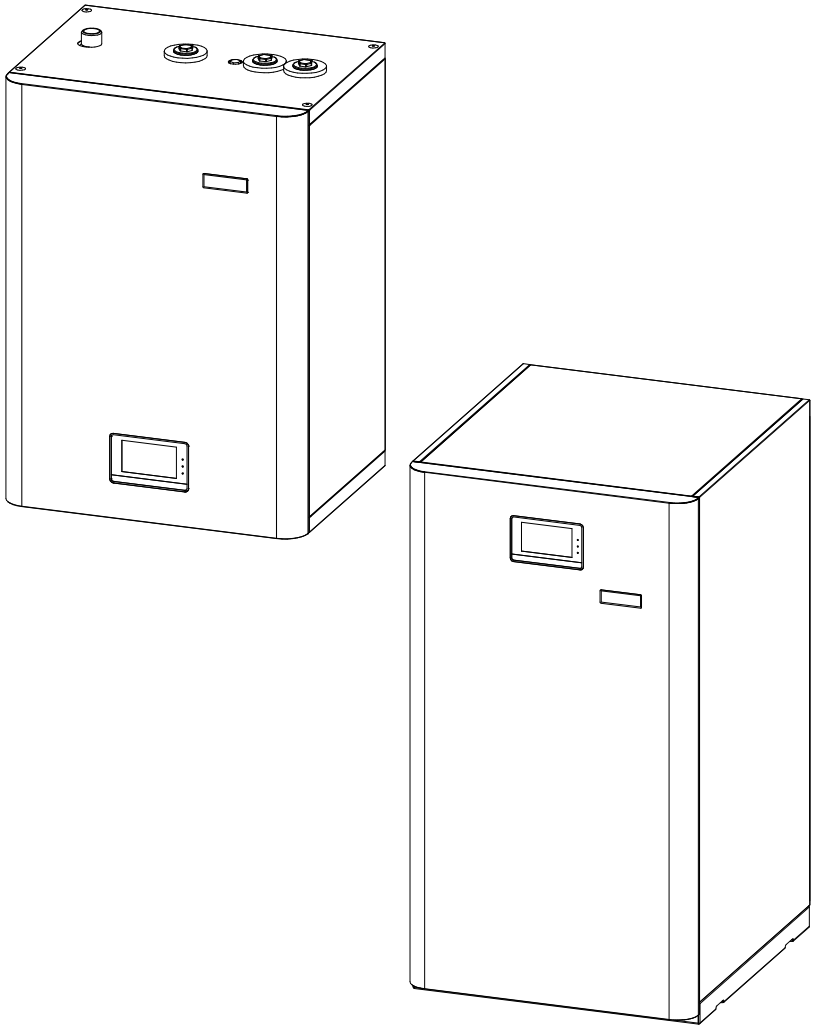
DOMUSA TEKNIK

FUSION COMBI W 50
FUSION COMBI F 80

HYBRID MODULE



Applus ISO 9001 EC-8890/17 Systems Certification

Applus ISO 14001 MA-3661/17 Systems Certification

EN | INSTALLATION AND OPERATING INSTRUCTIONS

Thank you for choosing a **DOMUSA TEKNIK** heat pump accessory. You have chosen the **FUSION** model from the **DOMUSA TEKNIK** product line. This is an all-in-one hydraulic accumulation module, which in combination with a **DUAL CLIMA R** heat pump and provide the adequate level of comfort for your home, provided that the hydraulic installation is correctly performed.

This document constitutes an essential part of the product and must be delivered to the end user. Please carefully read the warnings and advice contained in this manual, as they provide important information regarding the safety of the installation, as well as use and maintenance.

The installation of this appliance should be carried out only by qualified personnel, in accordance with the regulations in force and following the manufacturer's instructions.

Both the start-up and any maintenance operation of this appliance should be carried out only by the Official Technical Assistance Services of **DOMUSA TEKNIK**.

Incorrect installation of this product may cause damage to people, animals and objects, for which the manufacturer shall not be held liable.

At the end of its useful life, the product must be taken to a selected collection point for electrical and electronic equipment or must be returned to the distributor at the time of purchasing a new equivalent appliance. For more detailed information on the collection schemes available, contact either the collection facilities of the local authority or the distributor where the purchase was made.

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1 SAFETY WARNINGS

1.1 Safety symbols

All safety messages indicate a potential risk of breakdown or damage. Follow the instructions carefully to avoid accidents or damage.

 **DANGER**

Warns of operations or situations of imminent danger, which, if not avoided, can cause severe injury or even death

1.2 Other symbols

The following symbols are used in instructions to draw attention to important information.

NOTE: Indicates the risk of breakdown and damage to property or people.

ATTENTION: Indicates important additional information that may be related to the correct operation of the module

1.3 Usage and installation warnings

The **FUSION COMBI** module should be installed by personnel authorised by the Ministry of Industry, in compliance with the laws and regulations in force in the matter. The precautions detailed here cover very important issues, so please be sure to follow them accordingly.

Please carefully read this instruction manual and keep it in a safe, easily accessible place. **DOMUSA TEKNIK** shall not be held liable for any damage that may occur due to failure to follow these instructions.

The **FUSION COMBI** storage module can only be installed in combination with a heat pump from the **DUAL CLIMA R** line from **DOMUSA TEKNIK.** The Fusion Combi module, in combination with a **DUAL CLIMA R** heat pump, is suitable for use in both heating and cooling installations, and can be combined with fan coils, underfloor heating/cooling and low-temperature radiators. It should be connected to a heating/cooling system and to a hot water distribution network that is compatible with its performance and power.

This appliance should only be used for the purpose for which it has been expressly designed. Any other use is considered unsuitable and therefore hazardous. The manufacturer shall not be considered liable under any circumstances for damage caused by unsuitable, erroneous or improper use.

Remove all the packaging and check that the contents are complete. In case of doubt, do not use the appliance and refer to the supplier. Keep the packaging elements out of reach of children, as they can be dangerous.

Improper installation or placement of equipment or accessories may cause electrocution, short circuit, leakage, fire, or other damage to the equipment. Use only accessories or optional equipment manufactured by **DOMUSA TEKNIK** and specifically designed to work with the products presented in this manual. Do not modify, replace or disconnect any safety or control device without first consulting the manufacturer or the Official Technical Assistance Service of **DOMUSA TEKNIK**.

When it is decided not to use the equipment anymore, the parts likely to constitute potential sources of danger should be properly decommissioned.

1.4 Personal safety warnings

Always wear suitable personal protection equipment (protective gloves, safety glasses, etc.) when carrying out installation and/or maintenance operations in the unit.

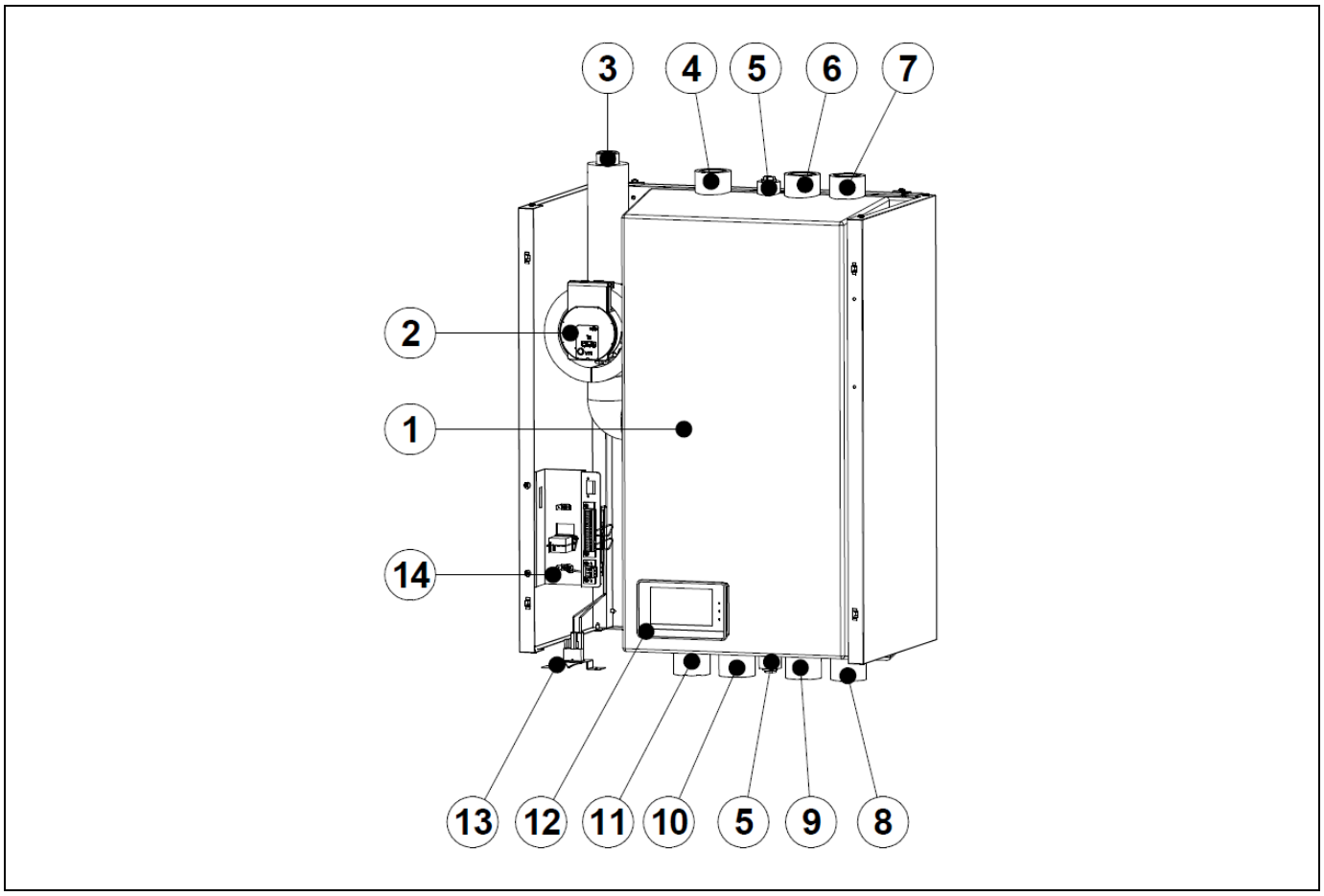
Do not touch any switch with wet fingers. Touching a switch with wet fingers may cause electric shock. Before accessing the electrical components, fully disconnect the power supply.

Do not touch water pipes or internal parts during and immediately after operation. Pipes and internal parts may be excessively hot or cold, depending on the use of the unit.

The hands may be burned by cold or heat in case of improperly touching pipes or internal parts. To avoid injury, wait until the pipes and internal parts return to their normal temperature. Alternatively, if access is required, be sure to wear appropriate safety gloves.

