be installed ≥2.5 m from the floor.

INFORMATION

The sound pressure level is less than 70 dBA.

CAUTION

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

This unit is suitable for installation in a commercial and light industrial environment.

NOTICE

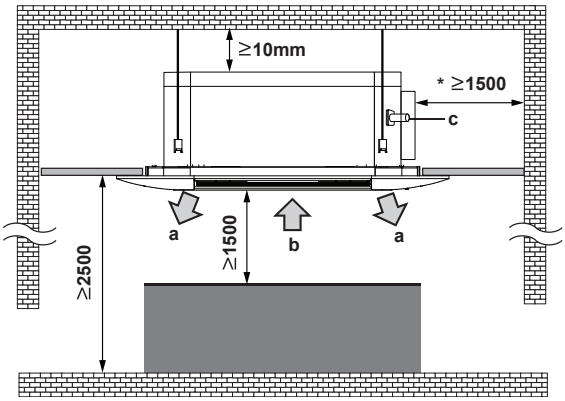
Where installation from below is NOT possible, such as very high ceilings, access to the unit for installation and service should be possible from the top of the ceiling.

Select an installation site that fulfills the following conditions and meets with your customer's approval.

- The space around the unit is adequate for maintenance and servicing. The space around the unit allows sufficient air circulation and air distribution. See space required for installation.

NOTICE

If the switch box (c) is facing the wall, leave a service distance of at least 1500 mm and provide at least 1500 mm space from air inlet (b) and air outlet (a) for air circulation.



- Make sure the area is well ventilated. Do NOT block any ventilation openings.
- Make sure the installation site withstands the weight and vibration of the unit.
- Ensure that in the event of a water leak, no damage occurs to the installation space or its 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.
- In places with weak reception, keep distances of 3 m or more to avoid electromagnetic disturbance of other equipment and use conduit tubes for power and transmission lines.
- **Fluorescent lights**. When installing a wireless remote control (user interface) in a room with fluorescent lights, mind the following to avoid interference:
  - Install the wireless remote control (user interface) as close as possible to the indoor unit.
  - Install the indoor unit as far as possible from the fluorescent lights.

Do NOT install the unit in places often used as work place. In case of construction works (e.g. grinding works) where a lot of dust is created, the unit MUST be covered.

Do not install or operate the unit in rooms mentioned below.

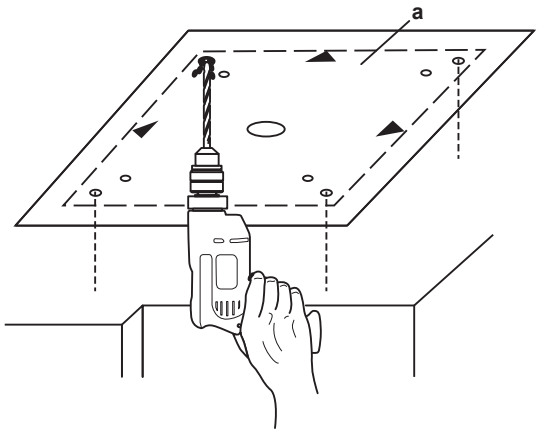
- Places with mineral oil, or filled with oil vapour or spray, like in kitchens (plastic parts may deteriorate).
- Where corrosive gas like sulphurous gas exists. Copper tubing and brazed spots may corrode.
- Where the air contains high levels of salt, such as that near the coast and where voltage fluctuates a lot (e.g. in factories). Also in vehicles or vessels.

- In places where there is machinery that emits electromagnetic waves. Electromagnetic waves may disturb the control system, and cause malfunction of the equipment.
- In places where there is a risk of fire due to the leakage of flammable gases (example: thinner or gasoline), carbon fibre, ignitable dust.
- The unit can NOT be installed in a bathroom.

5.2 Mounting the unit

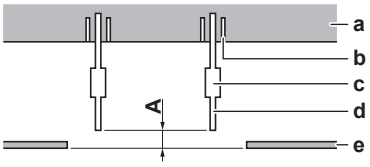
5.2.1 To install the suspension bolts

Use the pattern to determine the suspension bolt positions (upper part of the packing). Suspension bolt positions are indicated on the paper pattern. Holes can be drilled by putting the paper pattern on the ceiling.



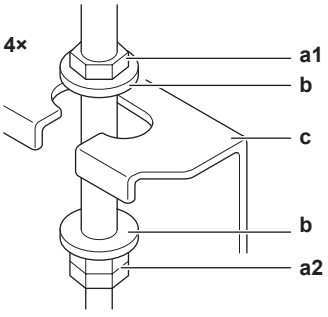
a Paper pattern for installation. (upper part of the packing)

- **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
a Ceiling slab
b Anchor
c Long nut or turnbuckle
d Suspension bolt
e Suspended ceiling

- **Suspension bolts.** Use M8~M10 suspension bolts for installation. Attach the hanger bracket to the suspension bolt. Fix it securely using a nut and washer from the upper and lower sides of the hanger bracket.

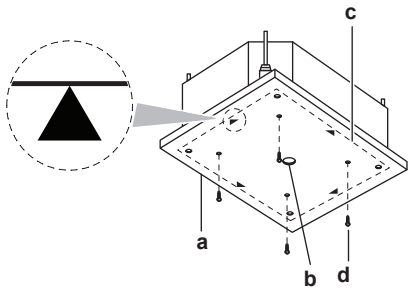


a1 Nut (field supply)
a2 Double nut (field supply)
b Washer (accessories)
c Hanger bracket (attached to the unit)

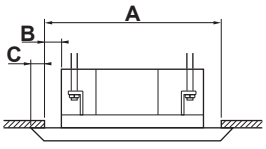
5.2.2 To create ceiling opening

Use the paper pattern (upper part of the packing) (a) to create ceiling opening according to the outlines specified on the paper pattern. Attach paper pattern to the unit using the four screws (d) from the accessory set and create the opening by referencing the ceiling opening line (c).

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

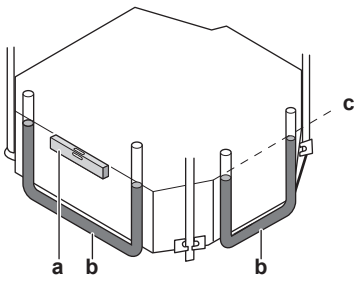


a Paper pattern for installation (upper part of the packing)
b Centre of the ceiling opening
c Ceiling opening line
d Screws (accessories)

	If A (mm) [(a)]	Then	
		B (mm)[(a)]	C (mm)[(a)]
	≥860	10	45
	≤910	35	20

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

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

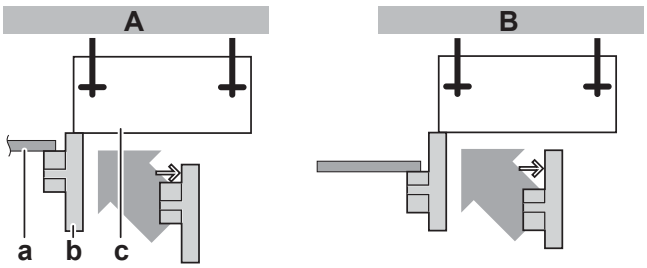


a Level
b Vinyl tube
c Water level

NOTICE

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

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



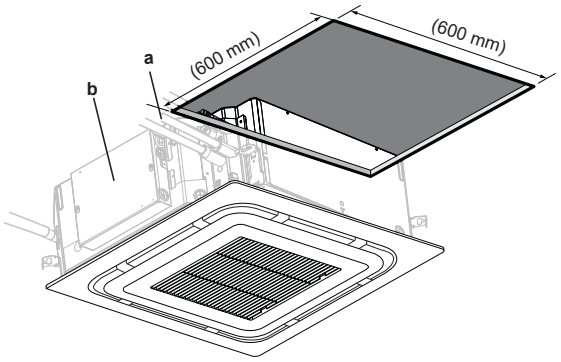
A In case of installation with standard decoration panel
B In case of installation with fresh air intake kit
a Suspended ceiling
b Installation guide (accessory)
c Unit

To create an opening in an existing monolithic ceiling board

NOTICE

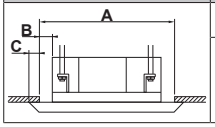
It is necessary to provide a service space in the ceiling where the switch box and water pipes can be reached.

Below dimensions can be used as a reference for the service space or it can be determined by considering the position of the switch box (b) and water pipes (a) connections at the installation site.



If the unit must be installed in an existing monolithic ceiling board, please follow the following dimensions:

According to the models & panels combination:

	If A (mm)	Then	
		B (mm)	C (mm)
	≥920	40	15
	≤930	45	10

5.3 Water piping installation

5.3.1 Preparing water piping

Before performing the water piping work, check the following points:

- The maximum water pressure is 1.6 MPa.

The unit is equipped with a water inlet and water outlet for connection to the water circuit. The water circuit must be provided by an installer and must comply with the applicable legislation.

- The minimum water temperature is 5°C.
- The maximum water temperature is 90°C.
- Be sure to install components in the field piping that can withstand the water pressure and temperature.
- Provide adequate safeguards in the water circuit to ensure that the water pressure will never exceed the maximum allowable working pressure.
- Provide a proper drain for the pressure relief valve (if installed) to avoid any water from coming into contact with electrical parts.
- Provide shut-off valves at the unit so that normal servicing can be accomplished without draining the system.
- Provide drain taps at all low points of the system to permit complete draining of the circuit during maintenance or service to the unit.
- Provide air purge valves at all high points of the system. The valves shall be located at points which are easily accessible for servicing.
- Pipework shall be protected from physical damage.

NOTICE

Make sure water quality complies with EU directive 2020/2184.

NOTICE

Use of glycol is allowed, but the amount shall NOT exceed 40% of the volume. A higher amount of glycol may cause damage to the hydraulic components.

