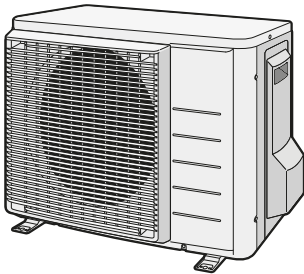




# Installation manual

## R32 Split Series



**RXM20R5V1B**  
**RXM25R5V1B**  
**RXM35R5V1B**  
**ARXM25R5V1B**  
**ARXM35R5V1B**

Installation manual  
R32 Split Series

**English**

CE - DECLARATION-OF-COMFORMITY  
CE - KONFORMITÄTSERKLÄRUNG  
CE - DECLARATION-DE CONFORMITE  
CE - CONFORMITEITSVERKLARING

CE - DECLARACION-DE-CONFORMIDAD  
CE - DICHIARAZIONE-DI-CONFORMITA  
CE - ΔΗΛΩΣΗ ΣΥΜΜΟΡΦΩΣΗΣ

CE - DECLARAÇÃO-DE-CONFORMIDADE  
CE - ЗАЯВЛЕНИЕ-О-СООТВЕТСТВИИ  
CE - ÖVERENSSTÄMMELSEERKLÄRING  
CE - FÖRSÄKRAN-OM-ÖVERENSSTÄMMELSE

CE - ERKLÆRING OM-SAMSVAR  
CE - ILMOITUS-YHDENMUKAISUUDESTA  
CE - PROHLÁŠENÍ-O-SHOĐĚ

CE - IZJAVA O USKLADENOSTI  
CE - MEGFELELŐSÉGI NYILATKOZAT  
CE - DEKLARACIJA ZGODNOSTI  
CE - DECLARATION DE CONFORMITE

CE - ATITIKTIES-DEKLARĀCIJA  
CE - ATBILSTĪBAS-DEKLARĀCIJA  
CE - VYHLÁŠENIE-ZHODY  
CE - UYGUNLĪK-BEYANI

**Daikin Europe N.V.**

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RXM20R5V1B, RXM25R5V1B, RXM35R5V1B, ARXM25R5V1B, ARXM35R5V1B,

are in conformity with the following standard(s) or other normative document(s), provided that these are used in accordance with our instructions:  
 worden (vogennde normen) (en/of) eenen anderen Normdokument (de) -dokumenten entspreken, unter der Voraussetzung, dass sie ge-  
 unseren Anweisungen eingesetzt werden:  
 sont conformes à (aux) norme(s) ou autre(s) document(s) normatif(s), pour autant qu'ils soient utilisés conformément à nos instructions:  
 conforme de (vogennde normen) (en/of) een of meer andere bindende documenten zijn, op voorwaarde dat ze worden gebruikt overeenkomstig onze  
 instructies:

05 están en conformidad con la(s) siguiente(s) norma(s) u otro(s) documento(s) normativo(s), siempre que sean utilizados de acuerdo con nuestras instrucciones:

066 sono conformi agli) seguente(i) standard(s) e/o altri(i) documento(i) a carattere normativo, a patto che vengano usati in conformità alle nostre istruzioni  
067 είναι σύμφωνα με τα(ς) ακόλουθα(ς) πρότυπα(ς) ή άλλα έγγραφα(ς) κανονισμών, υπό την προϋπόθεση ότι χρησιμοποιούνται σύμφωνα με τις οδηγίες μας:

EN60335-2-40,

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03\*\* Dairin Europe N.V. est autorisée à compiler le Dossier de Construction Technique.  
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10	Dakin Europe N.V. er autoriseret til at udarbejde de tekniske konstruktionsdata.
11	Dakin Europe N.V. är bemyndigade att sammanställa den tekniska konstruktionsfilen.
12	Dakin Europe N.V. har tilfættelse til at kompilere den Tekniske konstruktionsfilen.

13 <sup>o</sup>	Dakin Europe N.V. on valitud laadima Teknisen asiakirja.
14 <sup>o</sup>	Společnost Dakin Europe N.V. má oprávnění ke komplikaci součástí.
15 <sup>o</sup>	Dakin Europe N.V. je ověřen za izradu Datredke o tehnikoj ko
16 <sup>o</sup>	A Dakin Europe N.V. jogsullta a mlszaki konstrukciós dokumentu
17 <sup>o</sup>	Dakin Europe N.V. má upowaznienie do zbierania i opracowywania
18 <sup>o</sup>	Dakin Europe N.V. este autorizat să complice Dosarul tehnic d

08 estão em conformidade com a(s) seguinte(s) norma(s) ou outra(s) document(s) nominal(is), desde que estes sejam utilizados de  
09 acordo com as regras estabelecidas.

10 correspondentio oetterskriftene svarer på andre normerte dokumenter, men brukes i forbindelse med de aktuelle instruksjonene  
11 om bruk av de aktuelle dokumentene, forutsatt at disse anvendes i henhold til de aktuelle  
12 respektive bruksanvisningene til de aktuelle dokumentene eller andre nominerte dokumenter, under forutsetning at disse brukes i  
13 henhold til de aktuelle instruksjoner.

