

zé7

3-in-1 heat pump

On outside air



Installation and user manual

zé7

Ref. 153700



The information contained in this document is non-contractual. We reserves the right to modify the technical specifications or characteristics of any of their appliances without prior notice.

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**Made in
France**



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1 - SAFETY



• Any intervention on the thermodynamic water heater should only be performed by qualified personnel.

• Follow the safety instructions!

• Any intervention on the refrigeration circuit must be made by a qualified person who holds a Category 1 certificate of fitness.

Refrigerant R290, contained in the heat pump circuit, does not pose an environmental hazard but is flammable.

→ Refrigerant R290 is odourless,

→ Do not damage the refrigeration circuit tubes,

→ Do not handle flame or other flammable sources inside the device,

→ in the event of a leakage of the refrigerant, unplug the plug, ventilate the room and contact the customer service,

→ Do not pierce or burn the appliance: the recovery of the fluid is mandatory in case of intervention on the refrigeration circuit.

Danger of death by electrocution

Touching live electrical wires can cause severe injury.

- Before undertaking any work on the appliance, ensure to switch off the power supply to the appliance.
- Ensure that there is no possibility of the power supply becoming active again.

Danger of injury or death due to the absence of, or defective, safety devices.

Absence of safety devices can be dangerous and may result in burns or other injuries. Injuries could be caused by pipes bursting for example.

The information provided in this document does not represent all of the diagrams required for a professional installation of the safety devices.

- Install all required safety devices in the circuit.
- Inform the user of where the safety devices are placed, and how they work.
- Follow all relevant national and international health and safety rules and regulations.

Danger resulting from improper use

Any work carried out by an unqualified person may result in damage to the installation or in physical injury.

- Do not perform any maintenance work on this appliance unless you are a qualified professional.

Intended use and applicable areas of use

This appliance is intended for use as an appliance for domestic hot water production. The intended use of the appliance includes the following points:

- following the instructions for operating, installing, and maintaining this appliance and all other parts and components of the system.
- ensuring the compliance with all conditions of inspection and maintenance which are listed in this manual.

Humidity and water splashes

The appliance should be installed in an area where it is not exposed to humidity and without any risk of being splashed by water.

Rules and regulations (directives, laws, and standards)

Once the appliance is installed and switched on, all decrees, directives, technical rules, safety measures and standards, must be respected in their current version in effect.

- This appliance can be used by children of at least 8 years of age and by persons with reduced physical, sensory or mental capabilities or lacking experience or knowledge, if they are properly supervised or if they have been given instructions on how to use the appliance safely and if the risks involved have been understood.
- Children should be supervised to ensure that they do not play with the appliance.
- Cleaning and maintenance of the appliance should not be undertaken by children without proper supervision.
- Children aged 3 to 8 years are only allowed to turn on the tap connected to the domestic hot water heat pump.

A method of disconnection ensuring a complete cut-off according to Category III conditions must be installed in the fixed piping to conform to installation regulations.

Protect the appliance with:

- a 16 A (D-curve) all-pole circuit breaker with a contact opening of at least 3 mm.
- a protective 16A (D-curve) circuit breaker with a 30 mA differential.

WARNING

Do not use any means to speed up the defrosting process or to clean, other than those recommended by the manufacturer.

The appliance must be stored in a room which does not contain a perpetual flame or other source of ignition (for example: open flame, gas powered appliances or electric radiators in use).

Do not pierce or burn.

Warning: refrigerant fluids may be odourless.

The product is not intended to be operated at an altitude greater than 2000m.

Water may drain from the discharge pipe of the pressure limiting device. This pipe should be kept open to open air.

- Verify that the ventilation openings are not obstructed.
- A **new** pressure-relief valve (not included) **must** be installed and set to 6 bar on the domestic cold water supply of the appliance. We recommend using a membrane valve.
- The pressure-relief drainage outlet should be installed in a frost-free place and in a downward sloping position.

Maintenance - Troubleshooting

- Drainage: Turn off the power supply and the cold water, open the hot water valves and then set the safety group to the drainage position.
- The pressure-relief valve should be activated regularly so as to eliminate limescale and check for blockages.
- If the electrical supply cable is damaged, it must be replaced by the manufacturer, their customer service technicians, or by a qualified professional to avoid risk of injury.
- See the § «Dimensions» pages and the § «Installation» pages of this manual to find the necessary dimensions for the proper installation of this appliance.
- See the § «Hydraulic connections» pages of this manual to find the minimum and maximum water pressures and temperatures.
- Repair and maintenance of electrical components must include initial safety checks and component inspection procedures.
- If there is a defect that could compromise safety, then no power supply should be connected to the product until it is satisfactorily processed. If the defect cannot be corrected immediately but must be allowed to work then an adequate interim solution must be used. This must be reported to the equipment owner so that all parties are informed.
- Initial security controls must include:
 - Discharge of capacitors: Discharge safely to avoid sparking.
 - Verification that no electrical components are energized and that no wiring is exposed during system charging, recovery or purging.
 - That there is continuity of connection to the ground.

Repair of intrinsically safe components

Intrinsically safe components are the only components that can be used in the presence of a flammable atmosphere. The equipment used must be properly sized.

2 - PLEASE READ IMMEDIATELY

This technical installation manual forms part of the appliance which it refers to. In order for the warranty to be valid, the instructions must be read prior to using the appliance.

The safety advice and instructions provided in this manual must be strictly respected.

Our society is not liable for any damages caused from not following the instructions provided, or improper handling, installation or use.

This technical installation manual can be modified without prior notice.

2.1 - Conservation of documents

This manual must be safeguarded and passed on to successive users for future reference.

It will be considered as evidence in case of litigation.

2.2 - Symbols used



Indicates warnings and important recommendations.



Consult the installation manual before any intervention on the product, before handling, installation, use, and maintenance.



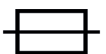
Contains regulated substances, do not throw in the garbage. If disposing, please respect all regulations pertaining to the recovery of electric and electronic equipment.



Type and refrigerant charge.
PS : Max high service pressure



Heat power output produced.



Max current protection (A)



Caution : contains a flammable refrigerant fluid.
Please make sure to respect the installation and handling precautions.



Classification of the refrigerant used in the heat pump
(R290/Propane)

2.3 - Abbreviations and acronyms

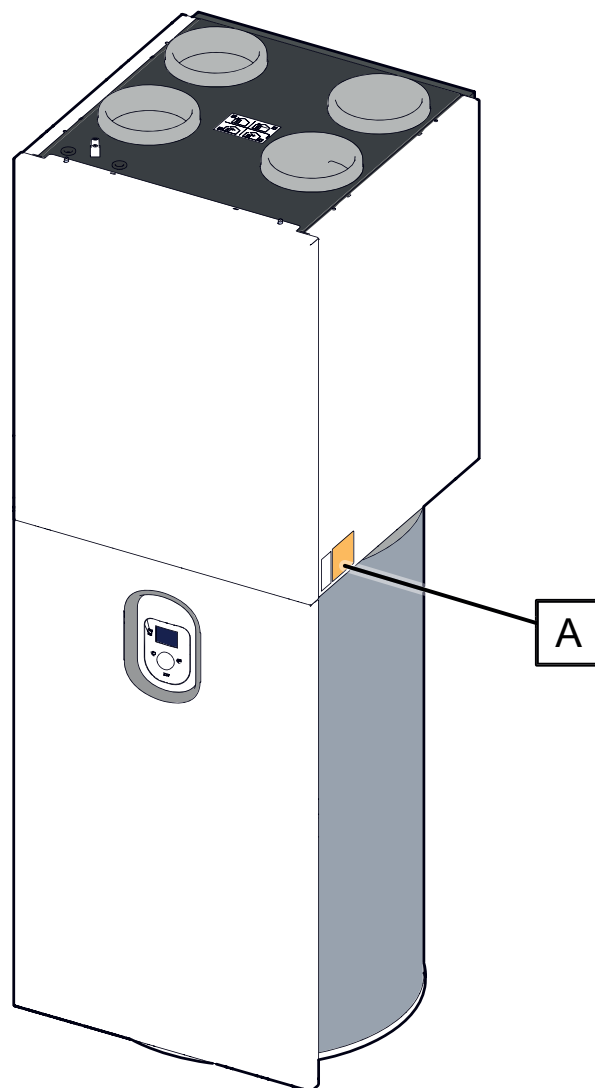
DHW Domestic Hot Water

DCW Domestic Cold Water

T° Temperature

HP Heat pump

2.4 - Rating plate



A. Rating plate

Manufacturer's identity

Serial number of the appliance

Appliance electric data



intuis-Thermo
Rue de la République
80210 Feuquières en Vimeu
N° Constr. 1989 ED

Zé7

Réf : **153700**



Ser.n°: 153700-252800000

230 V~ mono 50 Hz

P_{max} : 2,9 kW

IPX1

	200 L 0,6 MPa (6 bar) T_{max} : 65°C P : 1,2 kW	R290: 0,150 kg 2,5 MPa (25 bar) P: 0,7 kW 300 m³/h
	R290: 0,150 kg 2,5 MPa (25 bar) P: 1 kW	300 m³/h

Hermétiquement scellé / Hermetically sealed **Made In France**

Mousse contenant des gaz à effet de serre fluorés / Foam contains fluorinated greenhouse gases / Schuim dat gefluoreerde broeikasgassen bevat / Schaum, der fluorierte Treibhausgase enthält

Un dispositif limiteur de pression doit être mis dans l'installation
Pressure safety device must be connected



CE marking



Protection rating



Rating plate reference



1898673



Appliance weight

Description :

Serial number of the appliance

153700 - 25 28 00000

Reference of
the appliance

Year of
manufacture
2025

Week of
manufacture

Appliance
number in the
series

DHW circuit data

Heating and cooling circuit data



200 L

0,6 MPa (6 bar)

T_{max} : 65°C

P : 1,2 kW

R290: 0,150 kg

2,5 MPa (25 bar)

P: 0,7 kW

300 m³/h



R290: 0,150 kg

2,5 MPa (25 bar)

P: 1 kW

300 m³/h

Refrigerant type/quantity

Refrigerant type/quantity

Maximum hydraulic system pressure

3 - TRANSPORT AND STORAGE

3.1 - Storage



STORAGE PRECAUTIONS:

Admissible storage and transport temperatures of the heat pump water heater are from +5°C to +45°C.

3.2 - Transport

The **Zé7** is delivered vertically on a pallet. During transport, it should be moved carefully over the shortest possible distances. The appliance must not be tilted more than 45° from the vertical during transport.



Transporting the appliance in a horizontal position may cause irreparable damage to the heat pump components.

During unloading, it must be placed on a flat surface and then moved using the appropriate equipment.

It must be transported in an upright position in a vehicle.

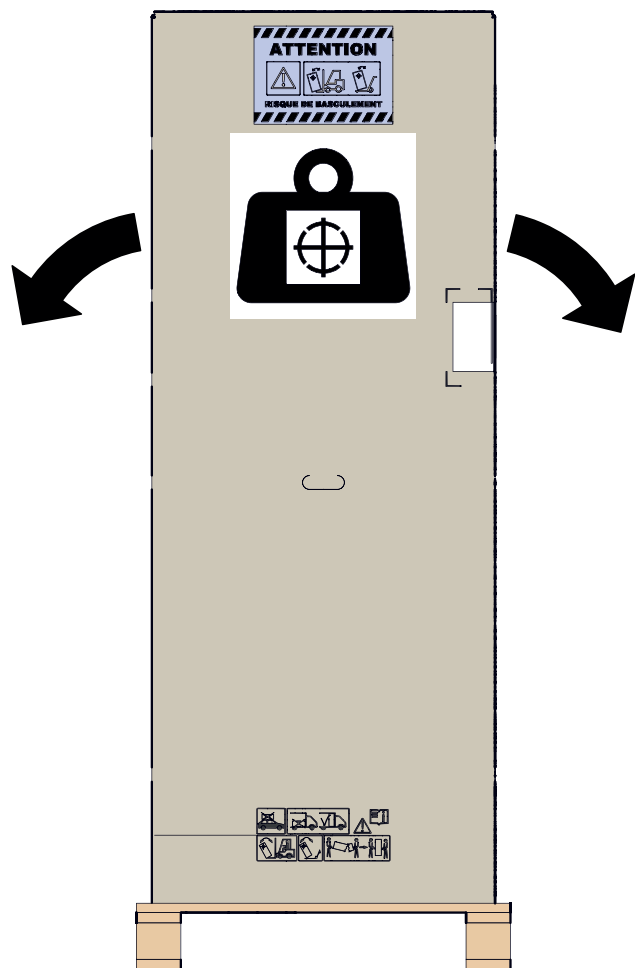
Permitted transport



Prohibited transport



We do not guarantee the damage caused by a transport or handling of the product that is not in accordance with our recommendations.



If tipped, the centre of gravity will shift towards the top: handle with care.



Do not pose abruptly

Risk of tilting

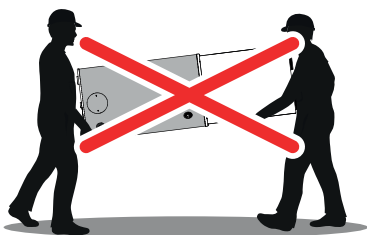


3.3 - Handling

We strongly recommend that you transport the product in its packaging to the installation site.

Use equipment suitable for heavy loads to move the appliance to the installation site.

NON-ADMISSIBLE transportation position



Do not tilt the product more than 45°.

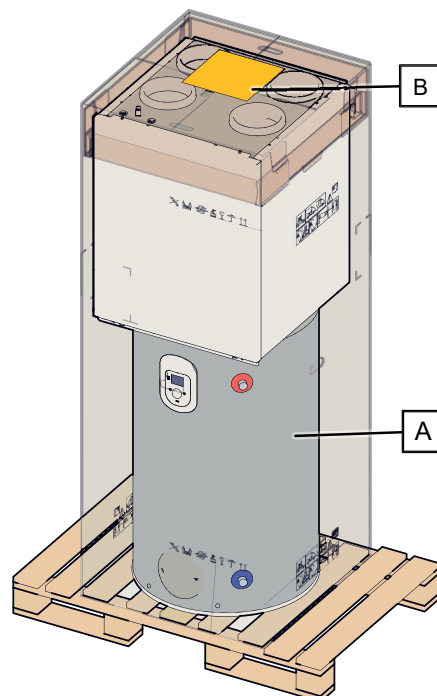
All other transport positions are prohibited.



Once the domestic hot water heat pump is installed in its definitive place, it is imperative to wait at least 60 minutes before switching it on for the first time.

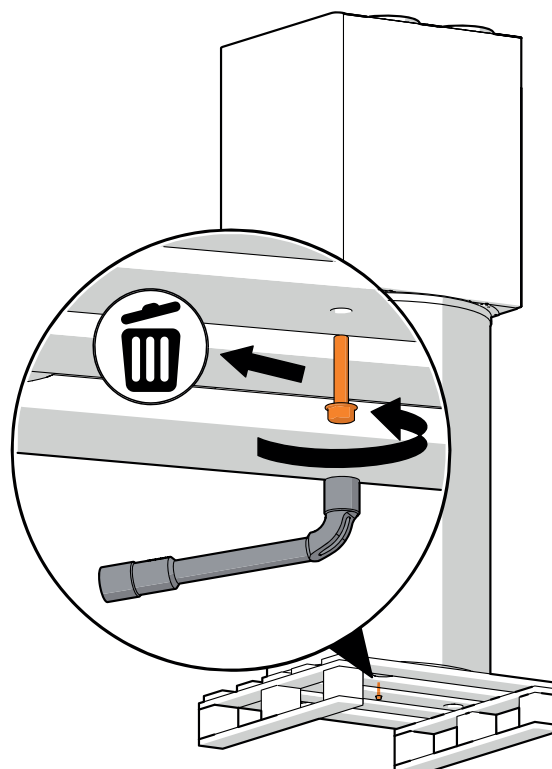
3.4 - Contents of packaging

- A_Zé7
- B_ Includes instructions, guarantee card, documents, adjustable feet (x3), condensate trap and two dielectric fittings.



3.5 - Unpacking

- Remove the cardboard packaging.
- Collect the documentation and accessories supplied.
- Remove the cardboard centring block.
- Remove the display protection.
- Without tilting the device, use a 13mm spanner to remove the screw located under the pallet (see diagram below).



- Make sure you put the packaging in the bin or the dedicated sorting container.