NOTICE

The unit is ONLY to be used in a closed water system. Application in an open water circuit can lead to excessive corrosion of the water piping.

5.3.2 Connecting water piping

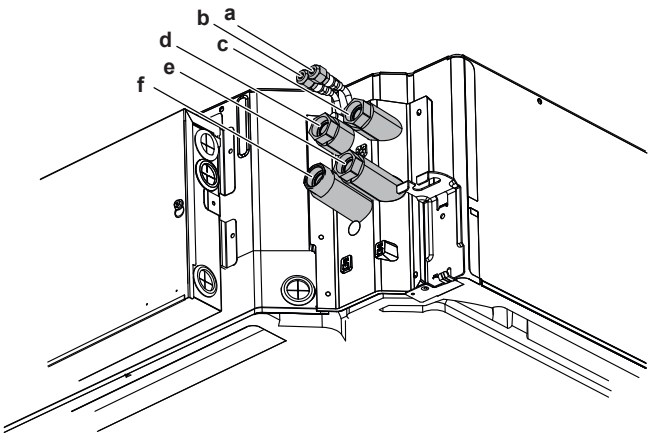
CAUTION

Always use valves to control water circulation in the unit. If the fan coil unit is off, but water keeps circulating in the unit, condensation will form on the unit and water may drip.

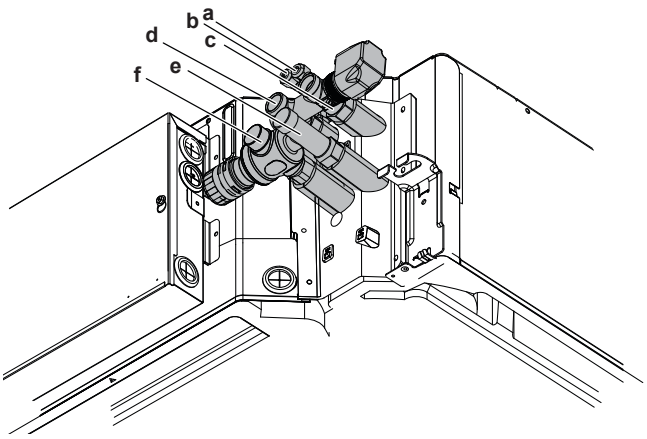
NOTICE

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

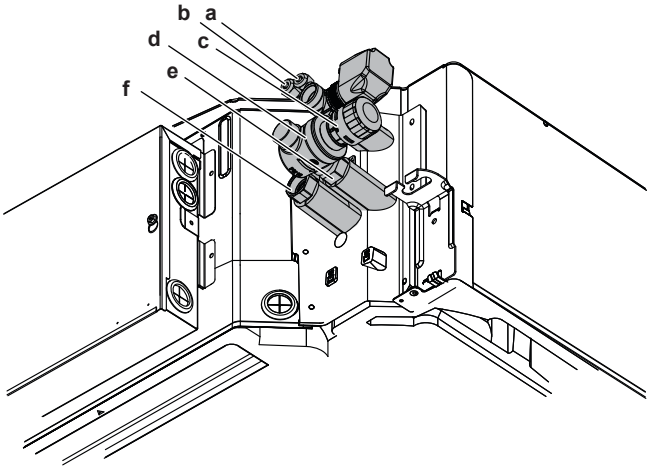
DANGER: RISK OF BURNING/SCALDING



a Cooling air purge
b Heating air purge
c Hot water inlet (3/4" female BSP)
d Hot water outlet (3/4" female BSP)
e Cold water inlet (3/4" female BSP)
f Cold water outlet (3/4" female BSP)

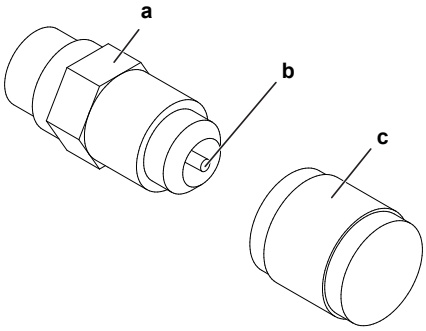


a Cooling air purge
b Heating air purge
c Hot water inlet (DN3/4")
d Hot water outlet (3/4" female BSP)
e Cold water inlet (DN3/4")
f Cold water outlet (3/4" female BSP)



a Cooling air purge
b Heating air purge
c Hot water inlet (DN3/4")
d Hot water outlet (DN3/4")
e Cold water inlet (DN3/4")
f Cold water outlet (DN3/4")

To fill the water circuit



a Air purge
b Pressure relief valve
c Cap

During filling, it might not be possible to remove all air in the system. Remaining air can be removed during the first operating hours of the unit. The air can be removed from the unit through the manual air purge valve.

1 Open the cap.
2 Push the pressure relief valve to purge air from the unit water circuit(s).
3 Close the cap.
4 Additional filling with water afterwards might be required (but never through the air purge valve).

NOTICE

Air in the water circuit can cause malfunctioning. During filling, it may not be possible to remove all the air from the circuit. Remaining air will be removed through the automatic air purge valves during the initial operating hours of the system. Additional filling with water afterwards may be required.

NOTICE

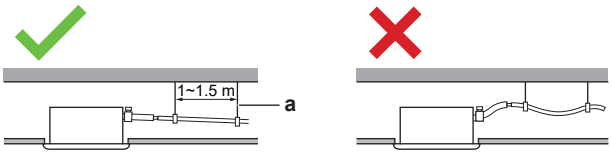
Make sure water quality complies with EU directive 2020/2184.

5.4 Drain piping installation

5.4.1 Guidelines when installing the drain piping

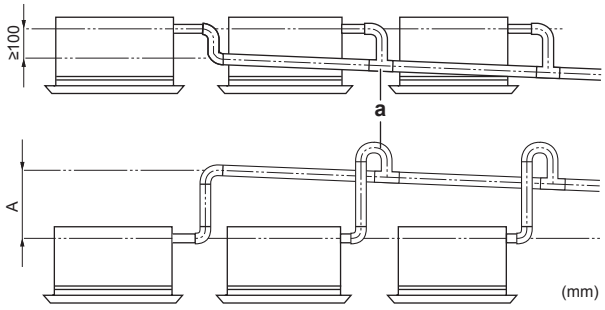
General guidelines

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



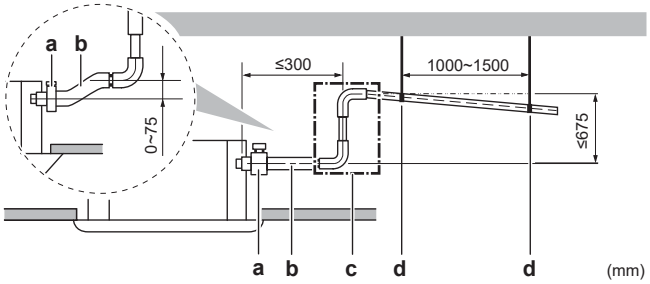
a Hanging bar
✓ Allowed
✗ Not allowed

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



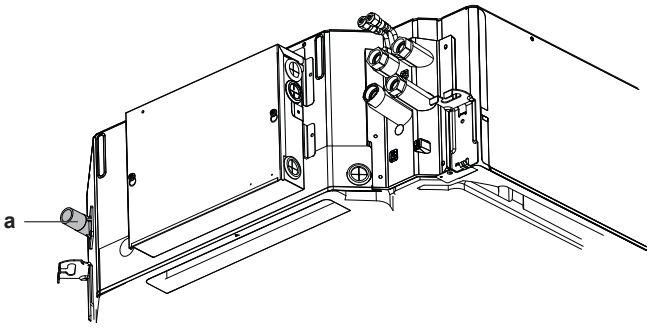
a T-joint

- **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)

Drain socket position



a Drain socket

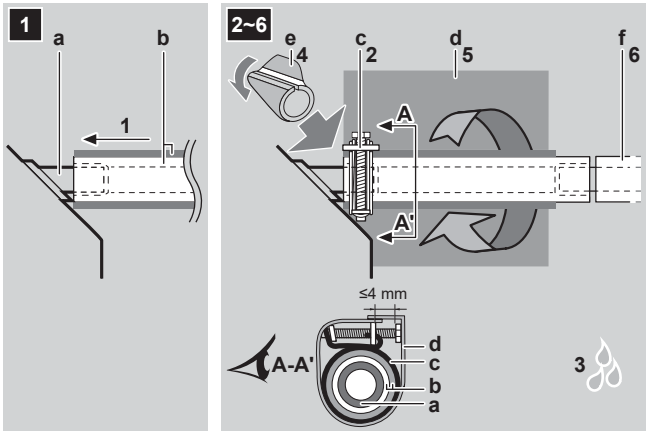
5.4.2 Connecting the drain piping

To connect the drain piping

NOTICE

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

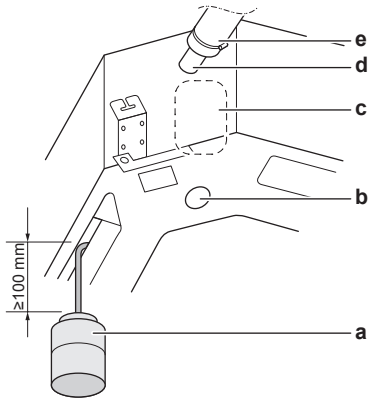
1. Push the drain hose as far as possible over the drain socket.
2. Tighten the metal clamp until the screw head is less than 4 mm from the metal clamp part.
3. Check for water leaks.
4. Wind the large sealing pad (= insulation) around the metal clamp and the drain hose.
5. Connect the drain piping to the drain hose.



a Drain socket (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)

When electrical wiring is already finished

1. Start cooling operation.
2. Gradually pour approximately 1 l of water through the air discharge outlet, and check for leaks.