2 LIST OF COMPONENTS

FUSION COMBI W 50



1. Steel storage tank, with thermal insulation, 50L.

2. Heating/cooling pump circuit 1.

3. Heating/cooling flow circuit 1.

4. Heating/cooling Flow circuit 2.

5. Drain/drain socket.

6. Heating/cooling return circuit 1.

7. Heating/cooling return circuit 2.

8. Return to boiler.

9. Return to **DUAL CLIMA R** Heat Pump.

10. Inlet from boiler.

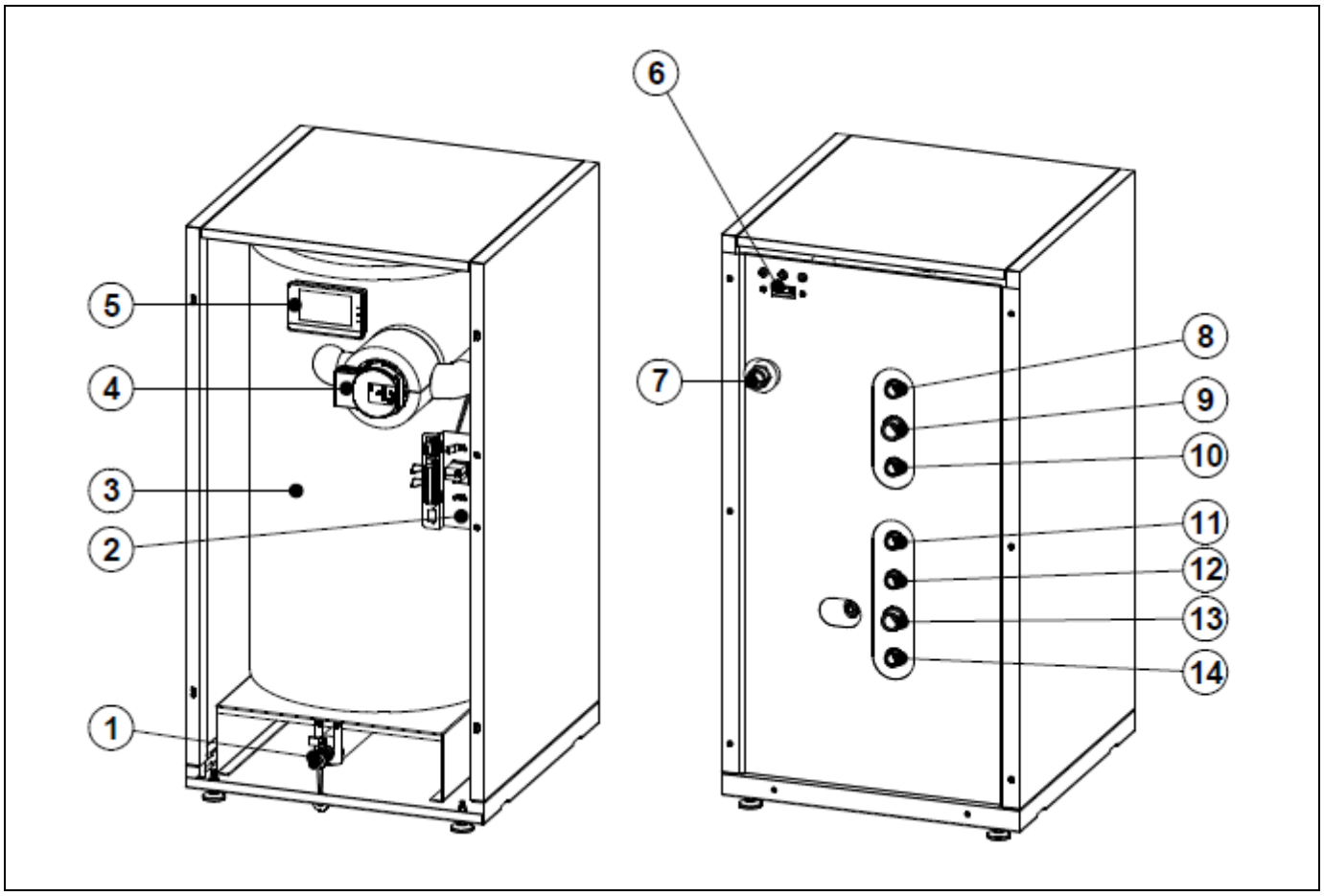
11. Entrance from **DUAL CLIMA R** Heat Pump.

12. DUAL CLIMA R Heat Pump control panel.

13. Boiler only operation switch.

14. Connection strip.

FUSION COMBI F 80



1. System drain valve.

2. Connection strip.

3. Steel storage tank, with thermal insulation, 80L.

4. Heating/cooling pump circuit 1.

5. DUAL CLIMA R Heat Pump control panel.

6. Boiler only operations switch.

7. Heating/cooling Flow circuit 1.

8. Inlet from boiler.

9. Entrance from **DUAL CLIMA R** Heat Pump.

10. Heating/cooling Flow circuit 2.

11. Return to boiler.

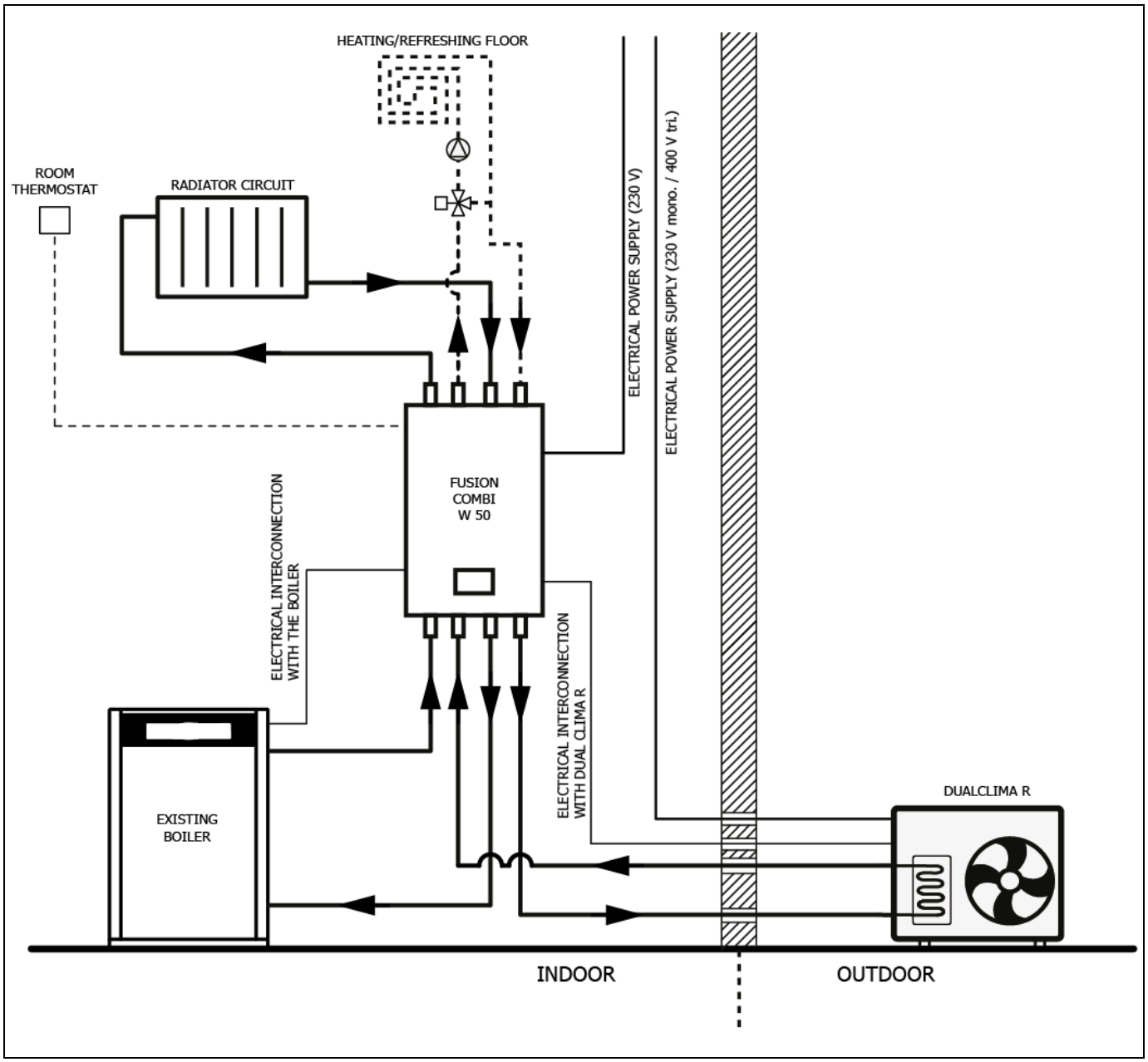
12. Heating/cooling return circuit 1.

13. Return to Heat Pump **DUAL CLIMA R**.

14. Heating/cooling return circuit 2.

3 INSTALLATION INSTRUCTIONS

The **FUSION COMBI** hydraulic module can only be installed in combination with a heat pump from the **DUAL CLIMA R** line supplied by **DOMUSA TEKNIK** and an existing heating boiler. Therefore, for their operation, these devices should be connected to each other, both hydraulically and electrically. In this section, the necessary operations for said connection are described in detail.

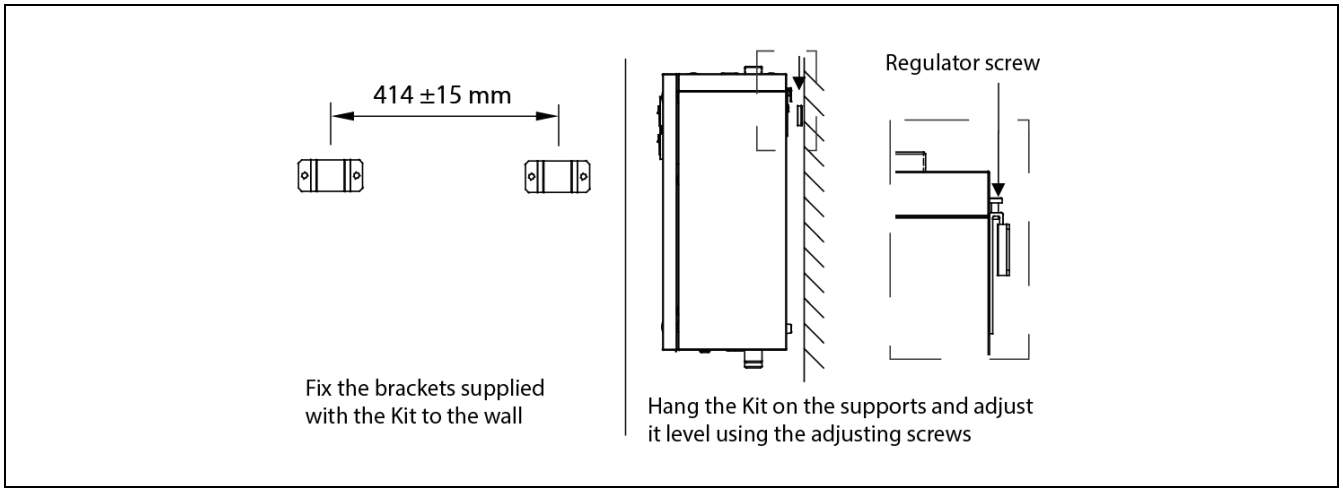


3.1 Location and wall mounting (only for FUSION COMBI W 50 model)

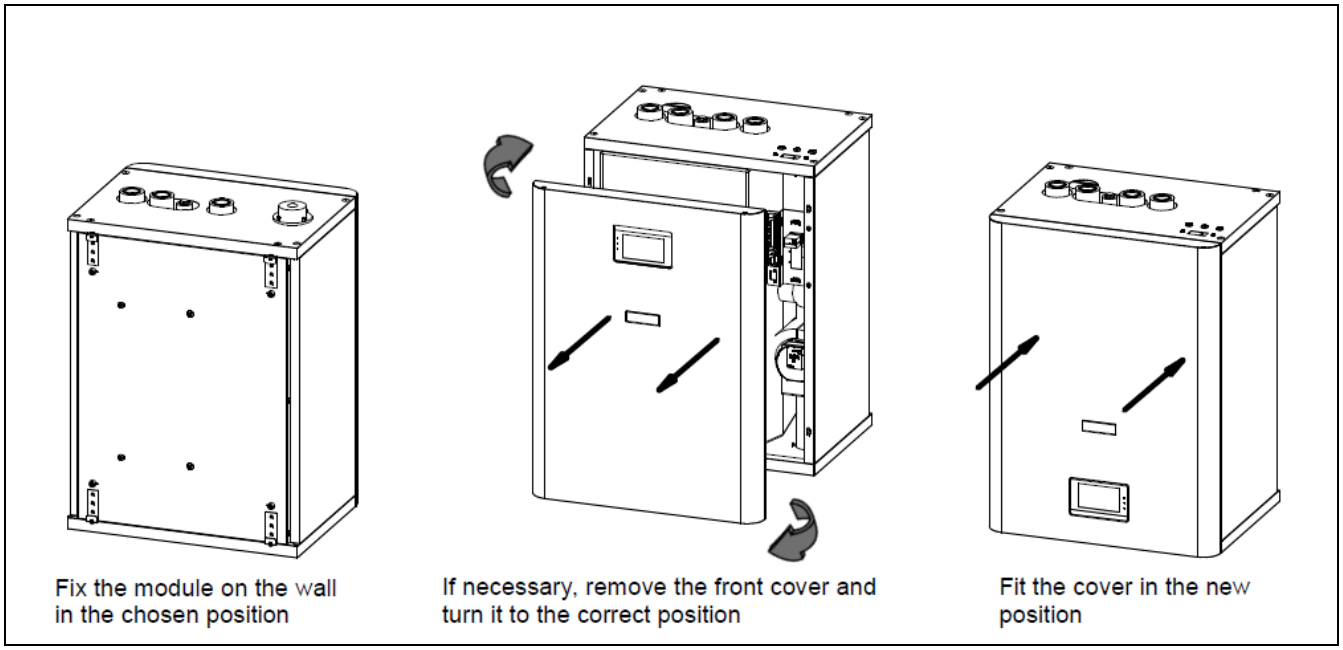
It is recommended to install a drain in the outlet provided for this in the upper part of the module, to prevent the appearance of siphons in the installation.

