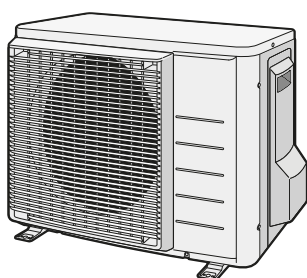




Installation manual

R32 Split system air conditioners



RXA20A5V1B9
RXA25A5V1B9
RXA35A5V1B9
RXM20R5V1B9
RXM25R5V1B9
RXM35R5V1B9
ARXM25R5V1B9
ARXM35R5V1B9

Installation manual
R32 Split system air conditioners

English

UKCA – Safety declaration of conformity

Daikin Europe N.V.

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

RXM20R5V1B9, RXM25R5V1B9, RXM35R5V1B9, ARXM25R5V1B9, ARXM35R5V1B9, RXJ20M5V1B9, RXJ25M5V1B9, RXJ35M5V1B9, RXA20A5V1B9, RXA25A5V1B9, RXA35A5V1B9,

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

- S.I. 2008/1597: Supply of Machinery (Safety) Regulations 2008**
- S.I. 2016/1101: Electrical Equipment (Safety) Regulations 2016
- S.I. 2016/1091: Electromagnetic Compatibility Regulations 2016*

as amended,

following the provisions of: BS EN 60335-2-40,

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

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

| | |
|-----|---------------------------|
| <A> | DAIKIN.TCF.032E11/02-2021 |
| | — |
| <C> | — |

Table of contents

| | | |
|-----------|--------------------------------------------------------------------------------------|-----------|
| 1 | About the documentation | 4 |
| 1.1 | About this document..... | 4 |
| 2 | Specific installer safety instructions | 4 |
| 3 | About the box | 6 |
| 3.1 | Outdoor unit..... | 6 |
| 3.1.1 | To remove the accessories from the outdoor unit..... | 6 |
| 4 | Unit installation | 6 |
| 4.1 | Preparing the installation site | 6 |
| 4.1.1 | Installation site requirements of the outdoor unit | 6 |
| 4.1.2 | Additional installation site requirements of the outdoor unit in cold climates | 7 |
| 4.2 | Mounting the outdoor unit..... | 7 |
| 4.2.1 | To provide the installation structure | 7 |
| 4.2.2 | To install the outdoor unit..... | 7 |
| 4.2.3 | To provide drainage | 7 |
| 5 | Piping installation | 8 |
| 5.1 | Preparing refrigerant piping | 8 |
| 5.1.1 | Refrigerant piping requirements..... | 8 |
| 5.1.2 | Refrigerant piping insulation | 8 |
| 5.1.3 | Refrigerant piping length and height difference | 8 |
| 5.2 | Connecting the refrigerant piping | 8 |
| 5.2.1 | To connect the refrigerant piping to the outdoor unit .. | 8 |
| 5.3 | Checking the refrigerant piping | 9 |
| 5.3.1 | To check for leaks | 9 |
| 5.3.2 | To perform vacuum drying | 9 |
| 6 | Charging refrigerant | 9 |
| 6.1 | About the refrigerant..... | 9 |
| 6.2 | To determine the additional refrigerant amount | 9 |
| 6.3 | To determine the complete recharge amount | 10 |
| 6.4 | To charge additional refrigerant | 10 |
| 6.5 | To fix the fluorinated greenhouse gases label..... | 10 |
| 7 | Electrical installation | 10 |
| 7.1 | Specifications of standard wiring components | 11 |
| 7.2 | To connect the electrical wiring to the outdoor unit | 11 |
| 8 | Finishing the outdoor unit installation | 11 |
| 8.1 | To finish the outdoor unit installation..... | 11 |
| 9 | Configuration | 11 |
| 9.1 | Facility setting..... | 11 |
| 9.1.1 | To set the facility mode | 11 |
| 9.2 | Standby electricity saving function | 12 |
| 9.2.1 | About the standby electricity saving function | 12 |
| 9.2.2 | To turn ON standby electricity saving function..... | 12 |
| 10 | Commissioning | 12 |
| 10.1 | Checklist before commissioning | 12 |
| 10.2 | Checklist during commissioning | 13 |
| 10.3 | To perform a test run | 13 |
| 11 | Troubleshooting | 13 |
| 11.1 | Fault diagnosis using LED on outdoor unit PCB | 13 |
| 12 | Disposal | 13 |
| 13 | Technical data | 13 |
| 13.1 | Wiring diagram | 13 |
| 13.1.1 | Unified wiring diagram legend..... | 13 |