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

5.5 Optional equipment installation

5.5.1 Preparing of optional equipment

- **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.

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.

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.

NOTICE

In the case of using remote controller other than Daikin remote controllers, it should have the following features:

- Power supply 1 Ph, 230 V, 50 Hz. If a controller with a different power supply rating is used, the power supply can NOT be common with the unit. It must be powered separately.
- Valve control: 230 V, 50 Hz ON/OFF
- Fan control: 0-10 V DC output for fan.
- Fan speeds should be controllable in ≤0.5 V DC steps.

Item		Option name
Standard panel	Decoration panel - standard	BYCQ140CW1
Design panel (*) [a]	Decoration panel - standard	BYCQ140E2W1
	Decoration panel - white	BYCQ140E2W1W
	Decoration panel - black	BYCQ140E2W1B
Adaptor (design panel)(*) [a]		EKRP1CAS5A
High Efficiency Filter		BAF552AA160
Air discharge outlet sealing number		KDBHQ55C140
Long-life replacement filter		KAF5511D160
Fresh air intake kit (20% fresh air)	Direct installation type	KDDP55C160-1 (**) [a]& KDDP55D160-2 (**)[a]
Sub drain pan		EDT03D5A
Valve cable kit [b]		EKER030A

[a] (*) In case of Design panel, Adaptor (design panel) (EKRP1CAS5A) is needed for connection to the unit, otherwise flaps must be manually adjusted.
(**) Both parts of the fresh air intake kit are required for each unit.
[b] This kit should be used when another valve outside the option list is used.

Item	Option name
Advanced plus remote controller	FWEC3A
Electronic control for hydronic units	FWECSAC
Touch screen display interface (black)	FWTOUCHB
Touch screen display interface (white)	FWTOUCHW
Electronic controller	FWEC10
Electronic board	FWECSAP
ON/OFF valve (2-way)	EK10WV2V3C5A
ON/OFF valve (3-way)	EK10WV3V3C5A
ON/OFF valve (2-way) (4 pipe)[a]	EK08WV2V3W5A
ON/OFF valve (3-way) (4 pipe)[a]	EK08WV3V3W5A

[a] (*) These kits are only needed for 4-pipe models. Use them for heating circuit.
(*) 1 indicates the number of units required per unit.

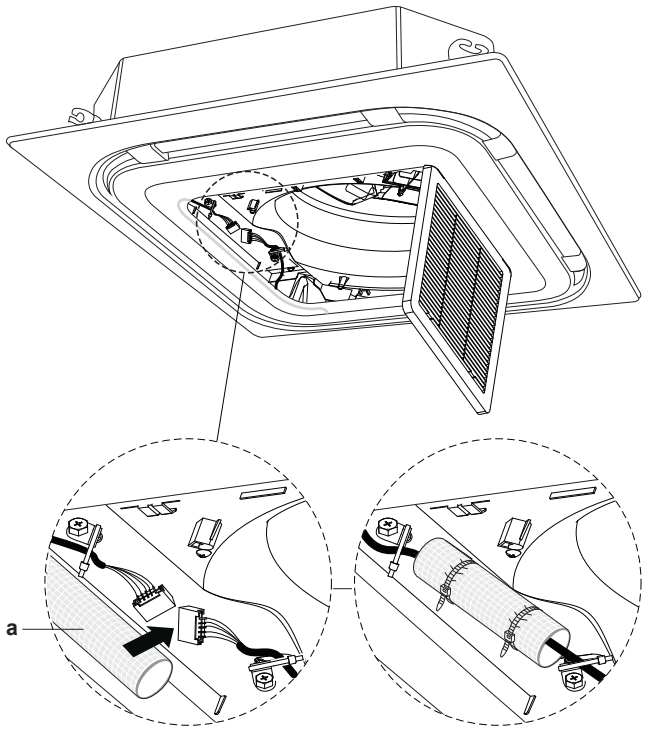
See also

Preparing of optional equipment [▶ 11]

5.5.2 Connecting the optional equipment

Connecting the decorative panel cable

In case of a standard decorative panel (BYCQ140C), the panel cable is fixed to the inlet on the unit as shown in the figure. When connecting the panel, do not forget to attach the protective tube (a) and tie wraps from accessory set on the connection as shown in the figure.



To install the on-off valve kits

NOTICE

The PCB connection of the valves is only required when the Daikin ON/OFF valve kit (EK10WV2V3C5A / EK10WV3V3C5A / EK08WV2V3W5A / EK08WV3V3W5A)is used.

Technical specifications of the valves

Kvs value	Max. operation pressure PN (bar)	Actuator power supply
2.8[a]	16	1 Ph, 230 V, 50-60 Hz, NC (Normally closed)
4.0	16	1 Ph, 230 V, 50-60 Hz, NO (Normally open)

[a] For 4 pipe heating circuit.

6 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.

6.1 Preparing electrical wiring

WARNING

All field wiring and components MUST be installed by a licensed electrician and MUST comply with the applicable legislation.

DANGER: RISK OF ELECTROCUTION

WARNING

A main switch or other means for disconnection, having a contact separation in all poles, MUST be incorporated in the fixed wiring in accordance with the applicable legislation.

CAUTION

- When connecting the power supply: connect the earth cable first, before making the current-carrying connections.
- When disconnecting the power supply: disconnect the current-carrying cables first, before separating the earth connection.
- The length of the conductors between the power supply stress relief and the terminal block itself MUST be as such that the current-carrying wires are tautened before the earth wire is in case the power supply is pulled loose from the stress relief.

WARNING

- After finishing the electrical work, confirm that each electrical component and terminal inside the switch box is connected securely.
- Make sure all covers are closed before starting up the unit.

WARNING

Do NOT apply any permanent inductive or capacitance loads to the circuit without ensuring that this will NOT exceed the permissible voltage and current permitted for the equipment in use.

NOTICE

The equipment described in this manual may cause electronic noise generated from radio-frequency energy. The equipment complies with specifications that are designed to provide reasonable protection against such interference. However, there is no guarantee that interference will not occur in a particular installation.

It is therefore recommended to install the equipment and electric wires in such a way that they keep a proper distance from stereo equipment, personal computers, etc.

DANGER: RISK OF ELECTROCUTION

- Turn OFF all power supply before removing the fan coil unit terminal cover when connecting electrical wiring or touching electrical parts.
- Disconnect the power supply for more than 10 minutes, and measure the voltage at the terminals of main circuit capacitors or electrical components before servicing. The voltage MUST be less than 50 V DC before you can touch electrical components. For the location of the terminals, see the wiring diagram.
- Do NOT touch electrical components with wet hands.
- Do NOT leave the unit unattended when the terminal cover is removed.

WARNING

- ONLY use copper wires.
- Make sure the field wiring complies with the applicable legislation.
- All field wiring MUST be performed in accordance with the wiring diagram supplied with the product.
- NEVER squeeze bundled cables and make sure they do NOT come into contact with the piping and sharp edges. Make sure no external pressure is applied to the terminal connections.
- Make sure to install earth wiring. Do NOT earth the unit to a utility pipe, surge absorber, or telephone earth. Incomplete earthing may cause electrical shock.
- Make sure to install the required fuses or circuit breakers.
- Make sure to install an earth leakage protector. Failure to do so may cause electrical shock or fire.

6–1 Field wiring specifications

	2 Pipe				4 Pipe			
Capacity	**06**	**07**	**08**	**09**	**06**	**07**	**08**	**09**
Maximum operating current (A)	0,44	0,70	1,03	1,45	0,42	0,68	1,01	1,43
Maximum operating current (A) with valves[(a)]	0,46	0,72	1,05	1,47	0,44	0,70	1,03	1,45
Recommended overcurrent fuse (A)	5							
Phase	1							
Frequency (Hz)	50							
Voltage (V)	230							
Voltage tolerance (%)	±10							
Wire size (cross section mm²)	≥1.5							
Earth leakage circuit breaker	Must comply with applicable legislation							

[(a)] If Daikin brand valves are used

6.2 Connecting the electrical wiring

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.

NOTICE

Precautions when laying power wiring:

- Do NOT connect wiring of different thicknesses to the power terminal block (slack in the power wiring may cause abnormal heat).
- When connecting wiring which is the same thickness, do as shown in the figure above.
- For wiring, use the designated power wire and connect firmly, then secure to prevent outside pressure being exerted on the terminal board.
- Use an appropriate screwdriver for tightening the terminal screws. A screwdriver with a small head will damage the head and make proper tightening impossible.
- Over-tightening the terminal screws may break them.

