USER'S MANUAL

Instruction and warning book **IE**

Installer
User
Maintenance technician

IMMERGAS

COD. 3.027865

ADDITIONAL KIT 2nd MIXED ZONE FOR MAGIS COMBO PLUS AND MAGIS PRO IN SOLAR CONTAINER COMBO AND SUPER TRIO

GENERAL WARNINGS.

All Immergas products are protected with suitable transport packaging.

The material must be stored in a dry place protected from the weather.

This instruction manual provides technical information for installing the Immergas kit. As for the other issues related to kit installation (e.g. safety at the workplace, environmental protection, accident prevention), it is necessary to comply with the provisions specified in the regulations in force and with the principles of good practice.

Improper installation or assembly of the Immergas appliance and/or components, accessories, kits and devices can cause unexpected problems for people, animals and objects. Read the instructions provided with the product carefully to ensure proper installation. Installation and maintenance must be performed in compliance with the regulations in force, according to the manufacturer's instructions and by professionally qualified staff, meaning staff with specific technical skills in the plant sector, as envisioned by the law.

GENERALITIES.

An independent mixed zone is added using this kit (second zone) for coupling the Magis Combo Plus V2 Indoor Unit inside the Solar Container Combo or for coupling the Magis Pro V2 or Magis Combo Plus V2 Indoor Unit inside the Container Super Trio. Before performing any intervention, disconnect the power supply to the installed indoor unit by acting on the switch placed upstream from the appliance.

INSTALLATION IN SOLAR CONTAINER COMBO (FIG. 1 - 2).

To install proceed as follows:

- open the door of the Solar Container Combo and lock it to prevent it from getting in the way during the subsequent installation stages;
- empty the system by acting on the drain fitting (1) on the hydraulic manifold (2) (as indicated in the instruction booklet of the Magis Combo Plus V2 Indoor Unit). Before draining, ensure that the system filling cock is closed;
- remove the two caps (Part. 3 and 4 Fig. 1) on the hydraulic manifold (2).

Connect the components of the second zone as described below (Fig. 5):

- remove the expansion vessel;
- assemble the circulator mount fitting (25) on the lower metal-sheet plate, fixing it with the lock nut (5) and interposing the gasket (6) between the latter and the metal-sheet plate;
- assemble the circulator (24) on the fitting, interposing the gasket (22);
- assemble the mixing valve (16) on the manifold, interposing the gasket (11);

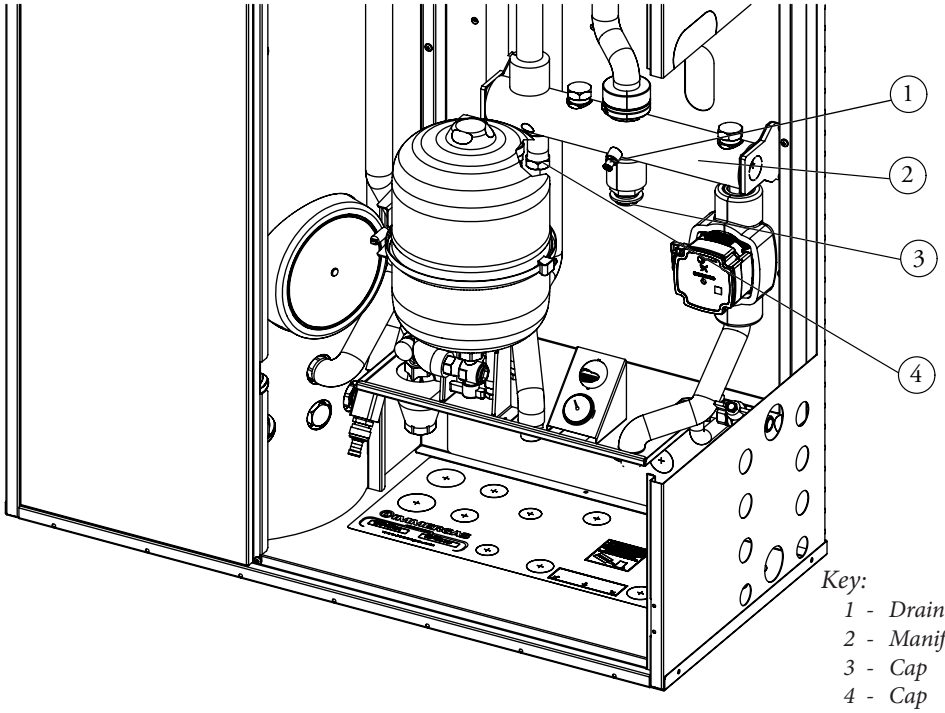
Attention: respect the orientation of the mixing valve, as represented in detail in Fig. 5.

