



Installation manual

HDMC

DCI R32 Mural

EN

WARNINGS AND PRECAUTIONS

Read this document carefully before undertaking any installation work.

 A2L	WARNING	This symbol indicates that this unit uses a flammable refrigerant. There is a risk of fire if refrigerant leaks and is exposed to an external ignition source.
	CAUTION	This symbol indicates that qualified personnel must handle this equipment in accordance with the installation instructions.
	CAUTION	
	CAUTION	This symbol shows that the manual should be read carefully
	CAUTION	Follow the recommendations given in the installation manual and user manual.

WARNINGS AND PRECAUTIONS

Regulatory conditions for installation and maintenance

The installation and maintenance of the device must be carried out by a certified professional in accordance with the regulations and best practices in force, in particular:

France:

- Legislation on the handling of refrigerants: Decree 2007/737 and its implementing orders.
- The commissioning of this air conditioner requires the services of a qualified installer with a certificate of competence in accordance with Articles R 543-75 to 123 of the Environmental Code and its implementing decrees. This also applies to any other operation carried out on equipment requiring the handling of refrigerants.
- NF C 15-100 and its amendments: Low-voltage electrical installations - Rules.

R32 refrigerant

- To install the unit, use R32 refrigerant in case of additional charging, tools and connections specifically adapted to R32.
- This flammable refrigerant requires compliance with minimum room sizes and volumes where the appliance is installed, stored or used. Ensure that the application on site is in line with the size of the rooms being treated and the refrigerant charge of the installation (compliance with standard EN-378).
- Do not introduce any substances other than the recommended refrigerant into the appliance. If air enters the refrigeration circuit, the pressure in the circuit will increase abnormally and may break the connections.
- Do not release the refrigerant into the atmosphere. In the event of a refrigerant leak during installation, ventilate the room. At the end of the installation, there must be no refrigerant leaks in the circuit. A fluid leak exposed to flames may cause toxic fumes.
- Do not touch the refrigerant if there is a leak from the connections or elsewhere. Direct contact may cause frostbite.
- Do not install or store the unit near a heat source.
- Observe the safety and usage rules for R32 refrigerant.
- Comply with national gas regulations.
- Do not drill or burn the appliance.

General

- Dispose of packaging materials properly. Tear open plastic packaging and dispose of it in a place where children cannot play with it. Untorn plastic packaging can cause suffocation.
- This appliance contains no user-serviceable parts. Entrust it to an installer.
- This appliance can be used by children aged 8 years and above and by 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 should not play with the appliance. Cleaning and user maintenance should not be carried out by children without supervision.

Handling

- The outdoor unit must not be laid flat during transport. Transporting the unit in a horizontal position may damage the appliance due to the displacement of the refrigerant and deformation of the compressor mountings. Damage caused by transport in a horizontal position is not covered by the warranty. If necessary, the outdoor unit may only be tilted when handled by hand (to pass through a doorway or up stairs). This must be done with care and the unit must be returned to an upright position immediately.

Refrigeration connections

- All refrigeration circuits are susceptible to contamination by dust and moisture. If such pollutants enter the refrigeration circuit, they can contribute to a reduction in the reliability of the units. It is necessary to ensure that the refrigeration connections and circuits of the units are properly sealed. In the event of a subsequent failure and upon inspection, the presence of moisture or foreign bodies in the compressor oil will automatically void the warranty.
- Upon receipt, check that the refrigeration circuit connections and plugs fitted to the indoor and outdoor units are securely in place and locked (impossible to loosen by hand). If this is not the case, lock them using a counter key.
- Check that the refrigerant connections are properly sealed (plastic plugs or tubes crushed at the ends and soldered). If the plugs need to be removed during work (e.g. tubes cut), replace them as soon as possible to avoid contamination of the tube.
- Do not use blue paste or sealant on refrigeration connections as this will block them. Doing so will void the appliance warranty.
- Do not use ordinary mineral oil on flare fittings. Use POE refrigeration oil, taking care to prevent it from entering the circuit, as this may reduce the service life of the equipment.
- Use dry nitrogen to flush out any filings in the pipes and to prevent the introduction of moisture, which can interfere with the operation of the appliance.
- The flare connection of the refrigeration lines must be made outdoors.

Batteries

- Keep batteries out of the reach of children.
- If the remote control is not used for a long period of time, remove the batteries to prevent possible leakage that could damage the device.
- If liquid from the batteries comes into contact with your skin, eyes or mouth, rinse immediately with plenty of water and consult your doctor.
- Used batteries must be removed immediately and recycled appropriately.
- Do not attempt to recharge batteries.

Installation

- Before carrying out any work, ensure that the main power supply is switched off.
- Installation must be carried out in strict compliance with the standards in force at the installation site and the manufacturer's installation instructions.
- The installer must install the unit according to the recommendations given in this manual. Incorrect installation can cause serious damage such as refrigerant or water leaks, electric shocks or fire hazards. If the unit is not installed in accordance with this manual, the manufacturer's warranty will be invalid.
- Only qualified personnel are authorised to handle, fill, purge and dispose of the refrigerant.
- These air conditioners are intended for residential and commercial use to ensure the thermal comfort of users. They are not intended for use in locations with excessive humidity (florists, indoor greenhouses, wine cellars, etc.), where the ambient air is dusty, or where there is significant electromagnetic interference (computer rooms, proximity to television antennas or relays).
- The units are not explosion-proof and must not be installed in explosive atmospheres.
- Take appropriate measures to prevent the outdoor unit from being used as a shelter by small animals. Animals that come into contact with electrical parts may cause malfunctions or fires. Inform the customer that they must keep the area around the unit clean.
- Install the units in a location where it will be easy to install the gas, liquid and condensate drain pipes.
- Install the air conditioner on a foundation that is strong enough to support the weight of the unit. An insufficiently strong foundation may cause the unit to fall and result in injury.
- Install the indoor unit, outdoor unit, power cables, interconnect cables and remote control cables at least 1 m away from a television or radio receiver. This precaution is intended to prevent interference with the television reception signal or noise on the radio signal (however, even at a distance of more than 1 m, the signals may still be disrupted).
- If you move house, call an installer to disconnect and reinstall the appliance.
- Be sure to use the parts supplied or specified in the manual when performing installation work.
- Secure the electrical box cover and service panel of the units correctly. If the electrical box cover or service panel of the unit is not secured properly, there is a risk of fire or electric shock due to the presence of dust, water, etc.

Electrical connections

- The electrical installation must be carried out in accordance with the regulations in force, in particular: standard NF C 15-100.
- If the power cable is damaged, it must be replaced with a special cable or assembly available from the manufacturer or its after-sales service.
- The indoor unit operates at a nominal voltage of 230 Volts 50Hz. At no time (including during start-up) should the voltage fall below 198 V or exceed 264 V at the terminals of the unit.
- The maximum cable length depends on a voltage drop, which must be less than 2%. If the cable length is excessive, use a larger cable cross-section.
- Electrical connections should only be made once all other installation operations (fixing, assembly, etc.) have been completed.
- Check that the wiring is not subject to wear, corrosion, excessive pressure, vibration, sharp edges or any other harmful environmental effects.
- Airwell air conditioning units are designed to operate with the following neutral systems: TT and TN. The IT neutral system is not suitable for these units (use an isolation transformer). Single-phase power supplies without neutral (between phases) are strictly prohibited. For three-phase units, the neutral must also always be distributed (TT or TN).
- The contract with the energy supplier must be sufficient to cover not only the power of the unit but also the sum of the powers of all units that may be operating at the same time. If the power is insufficient, check with the energy supplier to find out the power rating specified in your contract.
- Obtain the cable specifications and harmonic current, etc. from the electricity distribution network operator.
- Never use a power socket for the power supply.
- Use a dedicated power supply circuit. Do not share the power supply with another device.
- Use an independent power line protected by an omnipolar circuit breaker with contacts opening to more than 3 mm to power the device.
- The electrical installation must be equipped with a 30 mA residual current device.
- Ensure that the circuit breaker is located in a place where users cannot start or stop it unintentionally (annex room, etc.). When the electrical panel is located outdoors, close and lock it so that it cannot be easily accessed.
- Except in an emergency, never switch off the main circuit breaker or the indoor unit circuit breaker during operation. Doing so would cause the compressor to fail and water to leak. Only switch off the indoor unit using any type of remote control or an external input device (switch), then switch off the circuit breaker.
- Never touch electrical components immediately after the power has been turned off. An electric shock may occur. After turning off the power, always wait 10 minutes before touching electrical components. Static electricity in the human body can damage components. Discharge static electricity from your body.
- Ground the unit. Incorrect grounding may result in electric shock.
- Incorrect wiring may damage the entire system.
- If the voltage is too low or drops when the appliance is started, it may have difficulty starting. In this case, consult your ERDF agency.
- Ensure that all cables are secure, use wires that comply with current standards (NF C 15-100 in particular), and that no force is exerted on the terminal connections or cables.

SUMMARY

1	SPECIFICATIONS	8
1.1	COOLING AND HEATING CAPACITIES	8
1.2	ELECTRICAL DIMENSIONS	8
1.3	REFRIGERATION CONNECTIONS	8
1.4	FLARE CONNECTION SPECIFICATIONS	9
1.5	OPERATING CONDITIONS	9
2	STANDARD ACCESSORIES	10
2.1	OUTDOOR UNIT	10
2.2	INDOOR UNIT	10
3	MOVING THE OUTDOOR UNIT	11
4	INSTALLATION	11
4.1	OUTDOOR UNIT	11
4.1.1	<i>A single outdoor unit</i>	12
4.1.2	<i>Multiple outdoor units</i>	13
4.1.3	<i>Dimensions</i>	16
4.1.4	<i>Ground anchoring</i>	18
4.1.5	<i>Removing the covers</i>	19
4.2	INDOOR UNIT	20
4.2.1	<i>HDMC dimensions</i>	21
5	INSTALLATION	21
5.1	MOUNTING BRACKET INSTALLATION	22
6	CONDENSATE DRAIN	24
6.1	OUTDOOR UNIT	24
6.2	INDOOR UNIT	25
6.2.1	<i>Raising the condensate drainpipe</i>	25
6.2.2	<i>Installation procedure</i>	25
7	REFRIGERATION CONNECTIONS	26
7.1.1	<i>Pipe bending</i>	26
7.1.2	<i>Flare connection</i>	27
7.1.3	<i>Insulation</i>	29
8	ELECTRICAL CONNECTION	30
8.1	ELECTRICAL DIMENSIONS	30
8.1.1	<i>Cable preparation</i>	30
8.1.2	<i>Schematic diagram</i>	31
8.1.3	<i>Terminals</i>	32
8.1.4	<i>Cable routing</i>	32
9	COMMISSIONING THE INSTALLATION	33
9.1	PRECAUTIONS	33
9.2	EQUIPMENT TO BE OBTAINED	33
9.2.1	<i>Leak test (no leaks)</i>	33
9.2.2	<i>Vacuum extraction</i>	34
9.3	ADDITIONAL CHARGING (IF NECESSARY)	35
9.4	SYSTEM PRESSURISATION (OPENING SERVICE VALVES)	35
9.5	CHECKING FOR LEAKS IN THE CIRCUIT	36
9.6	TESTING THE UNIT	36
9.7	PUMP-DOWN OPERATION	36
10	EXTERNAL INPUTS AND OUTPUTS	37
10.1	ON/OFF CONTACT	37
10.2	WIRED REMOTE CONTROL CONNECTION	37
11	CHECK BEFORE POWERING UP	38

12. OPERATING TEST	38
13. ERROR CODES.....	39
14. ROUTINE MAINTENANCE (USER)	41
15. PROFESSIONAL MAINTENANCE (QUALIFIED PERSONNEL ONLY)	42

1 SPECIFICATIONS

1.1 Cooling and heating capacities

	Power	
	Nominal cooling capacity (Minimum/Maximum)	Nominal heating capacity (Min/Max)
HDMC-025N-09M25	2600 W (1030 W / 3220 W)	2900 W (820 W / 3370 W)
HDMC-035N-09M25	3500 W (1380 W / 4310 W)	3810 W (1070 W / 4380 W)
HDMC-050N-09M25	5000 W (1990 W / 5800 W)	5400 W (1350 W / 6300 W)
HDMC-070N-09M25	6100 W (3020 W / 8790 W)	7300 W (1520 W / 9470 W)

1.2 Electrical dimensions

	Power cable	Circuit breaker rating
YDAC-025R-09M25	3G1.5 mm ²	16 A
YDAC-035R-09M25	3G1.5 mm ²	16 A
YDAC-050R-09M25	3G2.5 mm ²	20 A
YDAC-070R-09M25	3G2.5 mm ²	20 A

	Interconnect cable
HDMC-025N-09M25	5G1.5 mm ²
HDMC-035N-09M25	5G1.5 mm ²
HDMC-050N-09M25	5G1.5 mm ²
HDMC-070N-09M25	5G2.5 mm ²

1.3 Refrigeration connections

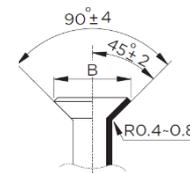
	Liquid pipe diameter	Gas pipe diameter
YDAC-025R-09M25	1/4" – 6.35 mm	3/8" – 9.52 mm
YDAC-035R-09M25	1/4" – 6.35 mm	3/8" – 9.52 mm
YDAC-050R-09M25	1/4" – 6.35 mm	1/2" – 12.70 mm
YDAC-070R-09M25	1/4" – 6.35 mm	1/2" – 12.70 mm