NOTICE

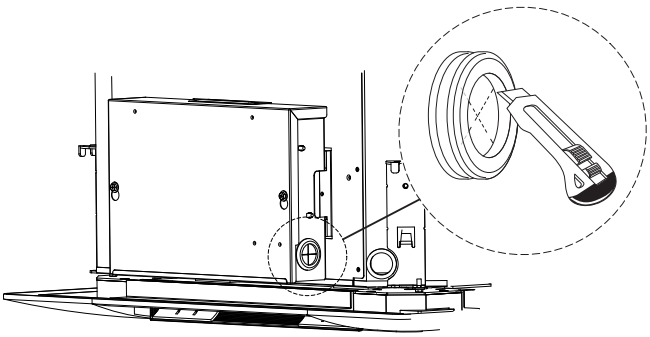
- Follow the wiring diagram (delivered with the unit, located at the inside of the service cover).
- For instructions on how to connect the optional equipment, see the installation manual delivered with the optional equipment.
- Make sure the electrical wiring does NOT obstruct proper reattachment of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

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

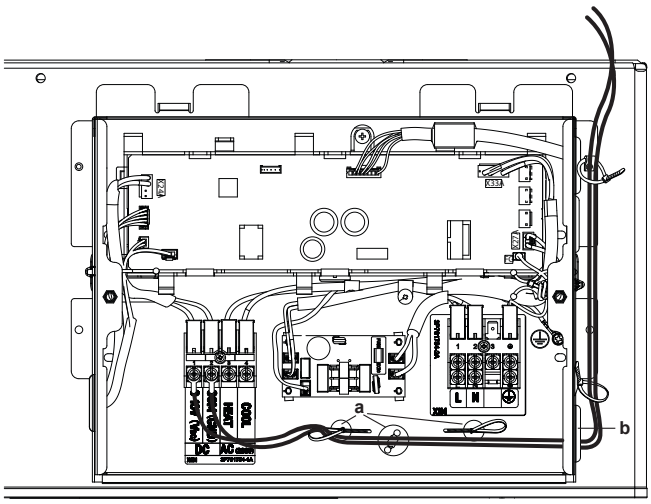
NOTICE

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

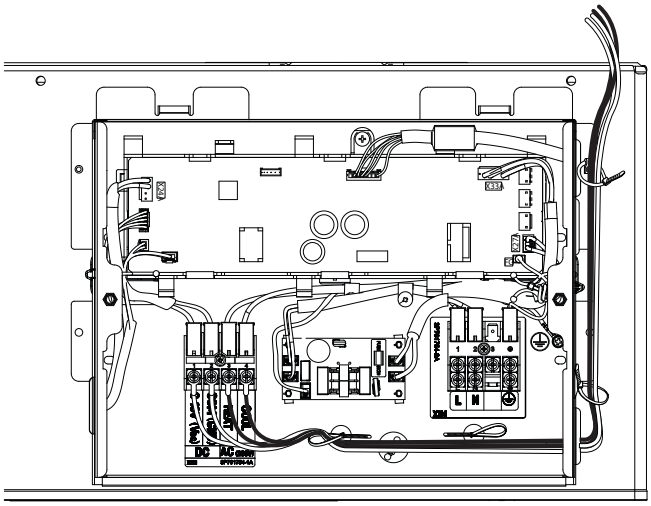
1



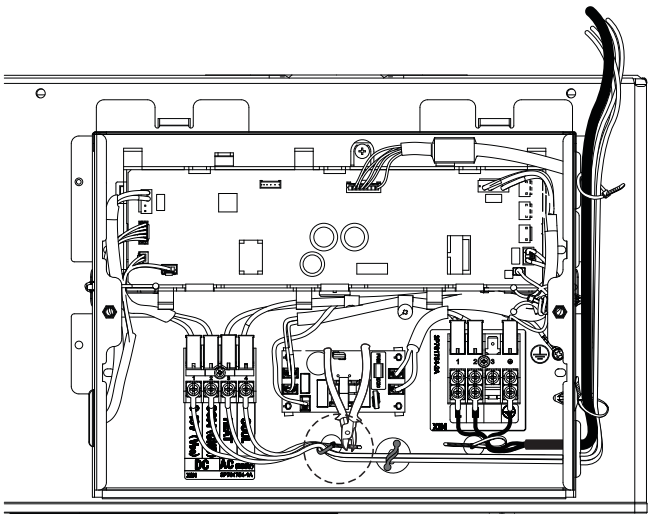
2 Cable clamps (a) and protection rubber (b). First connect the 0-10 V DC fan modulation cable to the X2M terminal.



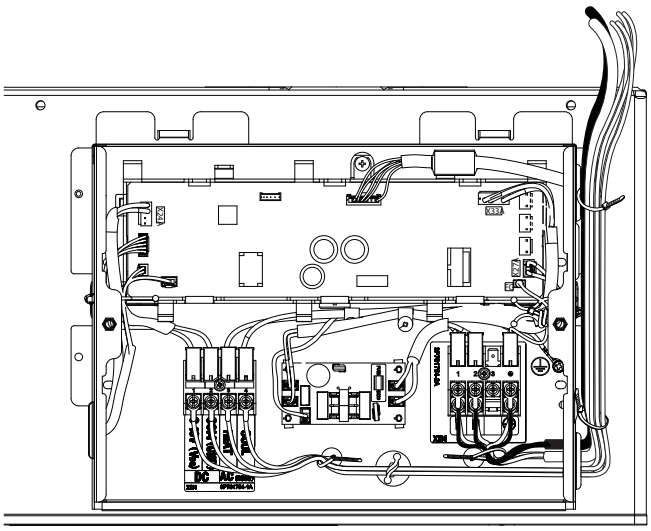
3 Connect the AC heating and cooling signal cables from the remote controller to the X2M terminal.



4 Connect the L, N, and Earth wires for the power supply of the remote controller to the lower part of the X1M terminal.



5 Connect the power supply cables (L, N, Earth) to the upper part of the X1M terminal.



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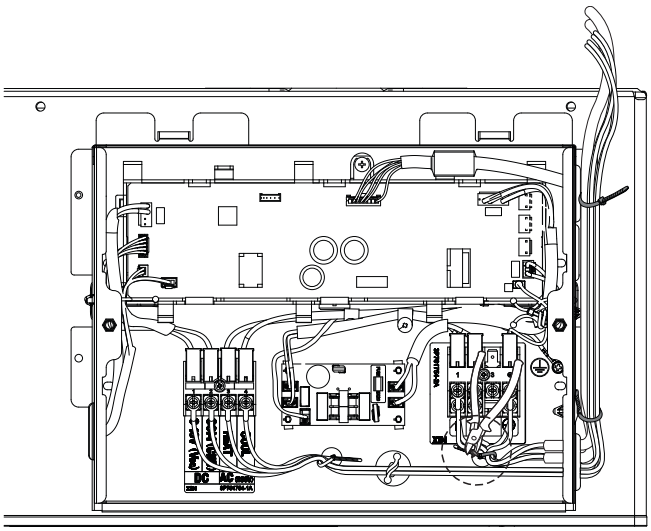
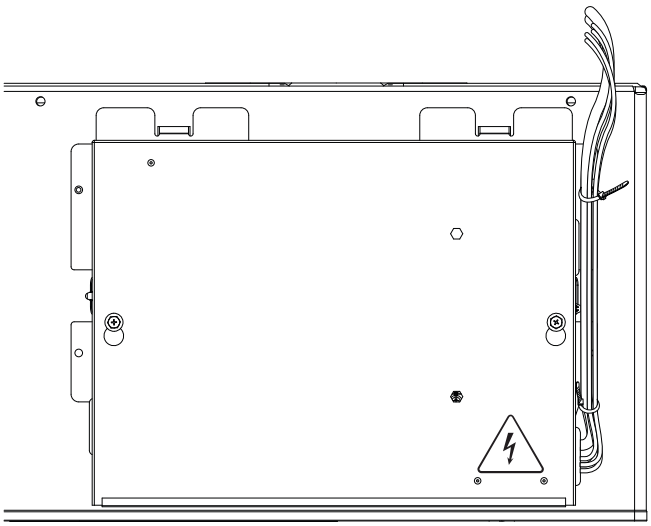


7



- Design decoration panel (if applicable)
- Air flow direction

INFORMATION

In case the flaps operate automatically:

When the fan starts to operate, the flaps open completely and then remain in the set position. Check the below table for appropriate angle settings.

When the fan stops to operate including thermo off, the flaps open completely and then close completely.

NOTICE

Make sure that the dip switch setting is correct according to panel type, otherwise panel will not work properly.

Setting: Air flow direction and design panel

NOTICE

If the flaps are required to open and close automatically, the decorative panel cable must be connected to the PCB. Otherwise, the flaps must be adjusted manually. (Refer to "5.5.2 Connecting the optional equipment" [▶ 11])

NOTICE

Flap angle can only be adjusted by the dip switch on the PCB.

NOTICE

The “Adaptor (EKRP1CAS5A)” is mandatory option for PCB connection of the “Design Panel’’

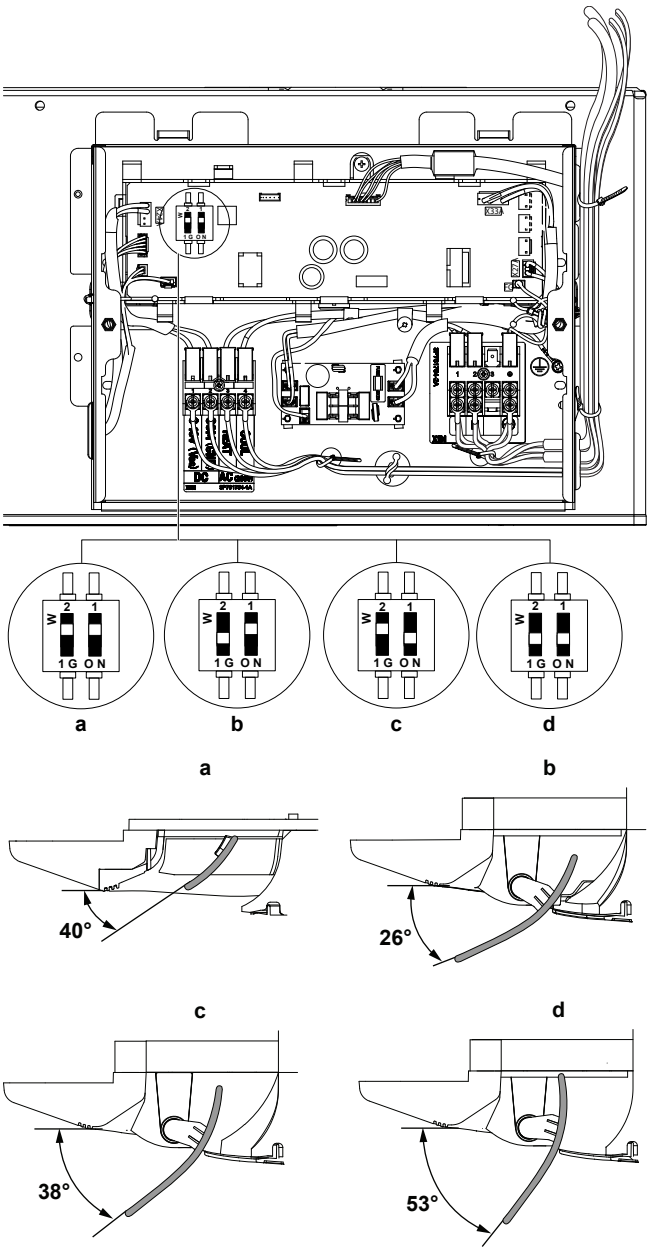
The flap positions of the decorative panels can be adjusted using the dip switch on the PCB. Please see the 4 different flap position options in the table.