1 About the documentation

1.1 About this document

WARNING

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

Target audience

Authorised installers

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 <https://www.daikin.eu>. Use the search function 🔍 to find your model.

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

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



The original 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" ▶ 6)



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" ▶ 6)



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.



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" ▶ 8)



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

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 open the stop valves before the vacuum drying is finished.

Charging refrigerant (see "6 Charging refrigerant" ▶ 9)



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.



WARNING

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

Electrical installation (see "7 Electrical installation" ▶ 10)



WARNING

The appliance MUST be installed in accordance with national wiring regulations.



WARNING

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



WARNING

- If the power supply has a missing or wrong N-phase, equipment might break down.
- Establish proper earthing. Do NOT earth the unit to a utility pipe, surge absorber, or telephone earth. Incomplete earthing may cause electrical 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, 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.

3 About the box



WARNING

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



WARNING

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



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 11])



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.

Configuration (see "[9 Configuration](#)" [p 11])



WARNING

Before connecting or disconnecting the connector, make sure the power supply is turned **OFF**.

Commissioning (see "[10 Commissioning](#)" [p 12])



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

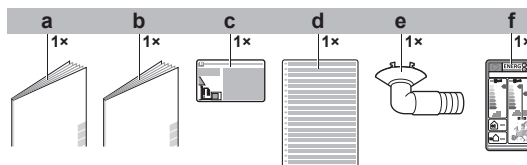
Do **NOT** insert fingers, rods or other objects into the air inlet or outlet. Do **NOT** remove the fan guard. When the fan is rotating at high speed, it will cause injury.

3 About the box

3.1 Outdoor unit

3.1.1 To remove the accessories from the outdoor unit

Make sure you have all following accessories delivered with the unit:



- 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

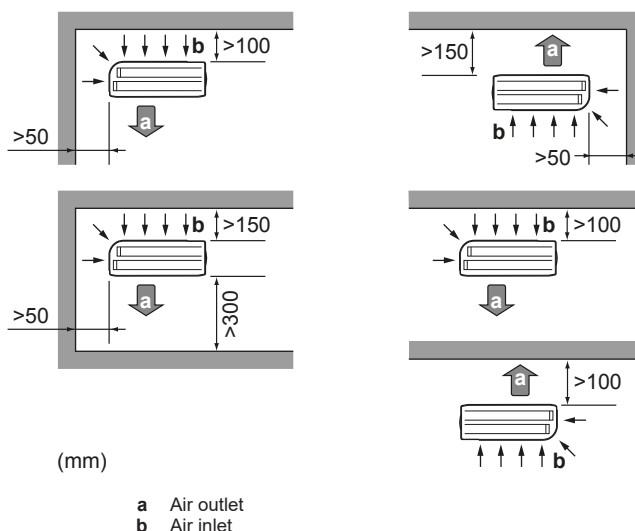


WARNING

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.

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.