	Liquid tube diameter	Gas tube diameter
HDMC-025N-09M25	1/4" – 6.35 mm	3/8" – 9.52 mm
HDMC-035N-09M25	1/4" – 6.35 mm	3/8" – 9.52 mm
HDMC-050N-09M25	1/4" – 6.35 mm	1/2" – 12.70 mm
HDMC-070N-09M25	1/4" – 6.35 mm	1/2" – 12.70 mm

	Preload (m)	Minimum/maximum length (m)	Max height difference (m)
YDAC-025R-09M25	5	5 / 25	10
YDAC-035R-09M25	5	5 / 25	10
YDAC-050R-09M25	5	5 / 30	20
YDAC-070R-09M25	5	5 / 50	25

1.4 Flare Connection Specifications

Outer Diameter of Pipe (mm)	Tightening Torque (N·m)	Tightening Torque (kgf·cm)	Flare Dimension B (mm)	Flare Dimension B (inch)
Ø 6.35 (Ø 1/4")	18–20	180–200	8.4–8.7	0.33–0.34
Ø 9.52 (Ø 3/8")	32–39	320–390	13.2–13.5	0.52–0.53
Ø 12.7 (Ø 1/2")	49–59	490–590	16.2–16.5	0.64–0.65
Ø 16 (Ø 5/8")	57–71	570–710	19.2–19.7	0.76–0.78
Ø 19 (Ø 3/4")	67–101	670–1010	23.2–23.7	0.91–0.93



1.5 Operating conditions

	COOL mode	HEAT mode	Dehumidification
Indoor ambient temperature	16–32 °C (60–90 °F)	0–30 °C (32–86 °F)	10–32 °C (50–90 °F)

Outdoor temperature

Condition	Cooling	Heating	Dehumidification
Standard models	0–50 °C (32–122 °F)	–15–24 °C (5–75 °F)	0–50 °C (32–122 °F)
Models without low-temperature cooling	–15–50 °C (5–122 °F)	–15–24 °C (5–75 °F)	0–50 °C (32–122 °F)
Special tropical models	0–52 °C (32–126 °F)	–15–24 °C (5–75 °F)	0–52 °C (32–126 °F)

2 STANDARD ACCESSORIES

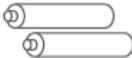
2.1 Outdoor unit

Standard accessories are always included in the packaging. Retrieve the accessories and instructions before disposing of the packaging. Use the accessories in accordance with the instructions.

Designation	Image	Quantity
Condensate outlet		1
Seal		1

2.2 Indoor unit

Standard accessories are always included in the packaging. Retrieve the accessories and instructions before disposing of the packaging. Use the accessories in accordance with the instructions.

Accessory name	Qty (pcs)	Image	Accessory name	Qty (pcs)	Image
Manual	1–3		Remote control	1	
Drain connection <i>(cold & hot models)</i>	1		Batteries	2	
Sealing gasket <i>(cold & hot models)</i>	1		Remote control holder <i>(sold separately)</i>	1	
Mounting plate	1		Remote control holder fixing screw <i>(sold separately)</i>	2	
Anchor bolts	5–8 <i>(depending on model)</i>		Small filter <i>(to be installed behind the main filter by a certified technician during installation)</i>	1–2 <i>(depending on model)</i>	
Mounting plate fixing screws	5–8 <i>(depending on model)</i>		Cable clamp <i>(some units only — used during on-site wiring to ensure proper crimping)</i>	1	
Copper nuts <i>(some units — for connecting indoor and outdoor units)</i>	2				

3 MOVING THE OUTDOOR UNIT



- Do not touch the fins, as there is a risk of cutting yourself.
- Carry the unit carefully, holding it by the right and left handles.

4 INSTALLATION

4.1 Outdoor unit

The choice of location is particularly important, as subsequent relocation is a delicate operation that must be carried out by qualified personnel.

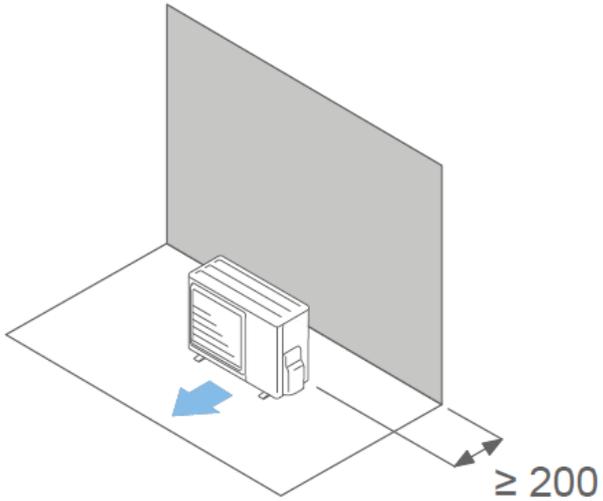
Decide on the installation location after discussion with the customer.

- Install the outdoor unit in a location that can support its weight and does not transmit vibrations.
- Install the outdoor unit horizontally.
- Ensure that there is sufficient space to allow for proper air circulation. The air inlet and outlet must not be obstructed under any circumstances.
- Avoid installing the unit in direct sunlight.
- Do not install the unit near a source of heat, steam or flammable gases.
- During Heating mode operation, condensation water flows from the outdoor unit. Take all necessary measures to ensure that this water flows freely and does not cause damage to buildings.
- Do not install the unit facing the wind, in a location exposed to strong winds or dust.
- Do not install the unit in a high-traffic area.
- Install the outdoor unit in an area where it will not cause a nuisance to neighbours who may be affected by airflow, noise or vibration. If the outdoor unit is to be installed near neighbours, ensure that you have obtained their consent beforehand.
- Avoid installing the outdoor unit in a location where it may be exposed to dirt or significant water runoff (e.g. under a faulty gutter).
- Check that the connections to the indoor units can be easily accessed.
- Take servicing and maintenance into account when choosing the location. Leave enough space to allow easy access to the air conditioner.

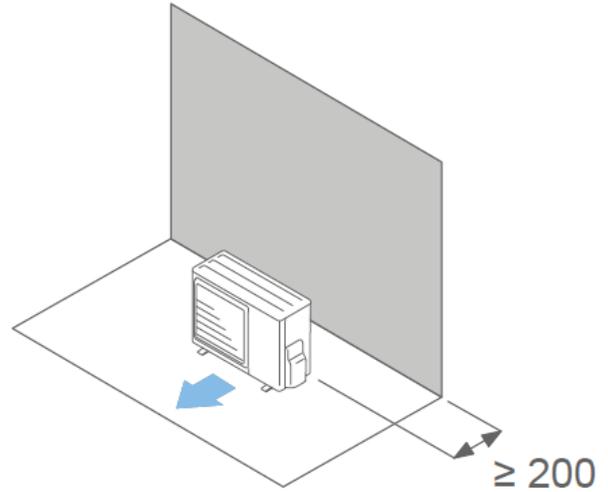
4.1.1 A single outdoor unit

Top of outdoor unit uncovered

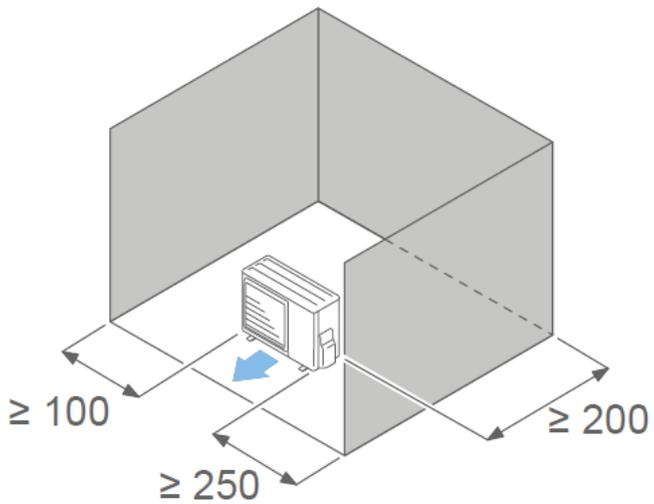
Obstacle only behind



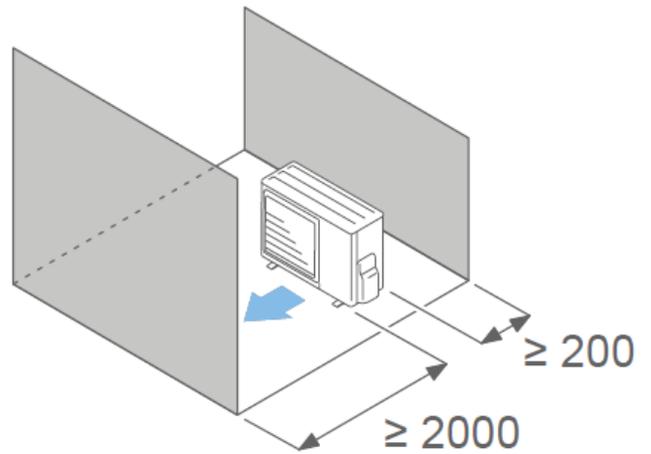
Obstacle only in front



Obstacles behind and on the sides

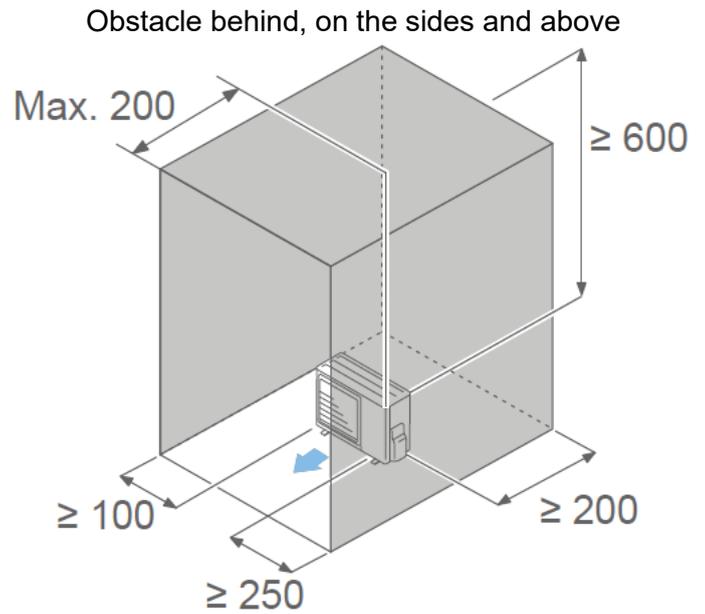
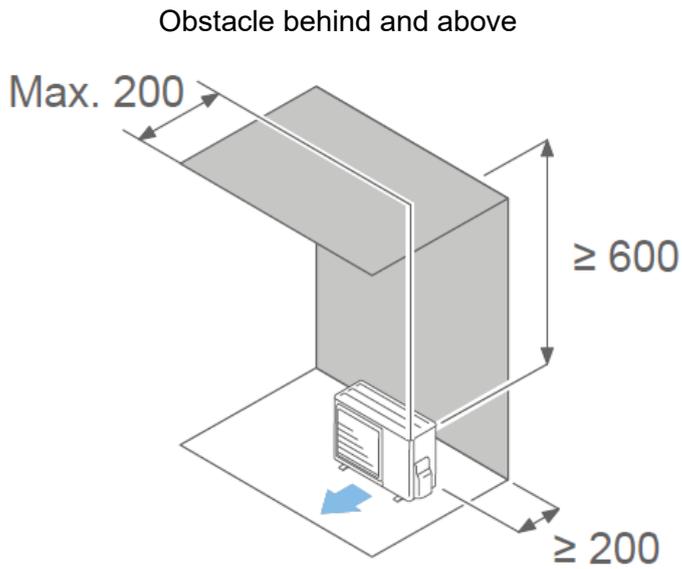


Obstacles in front and behind



Unit: mm

Top of outdoor unit covered

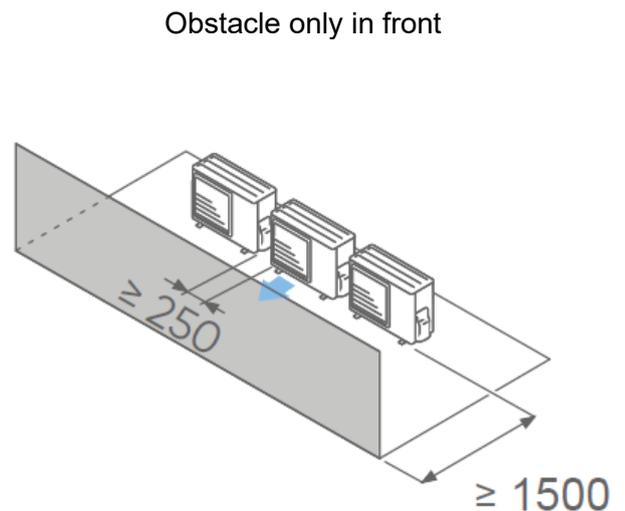
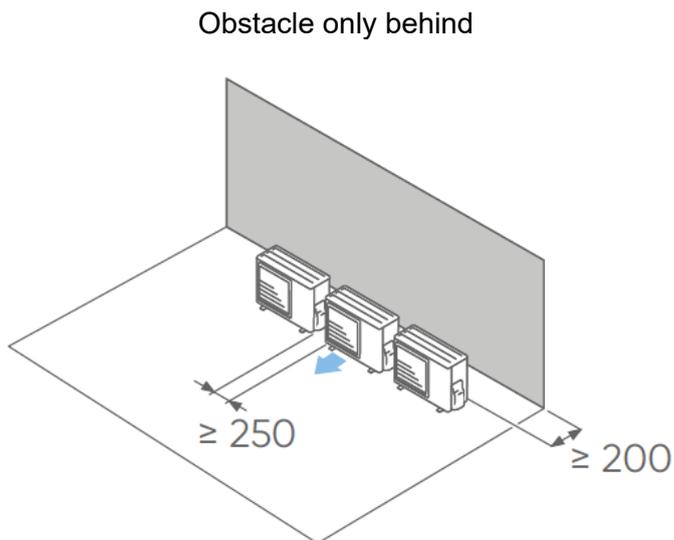