It will be essential to allow access from the front, so it should not be installed in front of any obstacle that makes such access impossible.

Wall fixing system:



Although the **FUSION COMBI W 50** module is supplied from the factory, foreseeing its installation with the **DUAL CLIMA R** heat pump and boiler outlets from the top, the **FUSION COMBI W 50** module can be mounted with said outlets on the bottom of the module. To do this, the module has hangers at both ends. Once the module is hung on the wall, if necessary, turn the front cover and position it in the new position.



NOTE: It is recommended to install a plunger in the upper outlet (5) and a drain cock in the lower one.

3.2 Hydraulic installation

The hydraulic installation should be carried out by qualified personnel, in compliance with the current installation regulation and considering the following recommendations:

- For the hydraulic connection between the **FUSION** module and the **DUAL CLIMA** heat pump, use two conveniently insulated tubes to connect the **IBC** and **RBC** sockets of the module (see *"Diagrams and Measurements"*) with the flow and return sockets of the heat pump, respectively.
- All water circuit piping **MUST** be insulated to prevent condensation during operation in cooling mode and reduction of cooling and heating capacity, as well as to prevent freezing of outside pipes during winter. The minimum insulation thickness of the pipes should be 19 mm (0.039 W/mK), preferably comprising a closed cell insulation or a vapor barrier. In outdoor areas exposed to the sun, the insulation must be protected from the effects of degradation.
- Drain valves and suitable devices should be fitted for the correct removal of air from the circuit during the filling stage.
- • A **filte**r must be installed in the water circuit of the heat pump, in order to avoid obstructions or narrowing caused by dirt in the installation. The filter **MUST** be installed prior to filling the installation and on the return branch of the machine with water, to avoid the entry of dirty water into the heat exchanger (condenser). **It is recommended to insert this filter between two cut-off valves, in order to be able to clean it without emptying the installation**. The type of filter installed must be adapted to the particular characteristics of each installation (type and material of the water pipes, type of water used, volume of water in the installation, etc.). The water filter should be checked and cleaned, if necessary, at least once a year, although in new installations it is recommended to check it in the first months after commissioning.

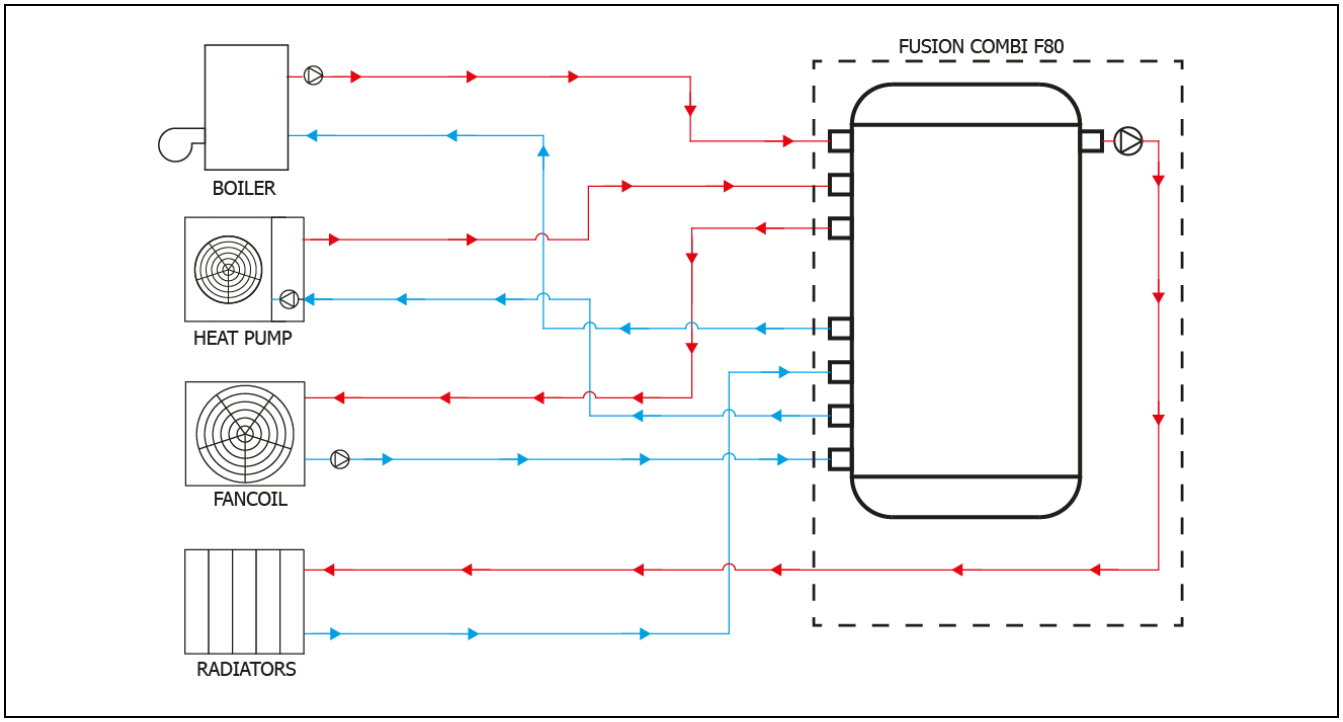
The **FUSION COMBI** hydraulic module is an accessory that should be installed in combination with a **DUAL CLIMA R** and an existing boiler heat pump for its correct operation. Therefore, in addition to the recommendations described above, it must comply with those indicated in the heat pump installation manual.

ATTENTION: The DUAL CLIMA R heat pump incorporates a 2-liter expansion tank as standard. Due to the total amount of water in the heating / air conditioning installation, if necessary, this capacity should be increased by installing another supplementary expansion vessel.

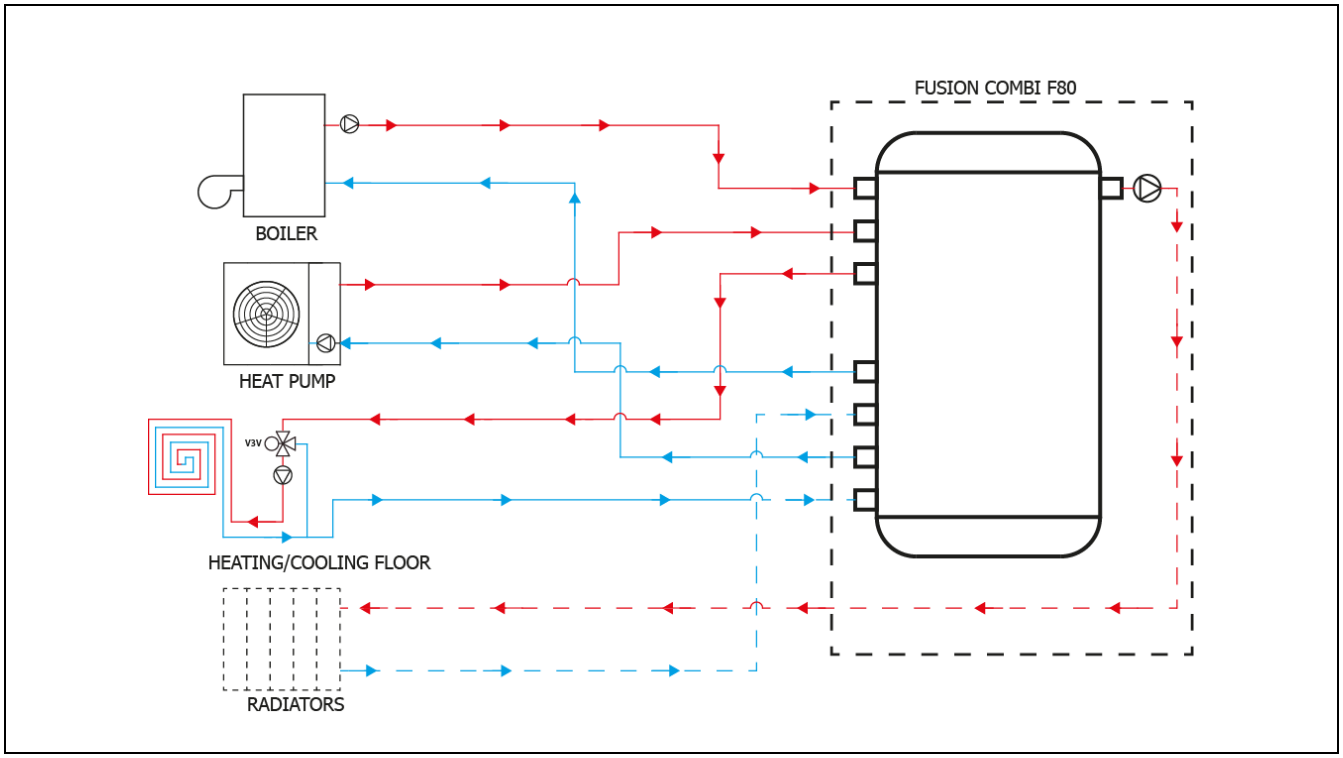
ATTENTION: A pipe with a diameter suitable for the installation must be used so that the minimum flow is reached in the hydraulic circuit.

ATTENTION: Before connecting the heat pump, a thorough internal cleaning of the pipes of the hydraulic installation must be carried out.

Hydraulic diagram of two circuits, one for cooling and the other for heating.



Hydraulic diagram of two circuits, one for underfloor heating / cooling (with thermostatic mixing valve max. 45ºC) and the other with radiators.



ATTENTION: The flow and return outlets of the DUAL CLIMA R heat pump and the boiler must be hydraulically connected to the FUSION COMBI module in the corresponding outlets indicated on the module (see diagram).