14 vastava vastustele vastused vastavad teiste normeeritud dokumentidele, etia nilla kehtivad olemasolevate juhiste  
15 kohaselt. Vastused vastavad ka teiste normeeritud dokumentidele, kui need kasutatakse vastavalt  
16 sellele, mis on ette nähtud dokumentide kasutamiseks, ja kui need kasutatakse vastavalt sellele, mis on ette nähtud

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

11 Information*	enigł <4> podkłada av <4> enigt Certifikat <4>	16 Mogłybyś*	enigł <4> enigt Certifikat <4>	21 Paścia*	zł <4> ałpign <4> <4> baziła a megłełest, <4> 21 Zafornica <4> łanustawj szarłt.
12 Merk*	be dem Tenkmer <4> g, gienom positiv sodm <4> av, fideg <4> gienom positiv	17 Uwaga*	uwaga <4> gienom positiv	22 Paścia*	zł <4> ałpign <4> <4> baziła a megłełest, <4> 22 Paścia*
13 Hłom*	jola on esłyśyś asłkiss <4> g, młkasi on esłyśyś, Serifikat <4> g, młkasi	18 Noli*	nołi <4> gienom positiv	23 Płezm*	gł <4> ałpign <4> <4> baziła a megłełest, <4> 23 Płezm*
14 Poznami*	jak bjo wolał <4> a pozitiv zjśtżo <4> y sulał <4> osłwiedźm <4>	19 Opomba*	opomba <4> gienom positiv	24 Poznami*	gł <4> ałpign <4> <4> baziła a megłełest, <4> 24 Poznami*
15 Napomena*	kakło je pżebno <4> pozitivno odgłjeno od strano 20 Młkus*	20 Młkus*	młkus <4> gienom positiv	25 Not*	gł <4> ałpign <4> <4> baziła a megłełest, <4> 25 Not*

43**	Dakin Europe N.V. on valitettui laimaan Teknisen asiantijan.
44**	Spoločnosť Dakin Europe N.V. má oprávnenie na komplexnou technickú konštrukciu.
45**	Dakin Europe N.V. je ovlašten za radu Datelke o tehnicki kontrukciji.
46**	A Dakin Europe N.V. jopossuli a miszaki konstrukciós dokumentációt összedállítással.
17**	Dakin Europe N.V. on uprzedzenie do zbierania i opracowywania dokumentacji i
18**	Dakin Europe N.V. este autorizat sa complete Dosarul tehnic de constructie.

16 megfelelnek az alábbi szabvány(ok)nak vagy egyéb irányadó dokumentum(ok)nak, ha azokat előírási szerint használták:  
17 speifikaj wymogi następujących norm i innych dokumentów normalizacyjnych, pod warunkiem że używane są zgodnie z naszymi instrukcjami:  
18 sunt în conformitate cu următorul (următoarele) standard(e) sau alt(e) document(e) normative), cu condiția ca acestea să fie utilizate în conformitate cu  
instrucțiunile noastre:

19. skladni z naslednjimi standardi in drugimi normami, pod pogojem, da se uporabljajo v skladu z našimi navodili:
20. onkološke dejavnosti standardi (ga di) teste normalizacije dokumentov, ki med kaselabse, asvalar inše pjenjele;
21. koncentracija, crevrije, cragajni pri dojini, nopolitarni dokumenti, pri yotroboe, ce se vzorciarj, Craznoo halante, wertyyuy;
22. aktivna, tenevni standardi s (ar)ta, kti normalni dokumenti su, saiga, kad, va, nalogami pagal mtiy, nuyodnusi;
23. lad, la, tenci, abnusi, razidna, pradium, abusi s, kosekom standardem in otemi normalni dokumenti;

24 sí v zlobo s nasledovno(y) normou(ami) alebo iný(m) normatívnym(ji) dokumenb(m) za predpokladu, že sa používajú v súlade s našim národom;

25 Určujú, talimatlarm za gbre kulimlmasi kosulva asadiki standartlar ve norm beliten bekelele umuludur.

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- 19<sup>th</sup> Dákin Europe NV, je pobuđen za sestavu države i tehničko mapo.
- 20<sup>th</sup> Dákin Europe NV, on volitudo koostama tehniks dokumentaatsi.
- 21<sup>th</sup> Dákin Europe NV, on opraigastada dastava ARA za tehnikesa kooprakura.
- 22<sup>th</sup> Dákin Europe NV, yar gajaba suday, shi tehnikes konstruktus falaj.
- 23<sup>th</sup> Dákin Europe NV, yar autorizatsi sastadi tehniks dokumentaatsi.
- 24<sup>th</sup> Spoločnosť Dákin Europe NV, je opravami vyvíjať súbor technických konštrukcií.

**DAIKIN**

Hiromitsu Iwasaki

Director

OSTEND, 5th of October 2020

Zandvoordestraat 300, B-8400 Oostende Belgium

# DAIKIN EUROPE N.V.

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## 1 About the documentation

### 1.1 About this document

#### Target audience

Authorised installers



#### WARNING

Make sure installation, servicing, maintenance, repair and applied materials follow the instructions from Daikin 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.