Unit: mm

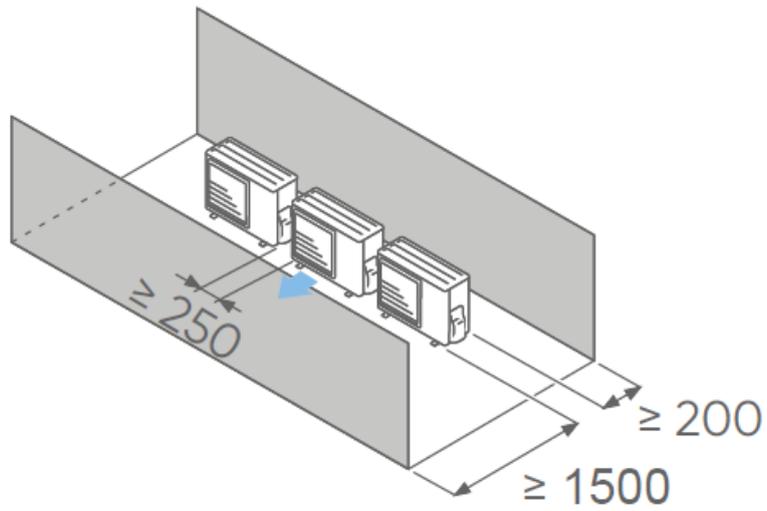
4.1.2 Multiple outdoor units

1. Leave at least 250 mm of space between outdoor units if they are installed side by side.
2. When connecting pipes on the side of an outdoor unit, leave sufficient space for installation and maintenance.
3. No more than 3 units should be installed side by side. When more than 3 units are to be installed in a line, leave sufficient space as shown in the example (when an obstacle is also present above).

Top of outdoor units not covered

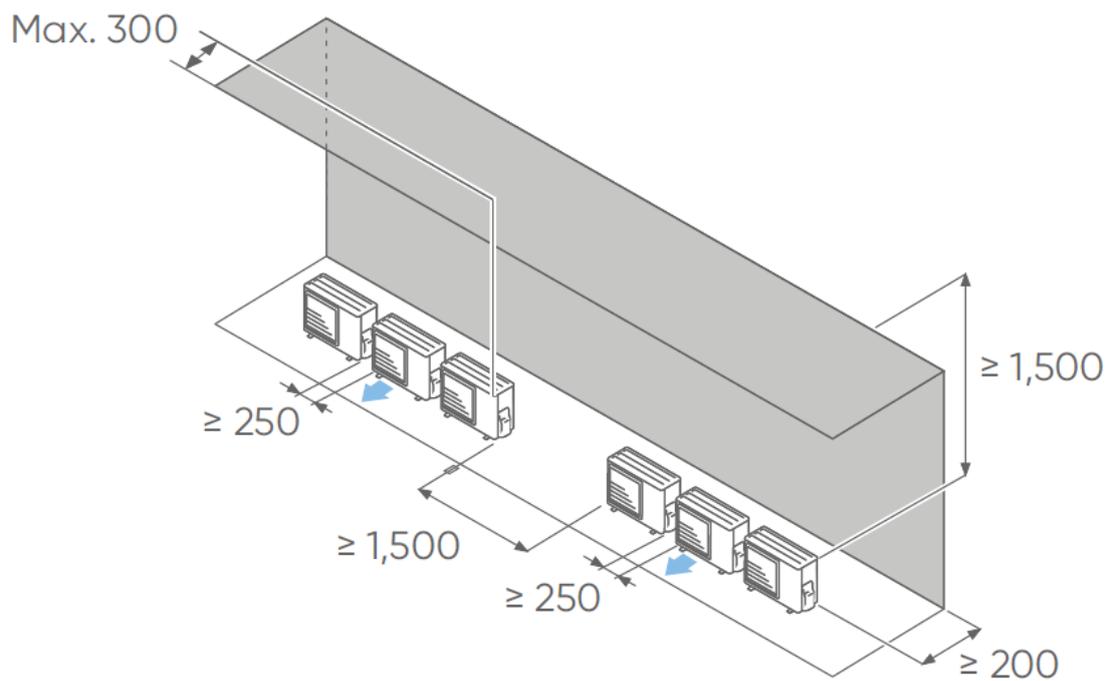


Obstacles in front and behind

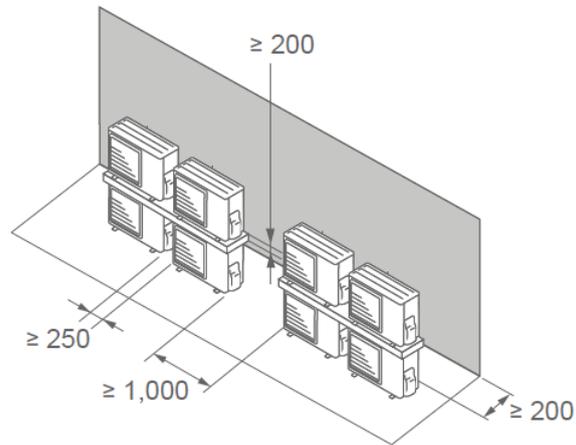
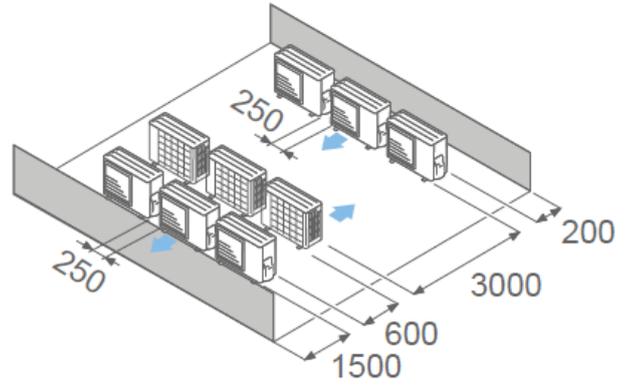
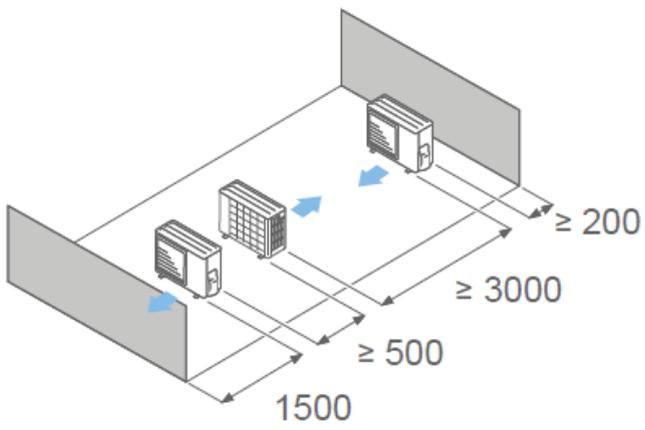