Panel type	Option			
	a	b	c	d
Standard (BYCQ140C)	Fully open 40˚	-	-	-
Design (BYCQ140E)	-	26˚	38˚	Fully open 53˚

7 Configuration

7.1 Decorative panel setting

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



8 Commissioning

NOTICE

Do NOT interrupt the test run.

8.1 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 read the complete installation instructions, as described in the **installer reference guide**.
☐	The **indoor units** are properly mounted.
☐	There are NO **missing phases** or **reversed phases**.
☐	The system is properly **earthed** and the earth terminals are tightened.
☐	The **fuses** 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 identification label of the unit.
☐	There are NO **loose connections** or damaged electrical components in the switch box.
☐	There are NO **damaged components** or **squeezed pipes** on the inside of the indoor and outdoor units.
☐	The correct pipe size is installed and the **pipes** are properly insulated.

For the user

9 User safety instructions

Always observe the following safety instructions and regulations.

9.1 Instructions for safe operation

CAUTION

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

CAUTION: 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

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

CAUTION

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

CAUTION

NEVER touch the internal parts of the controller.

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

Keep any required ventilation openings clear of obstructions.

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.

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.

WARNING

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

WARNING

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

WARNING

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

10 About the system

WARNING

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

NOTICE

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.

11 Before operation

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

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

This operation manual is for the following systems with standard control. Before initiating operation, contact your dealer for the operation that corresponds to your system type and mark. If your installation has a customised control system, ask your dealer for the operation that corresponds to your system.

Operation modes:

- Heating and cooling (air to air).
- Fan only operation (air to air).

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.

12 Operation

12.1 Operation range

When unit starts to operate, it runs at a low speed for a certain period before it reaches set point. This is not a malfunction.

NOTICE

When unit starts to operate, it runs at a low speed for a certain period before it reaches set point. This is not a malfunction.

The following conditions are standard operating limits. For different conditions, please consult the dealer.

Operation mode	Operation range
Cooling[a][b]	▪ Air temperature limit: 15~33°C DB - 12.5~26°C WB ▪ Water temperature limit (in/out): 5~28°C ▪ Water delta T, ΔT: 3~10
Heating	▪ Air temperature limit: 15~27°C DB ▪ Water temperature limit: 35~90°C ▪ Water delta T, ΔT: 5~20

[a] The limit of room air relative humidity is RH≤80%.
[b] Condensation and water dripping might occur if the unit runs outside its operation range.

13 Energy saving and optimum operation

Observe the following precautions to ensure the system operates properly.

- Adjust the air outlet properly and avoid direct air flow to room inhabitants.
- Adjust the room temperature properly for a comfortable environment. Avoid excessive heating or cooling.
- Prevent direct sunlight from entering a room during cooling operation by using curtains or blinds.
- Ventilate often. Extended use requires special attention to ventilation.
- Keep doors and windows closed. If the doors and windows remain open, air will flow out of your room causing a decrease in the cooling or heating effect.
- Be careful NOT to cool or heat too much. To save energy, keep the temperature setting at a moderate level.
- NEVER place objects near the air inlet or the air outlet of the unit. Doing so may cause a reduced heating/cooling effect or stop 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.

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.

14 Maintenance and service

14.1 Maintenance safety precautions

DANGER: RISK OF BURNING/SCALDING

DANGER: RISK OF ELECTROCUTION

NOTICE

Keep the air filter clean and check the airflow rate periodically.

WARNING

- Before carrying out any maintenance or repair activity, ALWAYS switch off the circuit breaker on the supply panel.
- Make sure you do NOT touch a conductive section.
- Do NOT rinse the outside of the unit. This may cause electric shocks or fire.

To clean the outside of your fan coil unit:

1 Switch off the fan coil unit.
2 Clean the outside of the fan coil unit with a soft cloth.

CAUTION

- Do NOT obstruct the air outlet or inlet of the unit in any way.
- Do NOT place damp or wet clothing on the air outlet grille of the unit.
- Do NOT pour liquids inside the equipment.

Never clean your fan coil unit with:

- any aggressive chemical solvent,
- water hotter than 50°C.

For maintenance of your fan coil unit, contact your installer or service company.

14.2 Precautions for maintenance and service

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.

WARNING

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

CAUTION

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

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.

CAUTION

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

NOTICE

When cleaning the heat exchanger, make sure to remove the switch box, fan motor, drain pump and float switch. Water or detergent might deteriorate the insulation of electronic components and result in burnout of these components.

WARNING

Be careful with ladders when working in high places.

14.3 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 scrub firmly when washing the blade with water. **Possible consequence:** The surface sealing peels off.

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

14.3.1 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.
- If the dirt becomes impossible to clean, change the air filter (= optional equipment).

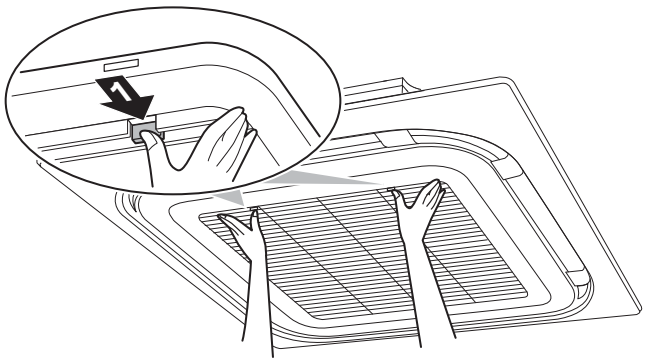
How to clean the air filter:

NOTICE

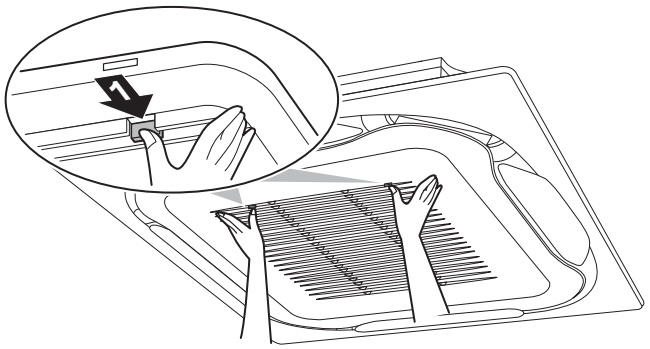
Do NOT use water of 50°C or higher. **Possible consequence:** Discoloration and deformation.

1 Open the suction grille.

Standard panel:

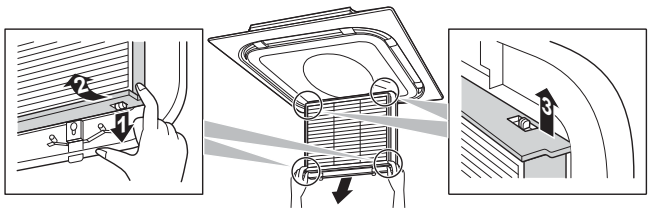


Design panel:

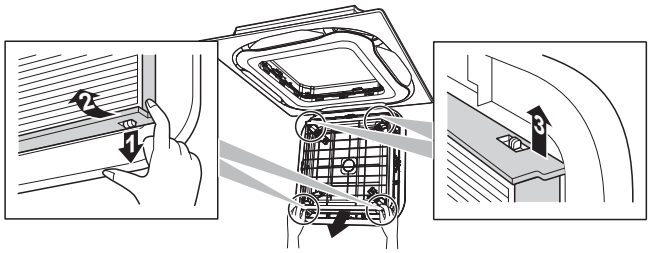


2 Remove the air filter.

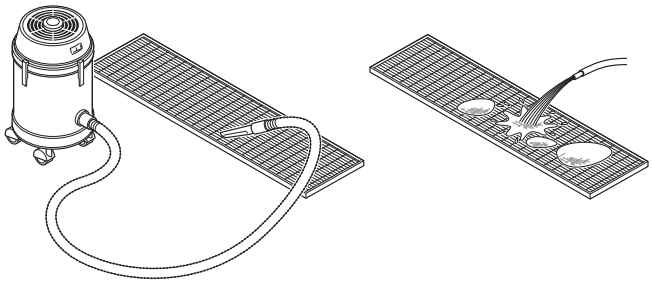
Standard panel:



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.

14.3.2 To clean the suction grille

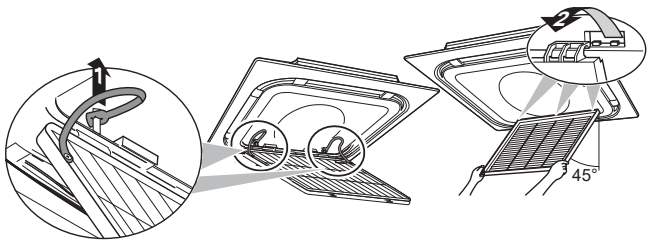
NOTICE

Do NOT use water of 50°C or higher. **Possible consequence:** Discoloration and deformation.