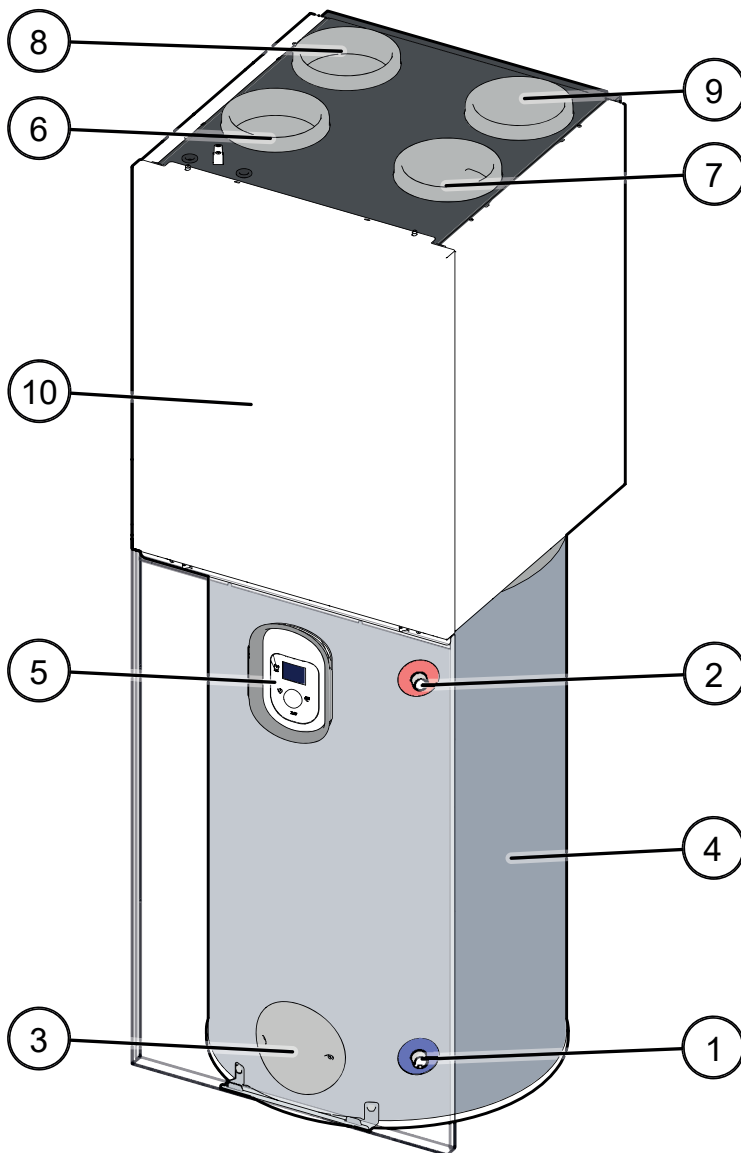
4 - INTRODUCTION

4.1 - Operating principle

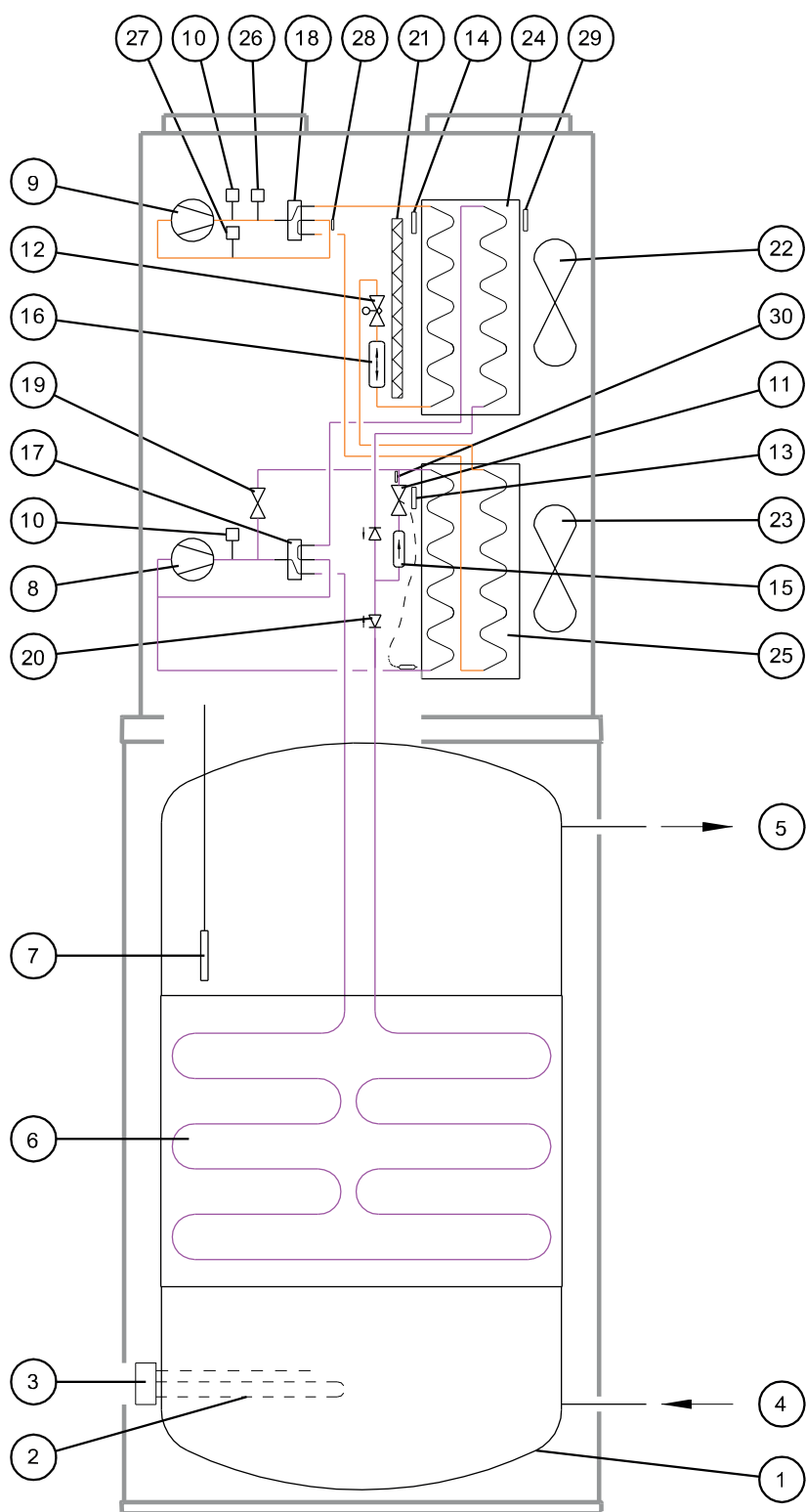
The Zé7 is a new generation of heat pump, capable of producing domestic hot water as well as heating and cooling the main room in a home. The Zé7 is capable of :

- Providing domestic hot water by extracting heat from the outside air (traditional domestic hot water mode).
- Provide cooling while hot water is being produced (passive cooling mode).
- Provide heating by taking calories from the outside air (heating mode).
- Provide cooling by extracting heat from the outside air (active cooling mode).

This is made possible by using a refrigerant to transfer heat from one medium to another. This unit is unique in that it runs on R290, guaranteeing good thermodynamic performance and negligible environmental impact.



Rep.	Description
1	Domestic cold water inlet
2	Domestic hot water outlet
3	Electrical back-up
4	200L stainless steel tank
5	Control panel
6	Internal air return
7	Indoor air supply
8	Outside air intake
9	Outside air outlet
10	Thermodynamic unit



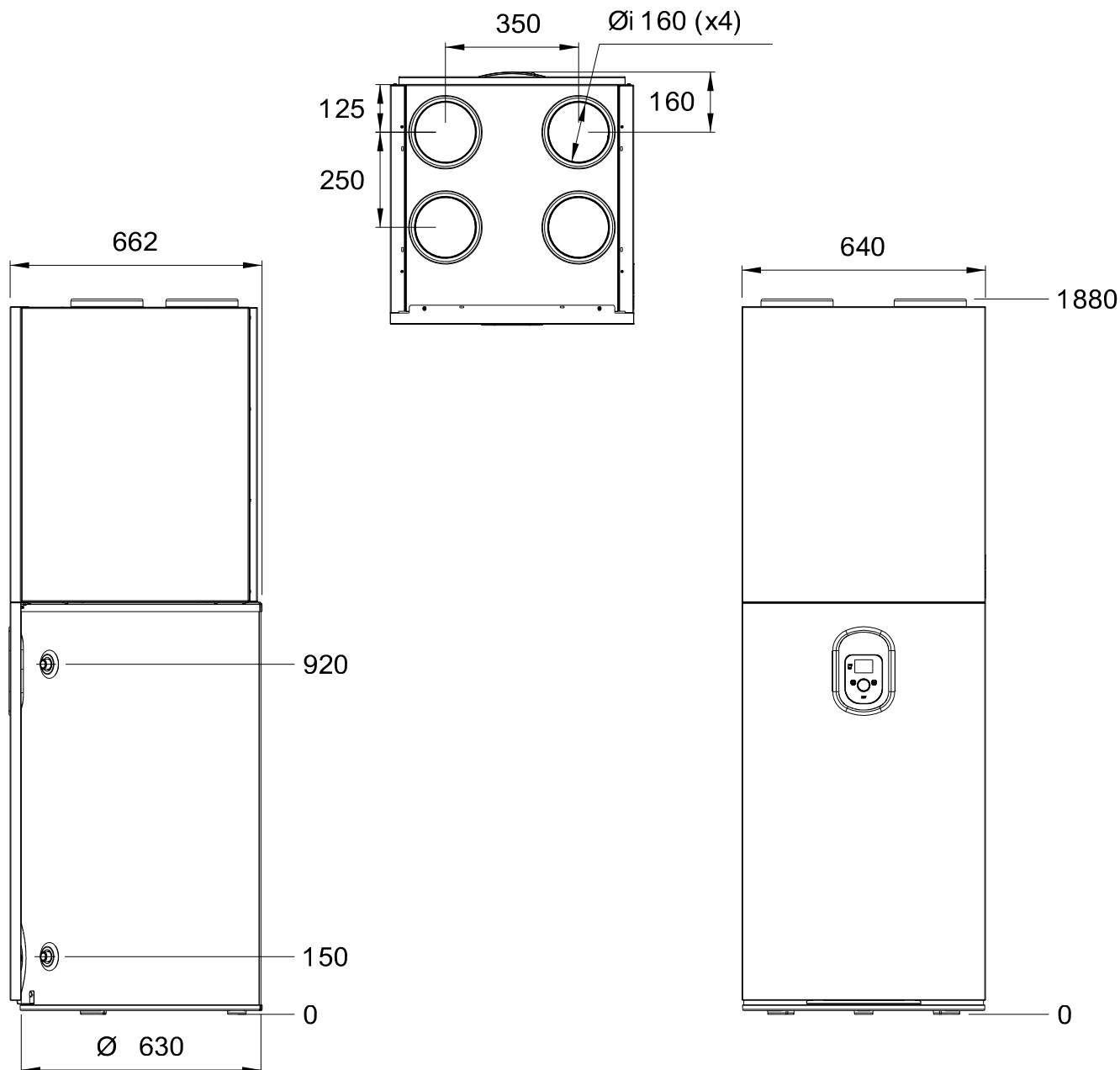
Rep.	Description
1	Tank
2	Electrical resistance
3	Safety aquastat
4	Domestic cold water inlet
5	Domestic hot water outlet
6	Condenser
7	Domestic hot water sensor
8	Circuit 1 compressor
9	Circuit 2 compressor
10	Pressure switch
11	Circuit 1 thermostatic expansion valve
12	Circuit 2 electronic expansion valve
13	Circuit 1 outside air sensor
14	Circuit 2 indoor air sensor
15	Circuit 1 drying filter
16	Circuit 2 drying filter tank
17	4-way valve circuit 1
18	4-way valve circuit 2
19	Circuit 1 solenoid defrosting valve
20	Check-valve
21	Air cleaner
22	Internal fan
23	External fan
24	Internal evaporator
25	External evaporator
26	High pressure sensor
27	Low pressure sensor
28	Circuit 2 suction temperature sensor
29	Indoor air outlet temperature sensor
30	Circuit 1 defrost temperature sensor

Note:

Circuit 1: DHW production circuit

Circuit 2: Heating and cooling production circuit

4.2 - Dimensions



4.3 - EU declaration

- Product complies with European ErP directives : Ecodesign regulations 206/2012, 814/2013 and labelling regulation 626/2011.
- Ecodesign Directive for energy-related products EU 814/2013: EN 16147 : 2017/AC 2017
EN 12102-2: 2019
- Ecodesign Directive for energy-related products EU 813/2013: EN 14 825 :2022
EN 12 102 :2022
EN 14511 :2022
- Labelling Directive for energy-related products 812/2013 and have been designed and built in accordance with European standards in compliance with the provisions of the Low Voltage Directive (2014/35/EU):
IEC 60335-1: 2010 + A1 2013+ A2: 2016
IEC 60335-2-40: 2018
IEC 60335-2-21: 2012 + A1: 2018
EN 60335-1 : 2012 + A11 : 2014 + A13 : 2017 + A1 : 2019 + A14 : 2019 + A2 : 2019 + A15 : 2021.
EN 60335-2-21 : 2021
EN 60335-2-40 : 2003 + A11 : 2004 + A12 : 2005 + A1 : 2006 + A2 : 2009 + A13 : 2012/AC 2013

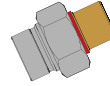
- EN 62233 : 2008 + AC : 2008
- Electromagnetic compatibility (2014/30/EU):
EN 61000-3-2 : 2019+A1 : 2021
EN 61000-3-3 : 2013 + A1 2019+ A2 : 2021
EN 55014-1 : 2021
EN 55014-2 : 2021
IEC 61000-3-2 : 2018 + A1 : 2020
IEC 61000-3-3 : 2013 + A1 : 2017 + A2 : 2021
- Directive RoHS2 (2011/65/EU).
- Directive REACH : (EC) n°1907/2006 (Registration, Evaluation, Authorization and Restriction of Chemicals :
- Code de la Construction et de l'Habitat, Règlement Sanitaire Départemental Type.
- Order of 30 November 2005 amending the order of 23 June 1978 relating to fixed installations intended for heating and the supply of domestic hot water in residential buildings, work premises or premises open to the public.
- NF DTU 60.1 : Sanitary plumbing for buildings.