Unit: mm

Top of outdoor units covered

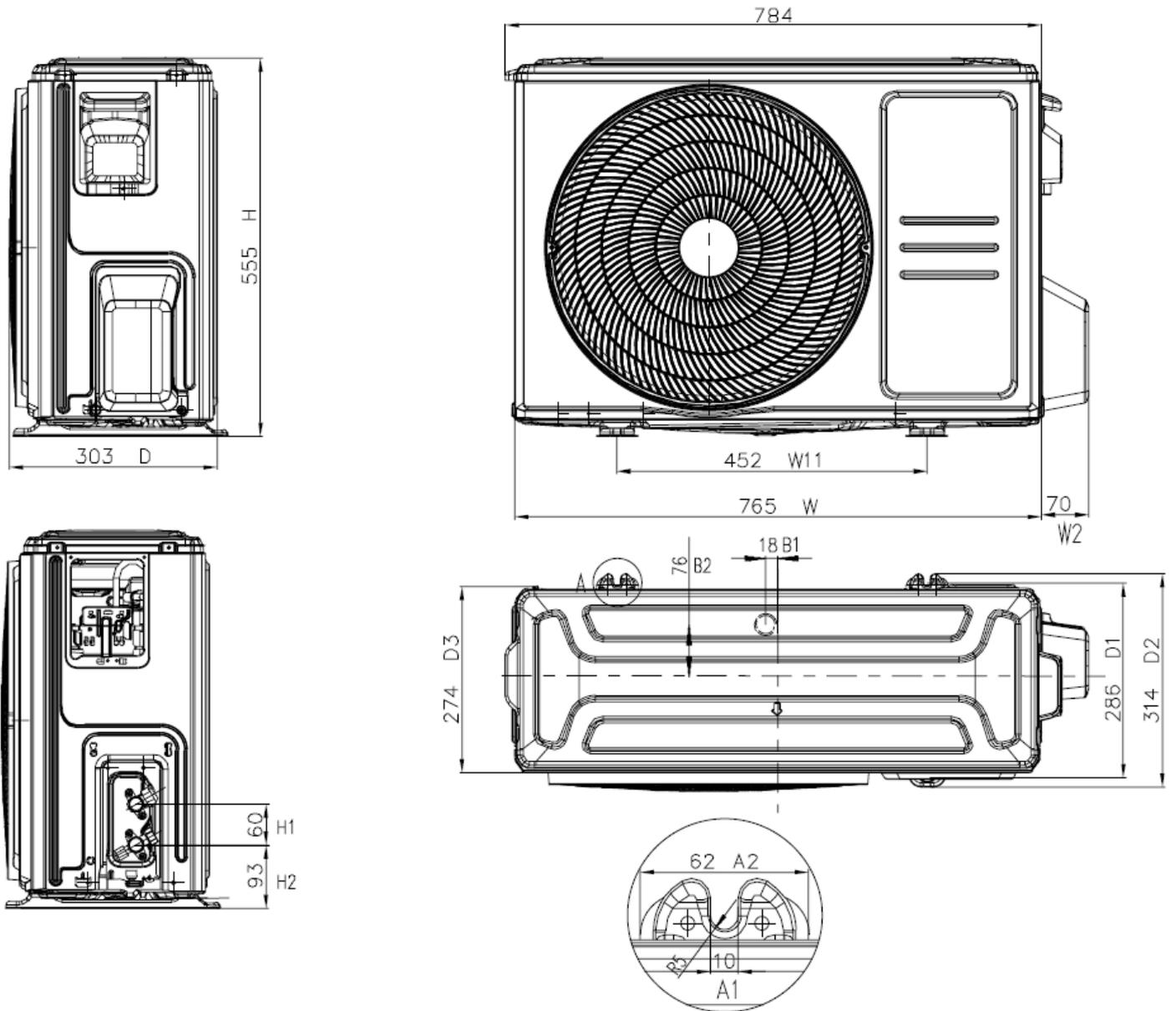


Several outdoor units in parallel



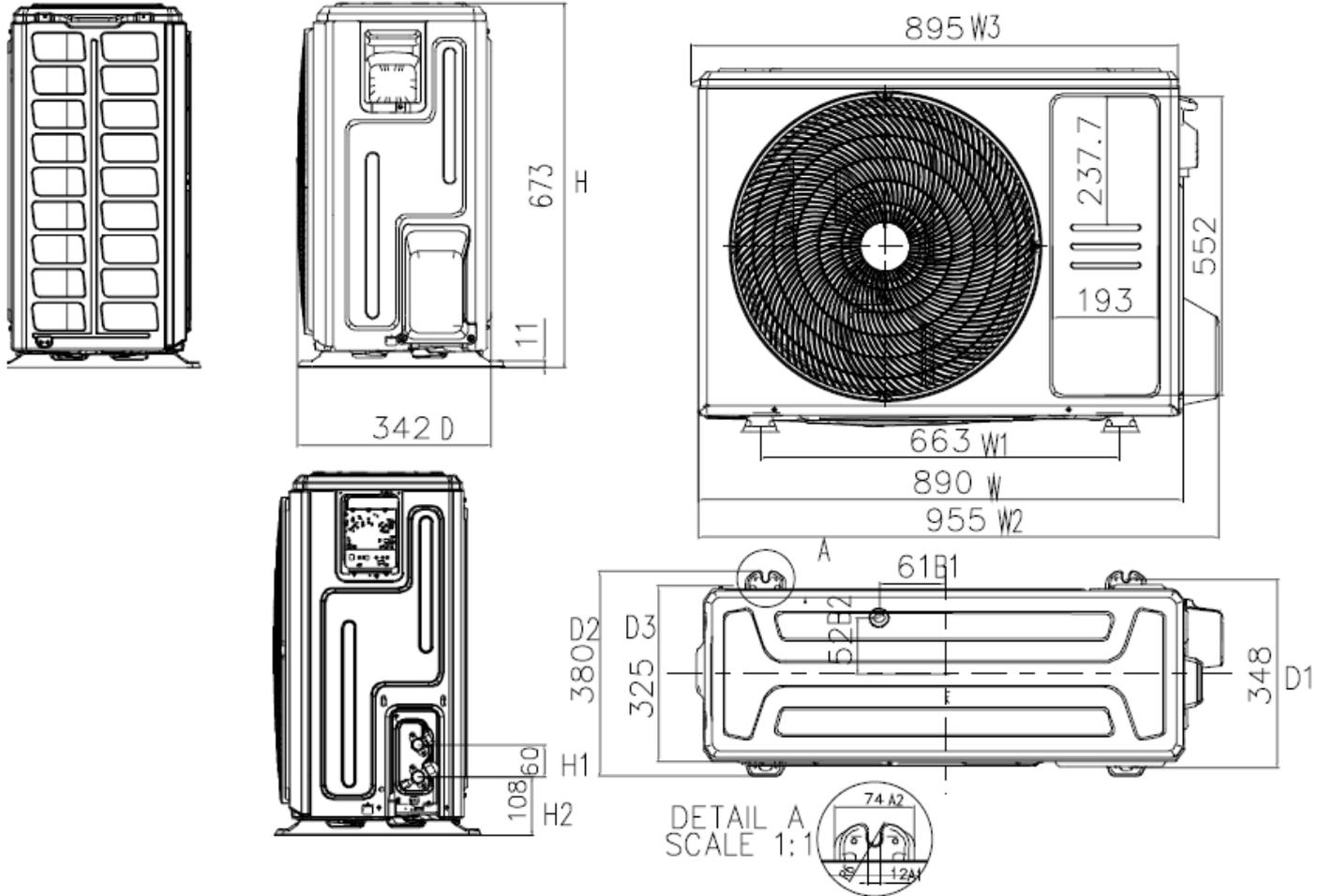
4.1.3 Dimensions

4.1.3.1 YDAC 25 - 35



(mm)

4.1.3.2 YDAC 50 - 70

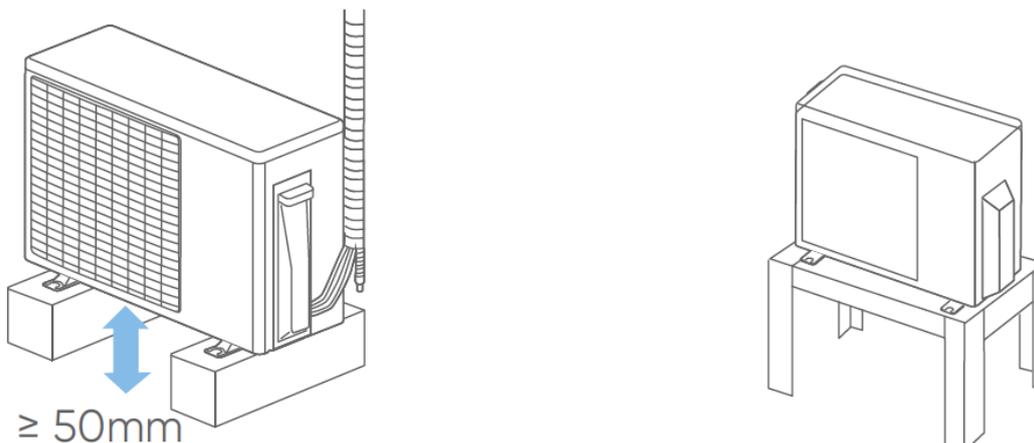


(mm)

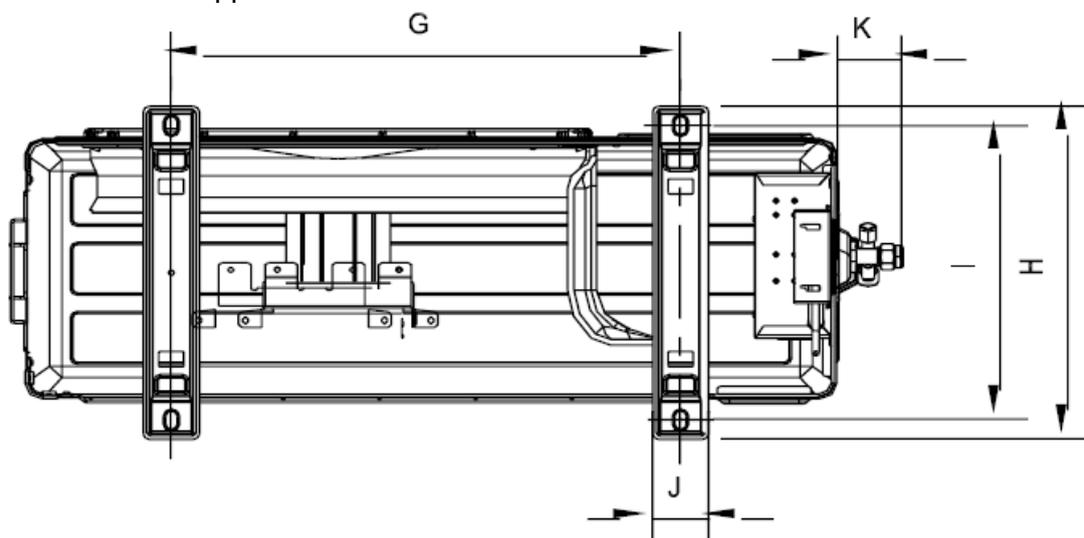
4.1.4 Ground anchoring



- Do not install the outdoor unit directly on the ground, as this may cause malfunction. Condensate water may freeze between the ground and the base of the unit and prevent condensate drainage.
- Heavy snowfall in some areas may block the air inlet and outlet and prevent the production of warm air. Build a shelter and pedestal or install the outdoor unit on raised feet (depending on the environment).

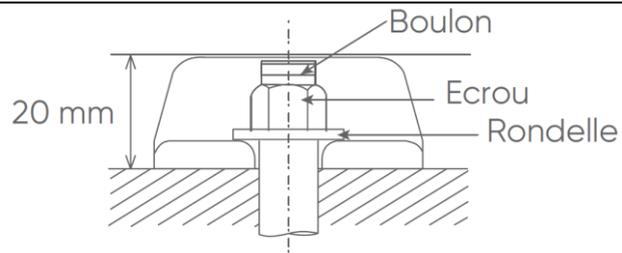


1. Install the unit horizontally (do not tilt it more than 3 degrees). When laying the foundations, ensure there is sufficient space to install the refrigeration connections.
2. Depending on the installation conditions, vibrations may spread during operation, causing noise. To reduce vibrations, install the units on a support such as concrete blocks or anti-vibration mounts. (example: anti-vibration mounts – air conditioning accessories).
3. Fasten the 4 anchor bolts at the locations indicated by the arrows in the figure below.
4. The foundations must support the outdoor unit cradles and have a total thickness of 50 mm or more.



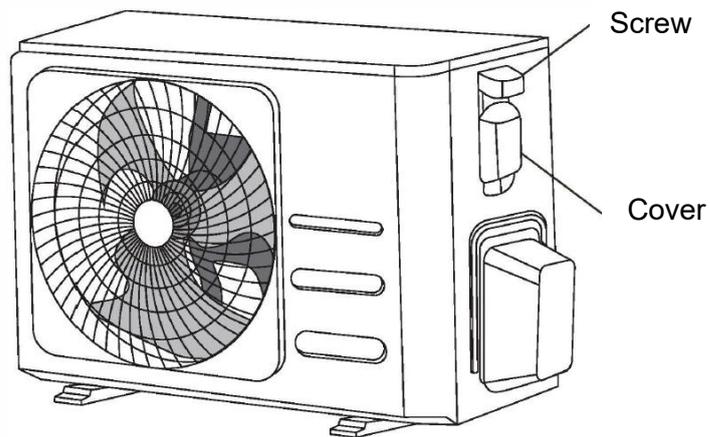
	G (mm)	I (mm)
YDAC 25 - 35	362	256
YDAC 50	516	314
YDAC 70	586	347.5

1. Secure the installation using 4 anchor bolts, washers and nuts (M10).
2. The bolts should protrude by 20 mm.



4.1.5 Removing the covers

1. Remove the self-tapping screws.
2. Slide the cover downwards and then pull it off.



4.2 Interior Unit

Choosing the location is particularly important, as moving the unit at a later date is a delicate operation that must be carried out by qualified personnel.

Decide on the installation location after discussion with the customer.

- Take servicing and maintenance into account when choosing the location.
- Leave sufficient space to allow easy access to the air conditioner, particularly for removing the filters.
- Ensure that the walls can support the weight of the indoor units to prevent them from falling and causing injury.
- Install the unit in a location that can support its weight and does not transmit vibrations or noise.
- Install the unit in such a way as to allow easy connection to the outdoor unit.
- Install the unit in a location where it will be easy to install the gas and liquid connections and condensate drain.
- The air inlet and outlet must not be obstructed under any circumstances. Air must be blown throughout the room.

Do not install the indoor unit in the following locations:

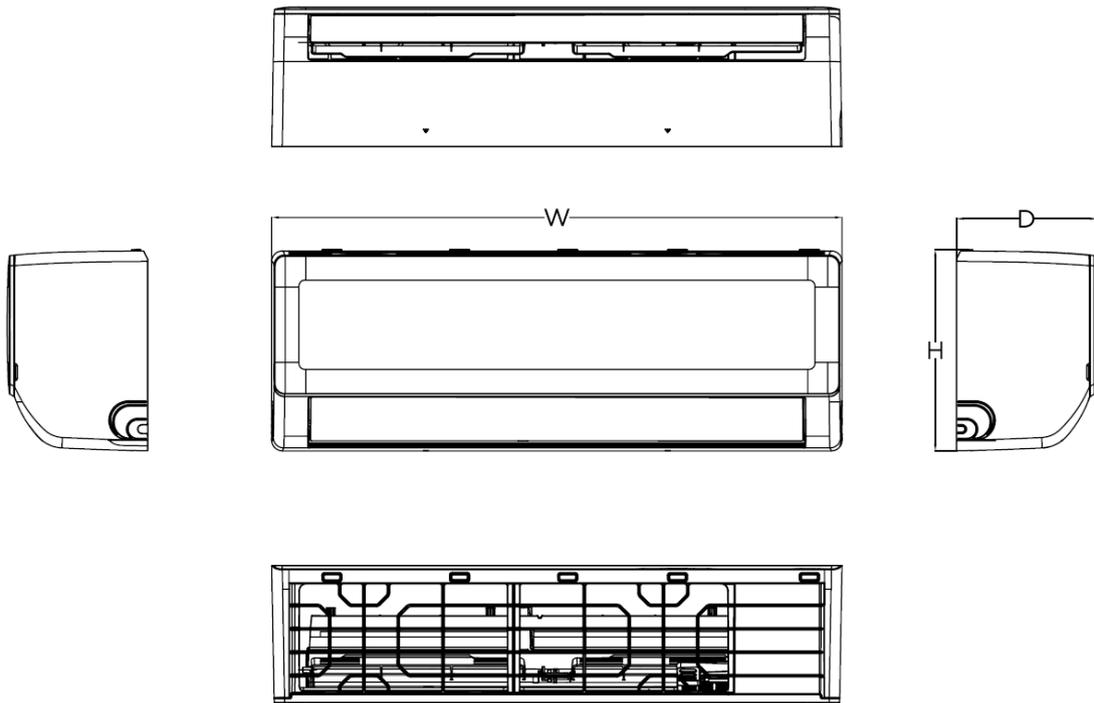


- A room containing mineral oil and subject to oil or steam splashes (e.g. a kitchen). This could damage the plastic parts and cause parts to fall off or water to leak from the units.
- A place where substances that compromise the equipment are produced, such as sulphuric gas, chlorine gas, acid, or alkali. This would corrode the copper pipes and joints, causing refrigerant leakage.
- A location with combustible gas leaks, containing carbon fibres or flammable dust in suspension, or volatile flammable particles such as paint thinner or petrol. If the gas leaks and spreads around the unit, it may ignite.
- An area where ammonia is present.
- Near a source of heat, steam, or flammable gas.
- In a location where there is a risk of dangerous gas leaks.
- Do not use the unit for special purposes, such as storing food, plants, etc.
- If children under the age of 10 can approach the units, take all necessary measures to ensure that they cannot touch them.
- Directly exposed to sunlight.
- The unit must be installed by a sufficient number of people with equipment suitable for the weight of the unit. An insufficient number of people or inadequate tools may cause the unit to fall or result in personal injury.



- If the unit is secured only by the front panel, there is a risk that the unit may become detached.
- Confirm the air intake and air outlet directions before installing the unit.