ATTENTION: For the installation of an underfloor heating circuit, it is essential to install a temperature limiter or a mixing valve at a temperature ≤45ºC at the inlet of the circuit

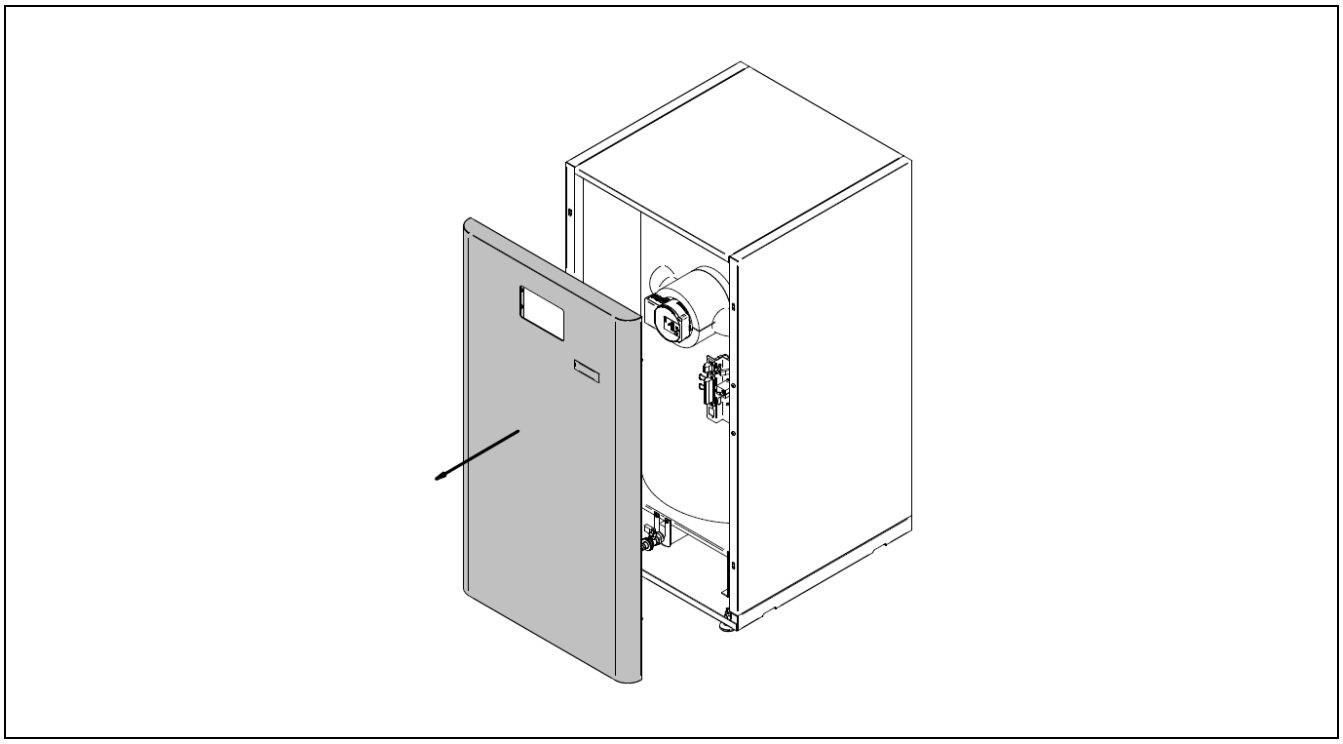
3.3 Drainage the tank

To drain the tank of the **FUSION COMBI W 50** module, it is recommended to install a shut-off valve in the socket (5) at the bottom of the tank. The **FUSION COMBI F 80** model has a drain cock at the bottom. It is recommended to connect a flexible hose to the drain cock and lead it to a drain.

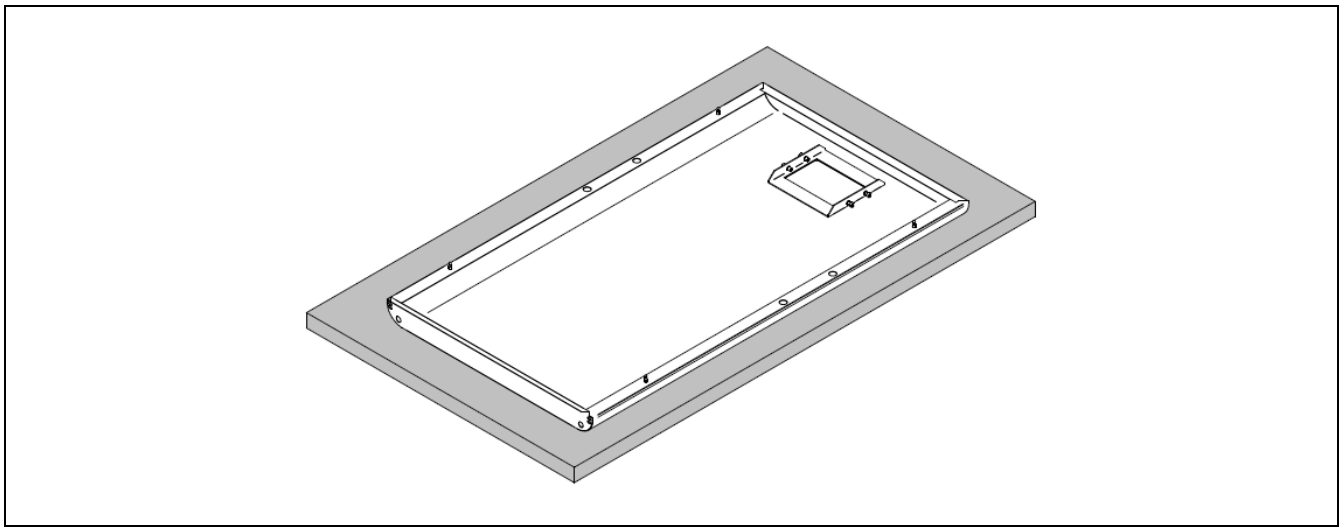
3.4 Assembly and connection of the control panel

The control panel is supplied inside the heat pump and must be mounted on the front of the **FUSION COMBI**. hydraulic module. To do this, open the module door and access the remote control support located on its back. For its correct assembly, carefully follow the following steps:

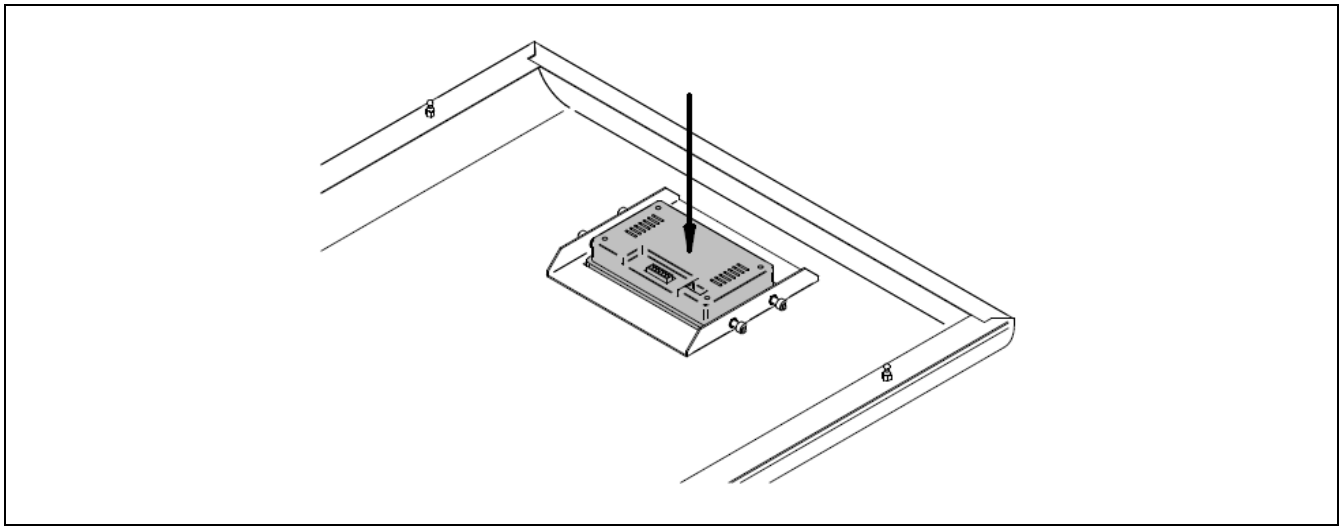
1. Open the front cover of the **FUSION COMBI** module, using a flat screwdriver to make a slight lever.



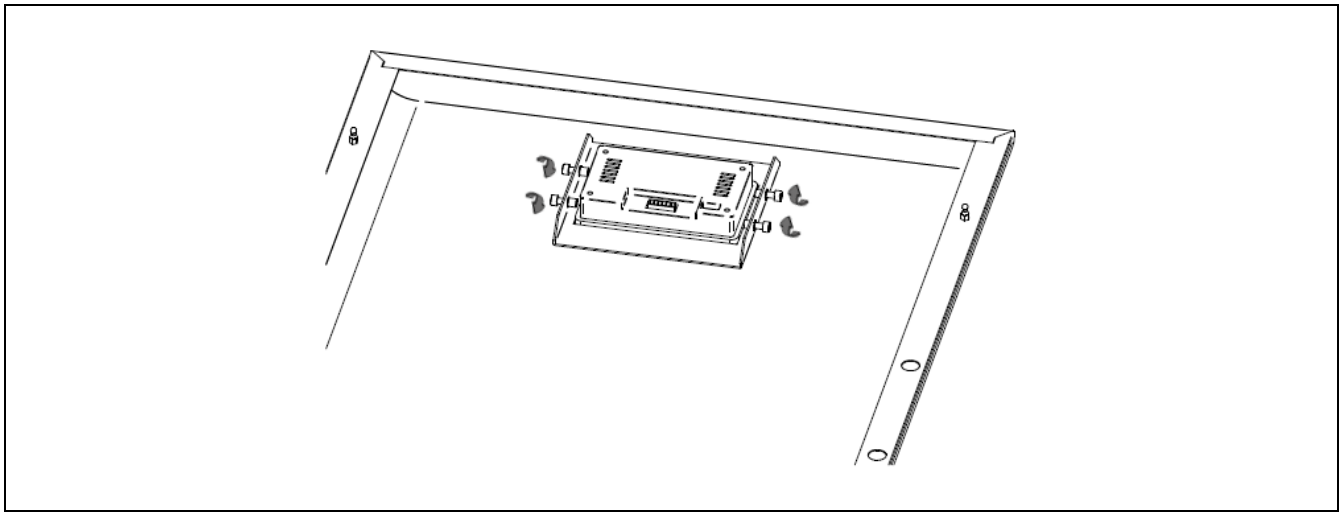
2. Rest the front cover of the **FUSION COMBI** module on a table or flat surface that is not rough so that it does not scratch the paint.



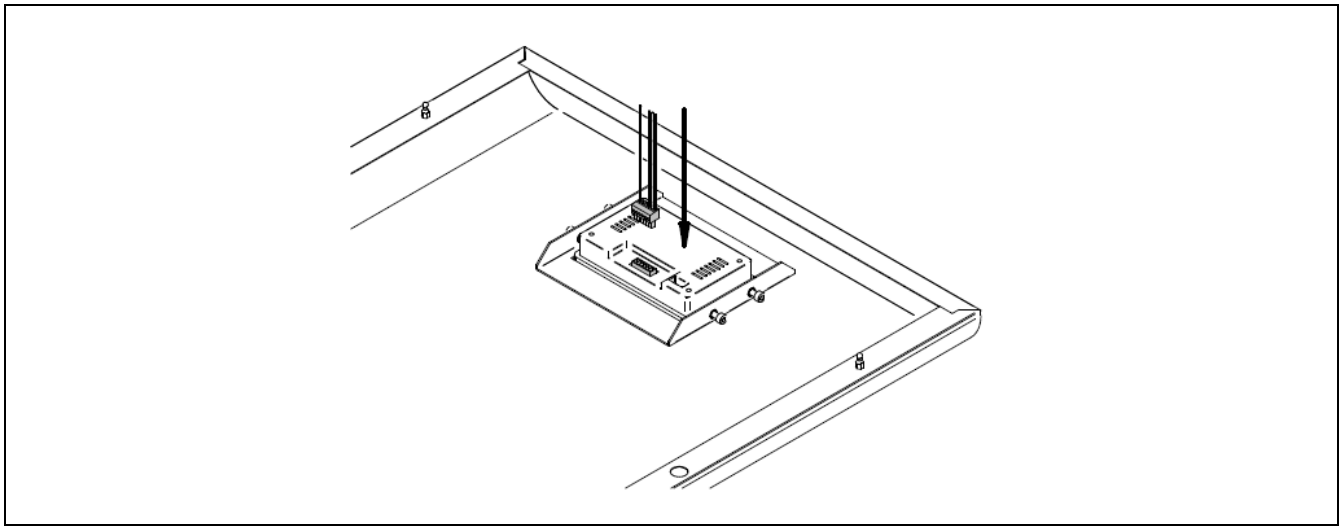
3. Attach the control panel, extracted from the **DUAL CLIMA R** heat pump, at the rear of the front in the hole of the control-holder bracket and press lightly.