4.4 - Caractéristiques techniques

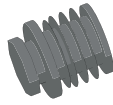
Informations		
Marque	Intuis	
Désignation	Zé7	
Référence	153700	
Caractéristiques générales		
Dimensions	(LxhxP) mm	640 x 1880 x 662
Poids à vide	kg	130
Fluide frigorigène	-/kg	R290 / 2 x 0.15
Pouvoir réchauffement planétaire	kg CO ₂ équivalent	0.9
Raccordement aéraulique	mm	Ø 160
Débit d'air intérieur	m³/h	150 à 300
Débit d'air extérieur (nominal)	m³/h	200 à 400 (300)
Plage température d'air	°C	-15 à +45
Alimentation électrique	V-Hz-A	230 V / 50 Hz / 16 A
Disjoncteur	A	16 A courbe D
Section du câble d'alimentation	Nb x mm²	3G 2,5
Indice de protection	-	IPX1
ECS		
Cuve	-	Acier inoxydable
Protection anticorrosion	-	Acier inoxydable
Isolation	-	50 mm d'épaisseur en polyuréthane sans CFC
Raccordement hydraulique	”	M ¾” (raccords diélectriques fournis, non montés)
Pression maximale de service	bar	6
Volume	L	200
Température ECS (mini/maxi) avec PAC	°C	30 à 60
Température ECS (maxi) avec appoint électrique	°C	65°C
Puissance consommée PAC	W	1300
Puissance électrique appoint	W	1200 En Titane, charge 6 W/cm²
Puissance acoustique intérieur en mode ECS	dB(A)	44.4
Puissance acoustique intérieur en mode chauffage	dB(A)	45.0
Garantie électrique	-	2 ans
Garantie cuve	-	5 ans

4.5 - Accessories (included)

→ (x2) Dielectric fittings (Ref. B1135130)



→ Adjustable feet (x3) (Ref. B1759346)

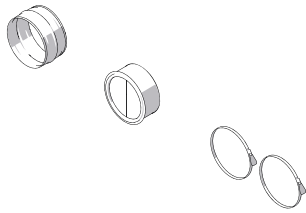


→ Condensate siphon (Ref. B1759622)

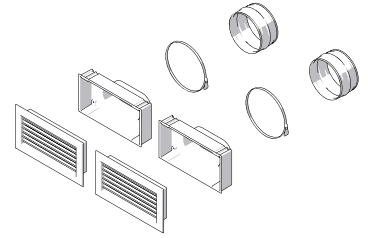


4.6 - Zé7 accessories

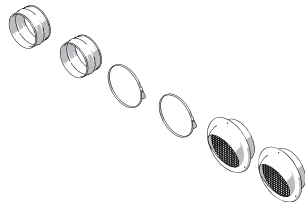
→ Outside air connection
Collective duct
(Ref. 754701)



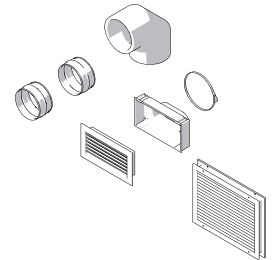
→ Ducted indoor air connection
(Ref. 754703)



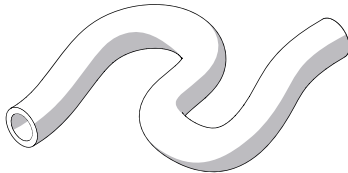
→ Outside air connection
Detached house
(Ref. 754702)



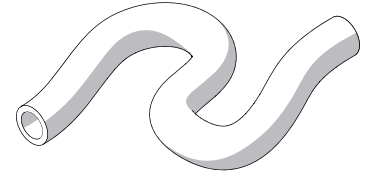
→ Semi-ducted indoor air connection
(Ref. 754704)



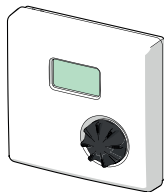
→ Insulated flexible sheath Ø160
Length 10 metres
(Ref. 754706)



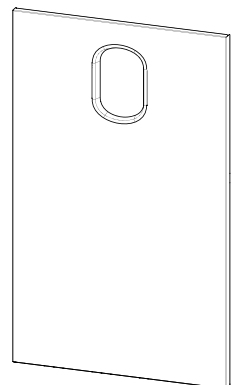
→ Insulated flexible sheath Ø160
Length 3 metres
(Ref. 754709)



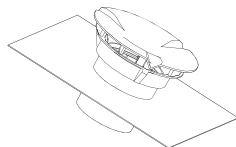
→ Room sensor
(Ref. 751009)



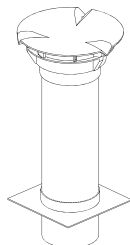
→ Lower front panel
(Ref. 754710)



→ Inclined roof terminal
Ø 160 grey
(Ref. 730079)

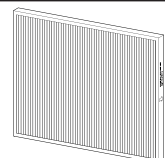


→ Flat roof terminal
Ø 160 grey
(Ref. 730080)



4.7 - Consumable accessories

→ G4 air cleaner
(Ref. B1473174)



5 - INSTALLATION

5.1 - Setting up



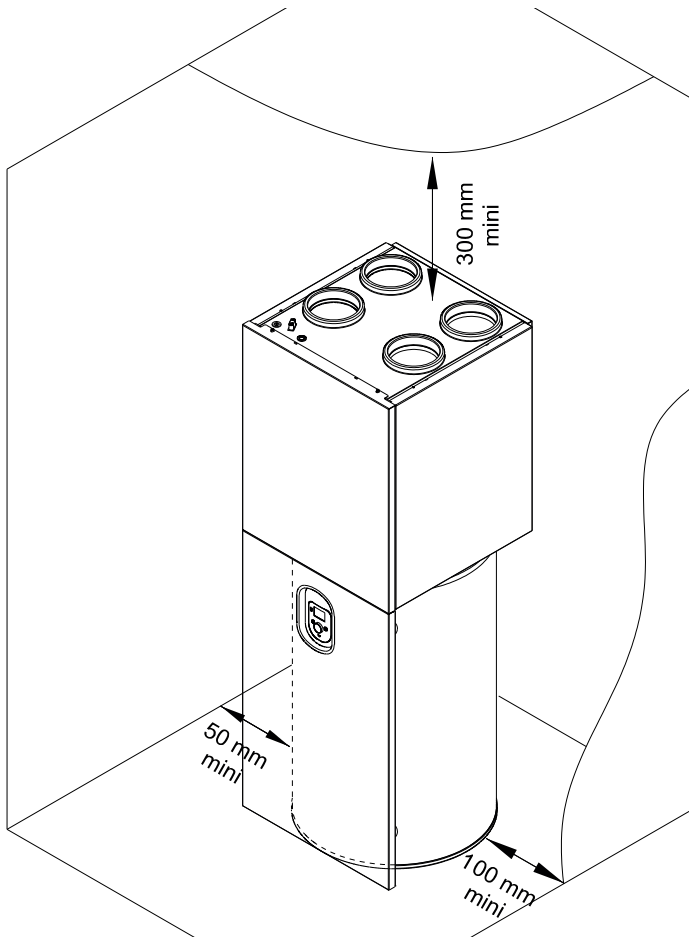
INSTALLATION PRECAUTIONS:

- The appliance must not be installed near a perpetual flame or other source of ignition.
- The appliance must be installed in such a way as to avoid mechanical damage.

INSTALLATION PROHIBITED :

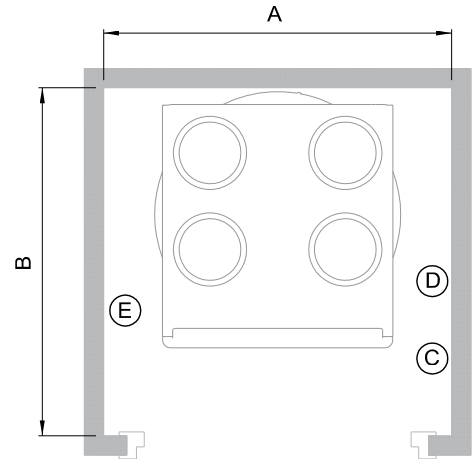
- Outside,
- In rooms exposed to frost, or where the temperature is less than 5°C, including when the appliance is in operation,
- In humid rooms with significant vapour emissions (eg. a bathroom),
- To operate the appliance with air intake which contains solvents or flammable materials,
- In a dusty room,
- Avoid proximity to night-time rooms to reduce noise levels,
- Do not install the extraction unit close to a smoke outlet (minimum distance 0.6 m).

To ensure normal operation of the **Zé7** and to facilitate maintenance work, it is necessary to respect a minimum amount of free space around the appliance as well as a minimum ceiling height to allow for the removal of the cover.



Make sure you leave enough space (300 mm) above the **Zé7** to be able to connect the ventilation ducts and to be able to carry out annual maintenance (inspection of the fire dampers in the case of installation on collective ducts, for example).

To ensure that a **Zé7** operates without causing noise nuisance to the user, the appliances must be installed in an enclosed cupboard with a neat finish.



The dimensions to be respected in order to best prepare the installation of the **Zé7** are indicated below:

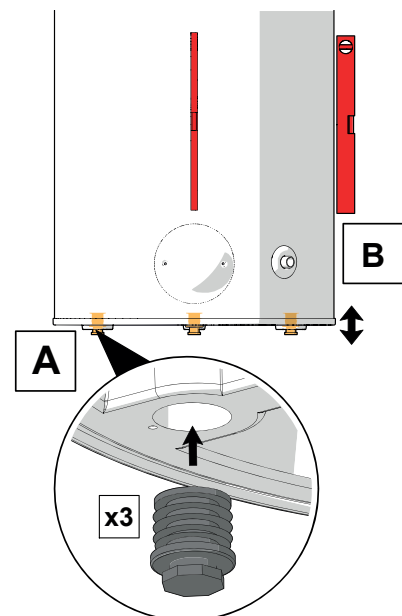
- A : minimum cupboard depth 800 mm.
- B : minimum cupboard depth 800 mm.
- C : cold water inlet at floor level.
- D : condensate drain on the floor, in a siphon.
- E : electrical power supply, 1000 mm high.

The floor must be strong enough to support 300 kg.



The verticality of the Zé7 must be respected. Otherwise, there is a risk of condensate overflow and water leaking onto the floor.

For this purpose, use the three adjustable feet provided in the documentation bag of the installation manual.



- A. Insert the feet into the base
- B. Adjust the plumb

5.2 - Aeraulic connection

It is forbidden to:

- Operate the appliance with intake air containing solvents or explosive materials;
- Use greasy, dusty or aerosol-laden intake air;
- Connect steam extraction hoods to the ventilation system;
- Connecting to a mechanical ventilation system;
- Use air containing boiler combustion products.

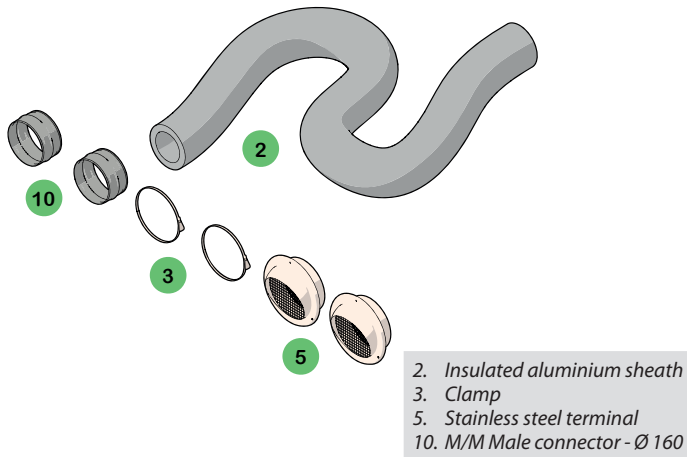
5.2.1 - Outside air connection

The heat pump operates over a wide range of outside air temperatures from -15°C to 45°C.

The appliance draws its heat from the outside air using an insulated air duct with an internal diameter of 160 mm.

The size of the **Zé7** connection must allow each unit to operate at its nominal flow rate (> 300 m³/h). The appliance may malfunction if the mains supply is too strong.

5.2.1.1 - Individual connection

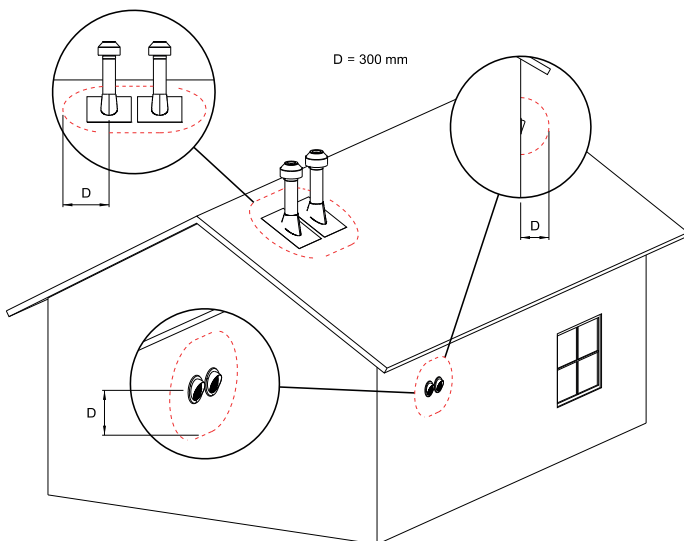


Total maximum length Ø160 mm :

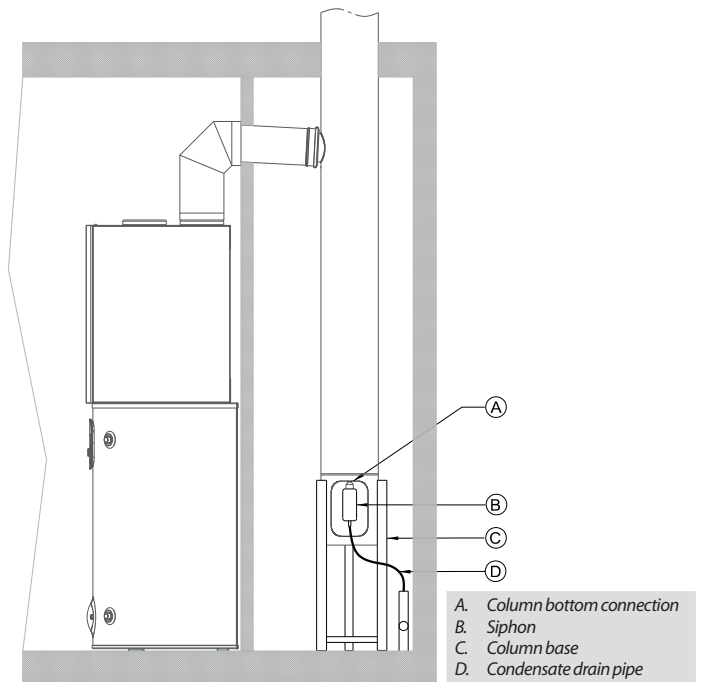
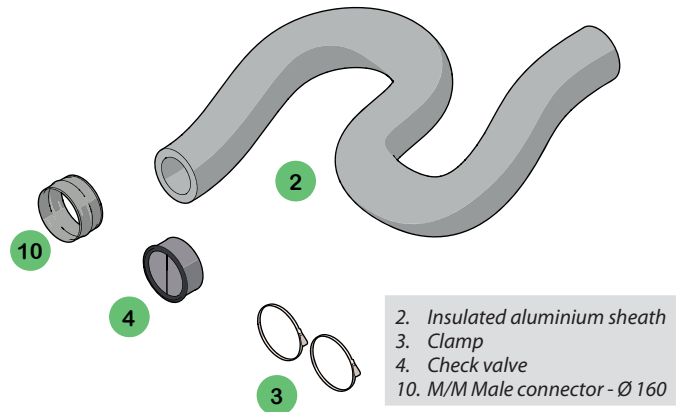
- 10 m of flexible hose ;
- 20 m of semi rigid piping.

1 elbow= 1 m.

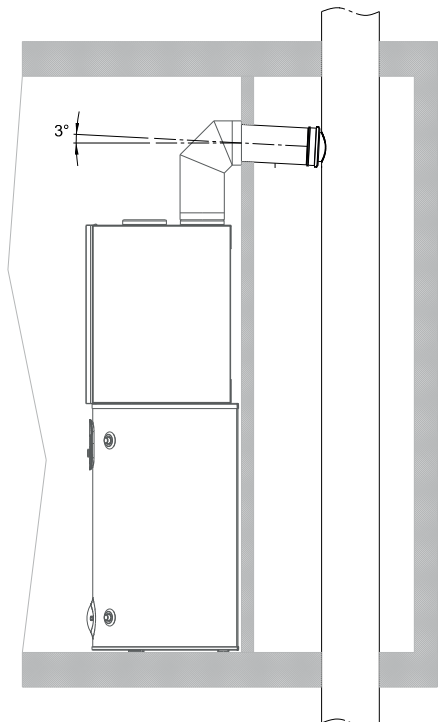
It is recommended to maintain a distance of 300 mm around the terminals.



5.2.1.2 - Collective connection



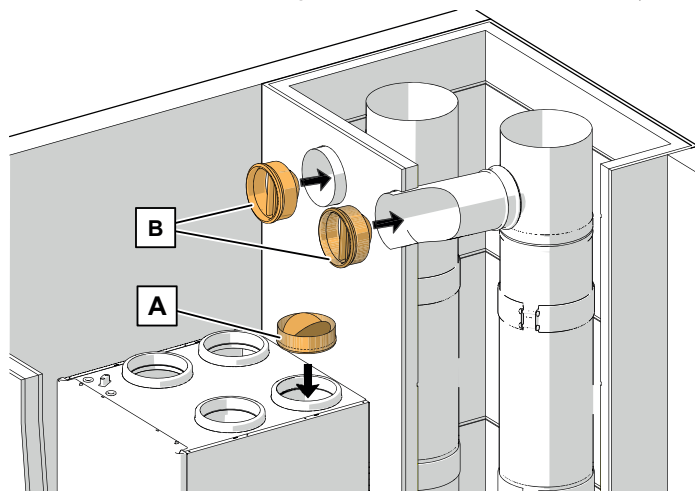
To avoid any risk of water entering the fans, a slope of 3° towards the collective flue must be respected.





When connected to a collective flue, each appliance must be fitted with a non-return valve on its air outlet.

We recommend installing the check valve horizontally (A).



A. Ø 160 check valve
B. Fire damper (not supplied)

Flue pipes connecting to a collective flue must be fitted with a quarter-hour fire damper (B) in multi-family dwellings of the second family and in dwellings of the third family, and a half-hour fire damper in dwellings of the fourth family, operated by a thermal device working at 70°C. These dampers must be controllable and replaceable.

5.2.2 - Inside connection

Diffusion by air vector provides good responsiveness to demand and purifies the air by filtering it.