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

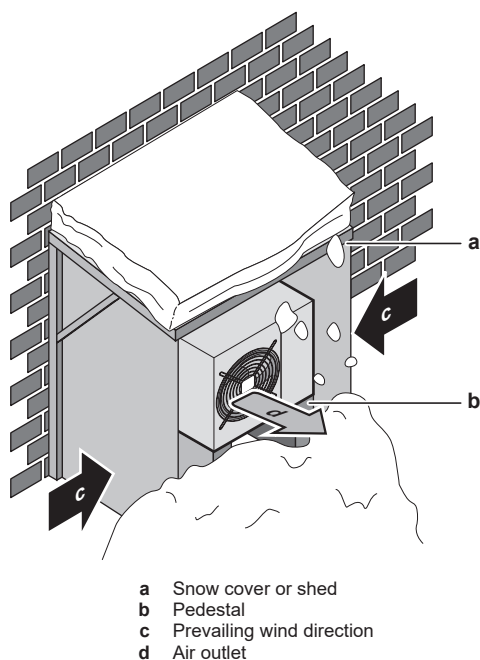
The sound pressure level is less than 70 dBA.

The outdoor unit is designed for outdoor installation only and for ambient temperatures specified in the table below (unless otherwise specified in the operation manual of the connected indoor unit).

| Model | Cooling | Heating |
|-----------------|-------------|-------------|
| RXM-R9, ARXM-R9 | -10~50°C DB | -20~24°C DB |
| RXA-A9 | -10~46°C DB | -15~24°C DB |

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.



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" [p. 7] for more details.

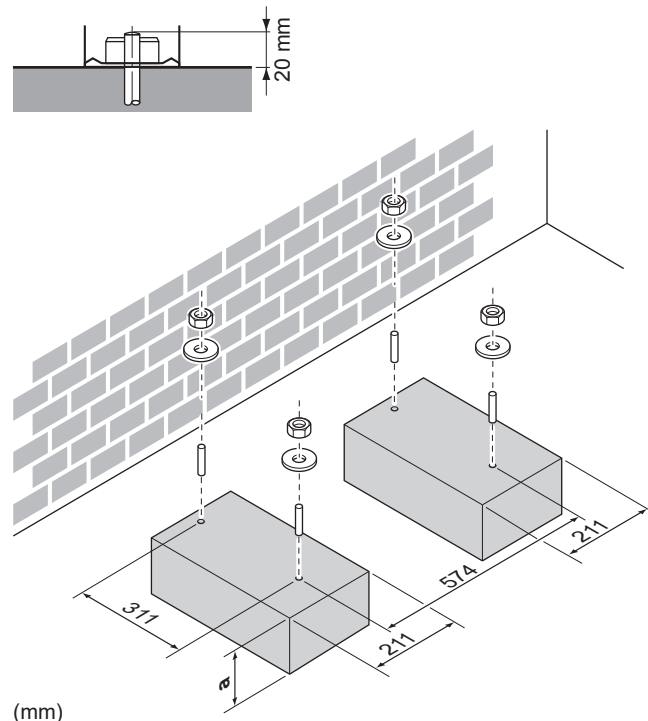
In heavy snowfall areas it is very important to select an installation site where the snow will **NOT** affect the unit. If lateral snowfall is possible, make sure that the heat exchanger coil is **NOT** affected by the snow. If necessary, install a snow cover or shed and a pedestal.

4.2 Mounting the outdoor unit

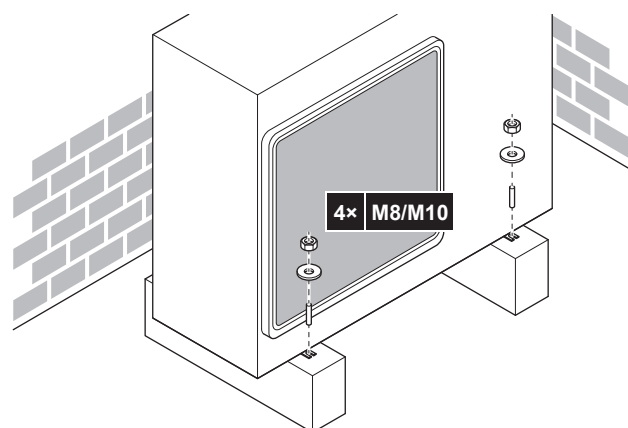
4.2.1 To provide the installation structure

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).