4. Tighten the four screws finger-tight until the control panel is fixed. It is not necessary to use a wrench, it is sufficient to adjust by hand.



5. Insert the connector that incorporates the cable at its end with the connector on the back of the control panel. A sufficiently long cable length must be provided inside the module, in such a way that it is possible to open the front of the equipment without having to disconnect said cable and facilitate any maintenance operation inside.



6. Before starting the heat pump, the control panel must be connected to the external machine. To do this, pass the cable supplied inside the heat pump (located together with the probe harness) to the inside of the **FUSION COMBI** module, follow the instructions in the **DUAL CLIMA R** heat pump

instruction manual A. The hydraulic module and the heat pump have a series of cable glands, through one of which said cable can be inserted into the equipment



The cable supplied with the heat pump is 5 metres long. Where necessary, it can be extended up to a maximum distance of 100 metres (section between 0.5÷1.25 mm^2).

DANGER: While working on the system Be sure to disconnect both the module and the heat pump from the electrical supply. To do this, you can disconnect the supply from the main network checking that boththe FUSION COMBI hydraulic module and the heat pump are completely disconnected.

ATTENTION: Provide enough length of cable inside the module in order to facilitate the opening of the front cover.

3.5 Electrical connection

In order to manage the operation of the water circulation pumps of the Heating/Cooling system by means of thermostats or programmable thermostats installed in the home, the **FUSION COMBI** all-in-one hydraulic module should be connected to the general electricity supply network, for which purpose a terminal strip is available. In turn, all the electrical components of the installation (circulation pumps, thermostat, and **DUAL CLIMA R** heat pump) should also be connected to this strip.

The hydraulic installation of the **FUSION COMBI** module should be carried out by qualified personnel, in compliance with the current installation regulations on the matter. The electrical installation should be connected in a way that facilitates the complete insulation and disconnection of the module to carry out maintenance operations in a safe manner.

The **FUSION COMBI** hydraulic module is prepared for connection to 230 V ~ 50 Hz in terminals **1**, **2 and ground** of the terminal strip (see "*Electrical diagram*"). The power supply terminals are located inside the machine, by opening its front door.

The hydraulic module has a series of cable ducts in its roof, through which the cables can be inserted inside the equipment. Cables exposed to external weather conditions should be protected by chutes or protective pipes or should be of a suitable category for use outdoors (H07RN-F hoses or higher). In turn, it is advisable to keep the high-voltage cables at a minimum distance of 25 mm (general supply, diverter valves, support resistors, circulation pumps, etc.) from the low-voltage cables (control panel cable, temperature probes, room probes, etc.), driving them through independent pipes.

It is essential to also connect the **DUAL CLIMA R** heat pump to the electrical supply as indicated in the "Connection to the general electrical supply" section of the **DUAL CLIMA R** heat pump manual.

DANGER: Whenever working on the electrical installation, make sure that both the module and the DUAL CLIMA R heat pump are disconnected from the mains.

3.5.1 Connecting the circulation pumps of the installation (BC, BF)

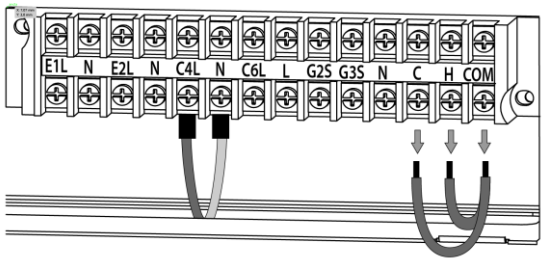
The **FUSION TRIO** hydraulic module can manage the operation of up to 2 circulating pumps installed in the heating and cooling circuits of the Heating and Cooling system, respectively. To do so, these pumps should be electrically connected to the terminal strip located inside the module. The activation and deactivation of the pumps will be carried out through the signals received from the thermostats connected to the module strip.

The circulation pump of the Heating circuit **BC** must be connected to terminals **3-4** of the module terminal strip and the circulation pump of the Cooling circuit **BF** must be connected to terminals **5-6** (see "Electrical Diagram"). In case of installing the same pump for the two heating and cooling hydraulic circuits, one of the pump cables must be connected to terminal **3** and the other must be connected to 2 terminals **4** and **6**, adding an electrical bridge between them. Do not forget to connect the **ground** cable of the pumps to the ground terminal of the terminal block. The hydraulic module has a series of cable glands, through which the pump cables can be inserted into the equipment.

3.5.2 Connecting the module with the DUAL CLIMA R heat pump and the boiler

The **FUSION COMBI** module integrates signals from room thermostats and activation of heating support, through the boiler, which must be sensed by the **DUAL CLIMA R** heat pump. For this, electrical cables with a minimum section of 0.5 must be passed mm2 from the **DUAL CLIMA R** heat pump terminal strip to the inside of the **FUSION COMBI** module. The following figures describe how to connect all the signals necessary for correct operation.

First of all, it is necessary to remove the jumpers in the room thermostat connection of the **DUAL CLIMA R** heat pump.



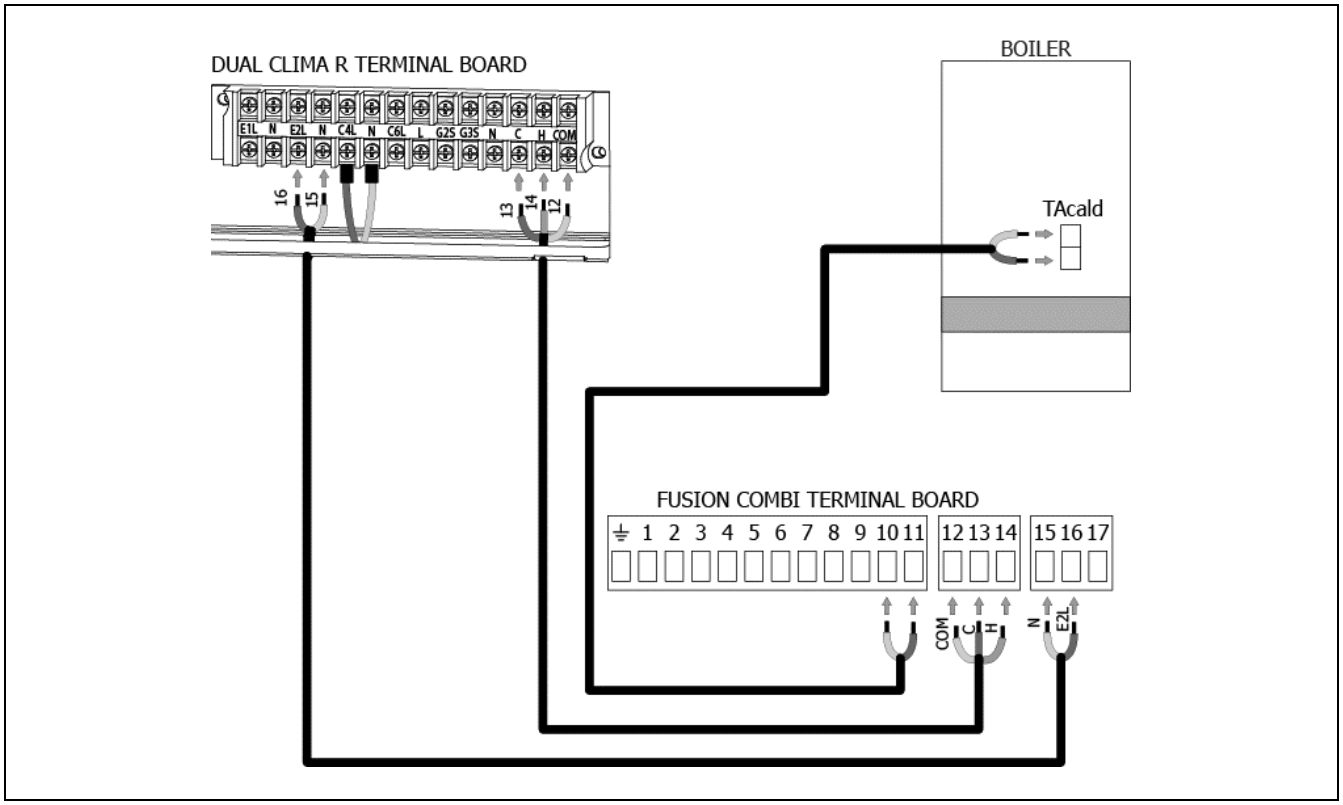
Once the bridges have been removed, all the connections specified below must be made:

Route a three-wire electrical hose from terminal **H**, **C** and **COM** of the **DUAL CLIMA R** heat pump terminal strip to terminals 12, 13 and 14 of the terminal strip inside the **FUSION COMBI** module (see "*Connection diagram*"). The module has a series of cable glands, through which said cables can be inserted into the equipment.

Subsequently, connect with two cables the **E2L** and **N** connection terminals of the **DUAL CLIMA R** heat pump terminal strip with terminals **15** and **16** of the terminal strip inside the **FUSION COMBI** module (see "*Wiring diagram*").

Finally, interconnect the input terminals of the existing boiler room thermostat with the connection terminals No. **10** and **11** (TAcald) of the **FUSION COMBI** module terminal strip (see "Connection diagram"). In this way, the **DUAL CLIMA R** heat pump will be able to activate the heating service demand of the boiler in backup or auxiliary mode.

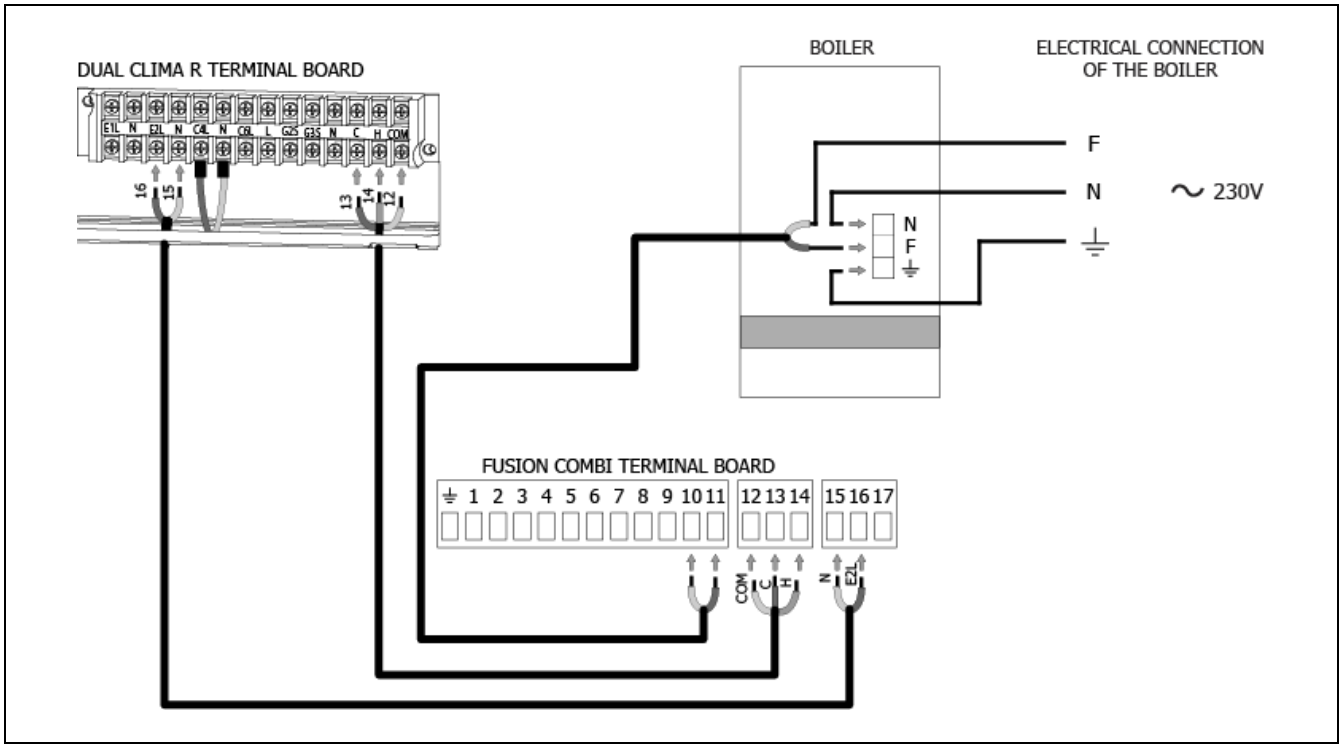
The following connection diagram describes how to make the necessary connections for correct operation between the **DUAL CLIMA R** heat pump, the **FUSION COMBI** Module and the boiler.