- Apply the IP cover (14) to the three-way motor (15) and assemble on the mixing valve, then connect it electrically;
- pre-mount the safety thermostat (9) with the 2 screws (10) and the flow probe (18) on the second zone flow pipe (20);
- connect the mixing valve to the circulator with the second zone system flow pipe (20), taking care to interpose the gaskets (Det. 22 and 11);
- assemble the system return pipe (12) on the lower metal-sheet plate, fixing it with the lock nut (5) and interposing the gasket (6) between the latter and the metal-sheet plate;
- connect the system return pipe (12) to the mixing valve, interposing the gasket (11) and to the manifold, interposing the gasket (13);
- assemble the thermometer (7) on the relative bracket by connecting the capillary to the system flow pipe (20) and fixing it with the clip (19);
- apply the insulation (21) on the system flow pipe;
- apply the left shell (8) and the right shell (23) on the circulator, locking them with the 2 clamps in the kit;
- apply the relative insulation (17) to the mixing valve, locking it with the 2 clamps in the kit.

Connection unit (on request).

The system is dispatched from the factory without the connection unit. The kit includes the pipes and fittings for connecting the pack. It is also possible to select the connection choosing between the kit with bottom, rear or side connection.

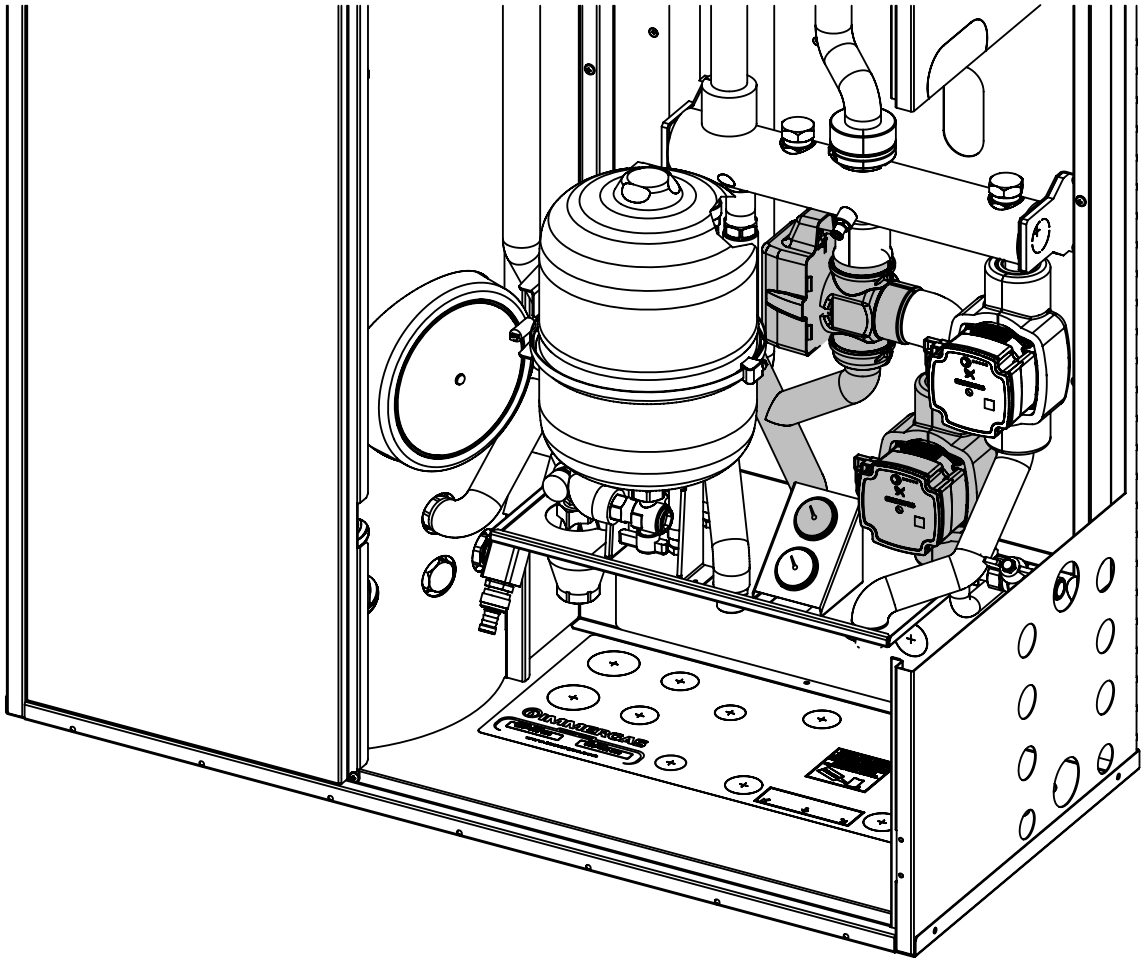
SOLAR CONTAINER COMBO WITH MAGIS COMBO PLUS V2.