#### INFORMATION

This document only describes installation instructions specific to the outdoor unit. For installation of the indoor unit (mounting the indoor unit, connecting the refrigerant piping to the indoor unit, connecting the electrical wiring to the indoor unit ...), see the installation manual of the indoor unit.

#### 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 outdoor unit)
- **Outdoor unit installation manual:**
  - Installation instructions
  - Format: Paper (in the box of the outdoor unit)
- **Installer reference guide:**
  - Preparation of the installation, reference data,...
  - Format: Digital files on <http://www.daikineurope.com/support-and-manuals/product-information/>

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

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

#### Technical engineering data

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

## 2 Specific installer safety instructions

Always observe the following safety instructions and regulations.

Unit installation (see "**4 Unit installation**" [▶ 5])



#### 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.

Installation site (see "**4.1 Preparing the installation site**" [▶ 5])



#### 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



### WARNING

The appliance shall be stored in a room without continuously operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater).

Connecting the refrigerant piping (see "[5.2 Connecting the refrigerant piping](#)" ▶ 7))



### CAUTION

- No brazing or welding on site for units with R32 refrigerant charge during shipment.
- During installation of the refrigeration system, joining of parts with at least one part charged shall be performed taking into account the following requirements: inside occupied spaces non permanent joints are not allowed for R32 refrigerant except for site made joints directly connecting the indoor unit to piping. Site made joints directly connecting piping to indoor units shall be of non permanent type.



### CAUTION

- Use the flare nut fixed to the unit.
- To prevent gas leakage, apply refrigeration oil only to the inside of the flare. Use refrigeration oil for R32.
- Do NOT reuse joints.



### CAUTION

- Do NOT use mineral oil on flared part.
- Do NOT reuse piping from previous installations.
- NEVER install a drier to this R32 unit to guarantee its lifetime. The drying material may dissolve and damage the system.



### WARNING

Connect the refrigerant piping securely before running the compressor. If the refrigerant piping is NOT connected and the stop valve is open when the compressor is run, air will be sucked in. This will cause abnormal pressure in the refrigeration cycle, which may result in equipment damage and even injury.



### CAUTION

- Incomplete flaring may cause refrigerant gas leakage.
- Do NOT re-use flares. Use new flares to prevent refrigerant gas leakage.
- Use flare nuts that are included with the unit. Using different flare nuts may cause refrigerant gas leakage.



### CAUTION

Do NOT open the valves before flaring is complete. This would cause refrigerant gas leakage.



### DANGER: RISK OF EXPLOSION

Do NOT start the unit if it is vacuumed.

Charging refrigerant (see "[6 Charging refrigerant](#)" ▶ 8))



### WARNING

The refrigerant inside the unit is mildly flammable, but normally does NOT leak. If the refrigerant leaks in the room and comes in contact with fire from a burner, a heater, or a cooker, this may result in fire, or the formation of 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 unit until a service person confirms that the part from which the refrigerant leaked has been repaired.



### WARNING

- Only use R32 as refrigerant. Other substances may cause explosions and accidents.
- R32 contains fluorinated greenhouse gases. Its global warming potential (GWP) value is 675. Do NOT vent these gases into the atmosphere.
- When charging refrigerant, ALWAYS use protective gloves and safety glasses.



### CAUTION

To avoid compressor breakdown, do NOT charge more than the specified amount of refrigerant.



### WARNING

NEVER directly touch any accidental leaking refrigerant. This could result in severe wounds caused by frostbite.

Electrical installation (see "[7 Electrical installation](#)" ▶ 9))



### WARNING

Appliance shall be installed in accordance with national wiring regulations.



### WARNING

- All wiring MUST be performed by an authorised electrician and MUST comply with the applicable legislation.
- Make electrical connections to the fixed wiring.
- All components procured on-site and all electrical construction MUST comply with the applicable legislation.



### WARNING

- If the power supply has a missing or wrong N-phase, equipment might break down.
- Establish proper earthing. Do NOT earth the unit to a utility pipe, surge absorber, or telephone earth. Incomplete earthing may cause electrical shock.
- 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, stranded conductor wires, extension cords, or connections from a star system. They can cause overheating, electrical shock 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**

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 provide full disconnection under overvoltage category III.

**WARNING**

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

**WARNING**

Do NOT connect the power supply to the indoor unit. This could result in electrical shock or fire.

**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.

**DANGER: RISK OF ELECTROCUTION**

All electrical parts (including thermistors) are powered by the power supply. Do not touch them with bare hands.

**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 wiring diagram.

Finishing indoor unit installation (see "8 Finishing the outdoor unit installation" [p 10])

**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.

Commissioning (see "9 Commissioning" [p 10])

**DANGER: RISK OF ELECTROCUTION****DANGER: RISK OF BURNING/SCALDING****CAUTION**

Do NOT perform the test operation while working on the indoor units.

When performing the test operation, NOT only the outdoor unit, but the connected indoor unit will operate as well. Working on an indoor unit while performing a test operation is dangerous.

**CAUTION**

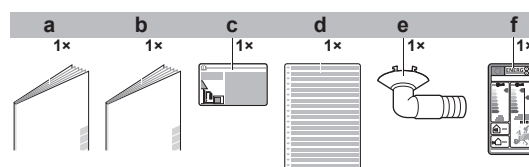
Do NOT insert fingers, rods or other objects into the air inlet or outlet. Do NOT remove the fan guard. When the fan is rotating at high speed, it will cause injury.