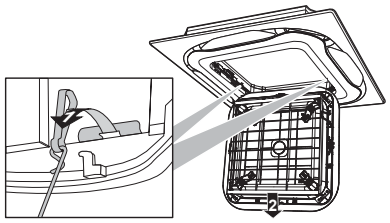
1 Open the suction grille.

2 Remove the suction grille.

Standard panel:



Design panel:



3 Remove the air filter.

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

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

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

14.4 Maintenance after a long stop period

E.g., at the beginning of the season.

- Check and remove everything that might be blocking inlet and outlet vents of indoor units and outdoor units.
- Clean air filters and casings of indoor units (see "14.3.1 To clean the air filter" [▶ 18] and To clean the air outlet and outside panels).

14.5 Maintenance before a long stop period

E.g., at the end of the season.

- Let the indoor units run in fan-only operation for about half a day in order to dry the interior of the units. Refer to About cooling, heating, fan only, and automatic operation for details on fan-only operation.
- Turn off the power. The user interface display disappears.
- Clean air filters and casings of indoor units (see "14.3.1 To clean the air filter" [▶ 18] and To clean the air outlet and outside panels).

14.6 After-sales service and warranty

14.6.1 Recommended maintenance and inspection

Since dust collects when using the unit for several years, performance of the unit will deteriorate to some extent. As taking apart and cleaning interiors of units requires technical expertise and in order to ensure the best possible maintenance of your units, we recommend to enter into a maintenance and inspection contract on top of normal maintenance activities. Our network of dealers has access to a permanent stock of essential components in order to keep your unit in operation as long as possible. Contact your dealer for more information.

When asking your dealer for an intervention, always state:

- The complete model name of the unit.
- The manufacturing number (stated on the nameplate of the unit).
- The installation date.
- The symptoms or malfunction, and details of the defect.

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.

14.6.2 Shortened maintenance and replacement cycles

Shortening of "maintenance cycle" and "replacement cycle" needs to be considered in following situations:

The unit is used in locations where:

- Heat and humidity fluctuate out of the ordinary.
- Power fluctuation is high (voltage, frequency, wave distortion, etc.) (the unit cannot be used if power fluctuation is outside the allowable range).
- Bumps and vibrations are frequent.
- Dust, salt, harmful gas or oil mist such as sulphurous acid and hydrogen sulfide may be present in the air.
- The machine is started and stopped frequently or operation time is long (sites with 24 hour air-conditioning).

Recommended replacement cycle of wear parts

Component	Inspection cycle	Maintenance cycle (replacements and/or repairs)
Air filter	1 year	5 years
High efficiency filter		1 year
Fuse		10 years
Pressure containing parts		In case of corrosion, contact your local dealer.

INFORMATION

Damage due to taking apart or cleaning interiors of units by anyone other than our authorised dealers may not be included in the warranty.

15 Troubleshooting

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

The system MUST be repaired by a qualified service person.

Malfunction	Measure
If a safety device such as a fuse, a breaker or an earth leakage breaker frequently actuates or the ON/OFF switch does not properly work.	Turn off the main power switch.
If water leaks from the unit.	Stop the operation.
The operation switch does not work well.	Turn off the power.

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.

Malfunction	Measure
If the system does not operate at all.	▪ Check if there is no power failure. Wait until power is restored. ▪ Check if no fuse has blown or breaker is activated. Change the fuse or reset the breaker if necessary.

Malfunction	Measure
The system operates but cooling or heating is insufficient.	▪ Check if air inlet or outlet of outdoor or indoor unit is not blocked by obstacles. Remove any obstacles and make sure the air can flow freely. ▪ Check if the air filter is not clogged (see "14.3.1 To clean the air filter" [▶ 18]). ▪ Check the temperature setting. ▪ Check the fan speed setting on your user interface. ▪ Check for open doors or windows. Close doors and windows to prevent wind from coming in. ▪ Check if there are too many occupants in the room during cooling operation. Check if the heat source of the room is excessive. ▪ Check if direct sunlight enters the room. Use curtains or blinds. ▪ Check if the air flow angle is proper.

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

16 Disposal

- 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.

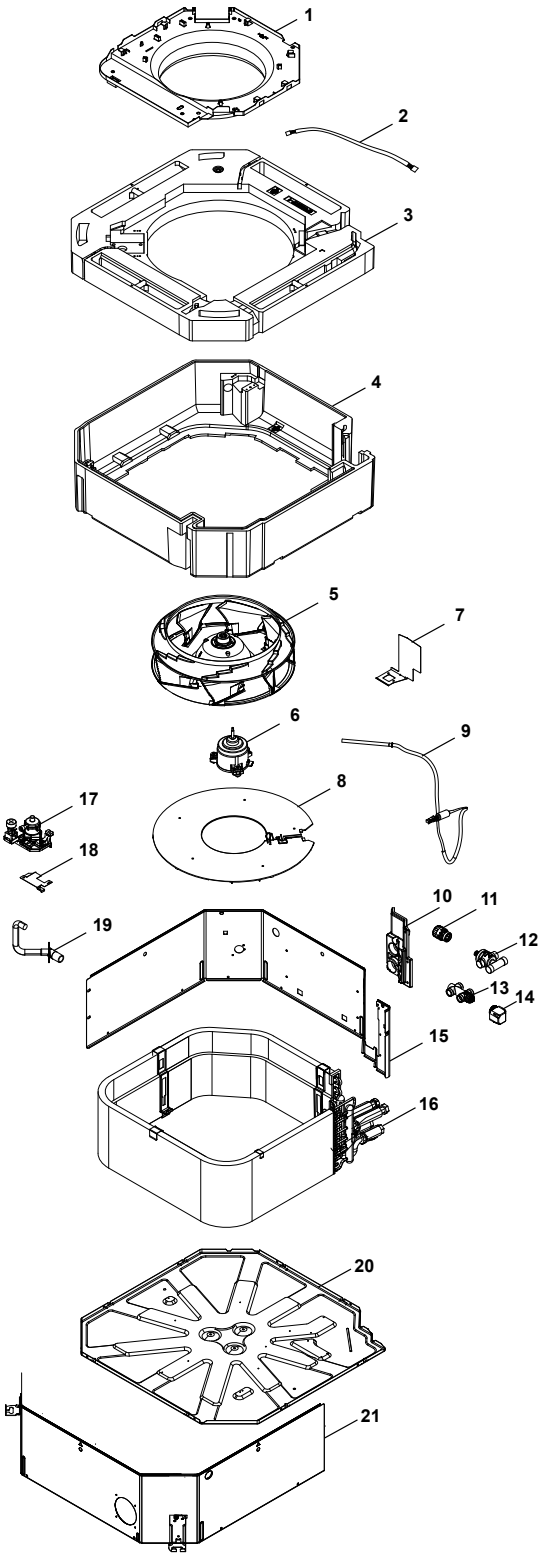
Units MUST be treated at a specialised treatment facility for reuse, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. For more information, contact your installer or local authority.

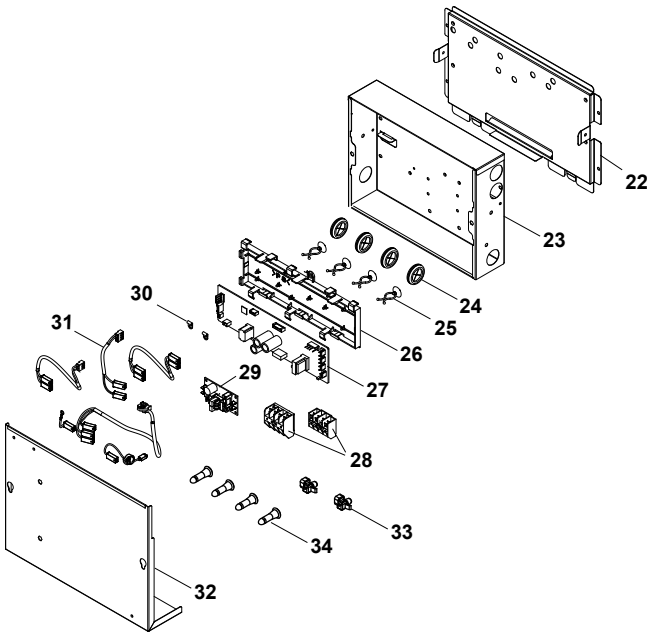
NOTICE

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.

After installation, the installer is obliged to verify correct operation. In case something is wrong with the unit and it does not operate, contact your local dealer.

Use the proper tool to remove the screws. The product can be disassembled as shown below.