Key:
1 - Drain fitting
2 - Manifold
3 - Cap
4 - Cap

1

SOLAR CONTAINER COMBO WITH MAGIS COMBO PLUS V2 WITH KIT.



2

INSTALLATION IN CONTAINER SUPER TRIO (FIG. 3 - 4).

To install proceed as follows:

- open the door of the Container Super Trio and lock it to prevent it from getting in the way during the subsequent installation stages;
- empty the system by acting on the drain fitting (1) on the hydraulic manifold (2) (as indicated in instruction booklet of the Magis Combo Plus V2 or Magis Pro V2 Indoor Unit). Before draining, ensure that the system filling cock is closed;
- remove the two caps (Part. 3 and 4 Fig. 3) on the hydraulic manifold (2).

Connect the components of the second zone as described below (Fig. 6):

- remove the expansion vessel;
- assemble the circulator mount fitting (25) on the lower metal-sheet plate, fixing it with the lock nut (5) and interposing the gasket (6) between the latter and the metal-sheet plate;
- assemble the circulator (24) on the fitting, interposing the gasket (22);
- assemble the mixing valve (16) on the manifold, interposing the gasket (11);

Attention: respect the orientation of the mixing valve, as represented in detail in Fig. 6.

- Apply the IP cover (14) to the three-way motor (15) and assemble on the mixing valve, then connect it electrically;
- pre-mount the safety thermostat (9) with the 2 screws (10) and the flow probe (18) on the second zone flow pipe (20);
- connect the mixing valve to the circulator with the second zone system flow pipe (20), taking care to interpose the gaskets (Det. 22 and 11);
- assemble the system return pipe (12) on the lower metal-sheet plate, fixing it with the lock nut (5) and interposing the gasket (6) between the latter and the metal-sheet plate;
- connect the system return pipe (12) to the mixing valve, interposing the gasket (11) and to the manifold, interposing the gasket (13);
- assemble the thermometer (7) on the relative bracket by connecting the capillary to the system flow pipe (20) and fixing it with the clip (19);
- apply the insulation (21) on the system flow pipe;
- apply the left shell (8) and the right shell (23) on the circulator, locking them with the 2 clamps in the kit;
- apply the relative insulation (17) to the mixing valve, locking it with the 2 clamps in the kit.

Connection unit (on request).

The system is dispatched from the factory without the connection unit. The kit includes the pipes and fittings for connecting the pack. It is also possible to select the connection choosing between the kit with bottom, rear or side connection.

STARTING THE SYSTEM.