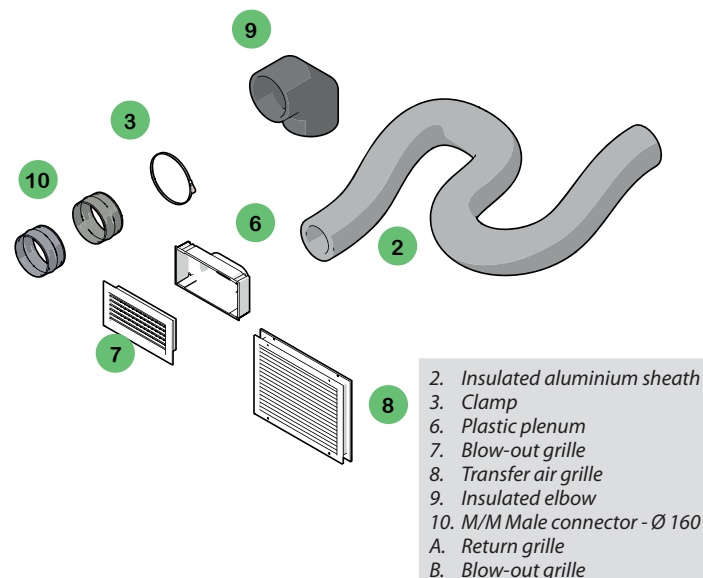
The hot or cold air supply must be designed to allow the supply air to return to the return grille.

Precautions:

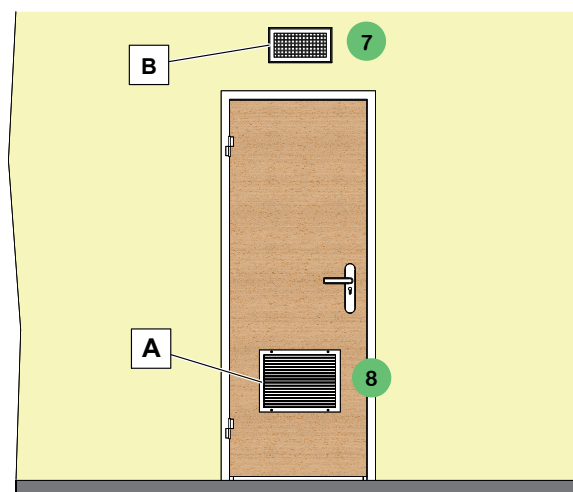
- Do not install the grilles near a hob.
- There must be no obstacles in the way of the air intake and outlet openings.
- The location must take into account the architecture of the room to ensure good air diffusion. It is best to distribute the air lengthways.

5.2.2.1 - Unsheathed connection on the return line

Air is drawn in via an air intake grille located at the bottom of the cupboard. This can also be positioned directly in the cupboard door. The air is blown out at the top of the cupboard. The supply air grille must be installed in the plenum and this one connected to the product using an insulated duct.



2. Insulated aluminium sheath
3. Clamp
6. Plastic plenum
7. Blow-out grille
8. Transfer air grille
9. Insulated elbow
10. M/M Male connector - Ø 160
A. Return grille
B. Blow-out grille



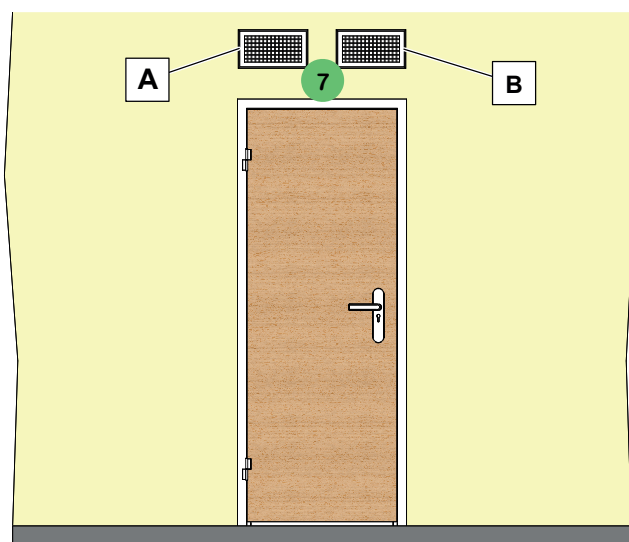
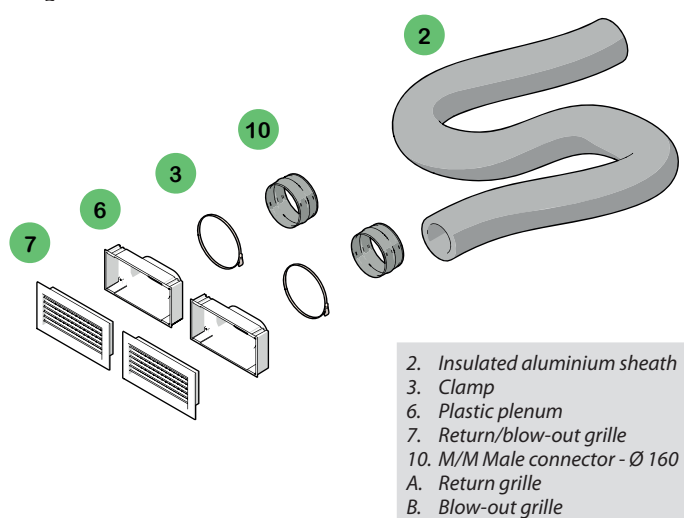
In order to ensure good air de-stratification, it is recommended to position the return grille in a low position at least 300 mm above the floor and the blow-out grille in a high position, generally above the cupboard door.

The blow-out grille should only be installed in the main rooms and not in damp rooms, so as not to interfere with the operation of the mechanical ventilation system.

5.2.2.2 - Ducted connection on the return line

The air return is taken in via an air return grille at the top of the cupboard.

The air blow-out is blown out at the top of the cupboard. The blow-out grille must be installed in the plenum and this one to the product using an insulated duct.



To avoid air recirculation, it is recommended that the return grille is positioned at least 350 mm from the blow-out grille, generally above the cupboard door.

When the blow-out/return grilles are offset, the distance between the 160 mm ducts should not exceed 5 metres.

5.3 - Hydraulic connection



The appliance can only function when filled with water. Never turn on the appliance if the tank has not been properly filled with water and completely purged of air.

5.3.1 - Sanitary connection

- A **new** pressure-relief valve (not included) **must be installed** and set to 6 bar on the domestic cold water supply of the appliance. The use of a membrane valve is recommended. This valve must conform to all local and national standards.
- The pressure-relief valve should be installed as close as possible to the appliance's cold water inlet and the water flow **should never be hampered by any accessory** (valve, pressure-reducer, etc.).
- The pressure-relief valve drainage outlet must be installed in a frost-free place and in a downward-sloping position.
- The pressure-relief valve drainage outlet should be sized according to building regulations and standards and must never be obstructed. It should be connected to a vertically draining pipe, using a funnel which allows an open space of at least 20 mm and which is at least equal in diameter to the appliance's piping connection.
- If the pressure of the domestic cold water supply is higher than 5 bar, a pressure-reducer should be installed above the pressure-relief valve near the starting point of the installation (a pressure of 3-4 bar is recommended).
- It is advised to fit a shut-off valve above the pressure-relief valve.
- For installations equipped with:
 - piping of a small diameter
 - ceramic plate valves

A domestic water expansion vessel, or anti-hammer valves which are adapted to the installation should be installed as close as possible to the shut-off valve.

• **The following materials should be used for the domestic hot water circuit:**

- copper
- stainless steel
- brass
- plastic

If the materials used in the domestic hot water circuit are incompatible, corrosion damage may occur.

Domestic hot water pipes **with a cast-iron or steel link, or with dielectric fittings** (supplied) to avoid an iron/copper galvanic bridge.

- Thoroughly flush the supply line piping before connecting the appliance to the domestic installation so as not to introduce any particles, metallic or other, into the appliance.
- Respect the standards in effect in the country of use, notably domestic water regulations and pressure safety regulations.
- The maximum domestic hot water temperature at the distribution points should never surpass 50°C for toilets, and 60°C for other uses. Adequate thermostatic mixing valves should be installed to avoid risk of burns.
- The appliance must operate using water with a TH between 12°F and 30°F. In regions with extremely hard water (TH>25°F), it is recommended to treat water with a softener.
- Not following the conditions shown below, see DTU 60-1, will lead to the warranty of the tank to be rendered null and void (the values are given for a water at 20°C).

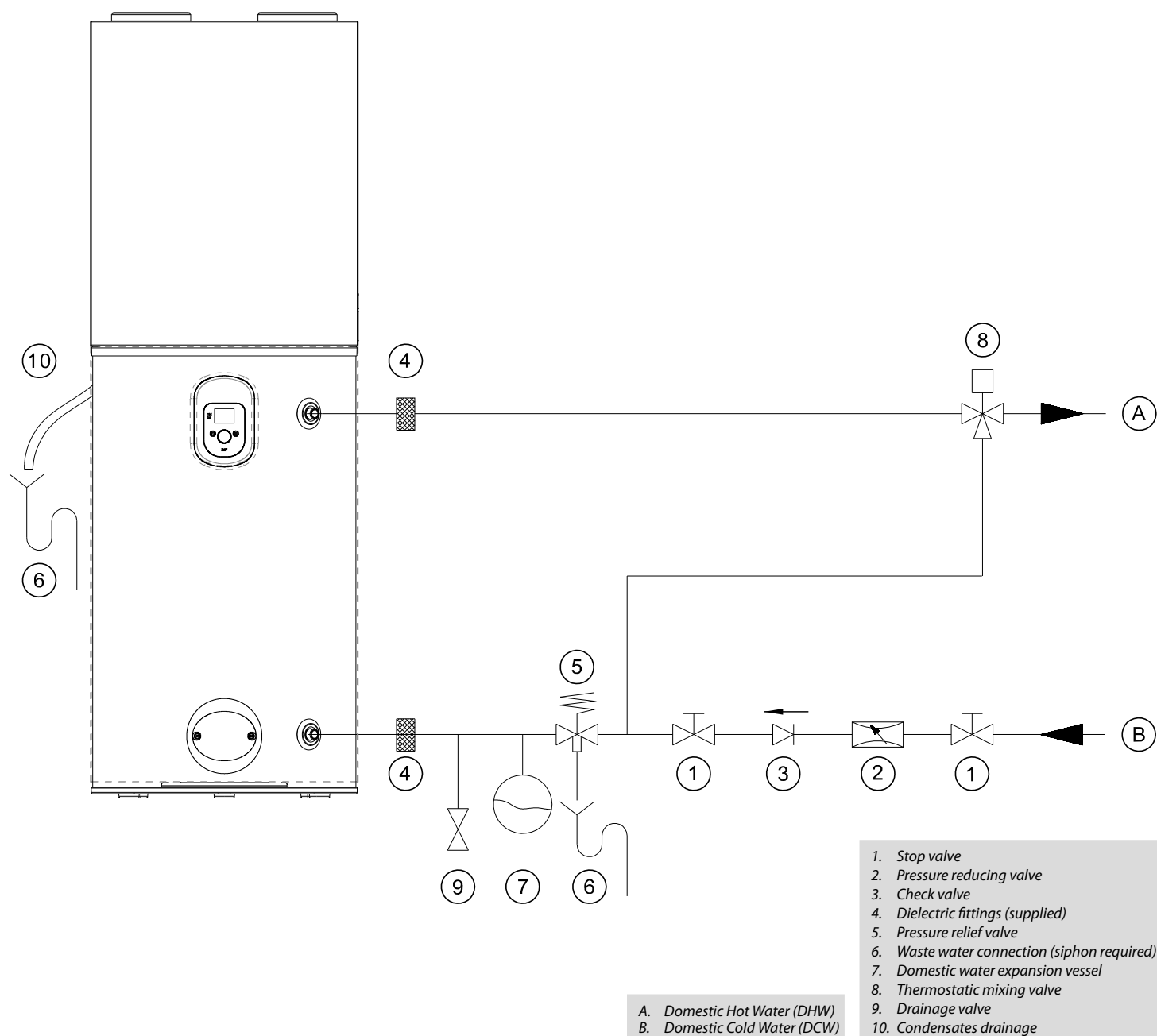
Resistivity	<2200Ωcm or >4500Ωcm	
Complete alkalimetric title	<1.6 meq/L	8°F
CO ₂	>15 mg/L	-
Calcium (Ca ⁺⁺)	<1.6 meq/L	8°F
Sulfates (SO ₄ ⁻)	>2 meq/L	10°F
Chlorides (Cl ⁻)	>2 meq/L	10°F
Sulfates and Chlorides(SO ₄ ⁻ +Cl ⁻)	>3 meq/L	15°F



The use of a recirculation pump is strongly discouraged. This appliance is not designed for use with a recirculation pump. Use of a recirculation pump will cause a significant lowering of the temperature of the water in the tank.



The warranty does not apply if any of these points have been neglected or if the water quality did not allow correct treatment within the legal framework or if regular inspections of the anode are not carried out.

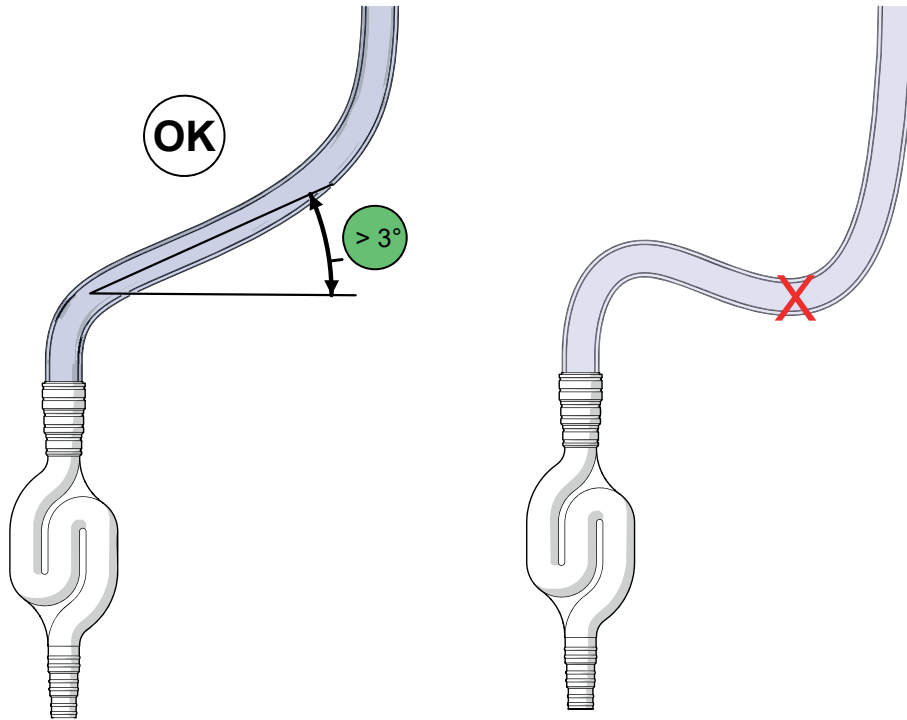


5.3.2 - Condensates drainage

The cooling of the air circulating in the evaporator can lead to the formation of condensate, the quantity of which varies according to the level of humidity in the air.

Condensate must be evacuated via a drain pipe at the rear of the appliance to a waste water drain.

A special siphon is supplied with the product to prevent noise pollution in installations with high pressure differential operations.

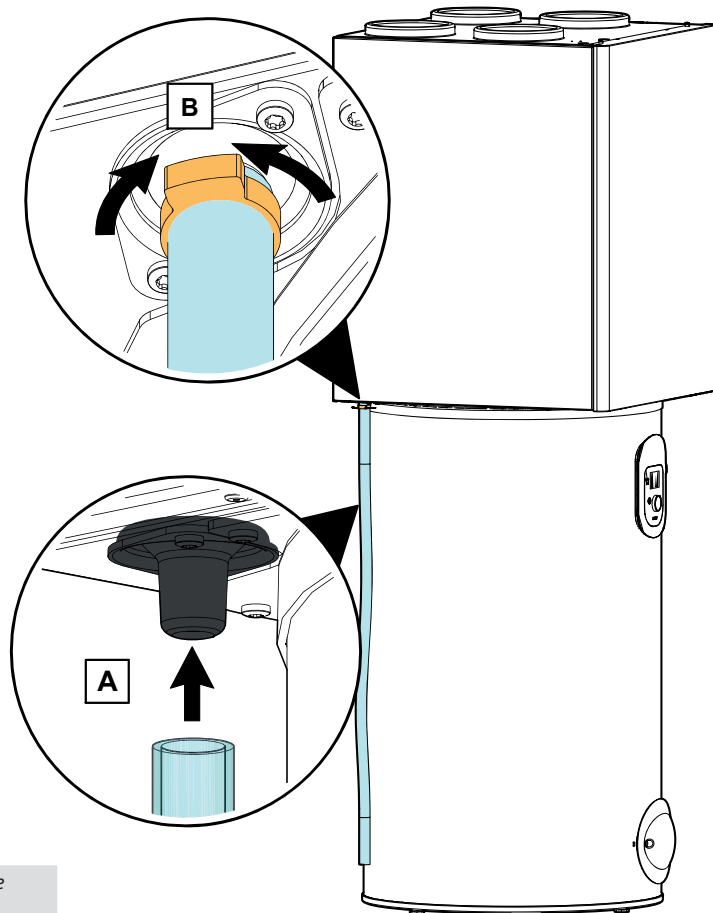


To ensure correct drainage, the following points must be observed:

- Drainage must be via a siphon (the hose must not be used as a siphon) to the waste water system ;
- Fill the siphon with water ;
- The drain pipe must be immersed in the water in the siphon ;
- A minimum 3° slope must be maintained ;
- It is forbidden to bend the hose ;
- Do not connect to a nipple.