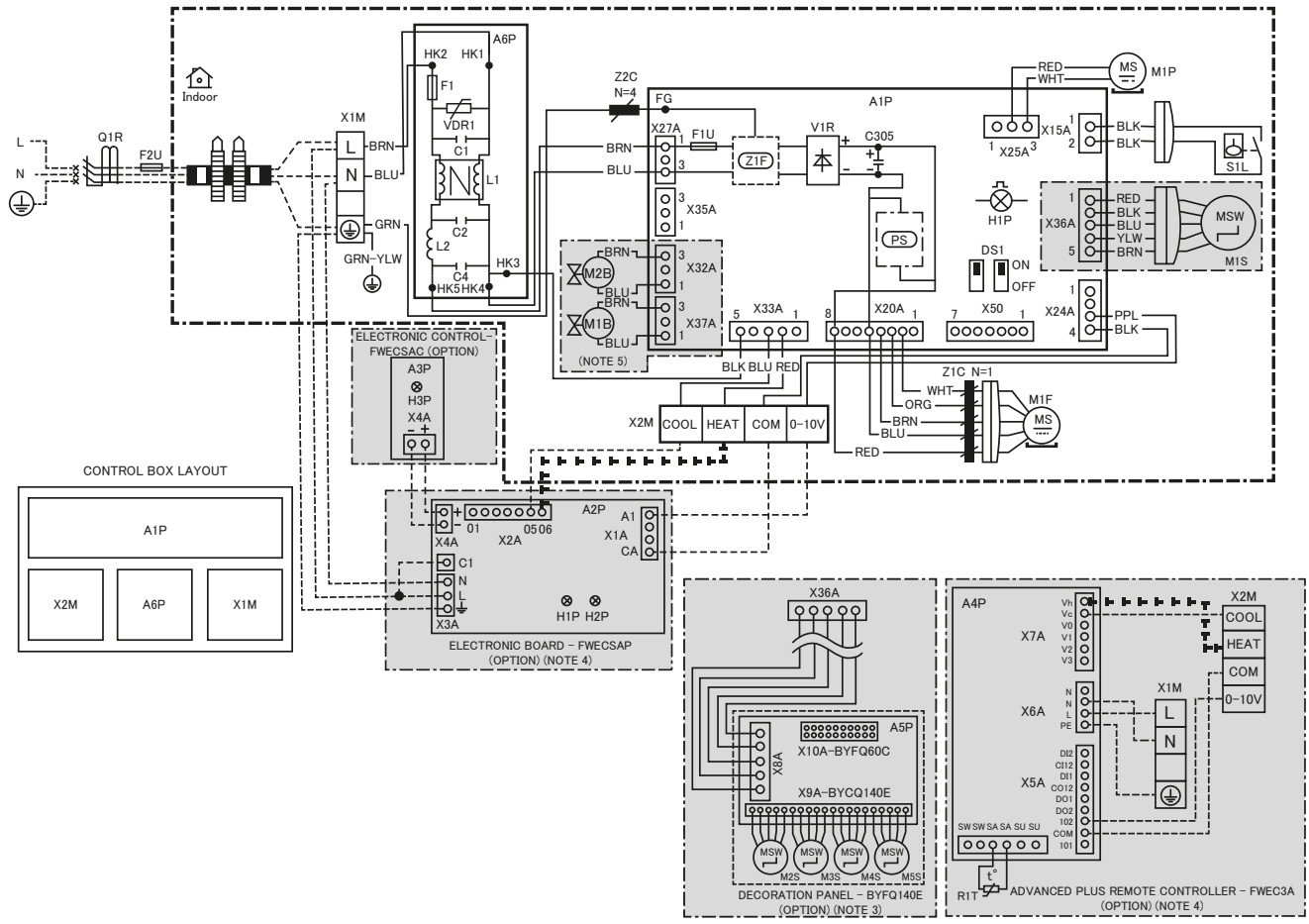


Materials	Item
Electrical part	2, 6, 9, 11, 14, 17, 27, 29, 31
Aluminium (fin) + copper (tube) + galvanised steel (plate) + brass + plastic foam	16
Plastic	1, 5, 8, 10, 19, 24, 25, 26, 30, 33, 34
Plastic + metal	28
Galvanised steel	7, 15,18, 20, 21, 22, 32
Galvanised steel + plastic	23
Brass	12, 13
EPS (expanded polystyren foam) + metal + plastic foam	3,4

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



Colours:

BLK	Black
BLU	Blue
BRN	Brown

GRN	Green
PPL	Purple
ORG	Orange
RED	Red
WHT	White
YLW	Yellow

Notes:

1 −·——: 2 PIPE, 4 PIPE ▸▸▸: 4 PIPE ONLY

2 □□□: TERMINAL BLOCK ⊙⊙: CONNECTOR ▮▮: POWER SUPPLY

3 REFER TO INSTALLATION MANUAL FOR POWER REQUIREMENT.

4 X36A IS CONNECTED WHEN THE DECORATIVE PANEL KIT IS BEING USED.

5 PLEASE FOLLOW THE MANUAL OF THE EXTERNAL REMOTE CONTROLLER FOR THE WIRING DIAGRAM OF THE REMOTE CONTROLLER.

6 X32A AND X37A CAN ONLY BE CONNECTED TO THE SPECIFIED DAIKIN VALVE OPTIONS.

Legend for wiring diagrams:

Indoor unit:

A1P	MAIN PCB
A2P	ELECTRONIC BOARD (FWECSAP)
A3P	ELECTRONIC CONTROL (FWECSAC)
A4P	ADVANCED PLUS REMOTE CONTROLLER (FWEC3A)
A5P	ADAPTOR PCB (PANEL CONNECTION)
A6P	FILTER PCB (INSIDE OF EL. COMPO. ASSY)
C1	FILM CAPACITOR
C2	FILM CAPACITOR
C4	FILM CAPACITOR
C305	CAPACITOR
FG	FRAME GROUND
F1	FUSE (6.3A, 250V)
F1U	FUSE (6.3A, 250V)
F2U	FIELD FUSE
DS1	DIP SWITCH ON PCB
H1P	FLASHING LAMP
L1	CM CHOKE (COOL)
L2	INDUCTOR
M1P	MOTOR (DRAIN PUMP)
M1S	SWING MOTOR
M2S	
M3S	
M4S	
M5S	
M1F	MOTOR (DC FAN)
S1L	FLOAT SWITCH
VDR1	VARISTOR
V1R	DIODE BRIDGE
Q1R	EARTH LEAKAGE BREAKER
X1M	TERMINAL STRIP (POWER SUPPLY)
X2M	TERMINAL STRIP (R/C SIGNAL AND VALVE TERMINAL & FAN MODULATING)
Z1F	NOISE FILTER
Z1C	FERRITE CORE
Z2C	FERRITE CORE
PS	SWITCHING POWER SUPPLY
M1B	HEATING ACTUATOR (4 PIPE ONLY)
M2B	COOLING ACTUATOR

PCB connections:

X15A	FLOAT SWITCH
X20A	BLDC MOTOR
X24A	FAN MODULATING
X25A	DRAIN PUMP
X27A	POWER SUPPLY
X32A	COOLING VALVE
X33A	R/C SIGNAL AND VALVE
X35A	ELECTRICAL HEATER
X36A	STEPPING MOTOR (DEC.PANEL)
X37A	HEATING VALVE
X50A	SERIAL COMMUNICATION

Filter PCB connections:

HK1	HARNESS – NEUTRAL X1M (BLU)
HK2	HARNESS – LINE X1M (BRN)
HK3	HARNESS – NEUTRAL X33A (BLK)
HK4	HARNESS – NEUTRAL X27A (BLU)
HK5	HARNESS – LINE X27A (BRN)

Terminal connections:

0-10 V	0-10 V DC FAN MODULATING
COM	COMMON
HEAT	HEATING SIGNAL
COOL	COOLING SIGNAL

Connector for optional parts:

H1P	STATUS LAMP
H2P	NETWORK LAMP
A1/102	0-10V DC FAN MODULATING
CA/COM	COMMON
O6/VH	HEATING SIGNAL
05/VC	COOLING SIGNAL
L	PHASE
N	NEUTRAL
PE / ⏚	PROTECTIVE EARTH
R1T	THERMISTOR (AIR)

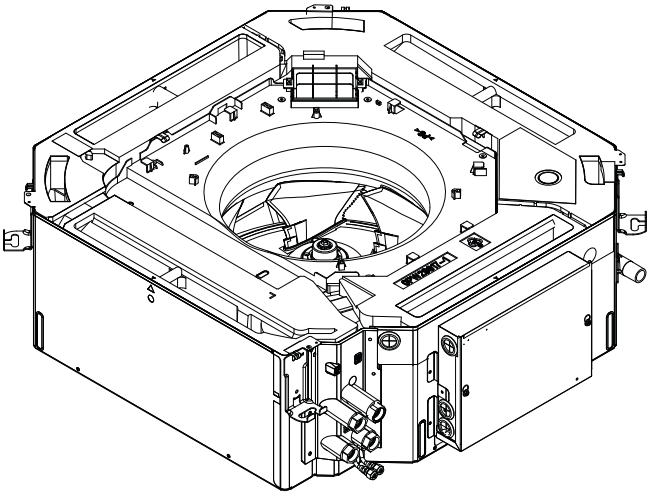
Connector for optional parts:

X1A	CONNECTOR (FAN MODULATING WIRES)
X2A	CONNECTOR (WIRING VALVE WIRES)
X3A	CONNECTOR (POWER SUPPLY FOR MODBUS)
X4A	CONNECTOR (POWER SUPPLY FOR DISPLAY)

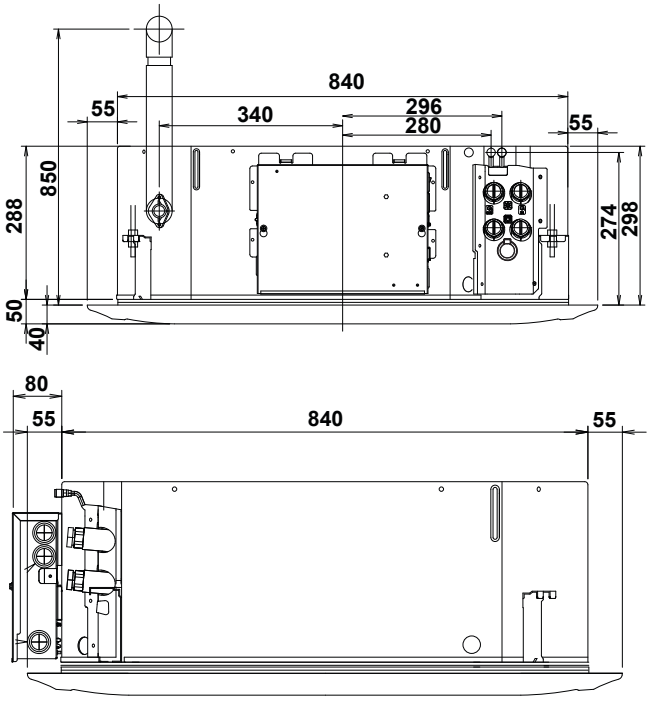
X5A	CONNECTOR (FAN MODULATING WIRES)
X6A	CONNECTOR (POWER SUPPLY FOR DISPLAY)
X7A	CONNECTOR (WIRING VALVE WIRES)
X8A	CONNECTOR (NAKED PCB X36A)
X9A	CONNECTOR (BYCQ140E PANEL WIRE)
X10A	CONNECTOR (BYFQ60C PANEL WIRE)