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.

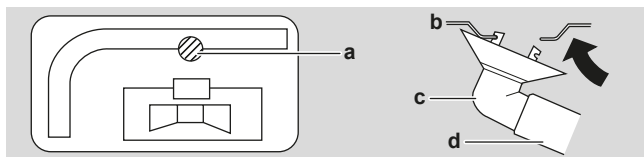
5 Piping installation



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



NOTICE

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

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

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

- **Piping temper grade and thickness:**

| Outer diameter (Ø) | Temper grade | Thickness (t) ^(a) | |
|--------------------|--------------|------------------------------|--|
| 6.4 mm (1/4") | Annealed (O) | ≥0.8 mm | |
| 9.5 mm (3/8") | Annealed (O) | | |

^(a) Depending on the applicable legislation and the maximum working pressure of the unit (see "PS High" on the unit name plate), larger piping thickness might be required.

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 _p) | Insulation inner diameter (Ø _i) | Insulation thickness (t) |
|---------------------------------------|---------------------------------------------|--------------------------|
| 6.4 mm (1/4") | 8~10 mm | ≥10 mm |
| 9.5 mm (3/8") | 10~14 mm | ≥13 mm |



If the temperature is higher than 30°C and the humidity is higher than RH 80%, the thickness of the insulation materials should be at least 20 mm to prevent condensation on the surface of the insulation.

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.

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

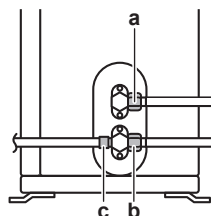
Connect the refrigerant piping securely before running the compressor. If the refrigerant piping is NOT connected and the stop valve is open when the compressor is run, air will be sucked in. This will cause abnormal pressure in the refrigeration cycle, which may result in equipment damage and even injury.



NOTICE

- 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 (FW68DA).
- Do NOT reuse joints.

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



- 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 open the stop valves before the vacuum drying is finished.

- 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

Periodical inspections for refrigerant leaks may be required depending on the applicable legislation. Contact your installer for more information.



WARNING: MILDLY FLAMMABLE MATERIAL

The refrigerant inside this unit is mildly flammable.



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

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

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.

7 Electrical installation

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

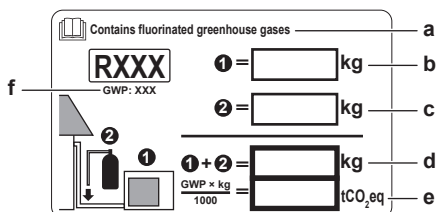
- Only use R32 as refrigerant. Other substances may cause explosions and accidents.
- R32 contains fluorinated greenhouse gases. Its global warming potential (GWP) value is 675. Do NOT vent these gases into the atmosphere.
- When charging refrigerant, ALWAYS use protective gloves and safety glasses.

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 CO₂ 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 CO₂ equivalent.

Formula to calculate the quantity in CO₂ 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.

WARNING

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

WARNING

ALWAYS use multicore cable for power supply cables.

WARNING

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

WARNING

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

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

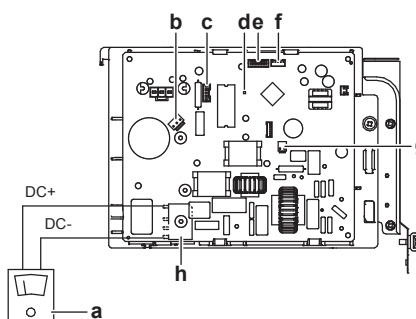
Keep the interconnection wiring away from copper pipes without thermal insulation as such pipes will be very hot.