The siphon is essential, as if it is connected directly to the waste water, rising sewage can damage the appliance's refrigeration circuit!



- A. Insert the hose onto the drain nipple
B. Clip on the pipe clamp

5.4 - Electrical connections



Do not switch on the product without water in the tank.

The product must have a permanent power supply.

Power supply: 230 V single phase + ground.

The power supply should comply with the regulations in effect in the country of installation, as well as the NFC 15-100 standard.

A means of disconnection which ensures total power cut-off in Category III conditions should be installed in the fixed piping in compliance with the installation regulations.

Protect the appliance with:

- a 16 A (D-curve) all-pole circuit-breaker with a minimum 3 mm contact opening.
- A protective 16 A (D-curve) circuit-breaker with a 30 mA differential.

If the power supply cable is damaged it must be replaced by the manufacturer, their customer service technicians, or by a qualified professional so as to avoid any risk of injury or danger.

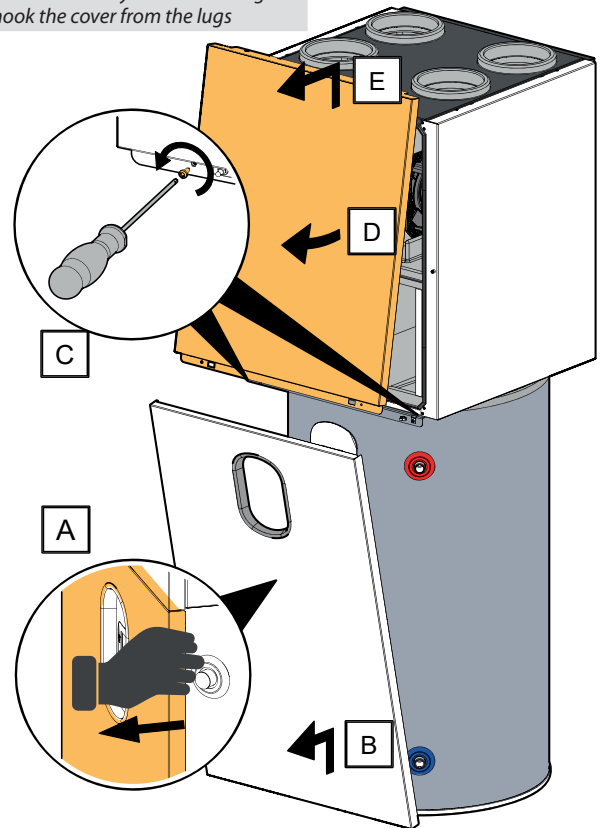
5.4.1 - Access to the electrical box

To access the electrical connections, remove the front panel of the appliance casing, then remove the electrical box cover.

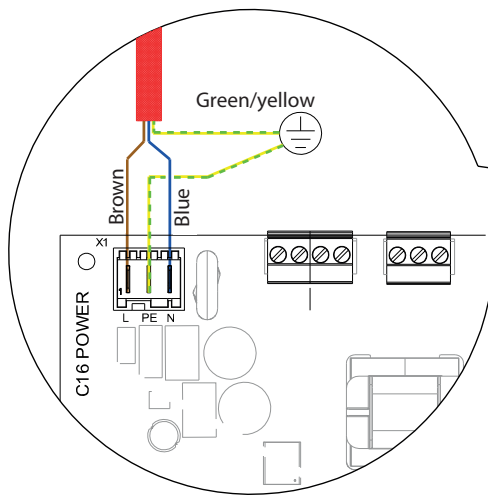


Carry out these operations with the power off.

- Spread the lower front panel
- Unhook the front panel from the lugs
- Remove the two screws under the cover
- Pull the cover away from the casing
- Unhook the cover from the lugs

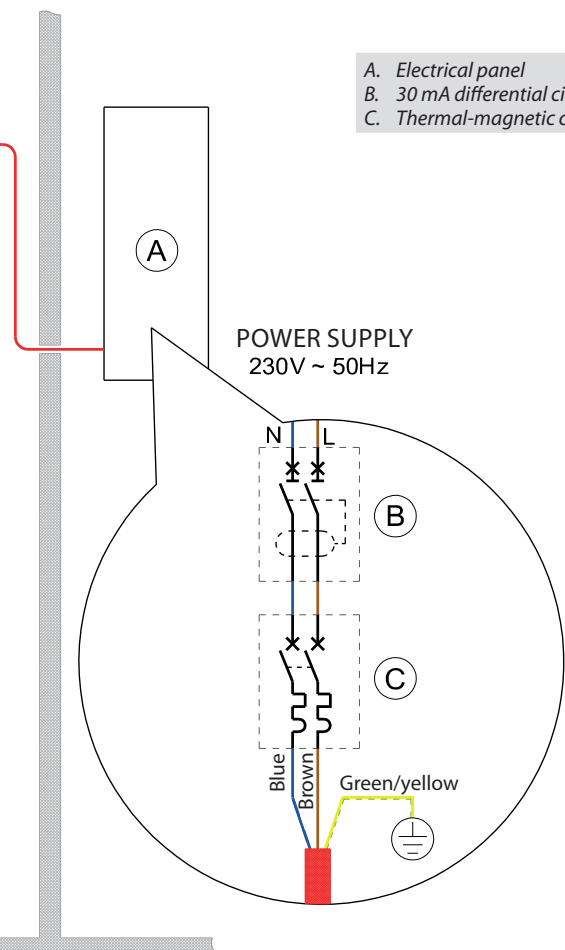


5.4.2 - Power supply



The ground connection is MANDATORY.

- Electrical panel
- 30 mA differential circuit-breaker
- Thermal-magnetic circuit breaker



5.4.3 - Ambient temperature sensor

The ambient controller must be positioned on an internal wall of the room to be controlled by the appliance.

Do not install it on a wall overlooking the outside.

Do not position the ambient controller too close to a window, curtain or door. Avoid installing it in a niche, a cupboard or behind curtains.

Do not place it above a heat source (radiator, insert, etc.) or on a wall behind which there is a fireplace.

Do not place it in direct sunlight or under powerful lighting.

Do not place it in the air flow of the appliance.

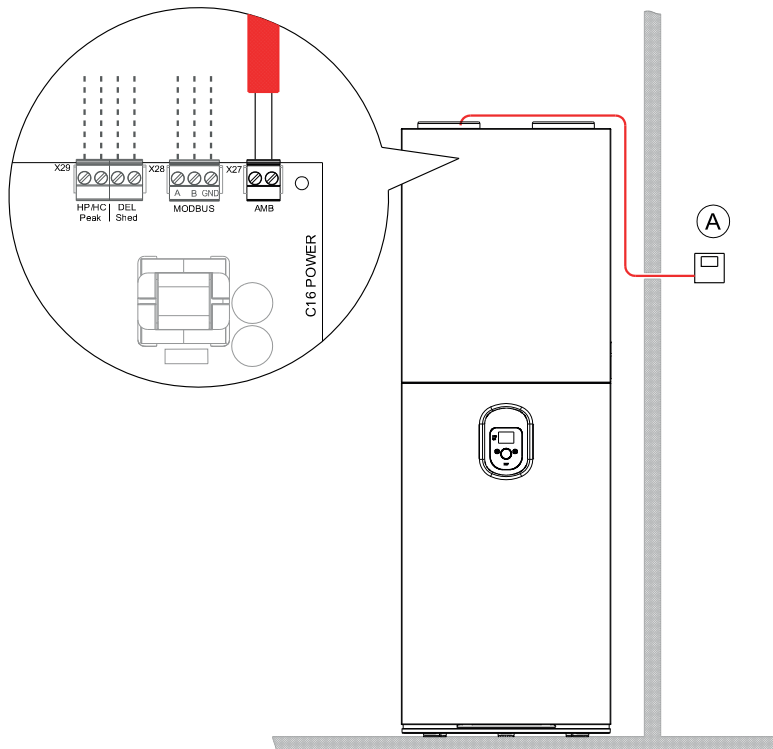
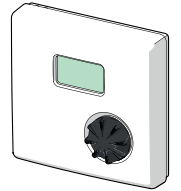
Mount the sensor 1.50 m above the ground and at least 50 cm from an adjacent wall. Insulate the end of the electrical installation duct on the device side to avoid any air currents that could affect the measurement.



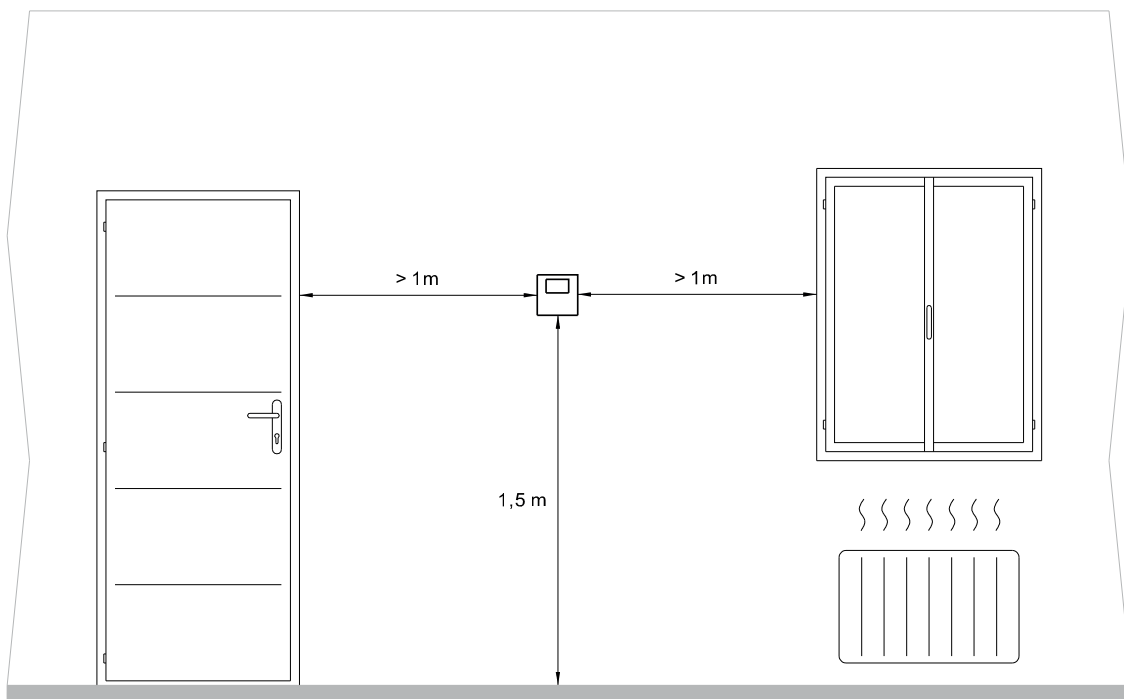
EXCLUSIVELY connect the AMBIANCE TEMPERATURE SENSOR with DISPLAY (Ref. 751009).

Any other ambient controller may cause malfunction and invalidate the warranty.

→ **Ambient temperature sensor (Ref. 751009)**



A. Ambient temperature sensor



6 - SET-UP AND USE



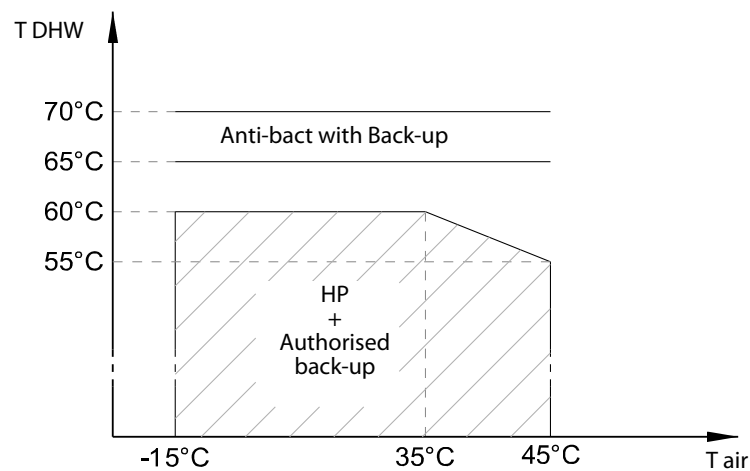
Deterioration risk: it is imperative to fill the tank with water before switching on the appliance or connecting it to the electrical supply.

Filling the tank with water :

- Leave the appliance unplugged.
- Open the hot water valve located at the highest point of the installation.
- Open the cold water inlet located on the safety group.
- Fill the tank until water is coming out of the hot water valve located at the highest point of the installation.
- Close the hot water valve
- Check that the entire circuit is watertight.

To heat domestic hot water, the **Zé7** works primarily with the heat pump as long as the temperature of the air drawn in remains within the authorised range of -15°C to +45°C. Outside this range, the electric auxiliary heating system heats the domestic hot water.

The domestic hot water temperature supplied by the heat pump can be adjusted up to 60°C.



6.1 - Control panel

Other icons which may appear:



Technical duct fan on



Electrical back-up



Compressor power on



Standby



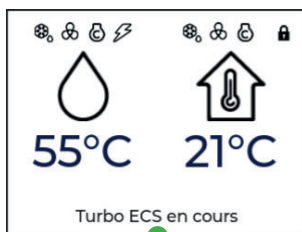
Current holiday



Defrost in progress



Domestic hot water function



Locked keyboard



Heating/cooling space function



On / Off

Short press : Switching on.
Long press : Standby mode.

1

2

4

3



Thumbwheel

Short press : Fault acknowledgement or validation.
Long press : Product identification and operating status information.



Menu access

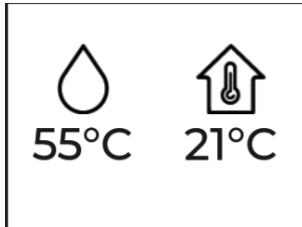
Short press :
• Access to user menu.
• Cancel / Go back in menu navigation.
Long press : Locking/unlocking the keypad.

6.2 - Switching on

Before starting up, make sure that **Zé7** is correctly supplied with electricity and water.

Press  to switch the product on.

The product displays the standard screen showing the hot water and heating set-points.



Note:

If you leave the appliance untouched for a few minutes, the screen lighting will disappear but the information displayed will remain.

6.3 - Standby mode

Long press on the button  to put the pilot in standby mode:

- Stops production of domestic hot water and heating/cooling.
- The temperature is monitored and the water is kept frost-free.

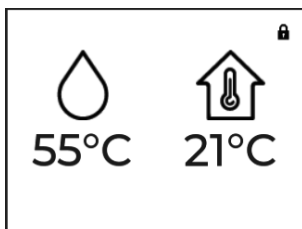


6.4 - Locking the keyboard

The keypad lock protects against unintentional switching off or setting changes.

The lock can be activated and deactivated by holding down the touch .

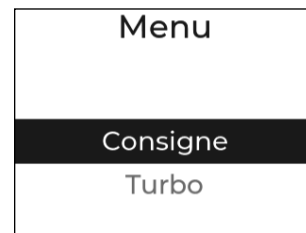
When the keypad is locked, the icon  appears on the screen.



To unlock, press  until «UNLOCK» is displayed.

6.5 - User menu

Access button: 

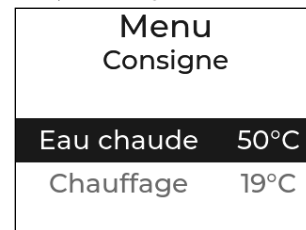


The user menu offers the following choices:

- *TEMP TARG*: gives access to the set-point settings for hot water, home heating and cooling.
- *BOOST*: used to activate the Boost function, which speeds up hot water production by activating both the heat pump and an auxiliary immersion heater.
- *HOLIDAY*.
- *HEATING/COOLING*.
- *PROGRAMMING*.
- *ELECTRIC MODE*.
- *DATE AND TIME*.
- *LANGUAGE*.