4.2.1 HDMC dimensions

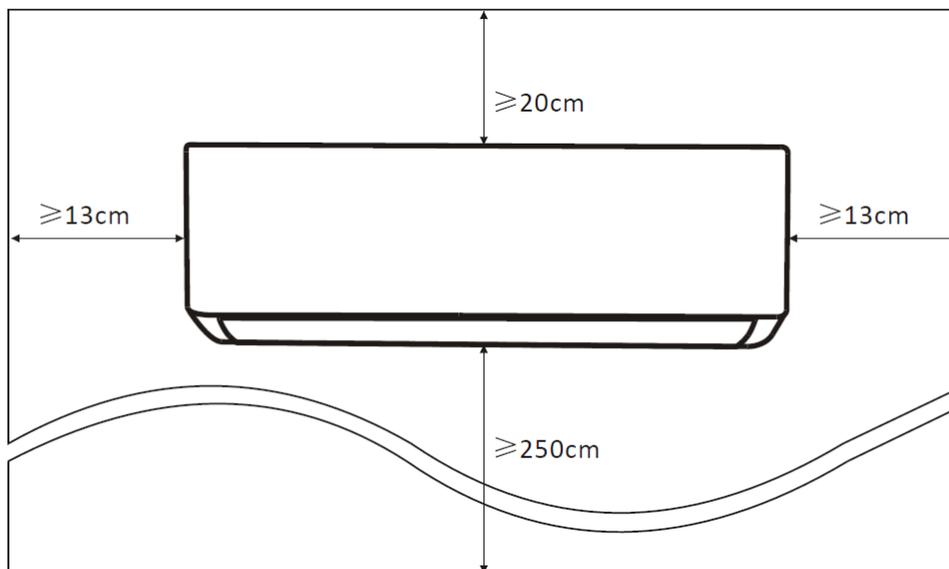


	W	D	H
HDMC 25	723	199	286
HDMC 35	813	201	289
HDMC 50	975	218	308
HDMC 70	1055	231	330

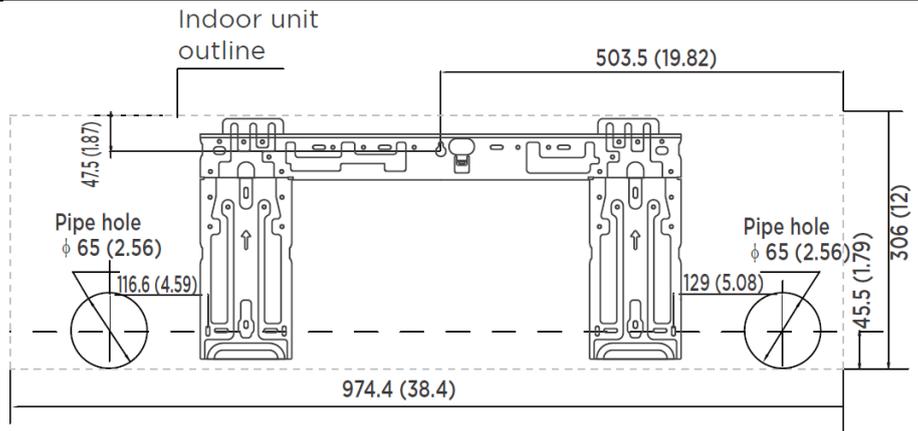
(mm)

5 INSTALLATION

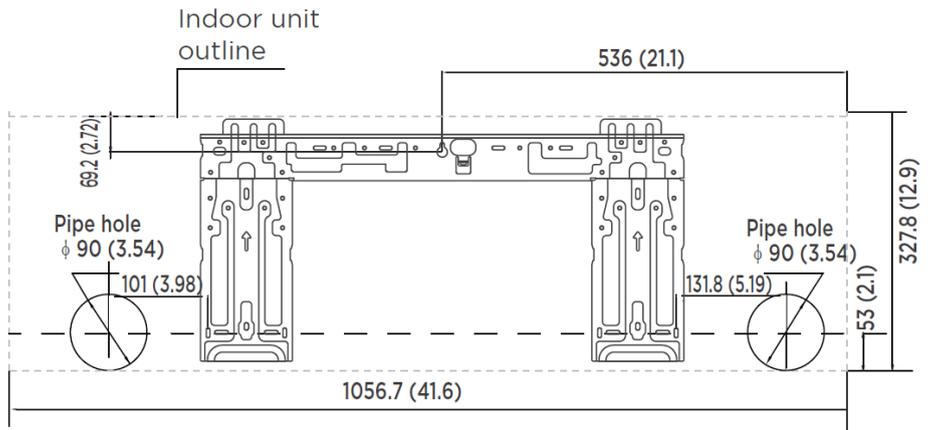
- Select the location and drill the holes for mounting the bracket and the hole for the connections.
- Prepare the refrigerant connections, the condensate drain pipe and the electrical cables.
- Install the air conditioner on a support that is strong enough to hold it.
- Confirm the air intake and air outlet directions before installing the unit.



HDMC-050N-09M25



HDMC-070N-09M25

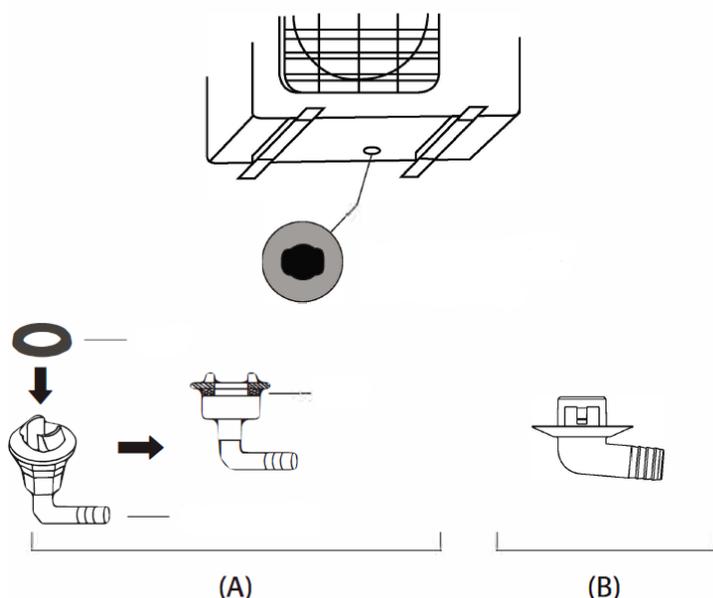


6 CONDENSATE DRAIN

6.1 Outdoor unit



- On reversible units, condensation water drains during heating mode operation. Connect the condensate drain to a 16 mm diameter PVC pipe, taking all necessary precautions to prevent the drain from freezing.
- Install the condensate drain according to the instructions and ensure that it drains properly. If the installation is not carried out correctly, water may drip down from the unit.
- In cold regions, do not use the cap and condensate drain pipe. Using the cap and drain pipe in cold weather (outside temperature below or equal to 0°C) may cause the condensate to freeze at the end of the pipes (reversible model only). In addition, the holes in the base of the outdoor unit must never be blocked. It may be necessary to install an anti-freeze heater for the drain.
- When the condensate outlet is connected, plug the unused holes at the base of the outdoor unit with the rubber plugs and seal with sealant to prevent any risk of leakage.



6.2 Indoor unit



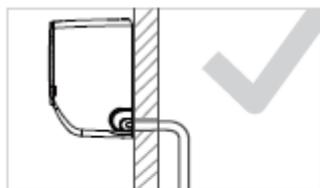
- Take the necessary precautions to prevent condensate water from freezing at low temperatures. A drain pipe blocked by frozen water can cause water leakage from the indoor unit.
 - Ensure that the environment is sufficiently warm when installing the condensate drain pipe to prevent condensation problems causing water leaks.
 - Install the condensate drain pipe with a slope of 1/50 to 1/100 without any rises or siphons.
 - Provide hangers when the pipes are long.
 - Ensure that there are no air leaks.
 - Do not connect the condensate drain pipe to the sewer system, as sulphur dioxide may escape due to wear on the exchanger.
 - Insulate the connections properly to prevent water leaks.
 - Use rigid PVC pipe for drainage (VP25, external diameter 32 mm). Secure it with PVC glue in the appliance outlet.
 - Do not apply adhesive to the condensate outlet (use the pipe provided and connect it to the condensate drain outlet).
 - Insulate the pipe inside the premises by wrapping it with an insulating sleeve to prevent condensation.
- To check that the condensate drain is working properly after installation, use pieces of transparent pipe at the outlets and at the end of the pipe coming out of the indoor unit.

6.2.1 Raising the condensate drainpipe

- If the drainpipe needs to be raised, do so within 300 mm of the unit outlet and no more than 700 mm from the false ceiling. Exceeding these dimensions could result in leaks.
- Install a Condensate pump.
- If all the piping is installed 100 mm lower than the condensate drain outlet, use VP30 or higher PVC pipe with a minimum slope of 1/100.

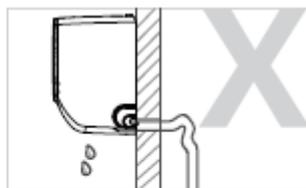
6.2.2 Installation procedure

1. Attach the adapter to the unit's drain outlet and screw on the clamp.
2. Insert the pipe into the drain outlet.
3. Tighten the clamp.
4. Use vinyl adhesive to attach the condensate drain pipe (VP25 PVC pipe) to the condensate drain adapter.
5. Wrap the condensate drain adapter with insulation (accessory).



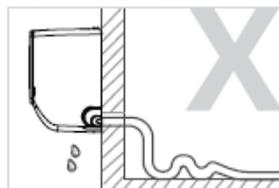
CORRECT

Make sure there are no kinks or dent in drain hose to ensure proper drainage.



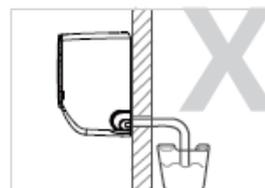
NOT CORRECT

Kinks in the drain hose will create water traps.



NOT CORRECT

Kinks in the drain hose will create water traps.



NOT CORRECT

Do not place the end of the drain hose in water or in containers that collect water. This will prevent proper drainage.

7 REFRIGERATION CONNECTIONS

Use only tubing specifically designed for refrigeration applications with the following characteristics:

- Annealed copper with high copper content (minimum 99%),
- Internally polished,
- Dehydrated,
- Plugged
- Pressure resistance: minimum 50 bar
- Minimum tube thickness 0.8 mm
- Maximum tube thickness 1.0 mm

Refrigeration connections of this type are available as AIRWELL accessories.

	Liquid pipe diameter	Gas pipe diameter
YDAC-025R-09M25	1/4" – 6.35 mm	3/8" – 9.52 mm
YDAC-035R-09M25	1/4" – 6.35 mm	3/8" – 9.52 mm
YDAC-050R-09M25	1/4" – 6.35 mm	1/2" – 12.70 mm
YDAC-070R-09M25	1/4" – 6.35 mm	1/2" – 12.70 mm

	Liquid tube diameter	Gas tube diameter
HDMC-025N-09M25	1/4" – 6.35 mm	3/8" – 9.52 mm
HDMC-035N-09M25	1/4" – 6.35 mm	3/8" – 9.52 mm
HDMC-050N-09M25	1/4" – 6.35 mm	1/2" – 12.70 mm
HDMC-070N-09M25	1/4" – 6.35 mm	1/2" – 12.70 mm

	Preload (m)	Minimum/maximum length (m)	Max height difference (m)
YDAC-025R-09M25	5	5 / 25	10
YDAC-035R-09M25	5	5 / 25	10
YDAC-050R-09M25	5	5 / 30	20
YDAC-070R-09M25	5	5 / 50	25

7.1.1 Pipe bending

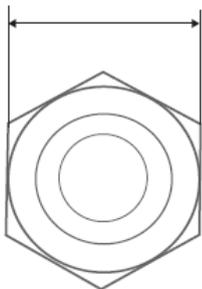


- Connections must be shaped exclusively using a bending machine or bending spring to avoid any risk of crushing or breakage.
- Bend the tubes with a minimum bend radius of 70 mm.
- Do not bend copper at an angle greater than 90°.
- Do not bend the connection more than three times in the same place (risk of breakage, work hardening of the metal).
- Remove the insulation from the connections so that they can be bent correctly using the bending machine. After bending, reseal the insulation with neoprene glue and secure with adhesive tape.

7.1.2 Flare connection

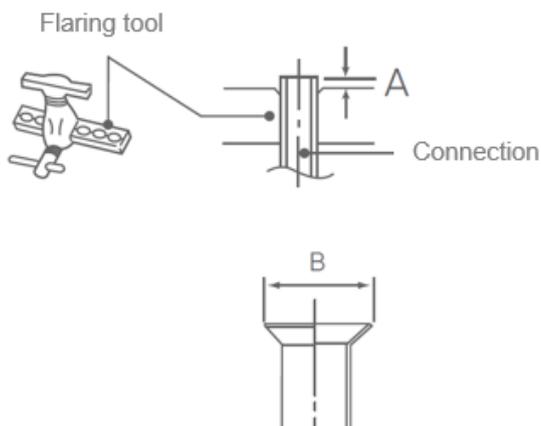
1. Cut the connections to the correct length using a pipe cutter. Take care not to deform the connections.
2. Carefully deburr, holding the pipe downwards to prevent the introduction of filings.
3. Retrieve the flare nuts from the indoor unit and outdoor unit.

Width across flats



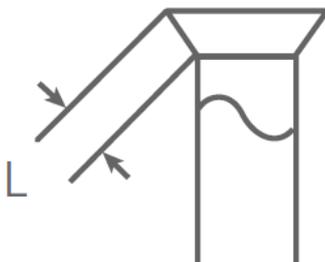
Refrigerant connection diameters	Flare nut width
1/4" (6.35 mm)	17 mm
3/8" (9.52 mm)	22 mm
1/2" (12.70 mm)	26 mm
5/8" (15.88 mm)	29 mm
3/4" (19.05 mm)	36 mm

4. Thread the nuts onto the tubes before flaring.
5. Proceed with flaring. Allow the tube to protrude from side "A" of the flaring die.