DANGER: Whenever working on the electrical installation, make sure that both the module and the DUAL CLIMA R heat pump are disconnected from the mains.

3.5.3 Instruction on electrical connection to a boiler with minimum boiler temperature maintenance

If you have a boiler with minimum temperature maintenance and you only want it to be on when the heat pump needs it as support or auxiliary, the electrical connections must be made as follows:



3.6 Connecting room thermostats

The **FUSION COMBI** hydraulic module incorporates two connections on the terminal strip prepared for the installation of up to 2 room chronothermostats or room thermostats (see "Electrical Diagram"), which will allow managing up to 2 water circulation pumps to activate or stop the heating (BC) and / or cooling (**BF**) service of the heating / air conditioning installation, turning them off when the desired temperature is reached in the home and turning them on when it descends again. Through input 5-6 the Cooling pump **BF** will be activated and deactivated in the Cooling mode, and through input 3-4 the heating pump **BC** will be activated and deactivated.

Terminals **7**, **8** and **9** are supplied from the factory with a jumper connected to each one of them, so, whatever the thermostat configuration to be installed, it will be necessary to remove **the two** jumpers before connecting the room thermostat.

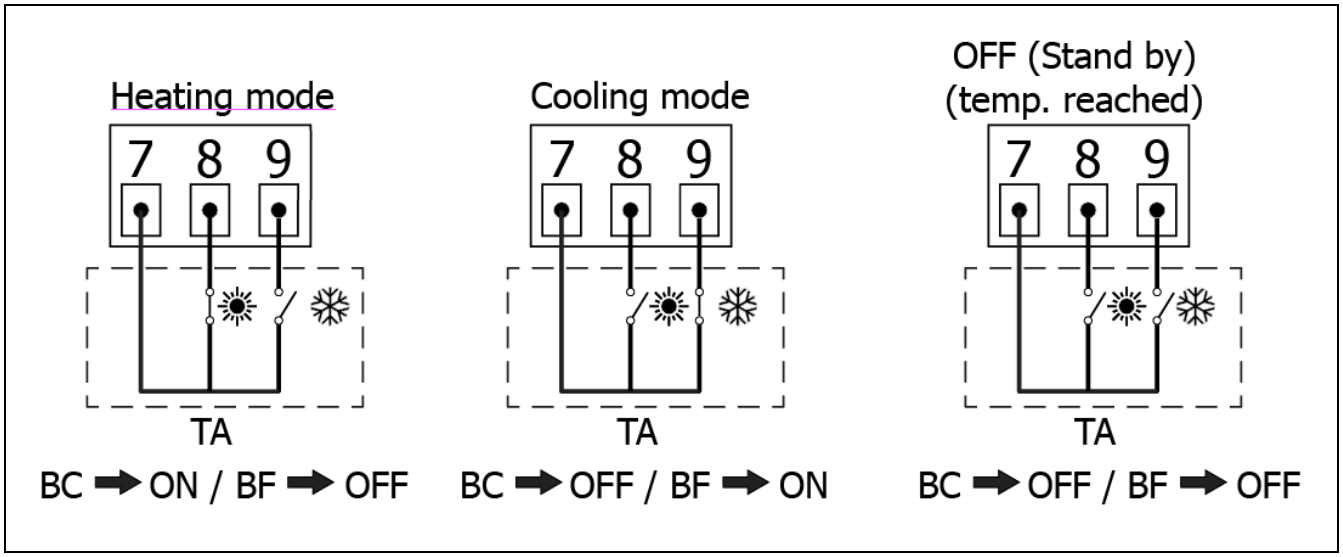
Depending on the type of thermostat used or the combination of these, up to 3 types of different room thermostat configurations can be installed. The following sections describe in detail the operation and installation of each of these configurations.

In turn, through terminals **12**, **13** and **14** of the terminal strip, the thermostat signals can be connected to the **DUAL CLIMA R** outdoor unit. In this way, the operating modes of the the heat pump, from the place where the installed room thermostats are located. Through terminals **12-13** the Cooling mode will be activated and deactivated, and through input **12-14** the Heating mode will be activated and deactivated.

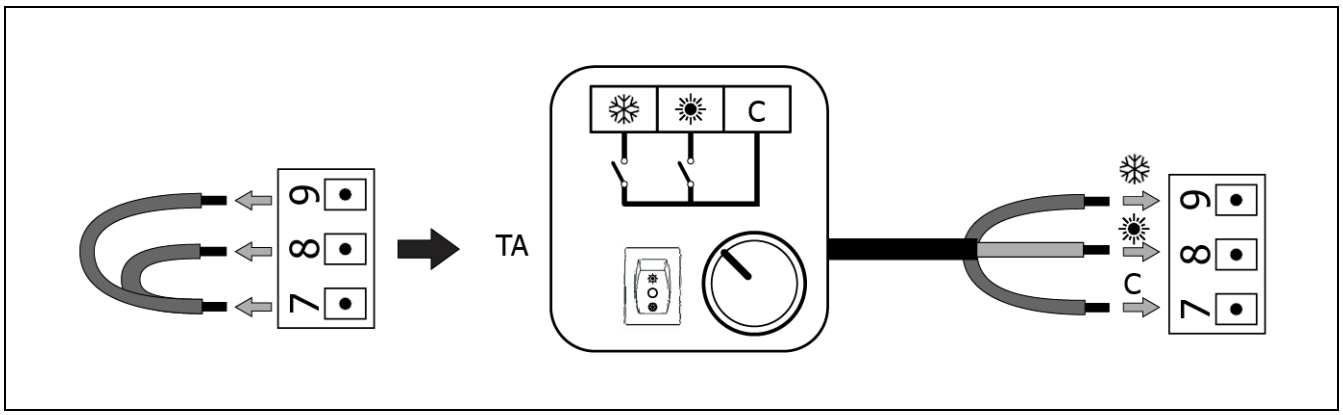
3.6.1 Connecting a 3-wired switched room thermostat for Heating/Cooling

In addition to selecting the desired temperature and periods of operation, this type of thermostat, if it is of the programmable thermostat type, offers users the possibility of selecting the mode of operation in the thermostat itself (Heating ☀/Cooling ❄).

For its operation, this type of thermostat has 3 communication wires: one for the activation signal of the Heating mode, one for the activation signal of the Cooling mode, and one for the common signal. Depending on the status of each signal, the **FUSION COMBI** module will manage the activation of each circulation pump (**BC** or **BF**), corresponding to each Heating or Cooling mode, as follows:



Terminals **7, 8** and **9** are supplied from the factory with a jumper wire connected to each of them, so in order to install this type of thermostat, it will be necessary to remove **both** jumper wires and connect the thermostat as described in the following figure:

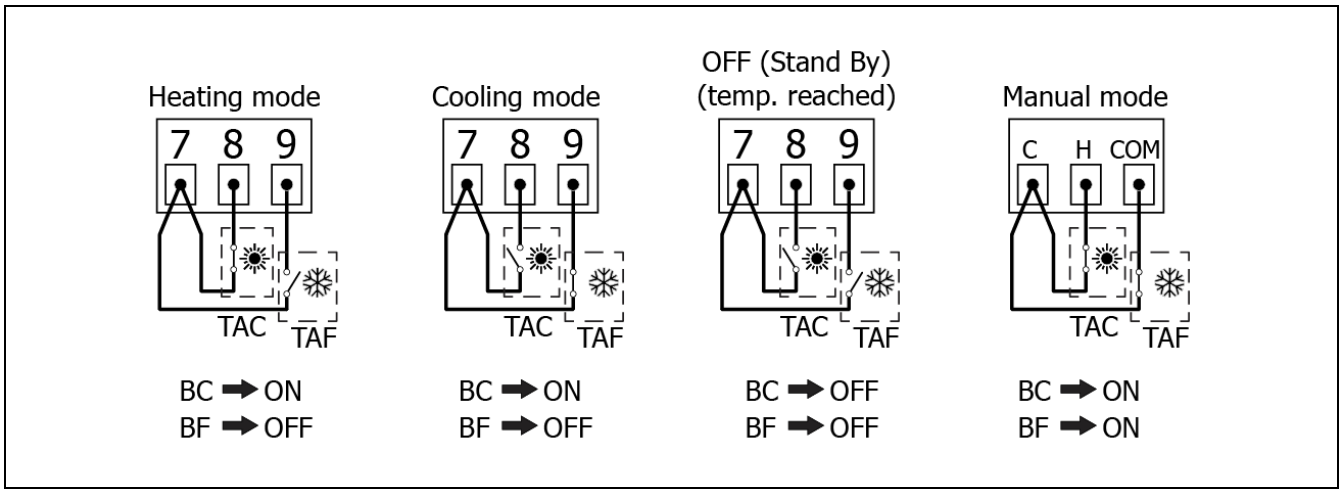


DANGER: Whenever working on the electrical installation, make sure that both the module and the DUAL CLIMA R heat pump are disconnected from the mains.

3.6.2 Connecting two room thermostats (one for heating and the other for cooling)

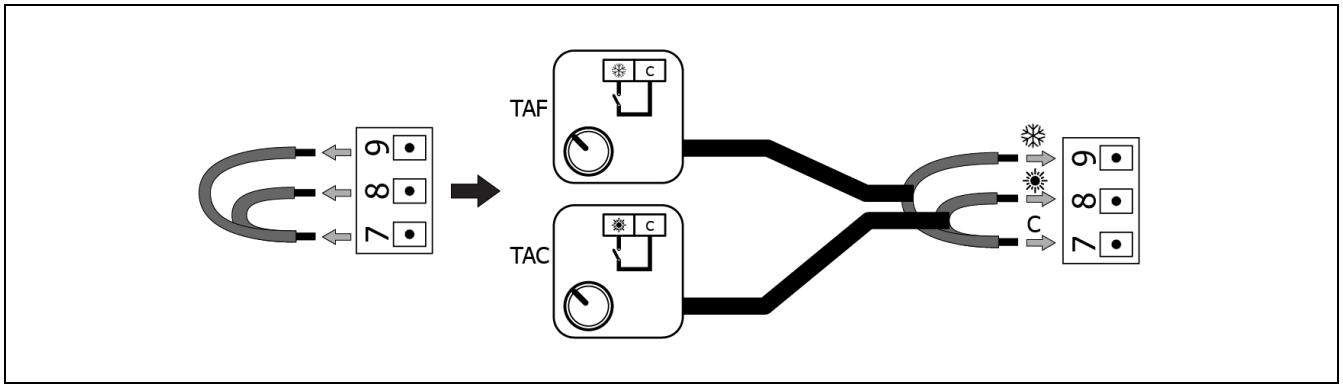
In this type of configuration, two single room thermostats will be connected, one in terminals 7 and 9 (**CRT** Cooling thermostat) and one in terminals **7** and **8** (HRT Heating thermostat). Each of them manages the operation of a different circulation pump (**BC** for Heating and **BF** Cooling). Therefore, each thermostat should be of the type compatible with the operation for which it was installed. The thermostat connected to the cooling input (**CRT**) should demand (closed circuit signal) when the room temperature is higher than the desired temperature (setpoint temperature), and in turn, the thermostat connected to the heating input (**HRT**) should demand (closed circuit signal) when the room temperature is lower than the desired temperature (setpoint temperature).