## 3 About the box

### 3.1 Outdoor unit

#### 3.1.1 To remove the accessories from the outdoor unit

- Lift the outdoor unit.
- Remove the accessories at the bottom of the package.



- a General safety precautions
- b Outdoor unit installation manual
- c Fluorinated greenhouse gases label
- d Multilingual fluorinated greenhouse gases label
- e Drain plug (located on the bottom of the packing case)
- f Energy label

## 4 Unit installation

**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.

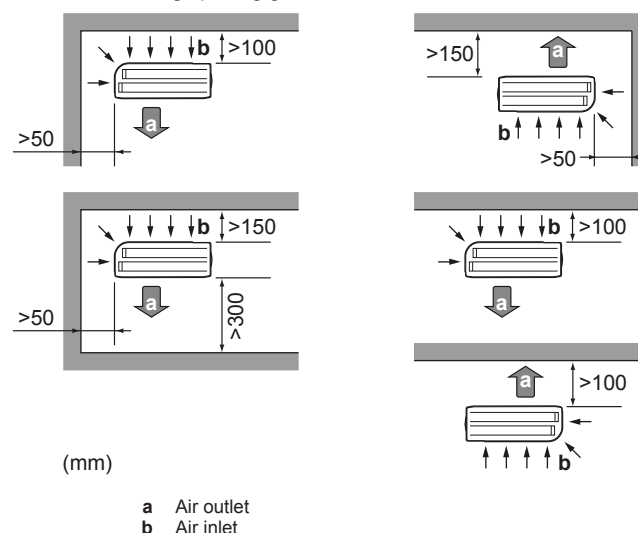
### 4.1 Preparing the installation site

**WARNING**

The appliance shall be stored in a room without continuously operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater).

#### 4.1.1 Installation site requirements of the outdoor unit

Mind the following spacing guidelines:

**NOTICE**

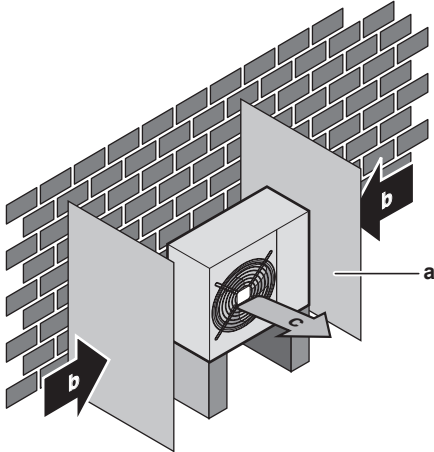
The height of the wall on the outlet side of the outdoor unit MUST be ≤1200 mm.



## 4 Unit installation

It is recommended to install a baffle plate when the air outlet is exposed to wind.

It is recommended to install the outdoor unit with the air inlet facing the wall and NOT directly exposed to the wind.



- a Baffle plate
- b Prevailing wind direction
- c Air outlet

Do NOT install the unit in sound sensitive areas (e.g. near a bedroom), so that the operation noise will cause no trouble.

**Note:** If the sound is measured under actual installation conditions, the measured value might be higher than the sound pressure level mentioned in "Sound spectrum" in the data book due to environmental noise and sound reflections.

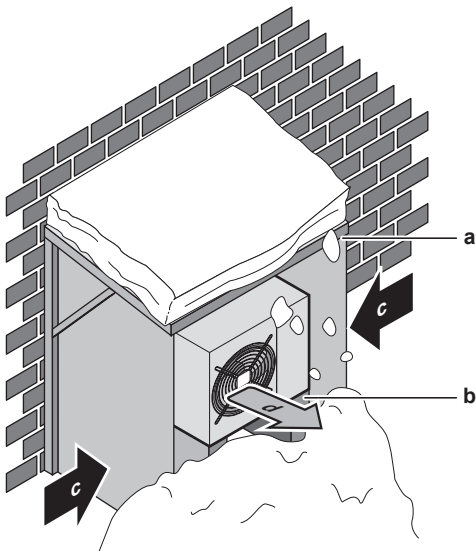


### INFORMATION

The sound pressure level is less than 70 dBA.

### 4.1.2 Additional installation site requirements of the outdoor unit in cold climates

Protect the outdoor unit against direct snowfall and take care that the outdoor unit is NEVER snowed up.



- a Snow cover or shed
- b Pedestal
- c Prevailing wind direction
- d Air outlet

It is recommended to provide at least 150 mm of free space below the unit (300 mm for heavy snowfall areas). Additionally, make sure the unit is positioned at least 100 mm above the maximum expected level of snow. If necessary, construct a pedestal. See "4.2 Mounting the outdoor unit" ▶ 6 for more details.