Refrigeration connection diameters	Dimension A (mm)	Dimension B (mm)
1/4" (6.35 mm)	0.4 - 0.8	8.4–8.7
3/8" (9.52 mm)		13.2–13.5
1/2" (12.70 mm)		16.2–16.5
5/8" (15.88 mm)		19.2–19.7
3/4" (19.05 mm)		23.2–23.7

6. After flaring, check the condition of the bearing surface. It must not show any scratches or signs of cracking. Also check that the "L" dimension is correctly flared, without cracks or scratches.



Check before connecting



- The refrigeration circuit is very sensitive to dust and moisture. Check that the area around the connection is dry and clean before removing the caps protecting the refrigeration connections.

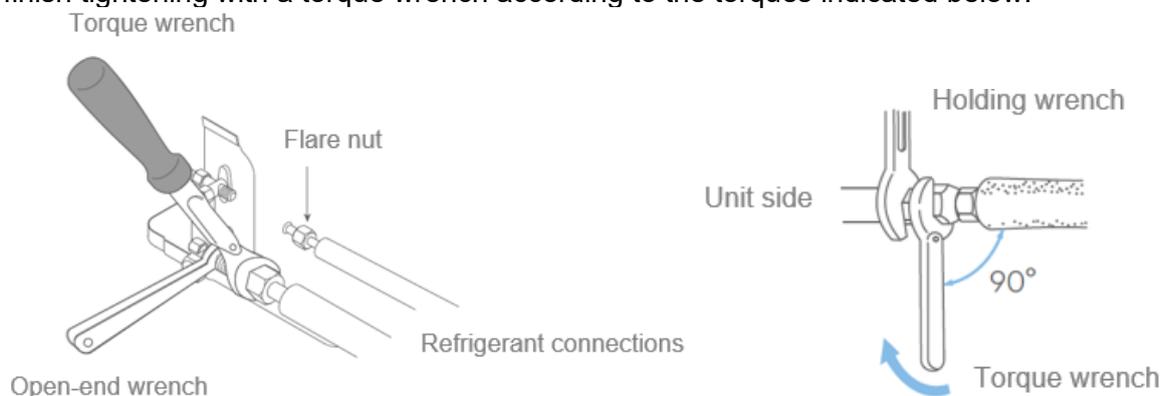
Connection



- Only remove the caps from the pipes and valves when you are ready to make the connection.
- The small connection must always be connected before the large one.
- Take particular care when positioning the pipe in relation to its connection. If the pipe is misaligned, it will be impossible to tighten it by hand and the thread may be damaged.
- Use two spanners to tighten the flare nuts in line with the pipe.
- Do not apply pressure to the blind plug, as this may cause a leak.
- Tighten the flare nuts with a torque wrench using the specified method.
- Otherwise, the flare nut could break after a long period of use, causing a refrigerant leak which, if exposed to a flame, would produce a toxic gas.
- Do not use blue paste or sealant on refrigeration connections as it will clog them. Doing so will void the appliance warranty.
- A flare made inside the building must not be reused. The flared connection on the pipe must be removed and a new flared connection must be made.
- After connection, ensure that the pipes do not touch the compressor or the external panel.
- The operation of the installation cannot be guaranteed if the combinations of size, length, thickness of connections and connections to valves mentioned in this manual are not respected.
- Ensure that the connection is made to both the indoor unit and the outdoor unit.
- To avoid deforming the external panel, position the main components with a spanner and tighten with a torque spanner.

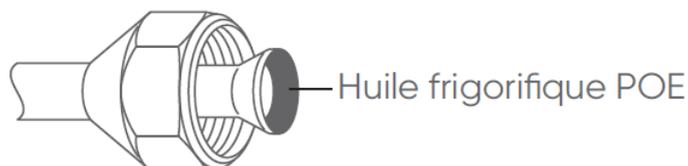
7. Remove the caps from the refrigerant connections.

8. After correctly positioning the fittings face to face, tighten the nuts by hand until they make contact and then finish tightening with a torque wrench according to the torques indicated below.



Refrigerant connection diameters	Tightening torque (Nm)
1/4" (6.35 mm)	18–20
3/8" (9.52 mm)	32–39
1/2" (12.70 mm)	49–59
5/8" (15.88 mm)	57–71
3/4" (19.05 mm)	67–101

9. For a better seal, double tighten (tighten once to the torque, then loosen and retighten to the torque). To avoid the risk of gas leaks and ensure easy tightening, lubricate the contact surfaces and threads with POE refrigeration oil (suitable for R32). Do not use mineral oil.



10. After connection, ensure that the connections are not in contact with the compressor or the service panel.

7.1.3 Insulation



- Use insulation on refrigeration connections to prevent condensation and dripping. Determine the thickness of the insulation by referring to the table below.
- If the insulation is inadequate, condensation will form on the surface of the sleeves.
- The sleeves shall have a thermal resistance corresponding to a conductivity of 0.045 W (m.K) or less (at 20°C).

		Minimum insulation thickness (mm)			
		Humidity > 70%	Humidity > 75%	Humidity > 80%	Humidity > 85%
Connectio n diameters	1/4" (6.35 mm)	8	10	13	17
	3/8" (9.52 mm)	9	11	14	18
	1/2" (12.70 mm)	10	12	15	19
	5/8" (15.88 mm)	10	12	16	20
	3/4" (19.05 mm)	10	13	16	21

If the ambient temperature and relative humidity exceed 32°C, increase the thickness of the insulation.

8 ELECTRICAL CONNECTION



- The power supply shall be provided in accordance with current standards, in particular NF C 15-100.
- The cable used shall be of type H07RNF. A 30 mA residual current device shall also be provided.
- Do not use a power socket for the power supply.
- This device is designed to operate at a nominal voltage of 230 Volts 50Hz.

8.1 Electrical dimensions

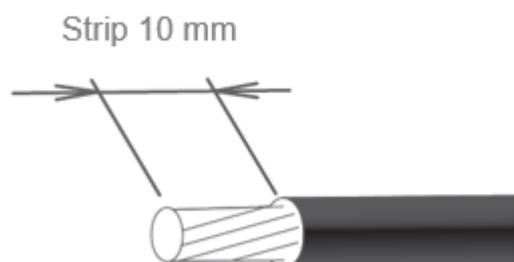
The cable cross-sections are given for information purposes only. It is the responsibility of the installer, who is in all cases a qualified professional, to check that they comply with current requirements and standards.

	Power cable	Circuit breaker rating
YDAC-025R-09M25	3G1.5 mm ²	16 A
YDAC-035R-09M25	3G1.5 mm ²	16 A
YDAC-050R-09M25	3G2.5 mm ²	20 A
YDAC-070R-09M25	3G2.5 mm ²	20 A

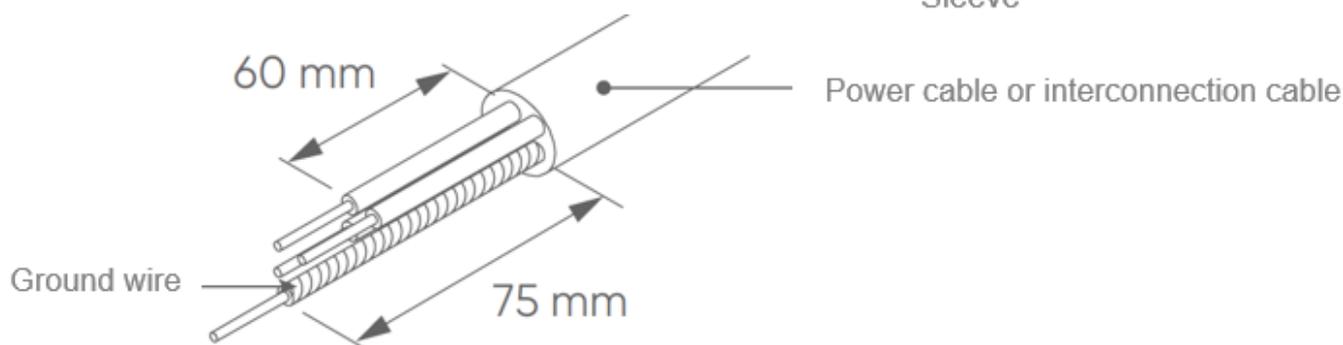
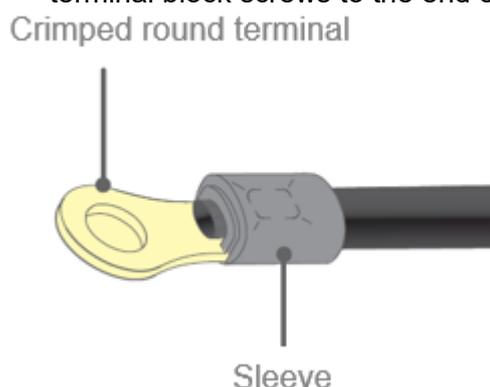
	Interconnect cable
HDMC-025N-09M25	5G1.5 mm ²
HDMC-035N-09M25	5G1.5 mm ²
HDMC-050N-09M25	5G1.5 mm ²
HDMC-070N-09M25	5G1.5 mm ²

8.1.1 Cable preparation

1. Strip the ends of the cables to a length of approximately 10 mm.



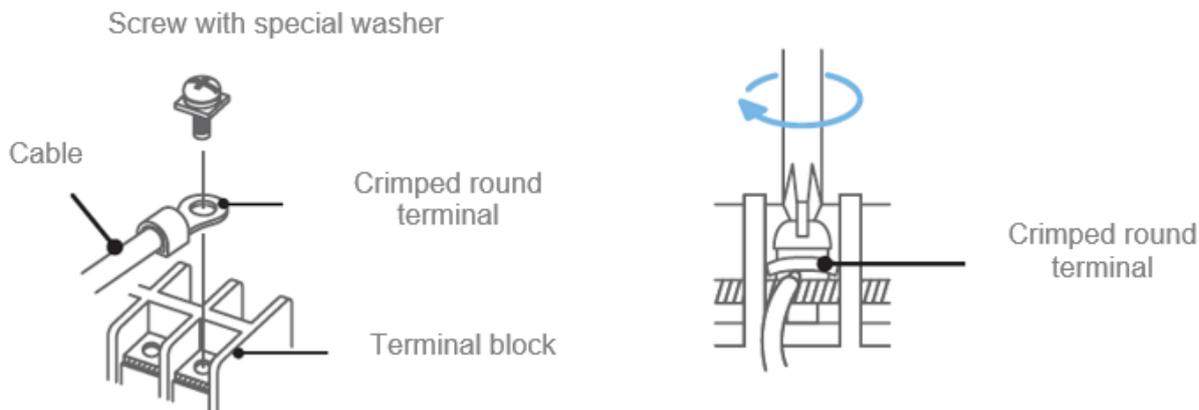
2. Using crimping pliers, attach a round crimp terminal with a diameter corresponding to the terminal block screws to the end of the wire.



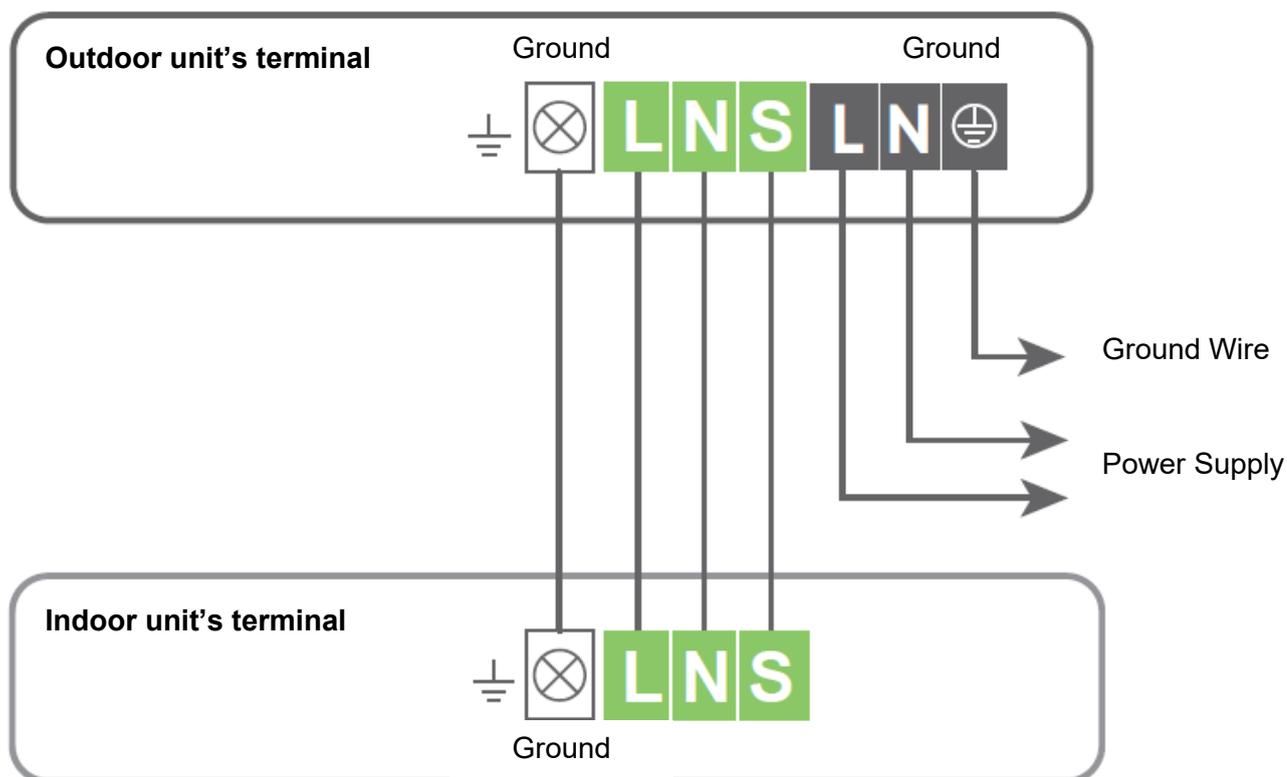


- Do not tighten the terminal too firmly on the terminal block so as not to damage or break the screw.
- The use of flexible wires without crimped round terminals is strongly discouraged.
- Observe the tightening torques indicated in the table below.
- Do not attach two cables to the same terminal with a screw.