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
- LED
- S90 – thermistor lead wire
- S20 – electronic expansion valve lead wire
- S40 – thermal overload relay lead wire
- DB1 – diode bridge

7 Electrical installation

DANGER: RISK OF ELECTROCUTION

7.1 Specifications of standard wiring components



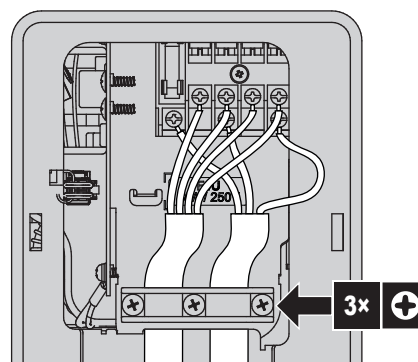
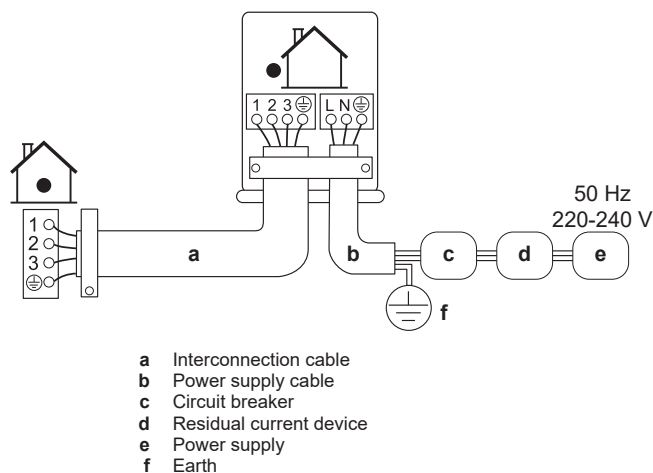
NOTICE

We recommend using solid (single-core) wires. If stranded wires are used, slightly twist the strands to consolidate the end of the conductor for either direct use in the terminal clamp or insertion in a round crimp-style terminal. Details are described in "Guidelines when connecting the electrical wiring" in the installer reference guide.

| Component | | |
|------------------------------------------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Power supply cable | Voltage | 220~240 V |
| | Current | RXA20: 9.88 A RXA25: 11.17 A RXA35: 12.29 A RXM20: 8.84 A ARXM25 / RXM25: 9.63 A ARXM35 / RXM35: 9.70 A |
| | Phase | 1~ |
| | Frequency | 50 Hz |
| | Wire sizes | MUST comply with national wiring regulation 3-core cable Wire size based on the current, but not less than 2.5 mm ² |
| | | |
| Interconnection cable (indoor↔outdoor) | Voltage | 220~240 V |
| | Wire size | Only use harmonised wire providing double insulation and suitable for applicable voltage 4-core cable Minimum 1.5 mm ² |
| Recommended circuit breaker | | Class 20: 10 A Class 25+35: 13 A |
| Earth leakage circuit breaker / residual current circuit breaker | | MUST comply with national wiring regulation |

7.2 To connect the electrical wiring to the outdoor unit

- 1 Remove the service cover.
- 2 Open the wire clamp.
- 3 Connect the interconnection cable and power supply as follows:



- 4 Tighten the terminal screws securely. We recommend using a Phillips screwdriver.
- 5 Install the service cover.

8 Finishing the outdoor unit installation

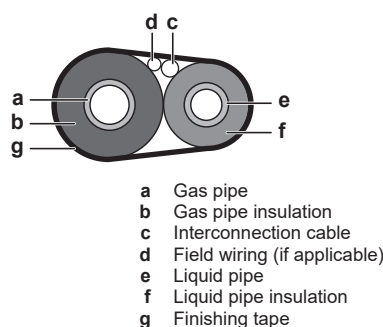
8.1 To finish the outdoor unit installation



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.

- 1 Insulate and fix the refrigerant piping and cables as follows:



- 2 Install the service cover.