17.2 Dimensions

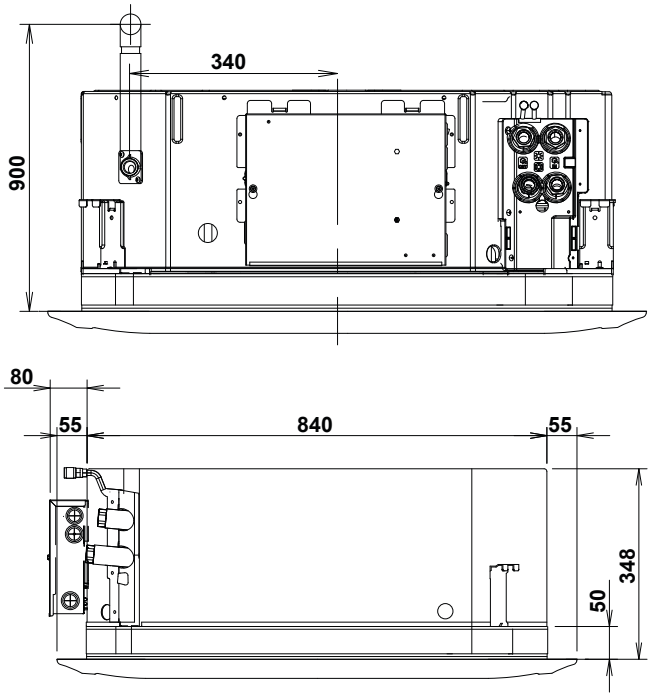
Overview



Side views with standard panel (mm)



Side views with design panel (mm)



18 Information requirements for ecodesign

$P_{rated,c}$	$P_{rated,c}$	$P_{rated,h}$	P_{elec}	L_{WA}
GB Cooling capacity (sensible)	GB Cooling capacity (latent)	GB Heating capacity	GB Total electric power input	GB Sound power level (per speed setting, if applicable)
D Kühlleistung (sensibel)	D Kühlleistung (latent)	D Heizleistung	D Elektrische Gesamtleistungsaufnahme	D Schallleistungspegel (je Geschwindigkeitseinstellung, falls zutreffend)
F Puissance de rafraîchissement (sensible)	F Puissance de rafraîchissement (latente)	F Puissance de chauffage	F Entrée électrique totale	F Niveau de puissance sonore (par réglage de vitesse, le cas échéant)
NL Koelcapaciteit (voelbaar)	NL Koelcapaciteit (latent)	NL Verwarmingscapaciteit	NL Totaal opgenomen vermogen	NL Geluidsvermogenniveau (per snelheidsinstelling, indien van toepassing)
E Capacidad de refrigeración (sensibilidad)	E Capacidad de refrigeración (latente)	E Capacidad de calefacción	E Potencia eléctrica de entrada total	E Nivel de potencia acústica (según ajuste de velocidad, si corresponde)
I Capacità di raffreddamento (sensibile)	I Capacità di raffreddamento (latente)	I Capacità di riscaldamento	I Potenza elettrica totale assorbita	I Livello di potenza sonora (per velocità impostata, se applicabile)
GR Απόδοση ψύξης (αισθητή)	GR Απόδοση ψύξης (λανθάνουσα)	GR Απόδοση θέρμανσης	GR Συνολική ηλεκτρική ισχύς εισόδου	GR Στάθμη ηχητικής ισχύος (ανάρύθμιση ταχύτητας, εφόσον διατίθεται)
P Capacidade de arrefecimento (sensível)	P Capacidade de arrefecimento (latente)	P Capacidade de aquecimento	P Entrada de potência elétrica total	P Nível de potência acústica (por regulação de velocidade, se aplicável)
TR Soğutma kapasitesi (duyarlı)	TR Soğutma kapasitesi (gizli)	TR Isıtma kapasitesi	TR Çekilen toplam elektrik gücü	TR Ses gücü seviyesi (mümkünse hız ayarı başına)
RUS Хладопроизводительность (явная)	RUS Хладопроизводительность (скрытая)	RUS Теплопроизводительность	RUS Общаяпотребляемая электрическая мощность	RUS Уровень звукового давления (согласно настройке скорости, если применимо)
S Kylningskapacitet (känslig)	S Kylningskapacitet (latent)	S Värmekapacitet	S Total effektingång	S Ljudeffektsnivå (per hastighetsinställning, om tillämpligt)
N Avkjølingskapasitet (følbar)	N Avkjølingskapasitet (latent)	N Oppvarmingskapasitet	N Total elektrisk strømeffekt	N Nivå på lydeffekt (per hastighetsinnstilling, hvis tilgjengelig)
CZ Chladicí výkon (citelný)	CZ Chladicí výkon (latentní)	CZ Topný výkon	CZ Celkový elektrický příkon	CZ Hladina akustického výkonu (dle nastavení otáček pokud je to použitelné)
HR Kapacitet hlađenja (osjetljivo)	HR Kapacitet hlađenja (latentno)	HR Kapacitet grijanja	HR Ukupna primljena snaga električne energije	HR Razina jačine zvuka (postavka prema brzini, ako je primjenjivo)
H Hűtési teljesítmény (érzékeny)	H Hűtési teljesítmény (látens)	H Fűtési teljesítmény	H Teljes áramforrás-bemenet	H Hangerőszint (sebességszintenként, ha alkalmazható)
RO Capacitate de răcire (fără dezumidificare)	RO Capacitate de răcire (cu dezumidificare)	RO Capacitate de încălzire	RO Consum total de putere	RO Nivel presiune sonoră (în funcţie de turaţie, dacă este cazul)
SLO Moč hlajenja (zaznavna)	SLO Moč hlajenja (latentna)	SLO Moč ogrevanja	SLO Skupna vhodna električna moč	SLO Raven zvočne moči (glede na nastavitev hitrosti, če se uporablja)
SK Kapacita chladenia (účelná)	SK Kapacita chladenia (latentná)	SK Výkon ohrevu	SK Celkový elektrický príkon	SK Úroveň akustického tlaku (na príslušné nastavenie rýchlosti, ak sa používa)
BG Капацитет на охлаждане (практически)	BG Капацитет на охлаждане (потенциален)	BG Отоплителна мощност	BG Обща входяща електрическа мощност	BG Ниво на звуковата мощност (за различните настройки на оборотите, ако е приложимо)
PL Wydajność chłodnicza (jawna)	PL Wydajność chłodnicza (utajona)	PL Wydajność grzewcza	PL Całkowita pobierana energia elektryczna	PL Poziom mocy dźwięku (dla ustawienia prędkości, jeśli dotyczy)
DK Kølekapacitet (mærkbart)	DK Kølekapacitet (skjult)	DK Varmekapacitet	DK Total elektrisk strømforsyning	DK Støjniveau (efter hastighedsindstilling hvis relevant)
FIN Jäähdytyskapasiteetti (järkevä)	FIN Jäähdytyskapasiteetti (latentti)	FIN Lämmitysteho	FIN Sähkötehon kokonaistulo	FIN Äänen tehotaso (nopeusasetuksen mukaan, jos sovellettavissa)
EST Jahutusvõimsus (mõõdukas)	EST Jahutusvõimsus (latentne)	EST Küttevõimsus	EST Kogu elektriline sisendvõimsus	EST Helivõimsuse tase (võimalusel olenevalt määratud kiirusest)
LV Dzesēšanas kapacitāte (jūtamā)	LV Dzesēšanas kapacitāte (latentā)	LV Apsildes kapacitāte	LV Kopējā elektriskā ieejas jauda	LV Skaņas intensitātes līmenis (attiecīgā gadījumā – katram ātruma iestatījumam)
LT Vėsinimo galia (tikroji)	LT Vėsinimo galia (latentinė)	LT Šildymo galia	LT Bendroji elektros vartojamoji galia	LT Garso galios lygis (vienai greičio nuostatai, jei taikytina)
AL Kapaciteti i ftohjes (sensiběl)	AL Kapaciteti i ftohjes (në gjendje gjumi)	AL Kapaciteti i ngrohjes	AL Konsumi total i energjisë elektrike	AL Niveli i fuqisë së tingullit (për cilësim shpejtësie, nëse aplikohet)
SRB Kapacitet hlađenja (opipljiv)	SRB Kapacitet hlađenja (latentan)	SRB Kapacitet grejanja	SRB Ukupna ulazna električna snaga	SRB Nivo zvučne snage (po podešenoj brzini, ako je primenljivo)

	Prated,c (sensible)	Prated,c (latent)	Prated,h	Pelec	Lwa
	kW	kW	kW	kW	dB
FWC06DT	4.9	1.4	6.8	0.045	46
FWC07DT	5.9	1.7	8.1	0.071	52
FWC08DT	6.9	1.8	9.5	0.104	56
FWC09DT	7.8	1.8	10.7	0.167	61
FWC06DF	4.6	1.4	7.5	0.043	46
FWC07DF	5.6	1.6	8.8	0.069	52
FWC08DF	6.7	1.8	10.2	0.102	57
FWC09DF	7.8	1.8	11.5	0.165	62

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