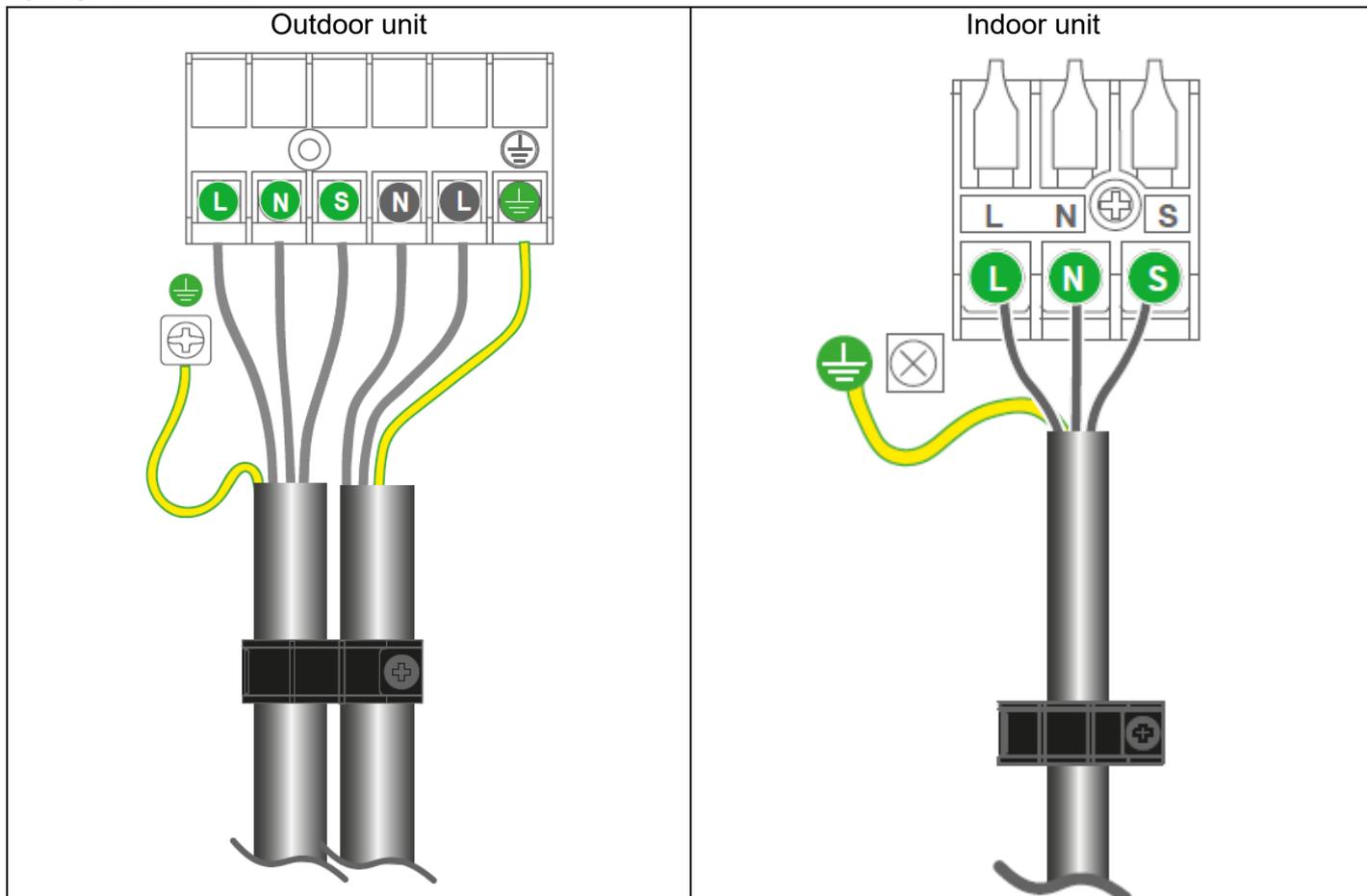
Tightening torque	
M4 screw	1.2 to 1.8 N.m
M5 screw	2.0 to 3.0 N.m



8.1.2 Schematic diagram



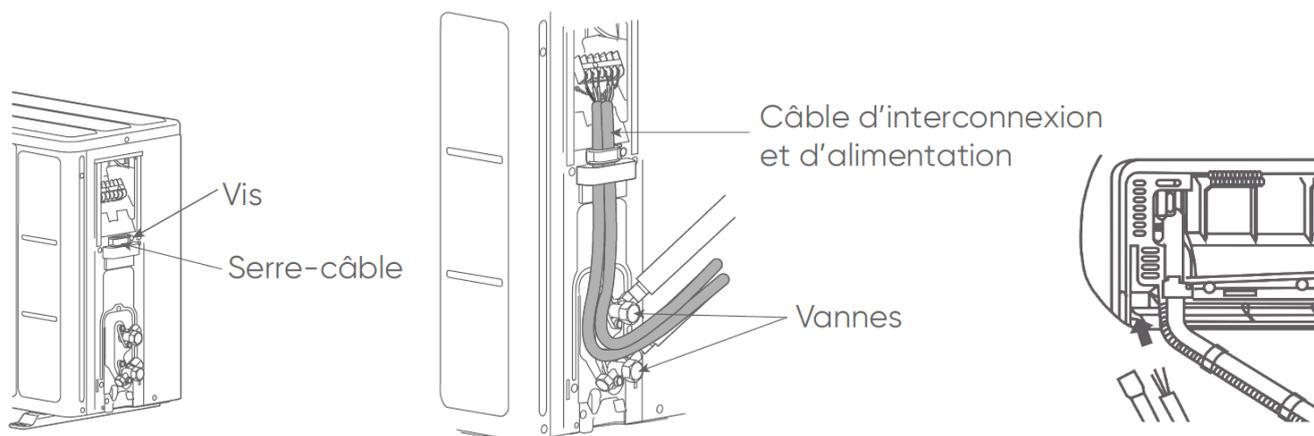
8.1.3 Terminals



- Match the terminal block numbers of the indoor unit connection cables with those of the outdoor unit.
- Connect the connection cables securely to the terminal block. Improper installation may cause a fire.
- Insert the connection cable firmly into the terminal block. An incorrectly inserted cable may cause a poor connection.
- Do not forget to earth the installation.
- Use the grounding connection for the connection between two units.
- Do not attach a rigid wire with a crimped round terminal. Pressure on the terminal may cause malfunctions and abnormally heat the cable.



8.1.4 Cable routing



9 COMMISSIONING THE INSTALLATION

9.1 Precautions



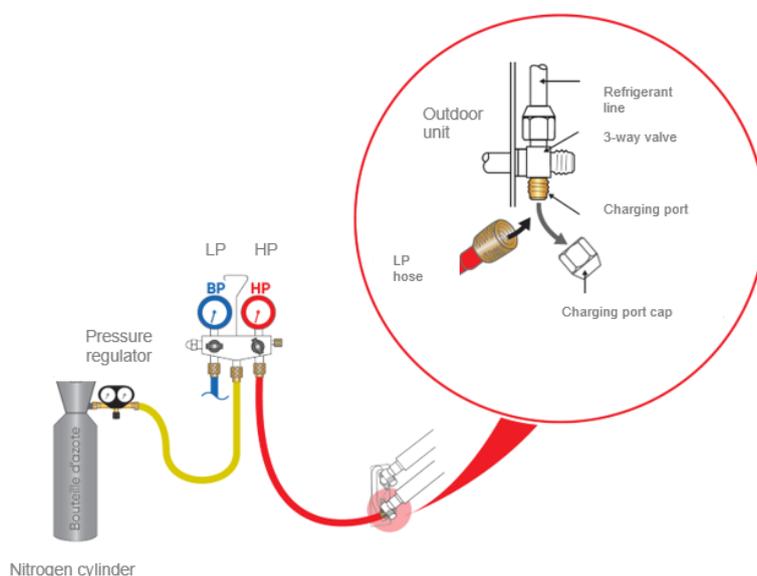
- Commissioning this air conditioner requires the services of a qualified installer with a certificate of competence in accordance with Articles R 543-75 to 123 of the French Environmental Code and its implementing decrees. This also applies to any other operation carried out on equipment requiring the handling of refrigerants.

9.2 Equipment to be obtained

Manifolds (pressure gauge)	The pressure is high and cannot be measured using standard pressure gauges. It is recommended to use a manifold with pressure gauges with a measuring range of -0.1 to 5.3 MPa (HP) and -0.1 to 3.8 MPa (LP).
Schrader (charging hose)	The use of hoses with quarter-turn valves facilitates handling during commissioning (no need to purge the hoses as they can be pulled into a vacuum and isolated). The valves should be positioned opposite the pressure gauge set.
Leak detector	Use a leak detector designed for HFCs (R32 compatible).
Vacuum pump	Use a suitable vacuum pump (containing POE synthetic oil).

9.2.1 Leak test (no leaks)

- Remove the charging port cap (Schrader) located on the gas valve (large valve). Connect the red hose (side fitted with a valve push button in good condition) to it and the other side of the hose to the red tap on the HP pressure gauge.
- Connect the yellow hose to a nitrogen cylinder fitted with a pressure regulator and the other end of the yellow hose to the central port of the pressure gauge set.
- Ensure that the red valve on the HP pressure gauge and the blue valve on the LP pressure gauge are closed.
- Open the valve on the nitrogen cylinder. Set its pressure regulator to an outlet pressure of approximately 10 to 15 bar. Open the red valve on the HP pressure gauge to obtain the desired pressure in the refrigeration connections and in the indoor unit.
- Close the valve on the nitrogen cylinder.
- Check the circuit for leaks by applying a soap solution to the connections on the indoor unit side and the outdoor unit side (plus any soldered joints on the refrigeration connections). Ensure that no bubbles appear.
- Also check that the pressure indicated by the HP pressure gauge does not drop. When the pressure remains stable and there are no leaks, empty the nitrogen, leaving a pressure higher than atmospheric pressure.



9.2.2 Vacuum extraction

9.2.2.1 Calibration and inspection of a vacuum pump

1. Check the quality and level of oil in the vacuum pump.
2. Connect the vacuum pump to a vacuum gauge if the vacuum pump is not equipped with one.
3. Apply vacuum for a few seconds.
4. The pump must reach its vacuum threshold value and the vacuum gauge needle must stop moving.
5. The pressure of the vacuum level reached must be lower than the pressure indicated in the table below according to the temperature. If this is not the case, replace the seal, hose or pump.

Temperature	5°C < T < 10°C	10°C < T < 15°C	T ≥ 15°C
Pressure (bar)	0.009	0.015	0.020
Pressure (mbar)	9	15	20

9.2.2.2 Vacuum extraction procedure

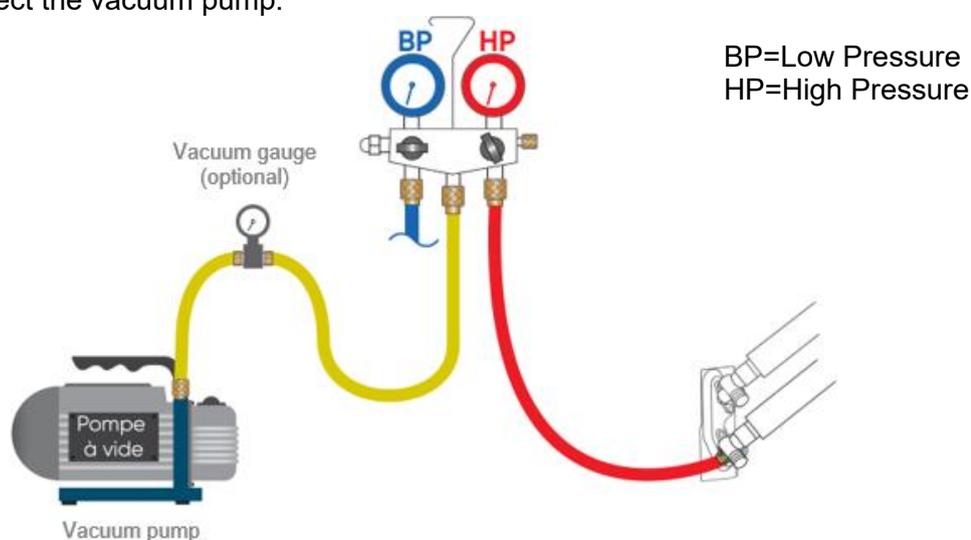
1. Purge the nitrogen from the circuit by opening the blue valve on the LP pressure gauge (return to atmospheric pressure).
2. Disconnect the nitrogen cylinder and close the valves on the LP and HP pressure gauges.
3. Replace the nitrogen cylinder with the vacuum pump.