9 Configuration

9.1 Facility setting

Use this function for cooling at low outdoor temperature. This function is designed for facilities such as equipment of computer rooms. NEVER use in a residence or office where people occupy the space.

Applicable for: RXM-R9, ARXM-R9, RXA-A9

9.1.1 To set the facility mode

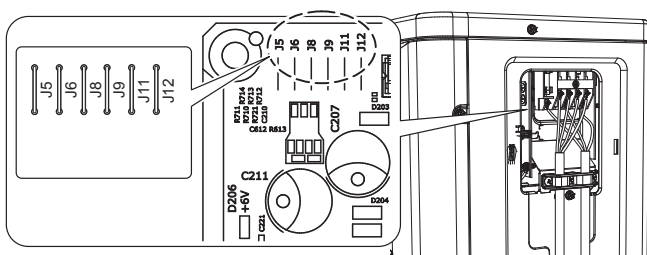
When cutting jumper J6 on the PCB, the operation range will expand to -15°C. The facility mode will stop if the outdoor temperature drops below -20°C and resume when the temperature rises again.

To cut jumper J6

- 1 Remove the top plate of the outdoor unit.

10 Commissioning

- 2 Remove the front plate.
- 3 Remove the drip proof cover.
- 4 Cut jumper J6 on the outdoor unit PCB.



i INFORMATION

- The indoor unit may produce Intermittent noise due to the outdoor unit fan turning ON and/or OFF.
- Do NOT place humidifiers or other items which might raise humidity in rooms when you use the facility mode.
- Cutting jumper J6 sets the indoor unit fan to the highest speed.
- Do NOT use this setting in residences or offices with people.

9.2 Standby electricity saving function

9.2.1 About the standby electricity saving function

This mode turns OFF the power supply of the outdoor unit and sets the indoor unit into the standby saving mode to reduce the power consumption of the unit.

This mode is only applicable for outdoor units: ARXM-R9, RXM-R9 and indoor units: FTXM, ATXM, FVXM.

i INFORMATION

The standby electricity saving can ONLY be used for the units described above.

! WARNING

Before connecting or disconnecting the connector, make sure the power supply is turned OFF.

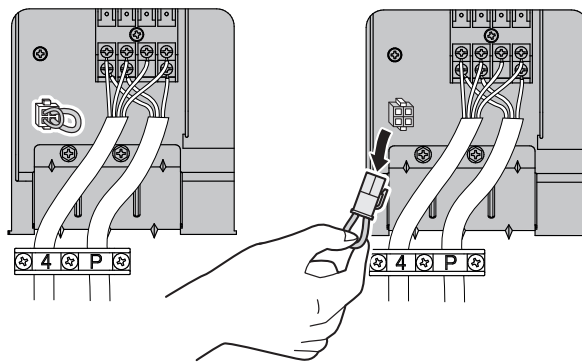
i INFORMATION

Selective connector for standby electricity saving is required if other than applicable indoor unit is connected.

9.2.2 To turn ON standby electricity saving function

Prerequisite: The main power supply MUST be turned OFF.

- 1 Remove the service cover.
- 2 Disconnect the selective standby electricity saving connector.



- 3 Turn ON the main power supply.

10 Commissioning

! NOTICE

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

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

! NOTICE

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

10.1 Checklist before commissioning

- 1 After the installation of the unit, check the items listed below.
- 2 Close the unit.
- 3 Power up the unit.