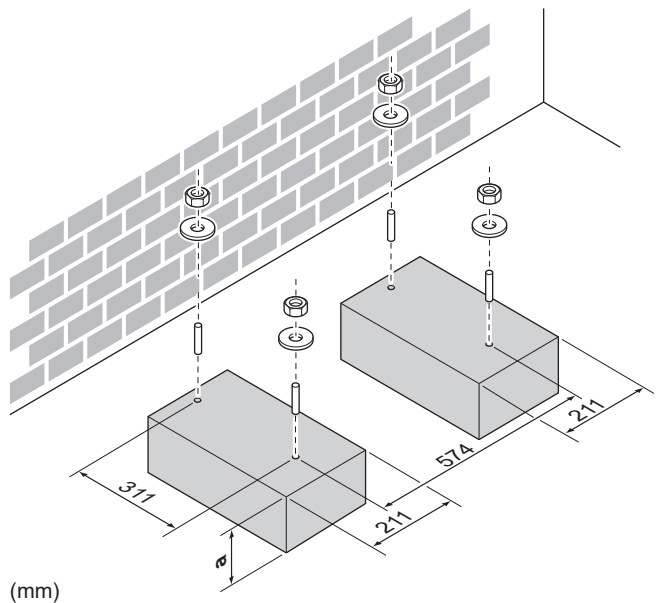
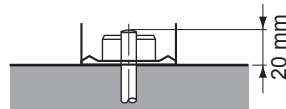
In heavy snowfall areas it is very important to select an installation site where the snow will NOT affect the unit. If lateral snowfall is possible, make sure that the heat exchanger coil is NOT affected by the snow. If necessary, install a snow cover or shed and a pedestal.

## 4.2 Mounting the outdoor unit

### 4.2.1 To provide the installation structure

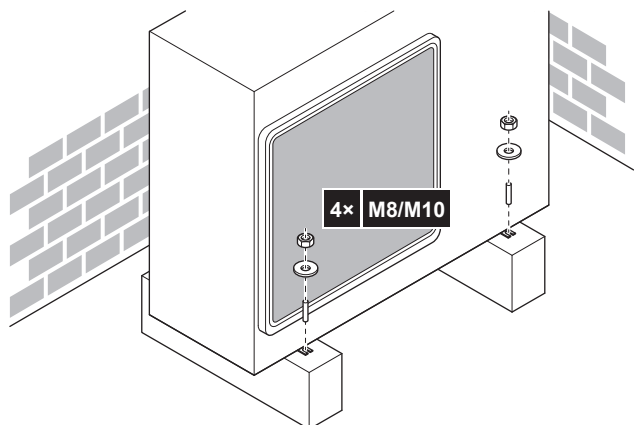
Use a vibration-proof rubber (field supply) in cases where vibrations may be transmitted to the building.

Prepare 4 sets of M8 or M10 anchor bolts, nuts and washers (field supply).



a 100 mm above expected level of snow

### 4.2.2 To install the outdoor unit



### 4.2.3 To provide drainage



### NOTICE

If the unit is installed in a cold climate, take adequate measures so that the evacuated condensate CANNOT freeze.



## NOTICE

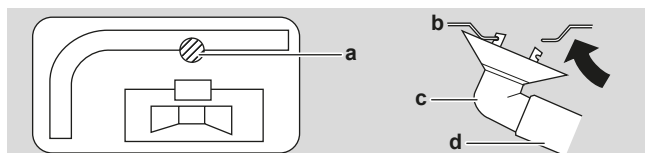
If the drain holes of the outdoor unit are blocked up by a mounting base or floor surface, place additional foot bases ≤30 mm under the outdoor unit's feet.



## INFORMATION

For information on the available options, contact your dealer.

- 1 Use a drain plug for drainage.
- 2 Use a Ø16 mm hose (field supply).



- a Drain port
- b Bottom frame
- c Drain plug
- d Hose (field supply)

# 5 Piping installation

## 5.1 Preparing refrigerant piping

### 5.1.1 Refrigerant piping requirements

- **Piping material:** Phosphoric acid deoxidised seamless copper.
- **Flare connections:** Only use annealed material.
- **Piping diameter:**

Liquid piping	Ø6.4 mm (1/4")
Gas piping	Ø9.5 mm (3/8")

- **Piping temper grade and thickness:**

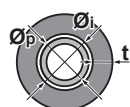
Outer diameter (Ø)	Temper grade	Thickness (t) <sup>(a)</sup>	
6.4 mm (1/4")	Annealed (O)	≥0.8 mm	
9.5 mm (3/8")	Annealed (O)		

<sup>(a)</sup> 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.

### 5.1.2 Refrigerant piping insulation

- Use polyethylene foam as insulation material:
  - with a heat transfer rate between 0.041 and 0.052 W/mK (0.035 and 0.045 kcal/mh°C)
  - with a heat resistance of at least 120°C
- Insulation thickness

Pipe outer diameter (Ø <sub>p</sub> )	Insulation inner diameter (Ø <sub>i</sub> )	Insulation thickness (t)
6.4 mm (1/4")	8~10 mm	≥10 mm
9.5 mm (3/8")	12~15 mm	



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.