6.5.1 - Settings the water temperature

Select « *TEMP TARG* » by pressing the thumbwheel .



This will take you to the various set-point settings:

- *HOT WATER*: temperature set-point used to prepare domestic hot water.

The water temperature can be set from 30°C to 65°C.

Up to 60°C, the water is heated by the heat pump alone.

Above this temperature, the electrical back-up takes over up to 65°C.

To get the most out of the heat pump, we recommend that you do not set the water temperature too high if you do not need much.

By default, the water temperature is set to 55°C.



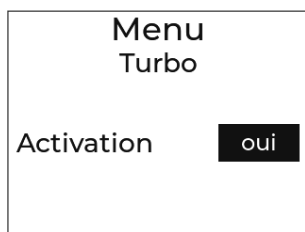
If the water temperature is set at 50°C or below, we recommend programming an anti-Legionella cycle.

- *COMFORT*: temperature set-point applied for heating the house.
- *COOLING*: Temperature set-point applied to cooling the house, when the appliance is in cooling mode.

Exiting a setting by pressing the thumbwheel  confirms the setting.

Exiting a setting by pressing the button  does not save the current setting (return to the previous value).

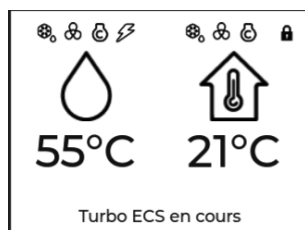
6.5.2 - Boost



The «**BOOST**» function temporarily forces the electrical back-up and the heat pump to operate at the same time to speed up heating time during a sanitary heating cycle.

The «**BOOST**» function is automatically deactivated as soon as the set temperature is reached.

As long as the boost function is active, it is indicated by a message on the main screen:



6.5.3 - Holidays mode

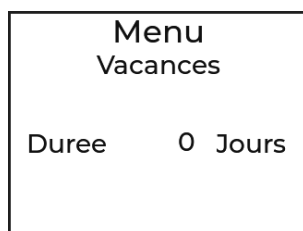
The «**HOLIDAY**» function allows you to put the appliance on standby while keeping the frost protection function active.

This function can be programmed for a period of 1 to 99 days. It takes effect as soon as the number of days has been confirmed.

During «**HOLIDAY**» mode, **Zé7** displays the day programmed for the return from holiday.

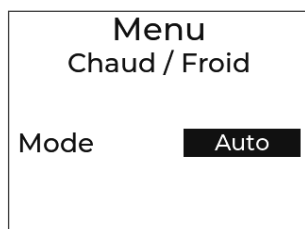
The «**HOLIDAY**» function ends automatically at midnight, just before the programmed day.

Holiday mode can be cancelled at any time by pressing and holding the button .



6.5.4 - Heating/Cooling mode

Enables the «**HEATING/COOLING**» function.



When this function is activated, the house heating is no longer active. To restore the heating function, the cooling function must be deactivated.

Switching between heating and cooling has no impact on DHW production.

6.5.5 - Comfort setting

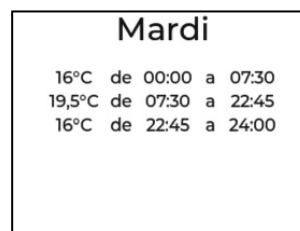
Comfort can be programmed for all seven days of the week (up to seven timeslots per day).

The room setpoint can be varied freely within these periods.

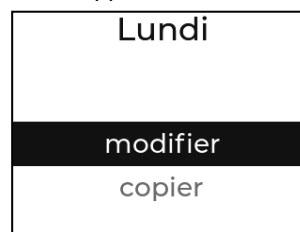
When you enter the programming sub-menu, you can view the time slots programmed for the different days of the week. The first programme displayed is that for the current day:



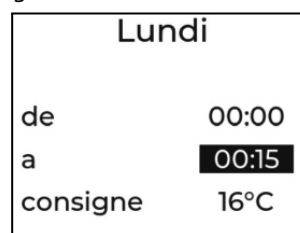
Use the thumbwheel to scroll through the days of the week and their programmes.



To change one of these programmes, press the thumbwheel . The following choice will appear:



- Modify the programme's comfort zones.



- Copy: Copies today's programme to other days of the week.



- Delete: reverts to the default programme (**COMFORT** setpoint permanently applied).

6.5.6 - Electric mode

Electric mode uses only the electrical back-up to heat domestic hot water. It provides emergency operation if the heat pump cannot be used (air ducts waiting to be connected, dusty work near the appliance, etc.).

Menu Mode électrique	
Activation	oui

The appliance only produces domestic hot water.

6.5.7 - Time and date settings

Used to set the date and time.

Select «Date/Time» by pressing the thumbwheel.

Menu Date et Heure		
1	Janv	2023
	00	: 00

You go through the day, month, year, hour and minute settings in succession.

6.6 - Installer menu

Access by pressing  + turning the thumbwheel anticlockwise .

Installateur
Consigne d'air
Vitesse ventilation

The user menu offers the following choices:

- Air set-point ;
- Fan speed ;
- Min. temperature ;
- Parameter reset.

6.6.1 - Air set-point

Installateur Consigne d'air	
Temperature	auto

Adjusts the temperature level of the air supplied by the **Zé7** to heat the house.

- **AUTO** : The product adapts the temperature itself according to outdoor conditions.
- **30** to **49** : Fixed temperature (independent of outdoor conditions).

6.6.2 - Fan speed setting

Installateur Vitesse ventilation	
Vitesse	niveau 1

Heating/cooling air ventilation control.

6.6.3 - Minimum temperature setting

Installateur Temperature mini	
Activation	oui

The minimum temperature function helps maintain comfort. It activates the electrical back-up in parallel with the heat pump to prevent the water temperature from dropping when large quantities are drawn.

6.6.4 - Reset setting

Returns to factory settings.

6.7 - Expert menu

Access by pressing  + turning the thumbwheel clockwise .

Expert
Parametres
Informations

The expert menu offers the following choices:

- **PARAMETERS**: access to all the parameters.
- **INFORMATION**: displays the product's operating status (temperatures, fan and compressor speeds).
- **FORCING**: Manual activation of certain functions.
- **COUNTERS**: Operating counters.

6.7.1 - Operating settings

Access to all parameters (see list of parameters in the next section).

6.7.2 - Informations

Display of the temperatures and states of the main internal elements of the product.

6.7.3 - Forcing

The following items can be activated:

- Internal fan;
- External fan;
- Electric make-up for DHW;
- Indoor air heating.

6.7.4 - Counters

Displays temperatures and status of the product's main internal components.

Counters n°	Description	Unit
1	Sanitary demand time (storage tank demand)	h
2	Heating demand time	h
3	Cooling demand time	h
4	Heat pump operating time - DHW part	h
5	Electrical back-up operating time	h
6	Defrosting cycle - DHW part	Quantity
7	Heat pump operating time - Heating/cooling part	h
8	Defrosting cycle - Heating/cooling part	Quantity
9	Not concerned	-
10	Not concerned	-
11	Sanitary demand time (storage tank demand)	h
12	Heating demand time	h
13	Cooling demand time	h
14	Heat pump operating time - DHW part	h
15	Electrical back-up operating time	h
16	Defrosting cycle - DHW part	Quantity
17	Heat pump operating time - Heating/cooling part	h
18	Defrosting cycle - Heating/cooling part	Quantity
19	Not concerned	-
20	Not concerned	-
21	Heat pump safety shutdown - DHW part	Quantity
22	Heat pump safety shutdown - Heating/cooling part	Quantity

6.8 - List of parameters which can be set

Parameter N°	Description	Unit	Range of setting	Factory setting
P227	Minimum speed of fan	%	10 to 100	20
P228	Maximum speed of fan	%	10 to 100	50
P230	Heat mode - Minimum outside temperature(TEMI)	°C	-30 to 10	-5
P231	Heat mode - Maximum outside temperature (TEMA)	°C	11 to 25	20
P232	Heat mode - Maximum indoor air set-point temperature (TCMA)	°C	P233 to 70	70
P233	Heat mode - Minimum indoor air set-point temperature (TCMI)	°C	30 to P232	40
P234	<u>Activation of lowering on near demand</u> When this function is activated, reaching the room set-point does not stop the supply of warm air, but reduces the supply air temperature (parameter P235). As soon as the room temperature falls below the set point, the supply air temperature rises to the level predicted by the set point calculation (parameters P230 to P233), until the next time the room set point is reached.	-	0: no 1 : yes	1
P235	<u>Indoor air set-point value in near-demand mode</u> Acts on the supply air temperature as soon as the room temperature has reached its set-point (= reduction in heating capacity simply to maintain the room temperature). Only effective if the function has been activated via P234.	°K	0 to 30	4
P236	<u>Proportion of set-back based on room set-point</u> Allows the supply air temperature to be lowered to a greater or lesser extent during ECO periods to optimise the performance of the heat pump. This reduction depends on the set point chosen for the room. <i>Example: if the temperature selected for ECO is 4°C lower than Comfort, the supply air temperature will be reduced by P236 x 4°C during the ECO period.</i>	-	0 to 5	1
P240	Cool mode - Minimum outdoor temperature	°C	20 to P241	25
P241	Cool mode - Maximum outdoor temperature	°C	P240 to 50	35
P242	Cool mode - Indoor air set-point temperature at P240 (25°C)	°C	16 to 40	20
P243	Cool mode - Indoor air set-point temperature at P241 (35°C)	°C	16 to 40	16

6.9 - Displayed information

Descriptions	access buttons
menu EXPERT - INFORMATIONS - WATER : Tank water temperature - EXTERNAL AIR : Outdoor air temperature - EVAPORATOR 1 : Evaporator temperature (hot water production circuit) - INT. AIR RETU. : Ambient air intake temperature - EXT. AIR START : Room supply air temperature - CONDENSER : Condenser temperature (heating/cooling circuit) - EVAPORATOR 2 : Evaporator temperature (heating/cooling circuit) - SUCTION : Compressor suction temperature (heating/cooling circuit) - EXPANSION VALVE : Opening position of electronic expansion valve (heating/cooling circuit) - INDOOR VENTILATION SPEED : Fan speed for supply air to the room - EXTERNAL VENTILATION SPEED : Ventilation speed for outside air intake - COMPRESSOR : Modulating compressor speed (in %) (Heating/cooling circuit) - SOFTWARE : Manage software version	

Press  to exit the menus and sub-menus.

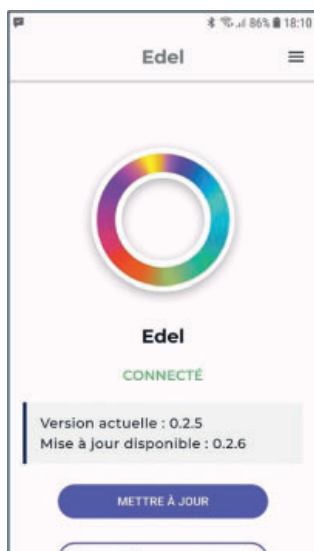
6.10 - Reprogramming

The update is carried out via the «*intuis Compagnon*» application.

- 1- Install the «*intuis Compagnon*» application on your smartphone
 - Make sure that geolocation is activated.
 - Activate Bluetooth.
- 2 - Put the appliance on standby.
- 3 - Press and hold the wheel on the standby product until the QR code appears:
 - The product will only be visible to the application if the QR code is displayed on the screen.
 - If no-one tries to connect after 30 seconds, the screen will disappear and the product will return to standby.
- 4 - Open the application (accept Bluetooth activation if requested).
- 5 - The product is recognised:
 - The application displays the software version currently installed in the product.
 - If a new version is available, the message «Une mise à jour est disponible» will inform you.



- Confirm «Se connecter» to connect to the product.
- 6 – Once connected, authorise the update by clicking «Mettre à jour».



- 7 – During the update, you can follow the progress simultaneously on the application and on the display.



Overview of the control panel screen during the update

- 8 – Once the update is complete, your device will automatically restart.
- 9 – If you wish, you can now check that your device has integrated the latest version via the application (the message «Une mise à jour est disponible» should no longer appear).

7 - MAINTENANCE AND TROUBLESHOOTING

In order to maintain efficiency and improve durability it is advised that an annual maintenance check be carried out by a qualified professional.



- Any work on the Zé7 must be carried out by a qualified professional.
- Observe all health and safety rules!
- Any work on the refrigerant circuit must be carried out by a qualified professional with a Category 1 certificate of aptitude.
- We advise against venting refrigerant to atmosphere.
- It is advisable to recover the fluid before carrying out any work on the circuit.
- Switch off the Zé7 before opening it.
- Wait for the fan to come to a complete stop before carrying out any work.
- Do not get water on any of the electrical parts.
- The pressure limiting device must be operated regularly to eliminate limescale and to check for blockages.

In case of maintenance or if taking the **Zé7** out of service, please respect the environmental protection regulations regarding recovery, recycling and disposal of consumables and components.



The R290 refrigerant in the heat pump circuit poses no risk to the environment, but it is flammable.

- The R290 refrigerant is odourless,
- do not damage the pipes in the refrigerant circuit,
- do not handle a flame or any other flammable source on the inside of the appliance.
- If the refrigerant is leaking, unplug the appliance, air out the room, and contact customer service.
- Do not use any mechanical means to speed up defrosting.
- Do not pierce or burn the appliance: in case of intervention on the refrigerant circuit, the refrigerant must be recovered.
- The refrigerant circuit containing flammable refrigerant fluid complies with national gas regulations.

.../...



.../...

→ In case of intervention on the refrigerant circuit:

- 1) Secure the area you will be working in.
- 2) Inform people of the potential danger involved in the work being carried out.
- 3) Check that the risk of inflammation is minimised.
- 4) Avoid working in a confined space; the area must be sufficiently ventilated.
- 5) Check the area with an appropriate leak detector before and during the work.
- 6) Place a CO₂ or dry powder extinguisher near the work area.
- 7) Do not smoke.
- 8) Drain the two refrigerant circuits.



7.1 - Water circuit / condensate drain

Check that the condensate is draining properly:

- Remove the top cover (see procedure § «Electrical connection»).
- Check that the drain hole is not blocked.
- Clean the condensate drip tray, which may contain deposits carried along by the intake air.
- Clean the drain hose.

The pressure-limiting device should be operated regularly to remove scale deposits and check that it is not blocked.

Check that the hydraulic connections on the **Zé7**.

7.2 - Air feeding pipe

Maintenance work is limited to cleaning the evaporator and changing the filter (at least once a year, depending on the cleanliness of the intake air).

Sharp-edged fins: risk of injury. Take care not to deform or damage the fins.

It is recommended to replace the filter once a year to ensure optimum operation of your heat pump. An alarm to check the state of the filter is automatically displayed on the screen.



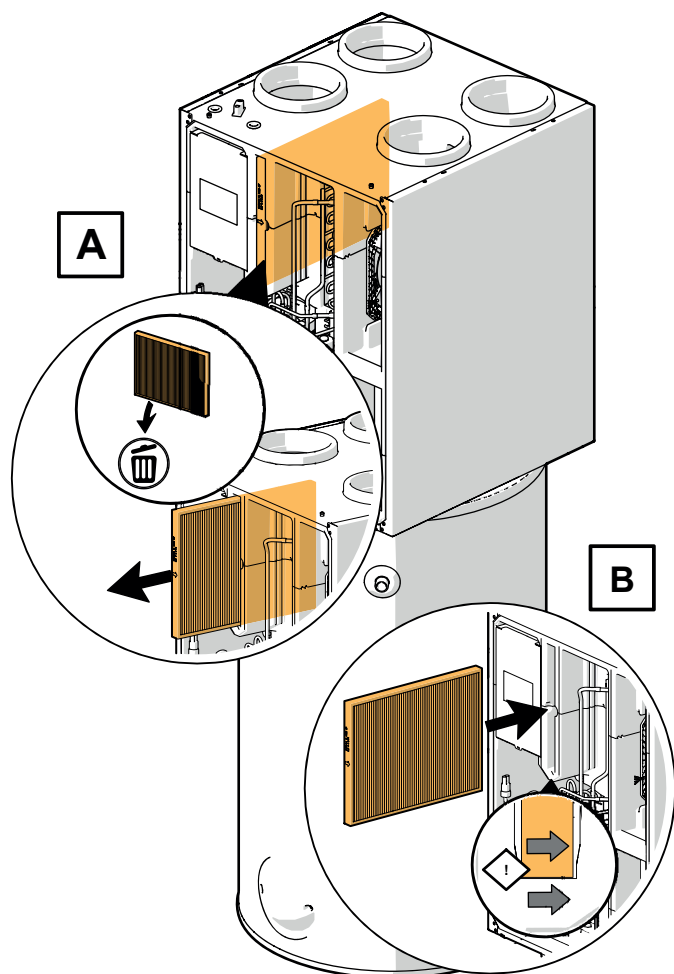
Operating without a filter will clog the top unit and risk the appliance breaking down.