Once the electrical connection stages are completed, restore the correct water pressure in the Central heating system using the relevant filling valve. Power up the Magis Combo Plus V2 or Magis Pro V2 Indoor Unit and check that every room thermostat (or remote control) activates the relative circulator. Bleed the system and the appliance correctly as described in the instruction booklet of the installed indoor unit.

Mixing valves initialisation.

Every time that the Magis Combo Plus V2 or Magis Pro V2 Indoor Unit is powered, initialisation of the mixing valves is carried out, closing them for three minutes. This way synchronisation is performed between the P.C.B. and the mixing valve. The transfer of heat energy to the mixed zone can only take place at the end of this initialisation phase.

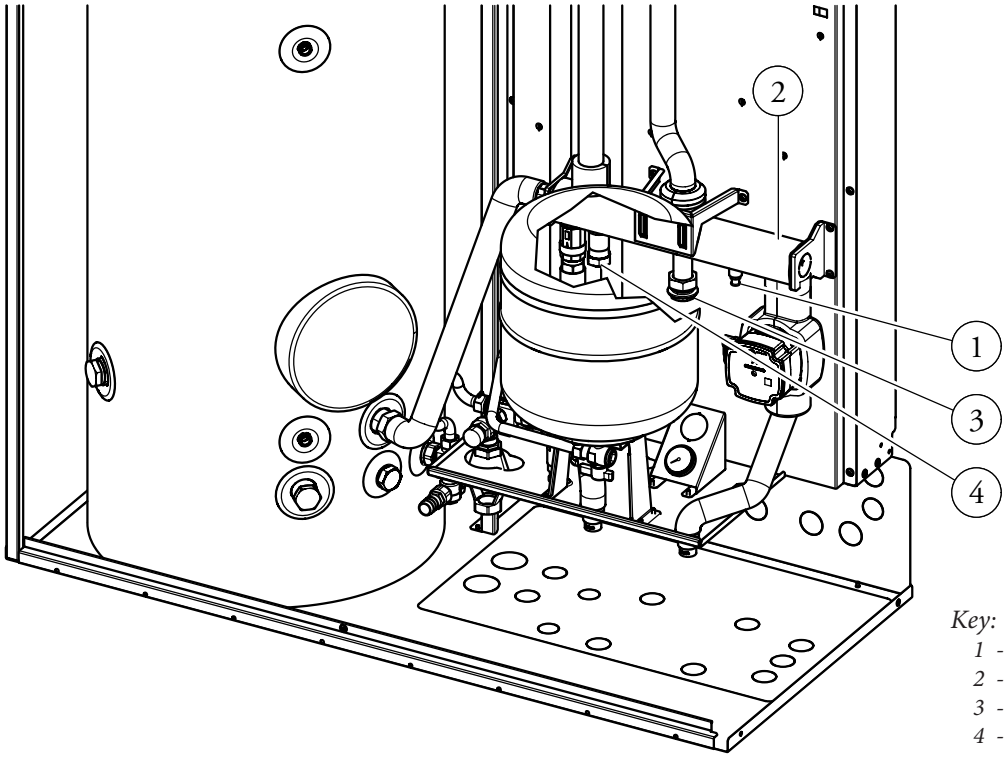
Checks.

It is recommended to check the maximum flow rate circulating in the system in the flow rate/head graphics in order to evaluate the correct dimensioning of the design parameters. In addition, the latter must also allow a maximum surface temperature of the radiating floor that is in compliance with that established by Standard UNI EN 1264.

NB: the installation on the Domus Container Super Trio is similar to that described in this booklet.

For further instructions refer to the Super Trio instruction booklet.