If the vacuum pump is not already equipped with one, a vacuum gauge can be inserted between the vacuum pump and the set of pressure gauges for greater accuracy.

4. Start up the vacuum pump.
5. Open the red valve on the HP pressure gauge and wait until the pressure in the circuit drops below the value indicated in the table below, depending on the temperature.

Temperature	5°C < T < 10°C	10°C < T < 15°C	T ≥ 15°C
Pressure (bar)	0.009	0.015	0.020
Pressure (mbar)	9	15	20

6. Once the required vacuum level has been reached, maintain the evacuation for approximately one hour (the time may vary depending on the length of the connection and the humidity present in the network). The vacuum may take several hours to draw in humid conditions.
7. Check that the vacuum is maintained by closing the red valve on the HP pressure gauge. Switch off the vacuum pump. Do not disconnect any hoses.
8. After about ten minutes, the pressure should not have risen (the vacuum gauge should read 0 bar). If this is not the case, locate and repair the leak, then repeat the leak test and vacuum draw.
9. Close the red valve on the HP pressure gauge.
10. Stop and disconnect the vacuum pump.



9.3 Additional charging (if necessary)

The additional charge must be carried out after the vacuum draw and before the gas filling.

	YDAC-025R-09M25	YDAC-035R-09M25	YDAC-050R-09M25	YDAC-070R-09M25
Factory charge quantity (g) / CO2 equivalent (t)	550 / 0.371	580 / 0.391	850 / 0.574	1080 / 0.729
Refrigerant type (Global Warming Potential)	R32 (675)	R32 (675)	R32 (675)	R32 (675)
Standard connection length (m)	5	5	5	5

1. Calculate the additional charge required

The table below allows you to quickly determine the additional R32 charge to be added, based on the length of the refrigeration line.

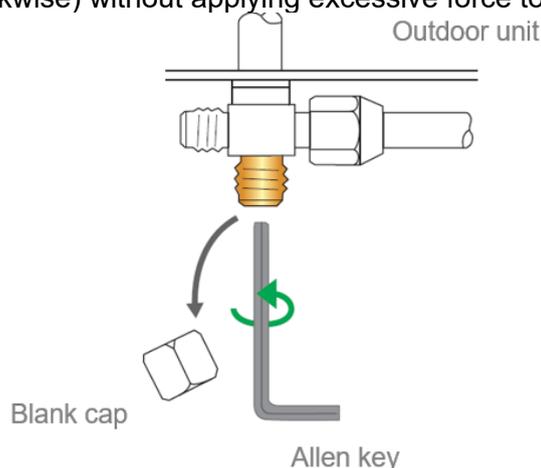
	YDAC-025R-09M25	YDAC-035R-09M25	YDAC-050R-09M25	YDAC-070R-09M25
Connection length without additional charge (m)	5	5	5	5
Additional charge (g/m)	12	12	12	12

2. Disconnect the vacuum pump (yellow hose) and connect an R32 cylinder in the liquid phase.
3. Place the cylinder on a precision scale. Tare the scale.
4. Open the cylinder valve.
5. Carefully and gently open the red valve on the HP pressure gauge and monitor the value displayed on the scales. As soon as the displayed value corresponds to the calculated value minus 50 grams, close the red valve on the HP pressure gauge and then the valve on the fluid cylinder without disconnecting any hoses.
6. Perform a pump-down operation to recover the refrigerant into the outdoor unit. so that the blue hose and, if necessary, the fluid cylinder can be disconnected without any refrigerant leakage (in this case, leave the red HP valve on the pressure gauge open).

Note: If the additional charge cannot be reached (pressure in the cylinder is too low), it will be necessary to continue the operation with the system running (in COOL and TEST mode) and slowly open the red valve on the HP pressure gauge to prevent a sudden influx of liquid refrigerant into the compressor suction line.

9.4 System pressurisation (opening service valves)

1. Remove the blind plugs from the outdoor unit valve controls.
2. First open the liquid valve (small valve) and then the gas valve (large valve) fully using a hexagonal/Allen key (anti-clockwise) without applying excessive force to the stop.



9.5 Checking for leaks in the circuit

Once the gas has been turned on as described above, use an electronic halogen gas detector to check the connections and any soldered joints on the refrigeration lines (if the joints have been made correctly, there should be no leaks).

In the event of a leak:

- Pump down the gas in the outdoor unit. The pressure must not fall below atmospheric pressure (0 bar relative reading on the manifold) in order to avoid contaminating the recovered gas with air or moisture.
- Replace the defective connection.
- Repeat the leak test and vacuum test.

9.6 Testing the unit

1. Set the unit to COOL mode and TEST mode, then carry out the necessary tests and measurements.
2. Then set the unit to HEAT mode and TEST mode and carry out the necessary tests and measurements.

9.7 Pump-down operation

1. Set the unit to COOL mode and TEST mode.
2. Close the liquid valve and begin to close the gas valve until it is 1/2 turn from being fully closed.
3. Wait for the pressure to drop, ensuring that it does not fall below 0 bar. When the pressure approaches 0 bar, close the gas valve completely.
4. Switch off the unit and remove the hoses.
5. Open the liquid valve (small valve) and then the gas valve (large valve).
6. Refit the blind plugs on the valves and tighten them with a spanner to the specified torque.

Blind plug diameter	Tightening torque
1/4" (6.35 mm)	20 to 25 N.m
3/8" (9.52 mm)	20 to 25 N.m
1/2" (12.70 mm)	28 to 32 N.m
5/8" (15.88 mm)	30 to 35 N.m
Charging port cap	12.5 to 16 N.m

7. Restart the air conditioner.
8. Provide the customer with the necessary explanations and documentation.

10 EXTERNAL INPUTS AND OUTPUTS

Connectors	Options
CN29	ON/OFF contact
CN12	Wired remote control connection
CN31	Modbus connection

10.1 ON/OFF contact

To use this ON/OFF contact, you must remove the shunt from terminal block JR6.
The control logic for this contact is as follows:

- Switch open: the unit is OFF. The unit does not respond to commands from the wired or infrared remote controls. "CP" is displayed on the wired remote control and/or on the screen.
- Switch closed: the unit is ON. The unit responds normally to commands.

The unit responds to the change of state within 2 seconds.
This contact is 12VDC. The maximum current is 5 mA.

10.2 Wired remote control connection

The wired remote control (not supplied) connects to the CN41 port (HA/HB).
Use a 22AWG twisted shielded cable. Maximum length 30m.
Refer to the wired remote control manual for the rest of the installation.

11. CHECK BEFORE POWERING UP

	Consequences
Is the indoor unit correctly installed?	Vibrations, noises, falls, etc.
Is there a refrigerant leak?	No cooling, no heating
Is the insulation properly installed?	Risk of condensation
Is the power supply compatible with the indoor unit?	Not working...
Are the cables and connections properly connected?	Not working...
Is the interconnection cable cross-section correct?	Not working...
Is the condensate draining properly?	Water leaks
Are the air inlets and outlets blocked?	No cooling, no heating
After installation is complete, has the operating principle been explained to the user?	

12. OPERATING TEST

Check the following points before starting an operational test:

- Indoor unit

- Remote control buttons
- The indicator lights on the indoor unit
- Air deflection flaps
- Normal condensation water flow (if necessary, pour a little water into the unit's heat exchanger using a spray bottle to check that it is flowing properly)
- No noise or vibrations during operation.

- Outdoor unit

- No noise or vibrations during operation
- No draughts, water or ice coming out of the outdoor unit that could disturb the neighbourhood.
- Normal drainage of condensation water
- No gas leaks

Start the operation test by switching on the unit and selecting the cooling mode. Leave the unit running while you check all the points.

13. ERROR CODES

- The following table shows the flashing sequences of the indoor unit and the error codes. An error display only appears during operation.
- When using a wired remote control, the error codes are displayed on the remote control screen.
- When using an infrared remote control, the error codes are displayed via the LEDs near the infrared sensor, using a series of flashes.

Display	Error information
EH00 / EH0R	EEPROM parameter error in the indoor unit
EH01	Communication error between indoor and outdoor units
EHbA	Communication error between indoor unit and indoor external fan module
EH30	Internal external fan parameter error
EH35	Phase failure of the external indoor fan
EH36	Internal external fan current sampling fault
EH37	Zero speed fault in external indoor fan
EH38	Internal external fan blockage
EH39	Malfunction (out of phase) of the external indoor fan
EH3A	Low voltage protection of the DC bus of the internal external fan
EH3b	Overvoltage on the DC bus of the external indoor fan
EH3E	Overload fault on the internal external fan
EH3F	Hardware overload protection on the internal external fan module
EH03	The speed of the internal fan is outside the normal range
EC51	Outdoor unit EEPROM parameter error
EC52	Condenser coil temperature sensor (T3) open circuit or short circuit
EC53	Outdoor ambient temperature sensor (T4) open circuit or short circuit
EC54	Compressor discharge temperature sensor (TP) open circuit or short circuit
EC55	IGBT temperature sensor (TH) open circuit or short circuit
EC0d	Outdoor unit malfunction
EH60	Indoor room temperature sensor (T1) open circuit or short circuit
EH61	Evaporator temperature sensor (T2) open circuit or short circuit
EC71	External outdoor fan overload fault
EC75	Hardware protection/overload of external outdoor fan module
EC72	Outdoor fan phase failure
EC74	Outdoor external fan current sampling fault
EC73	Zero speed fault in the DC fan of the outdoor unit
EC07	Outdoor fan speed is outside normal range
EL0C	Refrigerant leak detected
EH0E	Water level alarm malfunction
PC00	IPM or IGBT overcurrent protection
PC10	Low voltage protection
PC11	Overvoltage protection
PC12	DC circuit protection
PC02	Compressor thermal protection / IPM module high temperature protection
PC40	Communication error between the external main chip and the compressor control chip
PC41	Input current detection protection
PC42	Compressor start-up error
PC43	Phase loss protection (3 phases)
PC44	Protection against lack of speed
PC45	PWM error 341
PC46	Compressor speed malfunction
PC49	Compressor overcurrent protection
PC06	Compressor discharge temperature protection

PC08	Outdoor unit current protection
PH09	Anti-cold air protection in heating mode
PC0F	PFC module malfunction
PC30	System overpressure protection
PC31	System underpressure protection
PC03	Pressure protection
PC0L	Protection against low outdoor ambient temperature
PH90	Protection against excessive evaporator battery temperature
PH91	Protection against excessively low evaporator coil temperature
PC0R	Protection against high condenser temperature
FH0C	Indoor unit humidity sensor failure
LH00	Frequency limitation caused by T2
LH30	Current limit of the indoor external fan
LH31	Voltage limit for internal external fan
LC01	Frequency limit caused by T3
LC02	Frequency limit caused by TP
LC05	Frequency limit caused by voltage
LC03	Frequency limit caused by current
LC06	Frequency limit caused by PFC module
LC30	Frequency limit caused by high pressure
LC31	Frequency limit caused by low pressure
LH07	Frequency limit caused by remote control
--	Mode conflict between indoor units (in connection with multiple outdoor units)

14. ROUTINE MAINTENANCE (USER)

These operations, which anyone can perform, should be carried out at the recommended frequencies below.

Every month
(more often in dusty
environments)

Clean the indoor unit's air filter (the air filter is easily accessible on the indoor unit and can be cleaned either with a vacuum cleaner or with water at a temperature below 40°C).

Every 3 months

Clean the exterior of the indoor unit, particularly the air intake grille, with a soft damp cloth (avoid harsh detergents).

15. PROFESSIONAL MAINTENANCE (QUALIFIED PERSONNEL ONLY)

These operations must only be carried out by qualified personnel.
Your authorised installer is of course at your service for these operations.
They can offer you a maintenance contract that includes periodic visits (see below).

Seasonal maintenance

- Checking and cleaning the air filters
- Checking the refrigeration circuit for leaks (mandatory for certain appliances*)
- Cleaning the indoor unit's condensate tray: cleaning and disinfecting the indoor unit's heat exchanger with a suitable product
- Checking and cleaning the condensate drain system if necessary (especially if a Condensate pump is used)
- Checking the general condition of the appliance.

** Articles R 543-75 to 123 of the French Environmental Code and its implementing decrees require all owners of appliances containing more than five tonnes of CO2 equivalent HFC (plate; signage) to have the tightness of their installation checked annually by a company that is duly registered with the prefecture and authorised to carry out this type of work.*

Complete maintenance

Operations described for seasonal maintenance, supplemented by:

- Dusting of the outdoor unit's heat exchanger, if necessary
- Measurement of the unit's performance (inlet/outlet temperature difference, evaporation and condensation temperature, power consumption)
- Checking the tightness of electrical connections
- Measurement of electrical insulation
- Checking the condition of the external casings and insulation of the refrigeration lines
- Checking various fastenings



**AIRWELL GROUP
10 RUE DU FORT DE SAINT CYR
78180 MONTIGNY LE BRETONNEUX
FRANCE**