Replace the filter only with the manufacturer's filter **B1473174**.

1. Switch off the appliance.
2. Remove the front panel of the product.
3. Remove and dispose of the used filter.
4. Clean the bottom of the compartment.
5. Place the new filter in the thermodynamic unit compartment.
6. Close the front cover.
7. Switch on the appliance.



Using a filter with different characteristics may cause the appliance to malfunction.



A. Remove used air filter

B. Insert the new filter in the correct direction

7.3 - Electrical maintenance

It is mandatory to periodically inspect for the cleanliness and the absence of dust deposits on the electronic circuit board and the electrical terminals:

- of the compressor;
- of the electrical resistance ;
- of the different condensers.

Verify the correct tightness of all lugs. Adapt the frequency of inspection to the air quality. In a dusty environment more frequent maintenance and inspection is necessary, at minimum 1 time per year.

- Check that the wiring is not subject to wear, corrosion, excessive pressure, vibration, contact with sharp edges or any other adverse effects due to its environment.
- Maintenance must also take into account the effects of long-term continuous vibration from components such as compressor and fan



Neglecting to clean the circuit board and other electronic components in a dusty environment can lead to a risk of overheating and ignition.

7.4 - Drainage

When draining the tank, ensure that there is a large enough air inlet at the top to avoid any depression in the tank. The following materials and products should be avoided:

- Brushes with steel bristles or pads
- Scouring powder
- Any bleach-based product or chlorinated derivative

- 1) Switch off the power supply.
- 2) Shut off the cold water inlet valve on the safety group and ensure there is an air intake valve on a high point of the appliance.
- 3) Open the hot water valves.
- 4) Set the safety group to the drainage position.

7.5 - Modification

Any modification of the device is **prohibited**. Any replacement of components must be done by a professional with original parts from the manufacturer.

7.6 - Decommissioning

7.6.1 - Leak detection

In the event of a prolonged absence with the power supply to the housing and the product disconnected, ask a qualified professional to drain the product or protect it from freezing.

Under no circumstances should potential ignition sources be used for the detection or detection of refrigerant leaks. A halogen flare (or other detector using an open flame) shall not be used.

- Electronic leak detectors may be used to detect refrigerant leaks, but for flammable refrigerants, sensitivity may not be adequate or may require recalibration.
- Ensure that the detector is not a potential ignition source and is suitable for the refrigerant used. Leak detection equipment must be set to a percentage of the lower flammability limit of the refrigerant and must be calibrated for the refrigerant used. The value of 25% of the lower flammable limit is used as the maximum.
- Liquid leak detectors are also suitable for use with most refrigerants but the use of chlorine-containing detergents should be avoided as chlorine can react with the refrigerant and corrode copper from the piping.
- If a leak is suspected, all open flames must be suppressed / extinguished.

7.6.2 - Removal and evacuation

- When opening the refrigeration circuit to perform repairs - or for any other purpose - conventional procedures must be used.
- For flammable refrigerants, it is important to use best practice as flammability must be considered.
- The following procedure must be followed :
 - Remove the refrigerant ;
 - Purge the circuit with inert gas ;
 - Evacuate to the atmosphere;
 - Purge with inert gas ;
 - Open the circuit by cutting or brazing.
- Refrigerant must be recovered in a suitable recovery bottle.
- The system must be purged with nitrogen without oxygen.
- This process may need to be repeated several times. Compressed air or oxygen should not be used to purge refrigerant systems.
- The purge of refrigerants must be performed by breaking the vacuum in the system with nitrogen without oxygen: By filling up until the working pressure is reached, an evacuation to the atmosphere, and finally by vacuum pulling.
- This process must be repeated until there is no more refrigerant in the circuit.
- When the last oxygen-free nitrogen charge is used, the circuit must be brought to atmospheric pressure to allow intervention.
- Ensure that the vacuum pump outlet is not near potential ignition sources and that ventilation is available.

7.6.3 - Charging process

- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines should be as short as possible to minimize the amount of refrigerant they contain.
- Cylinders must be held in an appropriate position according to instructions.
- Make sure the refrigeration system is grounded before charging the system with refrigerant.
- Label the system when the load is complete (if not already done).
- Extreme precautions must be taken to not overload the refrigeration system.
- Before recharging the system, it must be pressure tested with the appropriate purge gas.
- The system must undergo a leak test at the end of the load but before commissioning. Another follow-up leak test must be performed before leaving the site.

7.6.4 - Decommissioning

- Before performing this procedure, it is essential that the technician knows the product and all its specificities.
- It is recommended to use best practices to ensure that all refrigerants are safely recovered. Before the task is performed, an oil and refrigerant sample must be taken in case an analysis is required before recycling the recovered refrigerant. It is essential that a power supply is available before the intervention begins.
 - a) Familiarize yourself with the product and how it works
 - b) Electrically isolate the system.
 - c) Before attempting the procedure, ensure that:
 - mechanical handling equipment is disposable, if necessary, for the handling of refrigerant cylinders ;
 - all personal protective equipment is available and used correctly ;
 - the recovery process is being overridden at all times by a competent person.
 - d) Perform a «pump down» on the appliance where possible.
 - e) If it is not possible to vacuum, make a manifold so that the refrigerant can be removed from various parts of the system.
 - f) Make sure the recovery bottle is on the scale before the start of fluid recovery.
 - g) Start the recovery group and operate it according to the instructions.
 - h) Do not overfill bottles (no more than 80% in volume of liquid charge).
 - i) Do not exceed the maximum operating pressure of the cylinder, even temporarily.
 - j) Once the cylinders have been filled correctly and the process completed, ensure that the cylinders and product are removed from the site quickly and that all isolation valves on the product(s) are closed.
 - k) Refrigerant must not be loaded into another refrigeration system unless cleaned and verified.

7.6.5 - Recovery

When transferring refrigerant into the recovery bottles, ensure that only the appropriate bottles are used. Make sure you have enough bottles to recover the entire system load. All cylinders used are dedicated to the refrigerant recovered and labeled for it (i.e., special cylinders for refrigerant recovery). Cylinders must be complete with pressure relief valve, associated shut-off valves and in good working condition. Empty recovery cylinders are evacuated and, if possible, cooled prior to recovery.

- Recovery equipment must be in good working order with all instructions at hand and must be suitable for recovery of all refrigerants including, where applicable, flammable refrigerants. In addition, a set of calibrated scales must be available and in good working order.
- Hoses must be complete with leak-free disconnects and in good condition. Before using the recovery machine, verify that it is in good working order, has been properly maintained and that all associated electrical components are sealed to prevent ignition in the event of a refrigerant leak. Consult the manufacturer if in doubt.
- The recovered refrigerant must be returned to the supplier in the appropriate recovery bottle and the transfer note filled in correctly. Do not mix refrigerants in recovery units and especially not in recovery bottles.
- If compressors or compressor oils need to be replaced, make sure they have been vacuum pulled to an acceptable level to ensure they are not left in the flammable refrigerant lubricant. Vacuum pulling must be done before the compressor is returned to the supplier. Only electric heating of the compressor body should be used to accelerate this process. When oil is drained from a system, it must be done safely.

7.6.6 - Recycling and Disposal

- The product must be labelled indicating that it has been taken out of service and emptied of the refrigerant.
- The label must be dated and signed.
- Ensure that there are labels on the product indicating that it contains a flammable refrigerant.

Entrust the disposal of the packaging to the installer who installed the product.



The above symbol requires:

- Do not dispose of the product with the household waste.
- Dispose of the product at a collection point for used electrical and electronic equipment.

7.7 - Troubleshooting

• No hot water

Check that:

- The volume of water consumed is not higher than the volume in the tank.
- The time period that the appliance operates is not too short (12h minimum if connected to piping).
- The water temperature is not set too low.
- There is no recirculation pump.
- The presence and proper positioning of inlet pipe. The absence or incorrect placement of a pipe may reduce the supply capacity of the hot water tank.

• The heat pump is not working

Check that:

- The desired water temperature is higher than the temperature of the water in the tank.
- The appliance is connected to a power supply.
- The green light is on.
- The appliance is not in holiday mode (symbol ).
- The device is not blocked by a signal peak hours.
- The air intake or ambient temperature is under -15°C or over +45°C (ELEC MODE displayed).
- The timer has not been programmed to stop the appliance from operating («Frost protection» symbol on ).
- The appliance is not in load shedding mode.
- An error message is displayed on the screen (see § Error message codes).

• Condensates are not draining (water present under the appliance)

Check that:

- The drainage system is not blocked. Clean if necessary.
 - Remove the cover (see § «External control» procedure).
 - Check the opening.
- The tubes do not have bends or "U" shapes that could collect water.
- The end of the tube gives out onto open air.
- The tank is properly positioned (vertical position and no tilting).

• Electrical back-up is not working

Check that:

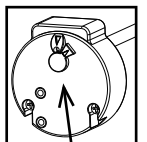
- Your electricity provider or your timer is not preventing the appliance from functioning («Frost protection» symbol on ).
- A heat-limiting safety thermostat for electrical back-up has not been activated after over-heating (>84°C). If this is the case, reset it.

Before resetting, check:

- That the heating element does not have limescale.
- Clean or replace if necessary.



Do not adjust settings on safety aquastat



Reset button (84°C)
on safety aquastat

7.8 - Error message codes: errors, solutions and operating in case of error

Note : A fault is cleared (manual reset) by briefly pressing the thumbwheel.

Display	Error	Probable causes	Solutions	Temporary operation measures while waiting for the problem to be solved
DEFAULT AIR SENSOR	Defective temperature sensor on the outside air (air temperature sucked into the technical duct)	- Sensor out of service - Sensor disconnected from the board - Sensor cable damaged	Replace sensor	- Heat pump non-functional - Electrical back-up heats water to 43°C (38°C minimum)
DEFAULT DEFROSTING SENSOR	Faulty temperature sensor at Refrigerant Circuit n°1 Evaporator (DHW production)	- Sensor out of service - Sensor disconnected from the board - Sensor cable damaged	Replace sensor	- Heat pump non-functional - Electrical back-up heats water to 43°C (38°C minimum)
DEFAULT WATER SENSOR	Defective temperature sensor in domestic hot water tank	- Sensor out of service - Sensor disconnected from the board - Sensor cable damaged	Replace sensor	Heat pump is non-functional
DEFAULT SUCTION SENSOR	Faulty Compressor n°2 Suction Temperature sensor	- Sensor out of service - Sensor disconnected from the board - Sensor cable damaged	Replace sensor	
DEFAULT RETURN VENTILATION SENSOR	Defective temperature sensor on return of interior ventilation	- Sensor out of service - Sensor disconnected from the board - Sensor cable damaged	Replace sensor	
DEFAULT START SENSOR VENTILATION	Faulty temperature sensor from the interior ventilation	- Sensor out of service - Sensor disconnected from the board - Sensor cable damaged	Replace sensor	
DEFAULT CONDENSER SENSOR	Circuit n°2 : Faulty pressure sensor at condenser	- Sensor out of service - Sensor disconnected from the board - Damaged sensor cable	Replacing the sensor or cable	
DEFAULT EVAPORATOR SENSOR	Circuit n°2 : Faulty pressure sensor at evaporator	- Sensor out of service - Sensor disconnected from the board - Damaged sensor cable	Replacing the sensor or cable	
SECURITY DEFAULT HP1	Circuit n°1 : Excess pressure on refrigerant (hot water production/heating aid)	- No water in the cylinder - Water too hot (>75°C) - Water sensor removed from cylinder - Faulty water sensor	- Check that the cylinders is well filled with water and well purged of its air - Change the water probe - Check that the DHW sensor is in its glove finger	- Heat pump is non-functional - Must be manually reset
SECURITY DEFAULT HP2	Circuit n°2 : Excess pressure on refrigerant (Heating/Cooling)	- Obstructed condenser or suction grates/indoor air diffusion - Failed Indoor Fan - Failed condenser pressure sensor (HP) - Defective air intake and blown air temperature sensors	- Check that the indoor air ducts are clear - Check that the condenser is unobstructed and the indoor air fan is working properly - Check that the HP pressure sensor gives a realistic value (at rest, then during a heating cycle). Do the same with the indoor air inlet and outlet probes.	- Heat pump is non-functional - Must be manually reset
FREQ. DEFRO.	Defrosting too often	- Insufficient airflow - Air inlet/ outlet blocked - Ventilation duct blocked - Air duct is too long or has too many elbows - Evaporator clogged	- Check that the air is circulating properly throughout the piping circuit - Check pipe lengths: - 6 m total length of flexible hose - 12 m total length of rigid piping - Check the condition of all filters on air ducts - Check that the evaporator is clean	- Heat pump non-functional - Electrical back-up heats water to 43°C (38°C minimum)

7.9 - Sensor data

All sensors have the same ohmic values.

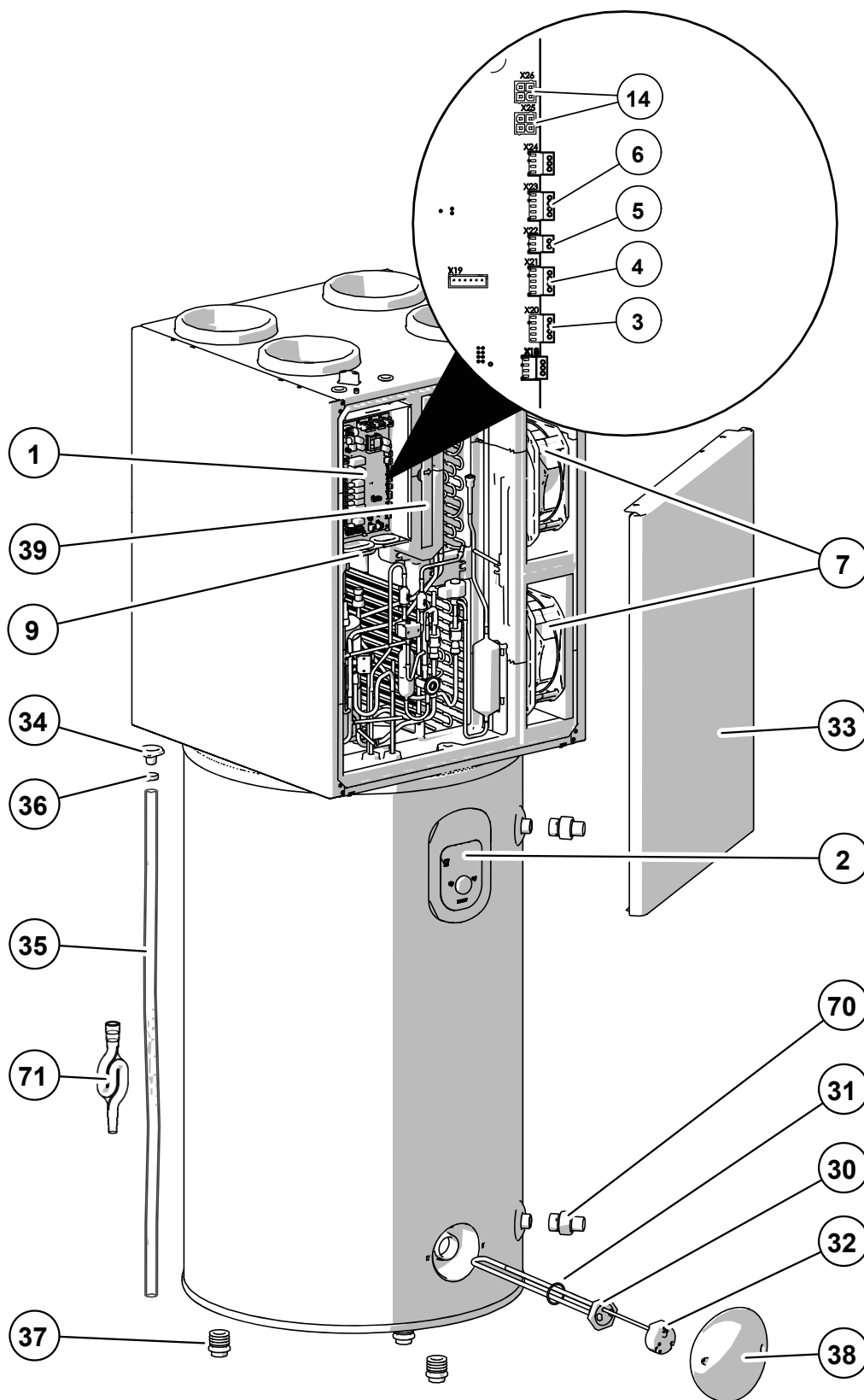
Temp. (°C)	Resist. R (kOhms)
-10	56,200
-5	46,890
0	33,020
5	26,200