### 5.1.3 Refrigerant piping length and height difference

What?	Distance
Maximum allowable pipe length	20 m
Minimum allowable pipe length	1.5 m
Maximum allowable height difference	15 m

## 5.2 Connecting the refrigerant piping



### DANGER: RISK OF BURNING/SCALDING



### CAUTION

- No brazing or welding on site for units with R32 refrigerant charge during shipment.
- During installation of the refrigeration system, joining of parts with at least one part charged shall be performed taking into account the following requirements: inside occupied spaces non permanent joints are not allowed for R32 refrigerant except for site made joints directly connecting the indoor unit to piping. Site made joints directly connecting piping to indoor units shall be of non permanent type.



### WARNING

- Only use R32 as refrigerant. Other substances may cause explosions and accidents.
- R32 contains fluorinated greenhouse gases. Its global warming potential (GWP) value is 675. Do NOT vent these gases into the atmosphere.
- When charging refrigerant, ALWAYS use protective gloves and safety glasses.

### 5.2.1 To connect the refrigerant piping to the outdoor unit

- **Piping length.** Keep field piping as short as possible.
- **Piping protection.** Protect the field piping against physical damage.



### WARNING

Connect the refrigerant piping securely before running the compressor. If the refrigerant piping is NOT connected and the stop valve is open when the compressor is run, air will be sucked in. This will cause abnormal pressure in the refrigeration cycle, which may result in equipment damage and even injury.

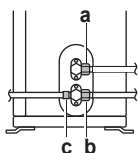


### CAUTION

- Use the flare nut fixed to the unit.
- To prevent gas leakage, apply refrigeration oil only to the inside of the flare. Use refrigeration oil for R32.
- Do NOT reuse joints.

- 1 Connect the liquid refrigerant connection from the indoor unit to the liquid stop valve of the outdoor unit.

## 6 Charging refrigerant



- a Liquid stop valve
- b Gas stop valve
- c Service port

- 2 Connect the gas refrigerant connection from the indoor unit to the gas stop valve of the outdoor unit.

### NOTICE

It is recommended that the refrigerant piping between indoor and outdoor unit is installed in a ducting or the refrigerant piping is wrapped with finishing tape.

## 5.3 Checking the refrigerant piping

### 5.3.1 To check for leaks

#### NOTICE

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

#### NOTICE

ALWAYS use a recommended bubble test solution from your wholesaler.

NEVER use soap water:

- Soap water may cause cracking of components, such as flare nuts or stop valve caps.
- Soap water may contain salt, which absorbs moisture that will freeze when the piping gets cold.
- Soap water contains ammonia which may lead to corrosion of flared joints (between the brass flare nut and the copper flare).

- 1 Charge the system with nitrogen gas up to a gauge pressure of at least 200 kPa (2 bar). It is recommended to pressurize to 3000 kPa (30 bar) in order to detect small leaks.
- 2 Check for leaks by applying the bubble test solution to all connections.
- 3 Discharge all nitrogen gas.

### 5.3.2 To perform vacuum drying



#### DANGER: RISK OF EXPLOSION

Do NOT start the unit if it is vacuumed.

- 1 Vacuum the system until the pressure on the manifold indicates -0.1 MPa (-1 bar).
- 2 Leave as is for 4-5 minutes and check the pressure:

If the pressure...	Then...
Does not change	There is no moisture in the system. This procedure is finished.
Increases	There is moisture in the system. Go to the next step.

- 3 Vacuum the system for at least 2 hours to a manifold pressure of -0.1 MPa (-1 bar).
- 4 After turning the pump OFF, check the pressure for at least 1 hour.
- 5 If you do NOT reach the target vacuum or CANNOT maintain the vacuum for 1 hour, do the following:

- Check for leaks again.
- Perform vacuum drying again.



#### NOTICE

Make sure to open the stop valves after installing the refrigerant piping and performing vacuum drying. Running the system with the stop valves closed may break the compressor.

## 6 Charging refrigerant

### 6.1 About the refrigerant

This product contains fluorinated greenhouse gases. Do NOT vent gases into the atmosphere.

Refrigerant type: R32

Global warming potential (GWP) value: 675



#### WARNING: MILDLY FLAMMABLE MATERIAL

The refrigerant inside this unit is mildly flammable.



#### WARNING

The appliance shall be stored in a room without continuously operating ignition sources (example: open flames, an operating gas appliance or an operating electric heater).



#### WARNING

- Do NOT pierce or burn refrigerant cycle parts.
- Do NOT use cleaning materials or means to accelerate the defrosting process other than those recommended by the manufacturer.
- Be aware that the refrigerant inside the system is odourless.



#### WARNING

The refrigerant inside the unit is mildly flammable, but normally does NOT leak. If the refrigerant leaks in the room and comes in contact with fire from a burner, a heater, or a cooker, this may result in fire, or the formation of 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 unit until a service person confirms that the part from which the refrigerant leaked has been repaired.



#### WARNING

NEVER directly touch any accidental leaking refrigerant. This could result in severe wounds caused by frostbite.

### 6.2 To determine the additional refrigerant amount

If the total liquid piping length is...	Then...
≤10 m	Do NOT add additional refrigerant.
>10 m	$R = (\text{total length (m) of liquid piping} - 10 \text{ m}) \times 0.020$ $R = \text{Additional charge (kg) (rounded in units of 0.01 kg)}$



**INFORMATION**

Piping length is the one-way length of liquid piping.