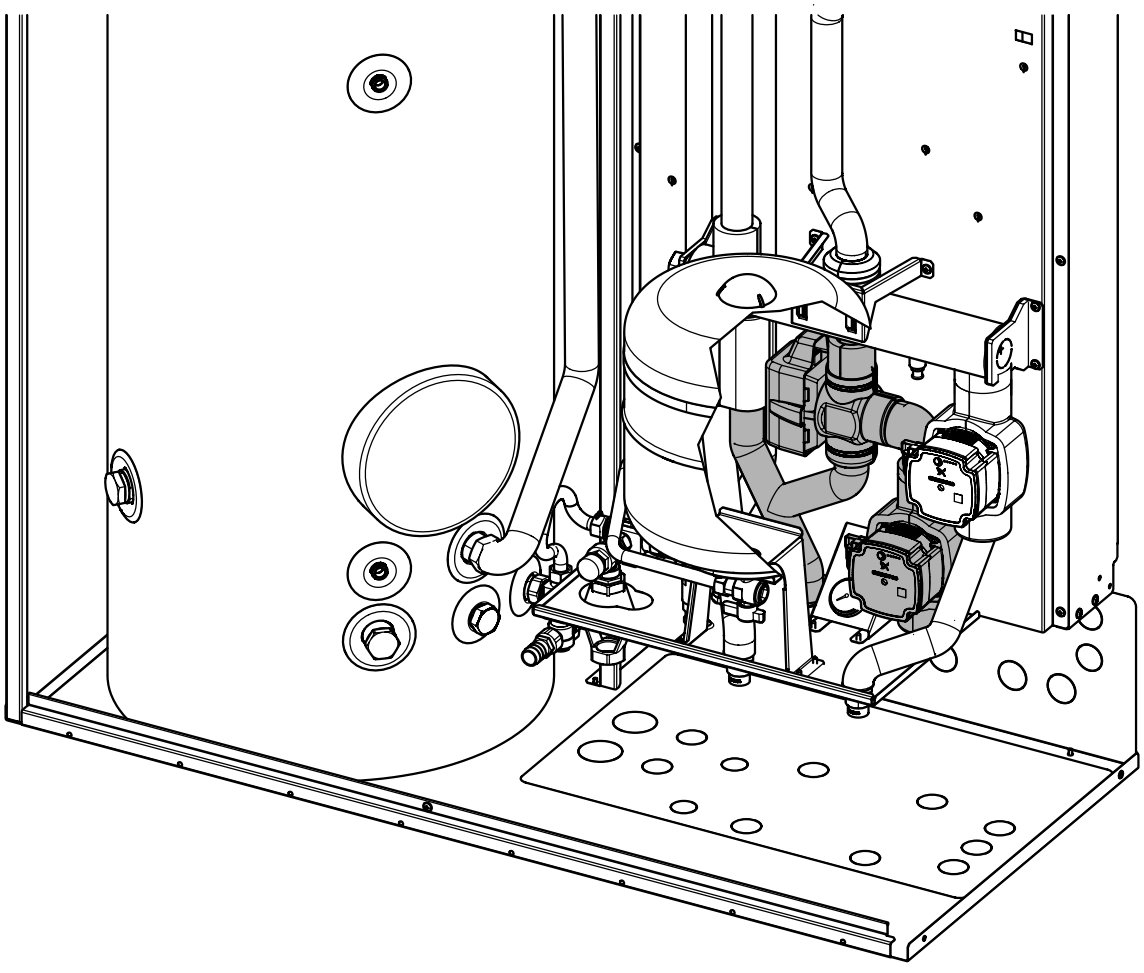
CONTAINER SUPER TRIO WITH INDOOR UNIT MAGIS PRO V2 - MAGIS COMBO PLUS V2.