Temp. (°C)	Resist. R (kOhms)
10	20,700
15	16,350
20	12,920
25	10,000

Temp. (°C)	Resist. R (kOhms)
30	8,045
35	6,514
40	5,306
50	3,422

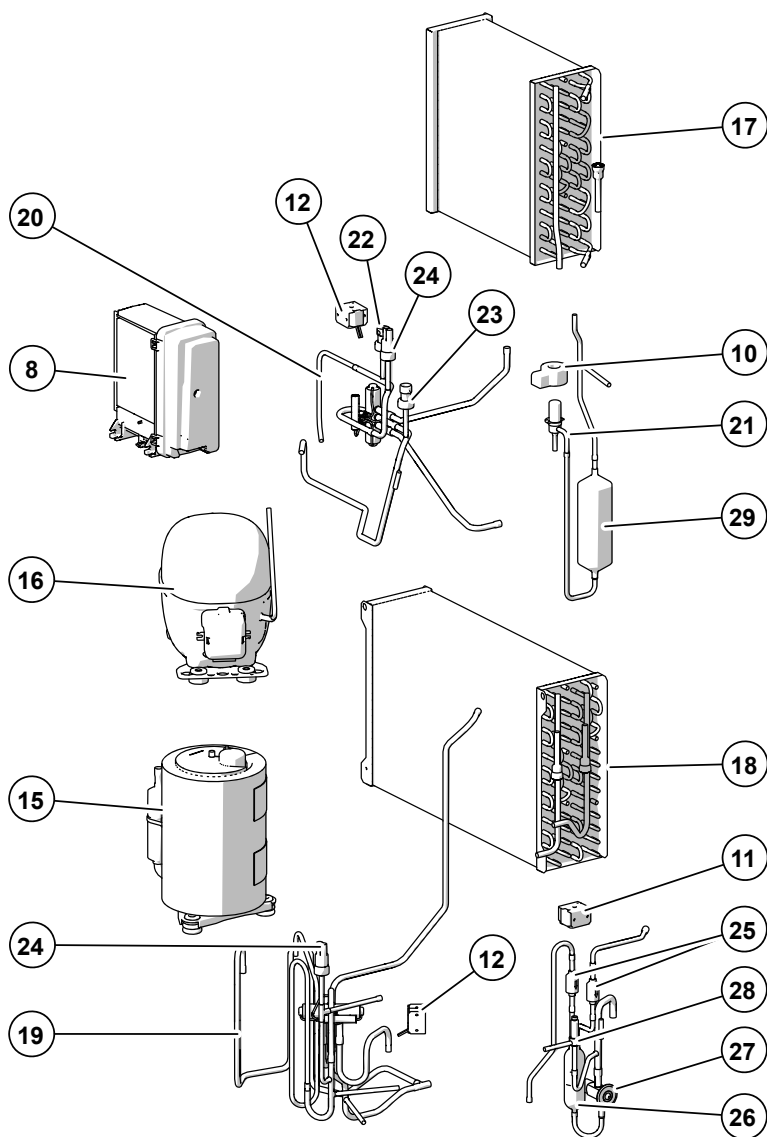
Temp. (°C)	Resist. R (kOhms)
60	2,343
70	1,637
80	1,165

8 - LIST OF SPARE PARTS



Note : Availability of spare parts :

The spare parts of our products are kept available for 10 years, from the date of stop of mass production, except events beyond our control.



Rep.	Zé7	Description
Regulation / display		
1	B1242097	C16 electronic circuit board controller
2	B4995662	Programmed display
3	B1242099	DHW temperature sensor
4	B1242100	Defrost/external air temperature sensor
5	B1242101	Suction temperature sensor
6	B1242102	Indoor air temperature sensor
Electrical		
7	B1242126	Ø190 fan
8	B1242105	CP2 compressor controller
9	B1242117	Compressor start capacitor
10	B1239292	Electronic expansion valve coil
11	B1244811	Defrost valve coil
12	B1239293	4-way valve coil
non visible	B1242129	Complete wiring
14	B1244832	Pressure sensor cable
Refrigerant circuit		
15	B4995663	CP1 compressor kit
16	B4995664	CP2 compressor kit
17	B1473207	Indoor air evaporator : length 250mm
18	B1473208	Outside air evaporator : length 420mm
19	B4995665	CP1 4-way valve kit
20	B4995666	CP2 4-way valve kit
21	B1473219	Electronic expansion valve
22	B1239268	High pressure sensor
23	B1239225	Low pressure sensor
24	B1244424	Pressure switch
25	B1239192	Check valve
26	B1472871	Dehumidifying filter
27	B1472917	Thermostatic expansion valve
28	B1239261	Defrosting valve
29	B1473218	Dehumidifying filter tank
Electrical back-up		
30	B4992886	1200 W heating element + seal
31	B1657722	Heating element seal
32	B1239282	Aquastat
Casing		
33	B49951064	Insulated facade kit
34	B1759654	Condensate recuperator
35	B0610191	PVC pipe Ø18x22
36	B1759072	Pipe press
37	B1759346	Adjustable foot
38	B1759551	Heating element cover
39	B1473174	Indoor air filter
Plumbing		
70	B1135130	Dielectric fittings
71	B1759622	Condensate siphon

9 - WARRANTY

The tank is guaranteed against breakage for a period of five (5) years, starting from the date the appliance was activated, if the warranty form was sent back to the manufacturer. In the absence of this document, the date of manufacture will be used to determine the start date of the warranty. If the tank is broken, the whole appliance will be replaced.

Other spare parts are guaranteed for a period of two (2) years from the date of commissioning if the warranty certificate is returned to the manufacturer, or, failing this, the date of manufacture of the appliance refers.

The appliance is guaranteed against any manufacturing defect, provided that it has been installed by a qualified professional in accordance with our technical manuals and standard C 15-100 for electrical connections. The failure of a component does not under any circumstances justify the replacement of the appliance.

The warranty is limited to the supply of components that we have recognised as originally defective.

If necessary, the part or product must be returned to the manufacturer, but only after prior agreement from our technical services. The cost of labour, postage, packaging and travel shall be borne by the user. Under no circumstances may the repair of an appliance give rise to compensation. The guarantee on replacement parts ceases at the same time as that on the appliance.

The warranty applies only to the appliance and its components, and excludes all or part of the installation external to the appliance. Regular servicing of the appliance by a qualified professional is essential to ensure long-lasting use and operation. Failure to do so will invalidate the warranty. An appliance presumed to be the cause of a claim must be maintained in place, without any subsequent intervention.

9.1 - Limitations of warranty

9.1.1 - General information

The warranty does not apply to defects or damage caused by situations or events such as:

- Misuse, abuse, negligence, improper transport or handling.
- Incorrect installation, or installation which has been carried out without following the instructions in the manual and user guide.
- Insufficient maintenance.
- Modifications or changes carried out on the appliance.
- Impacts from foreign objects, fire, earthquakes, floods, lightning, ice, hailstones, hurricanes or any other natural disaster.
- Movement, imbalance, collapse or settling of the ground or the structure where the appliance is installed.
- Any other damage which is not due to defects in the product.

The heat pump water heater is not guaranteed against:

- Variations in the colour of the appliance or damage caused by air pollution, exposure to chemical elements, or changes brought about by adverse weather conditions.
- Dirt, rust, grease, or stains which occur on the surface of the appliance.

9.1.2 - Exclusion from warranty

9.1.2.1 - Use

Cases (not limited to) where the warranty is void:

- The water supply being other than cold domestic water, (such as rainwater or other water from a well), or which has particularly hostile or abnormal properties which do not comply with the national regulations and current standards in effect.
- The appliance being switched on before it is filled with water.

9.1.2.2 - Handling

Cases (not limited to) where the warranty is void:

- Any damage sustained by impacts or falls during handling after delivery from the factory.
- Deterioration in the condition of the appliance after handling where the instructions in the manual have not been followed.
- Damage occurring in the appliance when it has been switched on less than an hour after it has been leaning to the side or laid flat.

9.1.2.3 - Placement

Cases (not limited to) where the warranty is void:

- Placing the appliance where it can be subject to frost or other adverse weather conditions.
- Non-compliance with the instructions in the manual when installing the appliance.
- Installing the appliance on a surface which cannot bear its weight when filled with water.
- Installing the appliance in a room with a volume of less than 20 m³ where there is no piping for air intake and exhaust.
- Installing the appliance at an angle which does not allow condensates to flow out properly.

Costs incurred by access difficulties are not the manufacturer's responsibility.

9.1.2.4 - Electrical connections

Cases (not limited to) where the warranty is void:

- Faulty electrical connection which does not comply with the current national installation standards.
- Not following the connection diagrams in the instruction manual.
- Power supply being significantly under or over the required voltage.
- Failure to comply with supply cable standards.
- Absence of, or insufficient, electrical protection throughout the appliance (fuse/ circuit-breaker, grounding, etc.).
- Damage which results from deactivating the electrical back-up aquastat and/or the heat pump.

9.1.2.5 - Hydraulic connections

Cases (not limited to) where the warranty is void:

- Reversing the hot/cold water connections.
- Water pressure higher than 6 bars.
- Absence of, incorrect fitting of, or obstruction of, a pressure-relief valve.
- Not fitting the pressure-relief valve directly onto the cold water inlet of the appliance.
- Fitting a pressure-relief valve which does not comply with the current national standards (NFD 36-401).
- Installing a previously-used pressure-relief valve.
- Tampering with the pressure-relief valve.
- Abnormal levels of corrosion caused by an incorrect plumbing connection (direct contact between iron and copper) without a sleeve (cast-iron, steel or insulating).
- External corrosion due to poorly sealed pipework or external corrosion due to poor pipe sealing or condensate drainage.
- Inadequate connection of the condensate recovery system.

No compensation can be claimed for damage caused by the caused by failure to install thermostatic mixing valves.

9.1.2.6 - Accessories

The warranty does not cover defects resulting from:

- Installation of accessories which do not comply with manufacturer recommendations.
- Use of accessories not provided by the manufacturer.

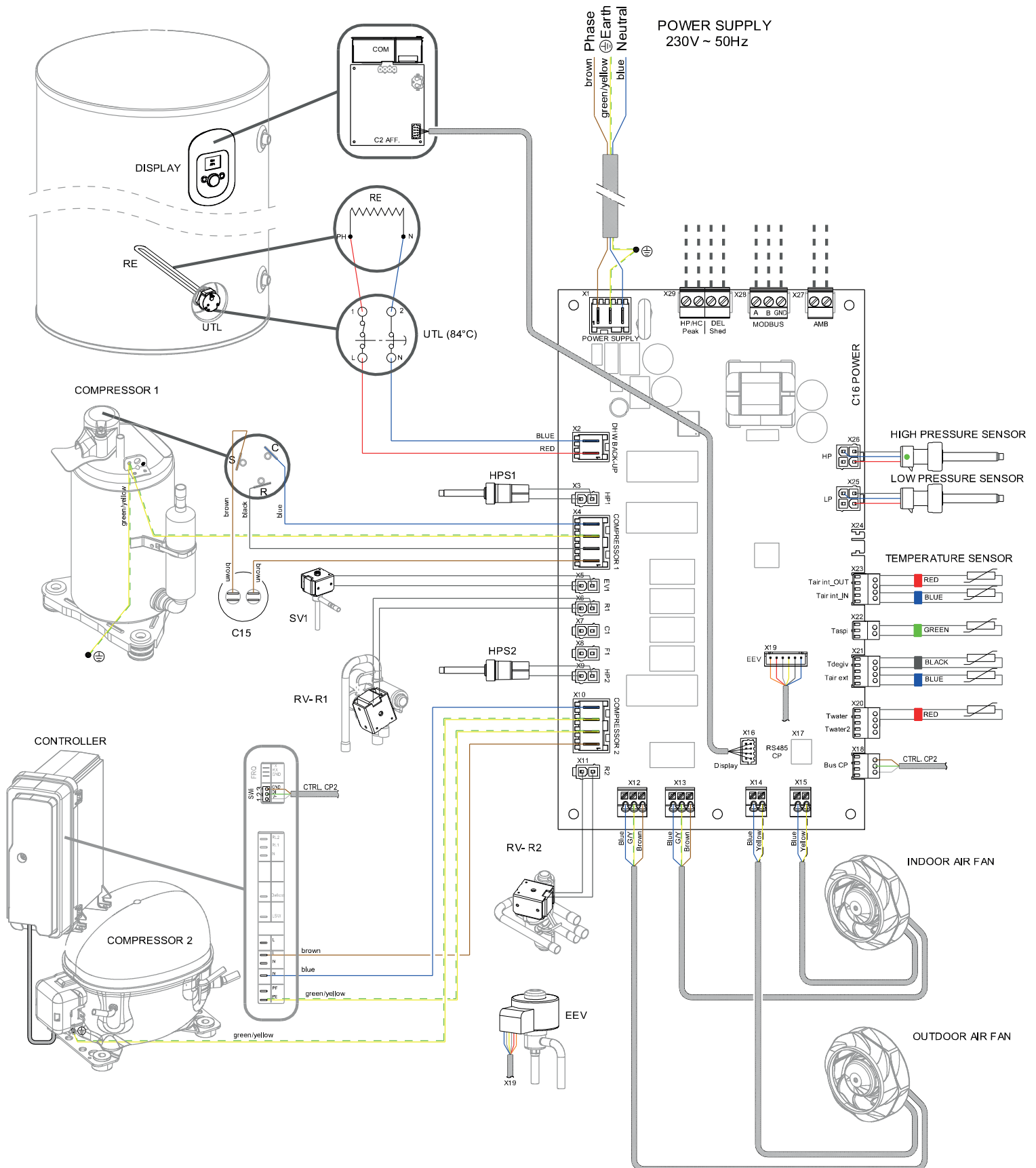
9.1.2.7 - Maintenance

Cases (not limited to) where the warranty is void:

- Not maintaining the appliance.
- Not maintaining the pressure-relief valve, resulting in excessive pressure.
- Absence of a pressure reducer.
- Evaporator and condensate drain not maintained.
- Abnormal levels of limescale on heating elements or safety devices.
- Not using parts supplied by the manufacturer.
- Protective outer casing being subjected to any external damage.

10 - APPENDICES

10.1 - Electrical wiring diagram



<i>DHW BACK-UP</i>	- Electrical back-up
<i>UTL</i>	- Electrical back-up temperature limiting safety thermostat
<i>RE</i>	- 1200W electrical resistance
<i>HPS1</i>	- Compressor 1 high pressure switch
<i>HPS2</i>	- Compressor 2 high pressure switch
<i>C15</i>	- Compressor 1 start-up capacitor
<i>SV1</i>	- Solenoid defrosting valve
<i>R1</i>	- Circuit 1 - 4-way reversing valve
<i>R2</i>	- Circuit 2 - 4-way reversing valve
<i>EEV</i>	- Electrical expansion valve
<i>Bus CP</i>	- Electronic controller connection
<i>Twater</i>	- Water temperature sensor
<i>Tair ext</i>	- Outside air temperature sensor
<i>Tdegiv</i>	- Defrosting temperature sensor
<i>Taspi</i>	- Circuit 2 intake temperature sensor
<i>Tair int_IN</i>	- Indoor air inlet temperature sensor
<i>Tair int_OUT</i>	- Indoor air outlet temperature sensor
<i>HP</i>	- Circuit 2 - High pressure sensor
<i>LP</i>	- Circuit 2 - Low pressure sensor
<i>AMB</i>	- Ambient temperature sensor terminal
<i>MODBUS</i>	- Communication BUS terminal
<i>DEL</i>	- Load shedding terminal
<i>HP/HC</i>	- Peak/off-peak hours terminal

Note:

Circuit 1: DHW production circuit
Circuit 2: Heating/ cooling production circuit

NOTES / MAINTENANCE

[illegible]



Any work carried out on the refrigerant circuit must be carried out by a qualified professional with a Category 1 certificate of aptitude. Releasing refrigerant gasses into the atmosphere is strictly prohibited. It is mandatory to collect the refrigerant fluid before carrying out any work on the circuit.

- Switch off the domestic hot water heat pump before opening it.
- Wait for the fan to come to a complete stop before undertaking any work on the appliance.



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