The **FUSION COMBI** module will manage the activation of each circulation pump (**BC** or **BF**), corresponding to each Heating or Cooling mode, as follows:



As indicated in the figure, in case of selecting the setpoint temperatures of the room thermostats in such a way that both demand operation simultaneously, the control of the hydraulic module will start operation in the "Manual" mode, that is, both circulation pumps will be activated simultaneously. To avoid this situation, it is essential to **make sure to correctly select the temperatures of each of them, in such a way that they do not cross and to avoid that both thermostats are activated at the same time.**

Terminals **7**, **8** and **9** are supplied from the factory with a jumper wire connected to each of them, so in order to install the thermostats, it will be necessary to remove **both** jumper wires and connect the thermostats as described in the following figure:



DANGER: Whenever working on the electrical installation, make sure that both the module and the DUAL CLIMA R heat pump are disconnected from the mains.

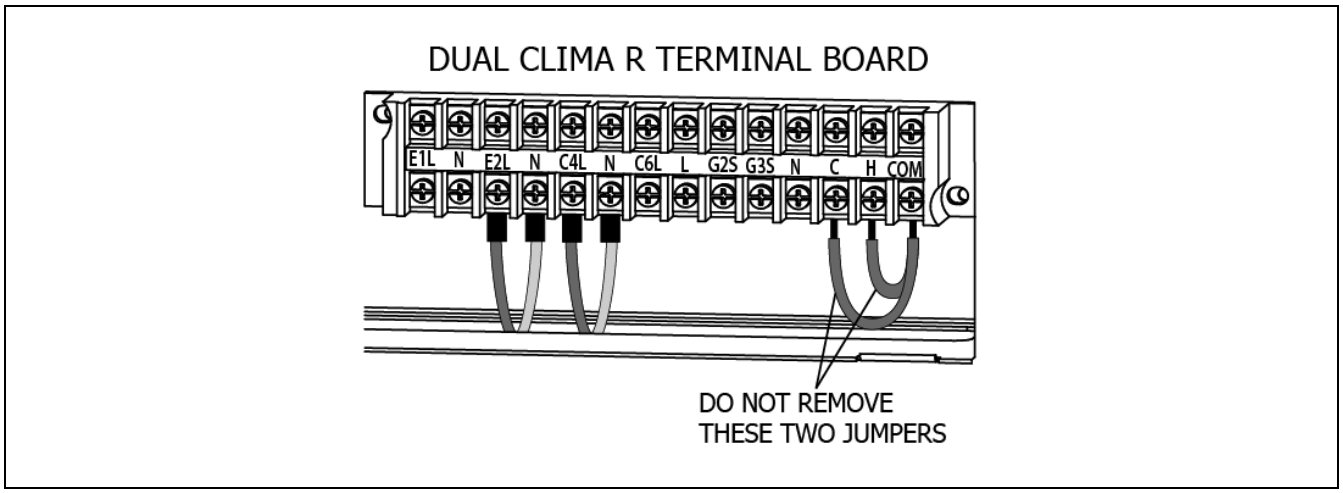
3.6.3 Connecting a 2-wired two room thermostats for two zones (manual mode)

In this type of configuration, 2-wired 2 room thermostats will be connected, one in inputs **7** and **9** for the zone 1 (**TAF** cooling thermostat) and the other in inputs **7** and **8** (**TAC** heating thermostat) for the zone 2. Each of them will manage the operation of a different circulation pump, **BC** the pump of the zone 1 hydraulic circuit and **BF** the pump of the zone 2 hydraulic circuit. Each thermostat must be of the type compatible with the operation for which it has been installed, heating or cooling. These thermostats could also be of the two-wire heating/cooling switched type. Unlike the three-wire heating/cooling switched type thermostat, the 2-wire one does not allow selecting the operating mode (Heating ☀/Cooling ❄) only on the thermostat itself (automatic mode). It will be necessary to select the operating mode, both in the thermostat and in the heat pump. For this room thermostat management to function correctly, **the heat pump and the thermostat must be configured for the same and only operating mode, Heating or Cooling**.

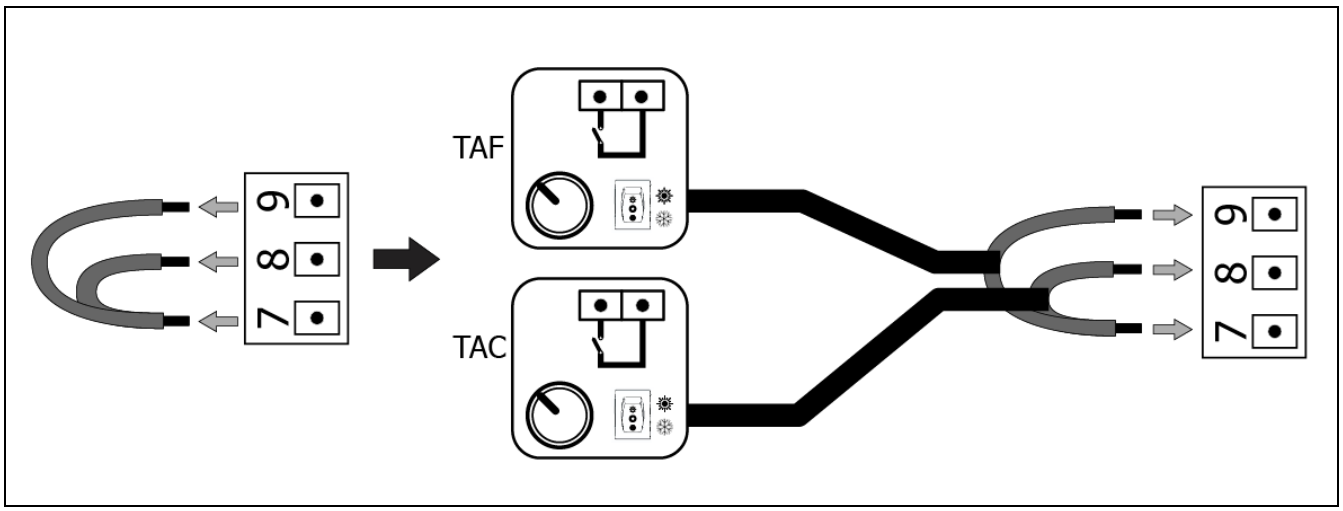
ATTENTION: Check that for this room thermostat management to function correctly the heat pump and the thermostat must be configured for the same and only operating mode, Heating or Cooling.

ATTENTION: For the correct management of the DUAL CLIMA R heat pump with the FUSION COMBI module with two-wire room thermostats, it will be essential to set the value 3 through parameter P27 of the DUAL CLIMA R heat pump's Technician menu and the value 2 through parameter P26 from the Technician menu.

ATTENTION: For correct operation with this configuration, check that the jumpers between "C, H and COM" are connected as standard on the DUAL CLIMA R heat pump component strip (see "Connection Diagram").



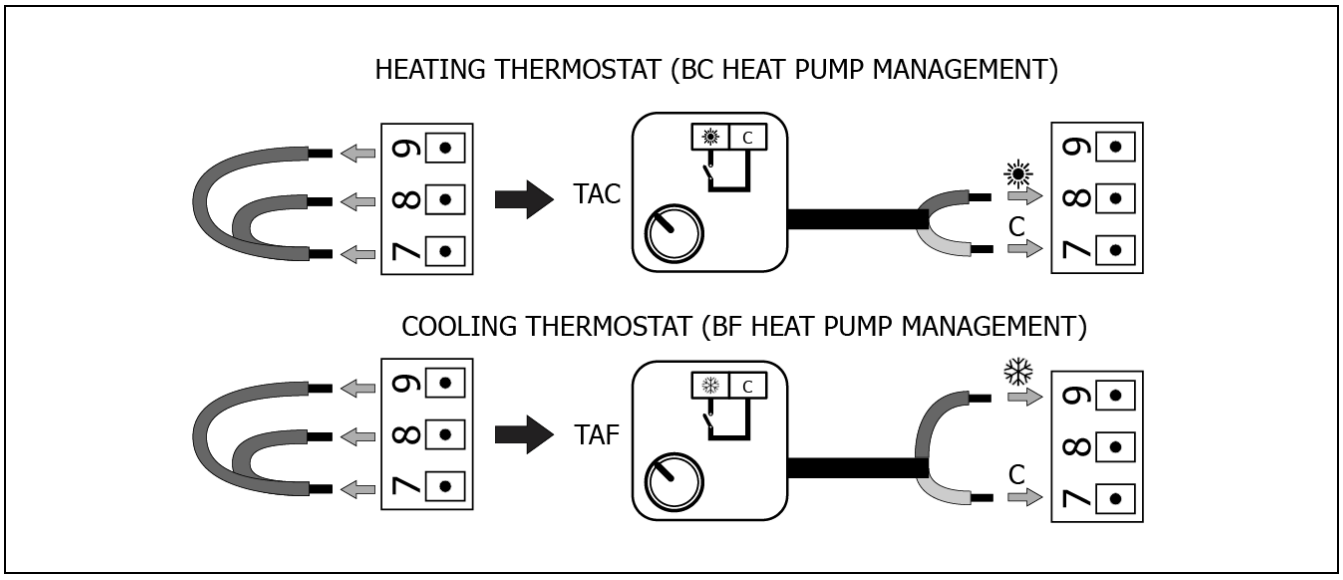
The following diagram describes how to make the connections of the room thermostats in the **FUSION COMBI** module, for correct operation.



3.6.4 Connecting one room thermostat

In this type of configuration, a single room thermostat will be connected in inputs **7** and **9** (**CRT** Cooling thermostat) or in inputs **7** and **9** (**HRT** Heating thermostat). For this room thermostat management configuration to work correctly, the heat pump should be configured for a single operating mode, that is, Heating or Cooling (see the instruction manual supplied with the **DUAL CLIMA R** heat pump). Depending on the thermostat to which the input is connected, it will manage the activation of the corresponding circulation pump (BC for Heating or **BF** for Cooling) and the type of room thermostat should be prepared for this purpose. The thermostat connected to the cooling input (**CRT**) should demand (closed circuit signal) when the room temperature is higher than the desired temperature (setpoint temperature), and in turn, the thermostat connected to the heating input (**HRT**) should demand (closed circuit signal) when the room temperature is lower than the desired temperature (setpoint temperature).

Terminals **7**, **8** and **9** are supplied from the factory with a jumper wire connected to each of them, so in order to install this type of thermostat, it will be necessary to remove **both** jumper wires and connect the thermostat as described in the following figure, depending on the mode to be managed:



DANGER: Whenever working on the electrical installation, make sure that both the module and the DUAL CLIMA R heat pump are disconnected from the mains.

4 OPERATION

The **FUSION COMBI** hydraulic module is a passive accessory. Therefore, its operation will be fully managed by the **DUAL CLIMA R** heat pump controllers connected to it, which should be mounted on the front of the module (see *"Assembly and connection of the control panel"*). To properly configure and manage its operation, please carefully read the "Installation and Operating Instructions Manual" supplied alongside the heat pump.

4.1 Heat pump configuration

To configure and manage the correct operation of the **DUAL CLIMA R** heat pump, carefully read the "Installation and Operating Instructions Manual" supplied with the **DUAL CLIMA R** heat pump.