## 6.3 To determine the complete recharge amount

**INFORMATION**

If a complete recharge is necessary, the total refrigerant charge is: the factory refrigerant charge (see unit name plate) + the determined additional amount.

## 6.4 To charge additional refrigerant

**WARNING**

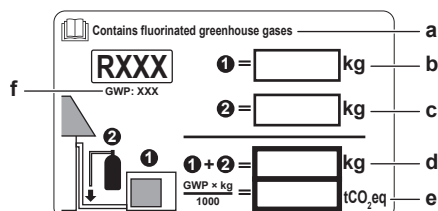
- Only use R32 as refrigerant. Other substances may cause explosions and accidents.
- R32 contains fluorinated greenhouse gases. Its global warming potential (GWP) value is 675. Do NOT vent these gases into the atmosphere.
- When charging refrigerant, ALWAYS use protective gloves and safety glasses.

**Prerequisite:** Before charging refrigerant, make sure the refrigerant piping is connected and checked (leak test and vacuum drying).

- Connect the refrigerant cylinder to the service port.
- Charge the additional refrigerant amount.
- Open the gas stop valve.

## 6.5 To fix the fluorinated greenhouse gases label

- Fill in the label as follows:



- If a multilingual fluorinated greenhouse gases label is delivered with the unit (see accessories), peel off the applicable language and stick it on top of a.
- Factory refrigerant charge: see unit name plate
- Additional refrigerant amount charged
- Total refrigerant charge
- Quantity of fluorinated greenhouse gases** of the total refrigerant charge expressed as tonnes CO<sub>2</sub> equivalent.
- GWP = Global warming potential

**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 CO<sub>2</sub> equivalent tonnes:** GWP value of the refrigerant × total refrigerant charge [in kg] / 1000

Use the GWP value mentioned on the refrigerant charge label.

- Fix the label on the inside of the outdoor unit near the gas and liquid stop valves.

# 7 Electrical installation

**DANGER: RISK OF ELECTROCUTION****WARNING**

- All wiring **MUST** be performed by an authorised electrician and **MUST** comply with the applicable legislation.
- Make electrical connections to the fixed wiring.
- All components procured on-site and all electrical construction **MUST** comply with the applicable legislation.

**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 provide full disconnection under overvoltage category III.

**WARNING**

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

**WARNING**

Do NOT connect the power supply to the indoor unit. This could result in electrical shock or fire.

**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**

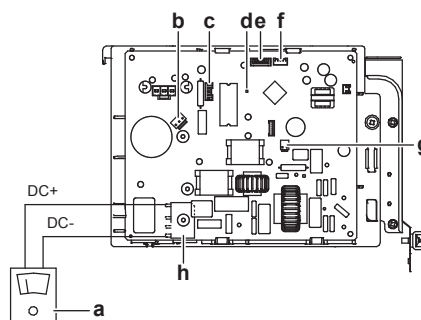
Keep the interconnection wiring away from copper pipes without thermal insulation as such pipes will be very hot.

**DANGER: RISK OF ELECTROCUTION**

All electrical parts (including thermistors) are powered by the power supply. Do not touch them with bare hands.

**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 wiring diagram.



- Multimeter (DC voltage range)
- S80 – reversing solenoid valve lead wire
- S70 – fan motor lead wire



<input type="checkbox"/>	<b>Drainage</b> Make sure drainage flows smoothly. <b>Possible consequence:</b> Condensate water might drip.
<input type="checkbox"/>	The indoor unit receives the signals of the <b>user interface</b> .
<input type="checkbox"/>	The specified wires are used for the <b>interconnection cable</b> .
<input type="checkbox"/>	The <b>fuses, circuit breakers</b> , or locally installed protection devices are installed according to this document, and have NOT been bypassed.

## 9.2 Checklist during commissioning

<input type="checkbox"/>	To perform an <b>air purge</b> .
<input type="checkbox"/>	To perform a <b>test run</b> .

## 9.3 To perform a test run

**Prerequisite:** Power supply MUST be in the specified range.

**Prerequisite:** Test run may be performed in cooling or heating mode.

**Prerequisite:** Test run should be performed in accordance with the operation manual of the indoor unit to make sure that all functions and parts are working properly.

- 1 In cooling mode, select the lowest programmable temperature. In heating mode, select the highest programmable temperature. Test run can be disabled if necessary.
- 2 When the test run is finished, set the temperature to a normal level. In cooling mode: 26~28°C, in heating mode: 20~24°C.
- 3 The system stops operating 3 minutes after the unit is turned OFF.



### INFORMATION

- Even if the unit is turned OFF, it consumes electricity.
- When the power turns back on after a power break, the previously selected mode will be resumed.



### DANGER: RISK OF ELECTROCUTION

- When the unit is not operating, the LEDs on the PCB are turned off in order to save power.
- Even when the LEDs are off, the terminal block and the PCB may be powered.

## 11 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.

## 10 Troubleshooting

### 10.1 Fault diagnosis using LED on outdoor unit PCB

LED is...	Diagnosis
flashing	Normal. ▪ Check the indoor unit.
ON	▪ Turn the power OFF and back ON, and check the LED within approximately 3 minutes. If the LED is ON again, the outdoor unit PCB is faulty.
OFF	1 Supply voltage (for power saving). 2 Power supply fault. 3 Turn the power OFF and back ON, and check the LED within approximately 3 minutes. If the LED is OFF again, the outdoor unit PCB is faulty.