| | |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | The indoor unit is properly mounted. |
| <input type="checkbox"/> | The outdoor unit is properly mounted. |
| <input type="checkbox"/> | The system is properly earthed and the earth terminals are tightened. |
| <input type="checkbox"/> | The power supply voltage matches the voltage on the identification label of the unit. |
| <input type="checkbox"/> | There are NO loose connections or damaged electrical components in the switch box. |
| <input type="checkbox"/> | There are NO damaged components or squeezed pipes on the inside of the indoor and outdoor units. |
| <input type="checkbox"/> | There are NO refrigerant leaks . |
| <input type="checkbox"/> | The refrigerant pipes (gas and liquid) are thermally insulated. |
| <input type="checkbox"/> | The correct pipe size is installed and the pipes are properly insulated. |
| <input type="checkbox"/> | The stop valves (gas and liquid) on the outdoor unit are fully open. |
| <input type="checkbox"/> | The following field wiring has been carried out according to this document and the applicable legislation between the outdoor unit and the indoor unit. |
| <input type="checkbox"/> | Drainage Make sure drainage flows smoothly. Possible consequence: Condensate water might drip. |

| | |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> | The indoor unit receives the signals of the user interface . |
| <input type="checkbox"/> | The specified wires are used for the interconnection cable . |
| <input type="checkbox"/> | The fuses, circuit breakers , or locally installed protection devices are installed according to this document, and have NOT been bypassed. |

10.2 Checklist during commissioning

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

10.3 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.

11 Troubleshooting

11.1 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. |



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.

12 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.

13 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).

13.1 Wiring diagram

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

13.1.1 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 |
| SKY BLU | Sky blue | YLW | Yellow |

| Symbol | Meaning |
|---------|-------------------------------------|
| A*P | Printed circuit board |
| BS* | Pushbutton ON/OFF, operation switch |
| BZ, H*O | Buzzer |
| C* | Capacitor |

13 Technical data

| Symbol | Meaning |
|----------------------------------------------------------------------------------|----------------------------------------------|
| AC*, CN*, E*, HA*, HE*, HL*, HN*, HR*, MR*_A, MR*_B, S*, U, V, W, X*A, K*R_*, NE | Connection, connector |
| D*, V*D | Diode |
| DB* | Diode bridge |
| DS* | DIP switch |
| E*H | Heater |
| FU*, F*U, (for characteristics, refer to PCB inside your unit) | Fuse |
| FG* | Connector (frame ground) |
| H* | Harness |
| H*P, LED*, V*L | Pilot lamp, light emitting diode |
| HAP | Light emitting diode (service monitor green) |
| HIGH VOLTAGE | High voltage |
| IES | Intelligent eye sensor |
| IPM* | Intelligent power module |
| K*R, KCR, KFR, KHuR, K*M | Magnetic relay |
| L | Live |
| L* | Coil |
| L*R | Reactor |
| M* | Stepper motor |
| M*C | Compressor motor |
| M*F | Fan motor |
| M*P | Drain pump motor |
| 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 |

| Symbol | Meaning |
|-------------|---------------------------------------------------------------------|
| SR*, WLU | Signal receiver |
| SS* | Selector switch |
| SHEET METAL | Terminal strip fixed plate |
| T*R | Transformer |
| TC, TRC | Transmitter |
| V*, R*V | Varistor |
| V*R | Diode bridge, Insulated-gate bipolar transistor (IGBT) power module |
| WRC | Wireless remote controller |
| X* | Terminal |
| X*M | Terminal strip (block) |
| Y*E | Electronic expansion valve coil |
| Y*R, Y*S | Reversing solenoid valve coil |
| Z*C | Ferrite core |
| ZF, Z*F | Noise filter |



**DAIKIN ISITMA VE SOĞUTMA SİSTEMLERİ SAN.TİC. A.Ş.**

Gülsuyu Mahallesi, Fevzi Çakmak Caddesi, Burçak Sokak, No:20, 34848 Maltepe

İSTANBUL / TÜRKİYE

Tel: 0216 453 27 00

Faks: 0216 671 06 00

Çağrı Merkezi: 444 999 0

Web: www.daikin.com.tr

Copyright 2021 Daikin

DAIKIN EUROPE N.V.

Zandvoordestraat 300, B-8400 Oostende, Belgium

3P650253-1S 2022.11