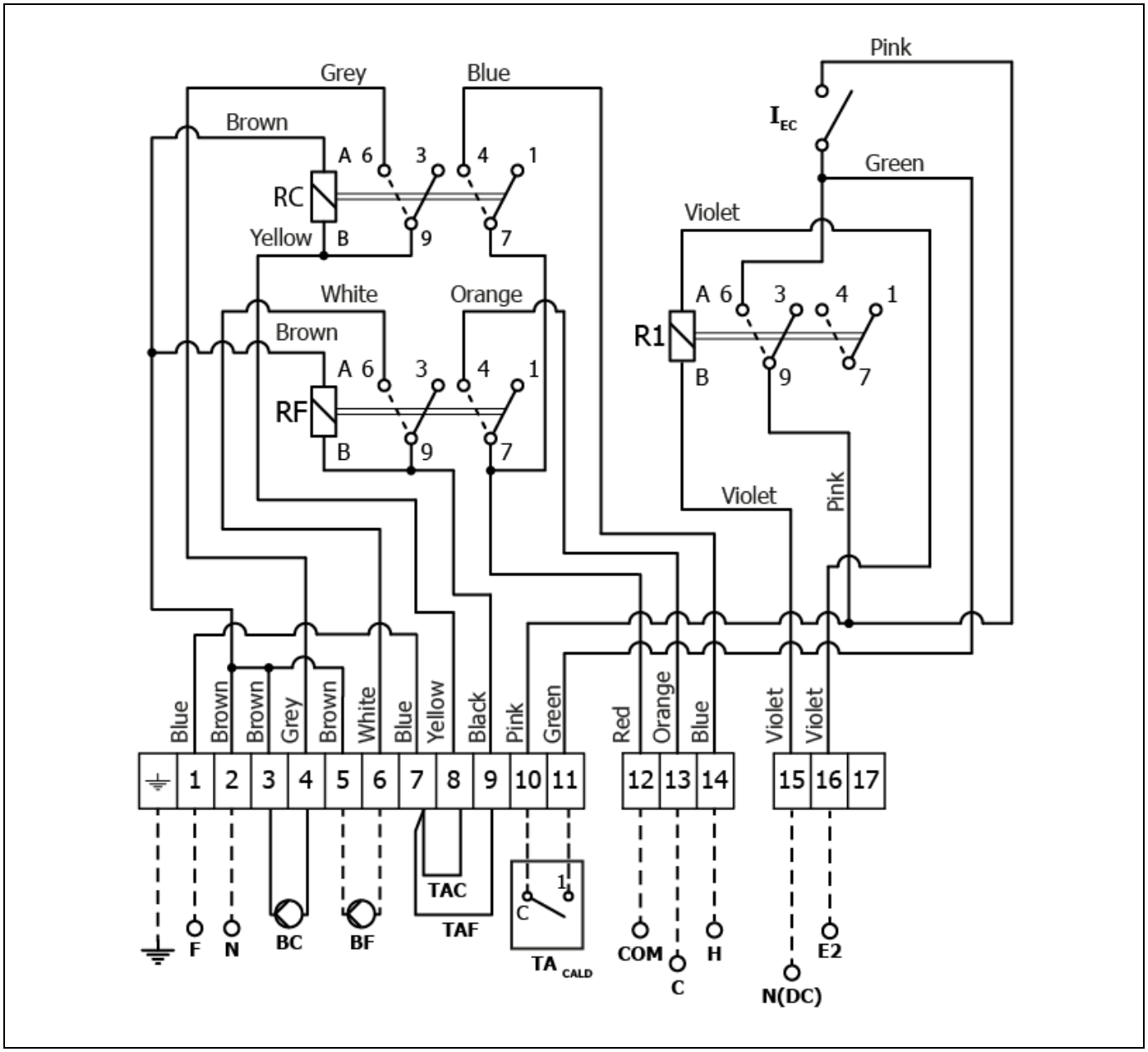
However, to obtain the benefits for which the **FUSION COMBI** module has been provided, the following parameters must be configured from the technical menu of the control panel of the **DUAL CLIMA R** heat pump:

- • To have operation in cooling mode, it must be ensured that parameter P54 is activated (position "1").
- To have operation in heating mode, it must be ensured that parameter P55 is activated (position "1").
- Once it has been ensured that parameters P54 and P55 are in position "1", select the desired operating mode, heating or cooling, from the **DUAL CLIMA R** heat pump control panel menu.
- Once it has been ensured that parameters P54 and P55 are in position "1", select the desired operating mode, heating or cooling, from the **DUAL CLIMA R** heat pump control panel menu.
- Parameter P56 of the DHW service must be deactivated (position "0"). This service is not available with the **FUSION COMBI** module.
- It must be ensured that the operating parameter P27 combined with a boiler is in position "3".
- It must be ensured that the water recirculation pump operating parameter P26 is in position "0".

4.2 Boiler only mode switch

The boiler-only operation switch (13) is a switch that manually activates the boiler support, regardless of the situation in which the **DUAL CLIMA R** heat pump is, and it may be in the ON position or even in OFF position. In the normal operation of the **FUSION COMBI** module, this switch must be in the "0" position, which is the automatic operating mode, in this position the heat pump automatically manages the activation and disconnection of the boiler support, when necessary. If you eventually want to manually activate the boiler support, turn this switch to position "1" and the boiler support system will start up unconditionally. To return to the automatic operation of the module, turn the switch back to position "0".

5 ELECTRICALSCHEME



N: Neutral (230 V~).

F: Phase (230 V~).

BC: Heating mode circulating pump.

BF: Cooling mode circulating pump.

TAC: Heating mode room thermostat.

TAF: Cooling mode room thermostat.

N(DC): Heat pump **DUAL CLIMA R** common signal (Neutral).

E2: Heating support signal input **E2** from heat pump **DUAL CLIMA R.**

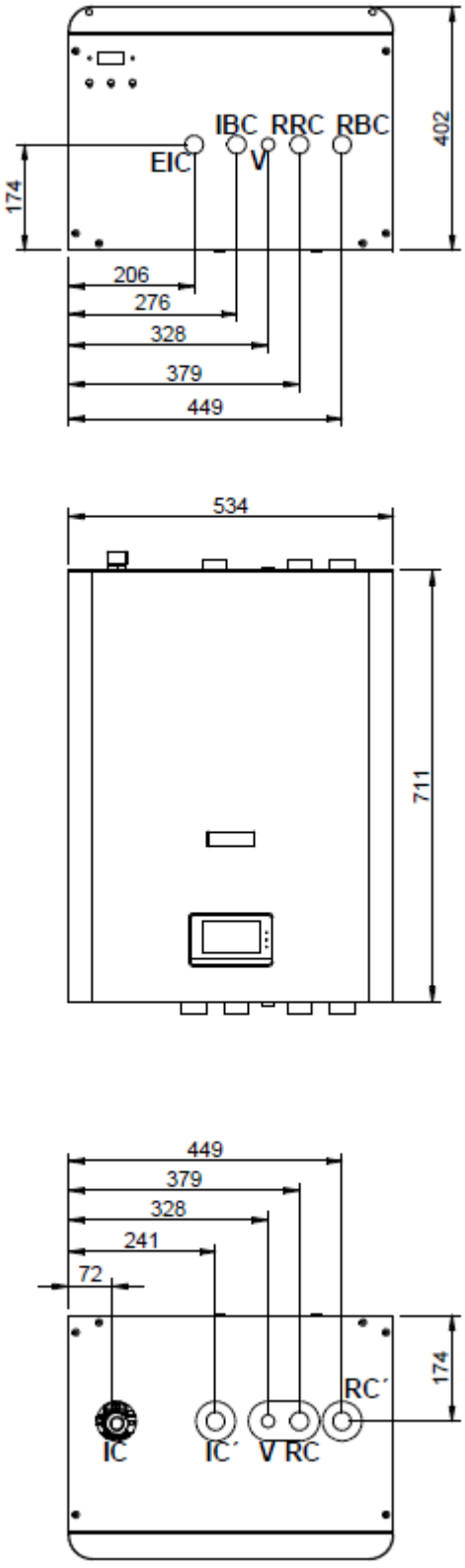
R: Relay.

TA_{CALD}: Connection at the terminals for the boiler room thermostat.

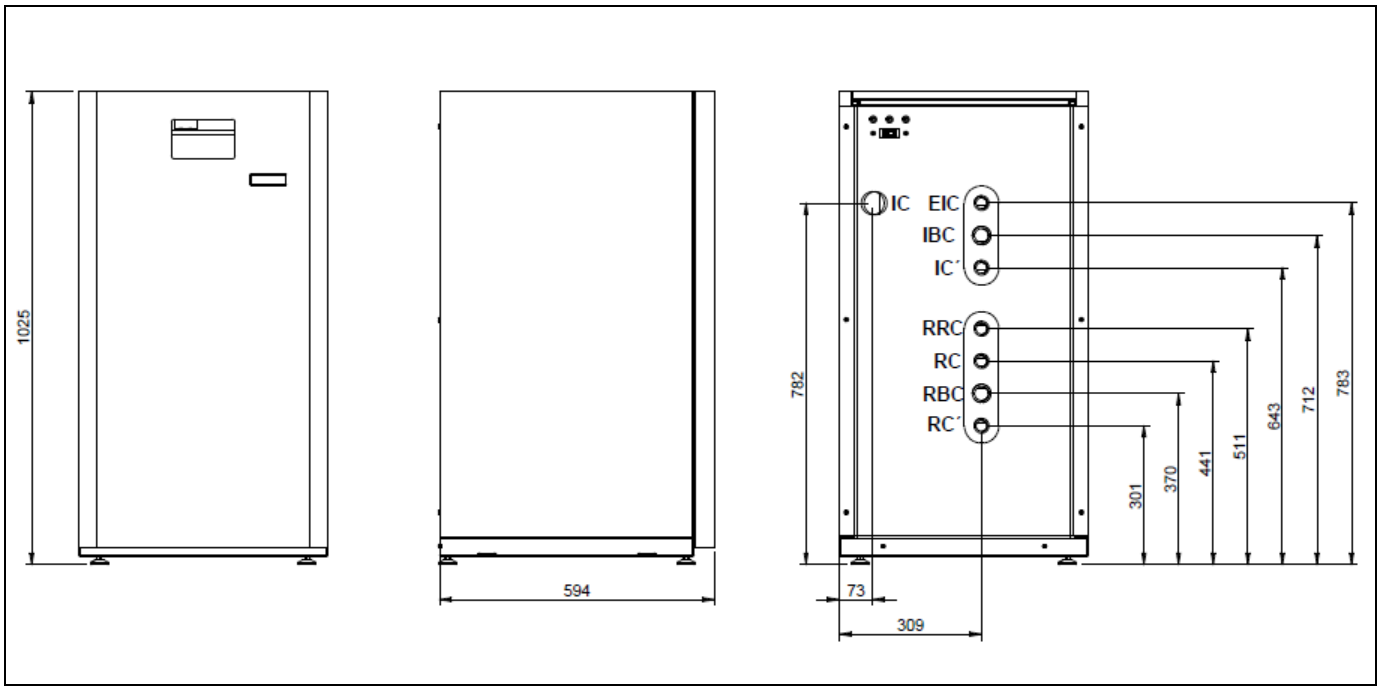
I_{EC}: Boiler only operation switch.

6 DIAGRAMS AND MEASUREMENTS

FUSION COMBI W 50



FUSION COMBI F 80



	FUSION COMBI W 50	FUSION COMBI F 80
Volume	50 L.	80 L.
IC	1"H	3/4"M
RC	1"H	3/4"M
EIC	1"H	3/4"M
RRC	1"H	3/4"M
IC´	1"H	3/4"M
RC´	1"H	3/4"M
IBC	1"H	1"H
RBC	1"H	1"H

IC: Heating/Cooling Flow (circuit 1).

RC: Heating/Cooling Return (circuit 1).

IBC: Heat Pump Flow

RBC: Heat Pump Return.

IC´: Heating/Cooling Flow (circuit 2).

RC´: Heating/Cooling Return (circuit 2).

EIC: Support boiler Flow for Heating.

RRC: Return of the backup boiler for Heating.

NOTES:

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