## 12 Technical data

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

### 12.1 Wiring diagram

The wiring diagram is delivered with the unit, located inside of the outdoor unit (bottom side of the top plate).

#### 12.1.1 Unified wiring diagram legend

For applied parts and numbering, refer to the wiring diagram on the unit. Part numbering is by Arabic numbers in ascending order for each part and is represented in the overview below by "\*" in the part code.

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

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

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

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

Symbol	Meaning
V*R	Diode bridge, Insulated-gate bipolar transistor (IGBT) power module
WRC	Wireless remote controller
X*	Terminal
X*M	Terminal strip (block)
Y*E	Electronic expansion valve coil
Y*R, Y*S	Reversing solenoid valve coil
Z*C	Ferrite core
ZF, Z*F	Noise filter

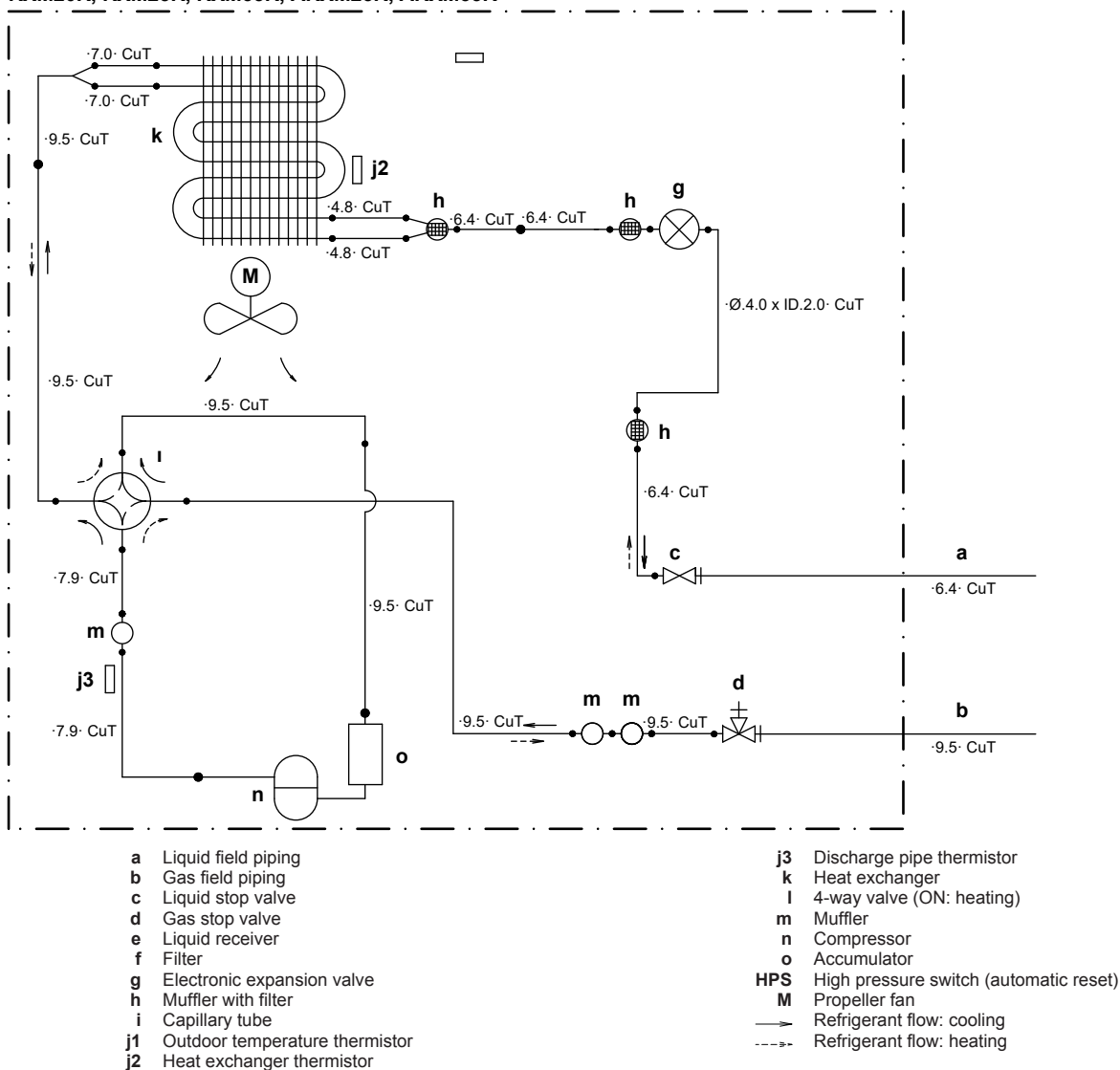


## 12 Technical data

### 12.2 Piping diagram

#### 12.2.1 Piping diagram: Outdoor unit

RXM20R, RXM25R, RXM35R, ARXM25R, ARXM35R





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