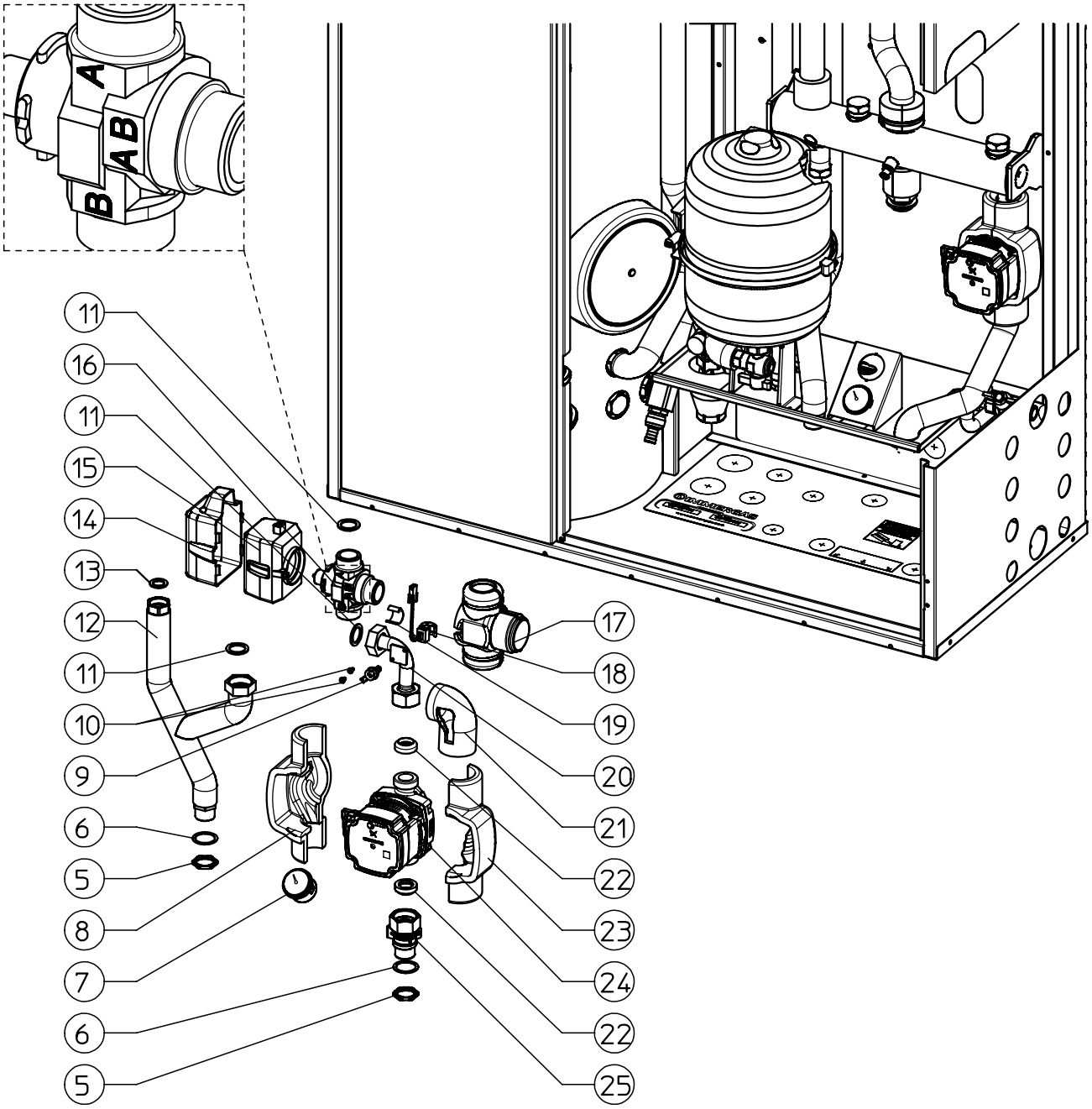
Key:
1 - Drain fitting
2 - Manifold
3 - Cap
4 - Cap

3

CONTAINER SUPER TRIO WITH INDOOR UNIT MAGIS PRO V2 - MAGIS COMBO PLUS V2 WITH KIT.

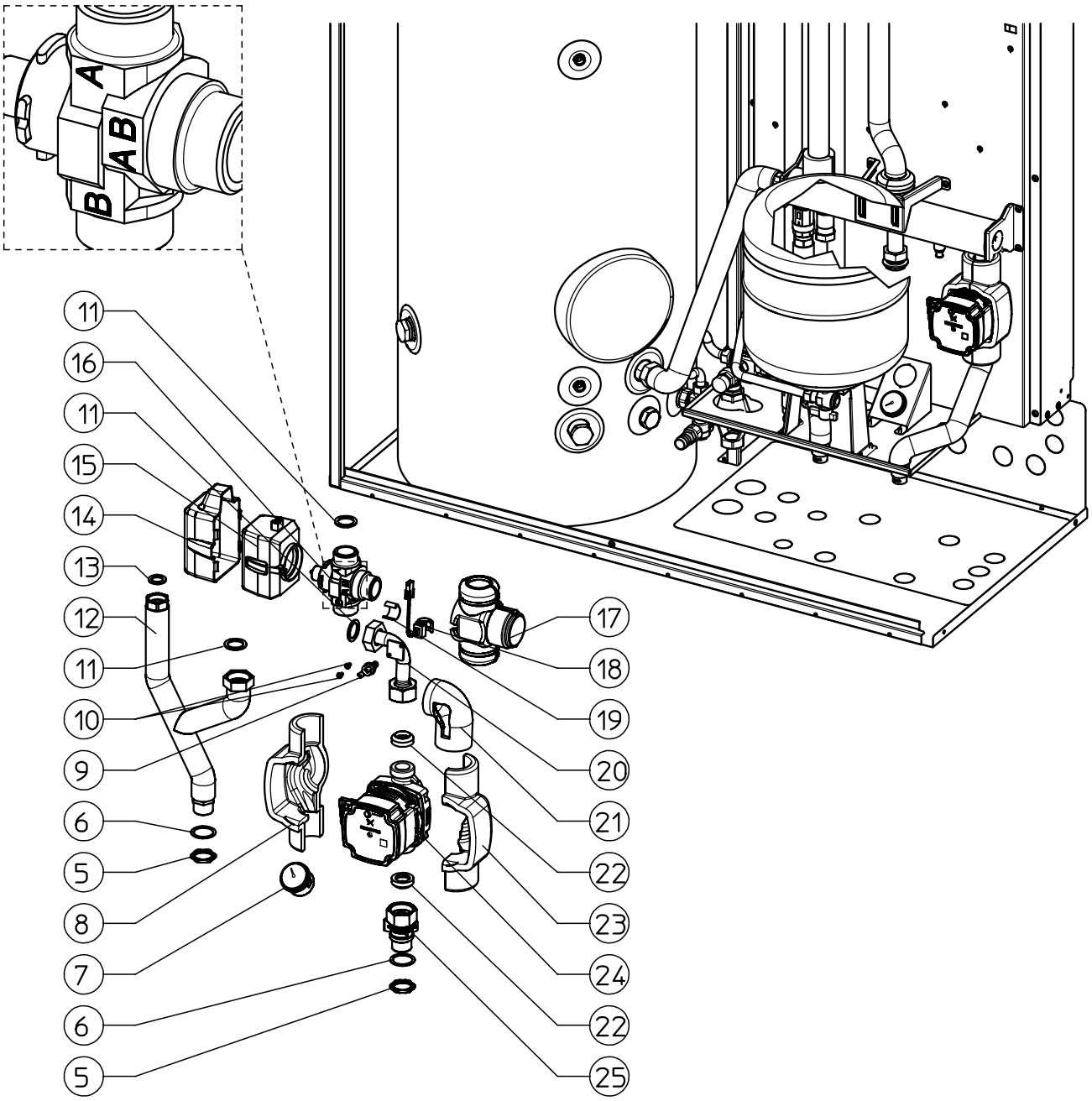


4



KIT COMPOSITION		
Ref.	**Q.ty**	**Description**
5	2	Lowered nut G 3/4"
6	2	Polyethylene gasket 34x27x1
7	1	Thermometer
8	1	Circulator LH insulation
9	1	Safety thermostat
10	2	Fixing screws
11	3	Gasket 30x22x2
12	1	Second zone system return pipe
13	1	Gasket 24x16x2
14	1	Three-way motor cover

Ref.	Q.ty	Description
15	1	Mixing valve motor
16	1	Mixing valve
17	1	Mixing valve insulation
18	1	Flow probe
19	1	Clip
20	1	Second zone flow pipe
21	1	Second zone flow pipe insulation
22	2	Silent Block Gasket
23	1	Circulator RH insulation
24	1	Second zone pump
25	1	Fitting G 3/4" circulator

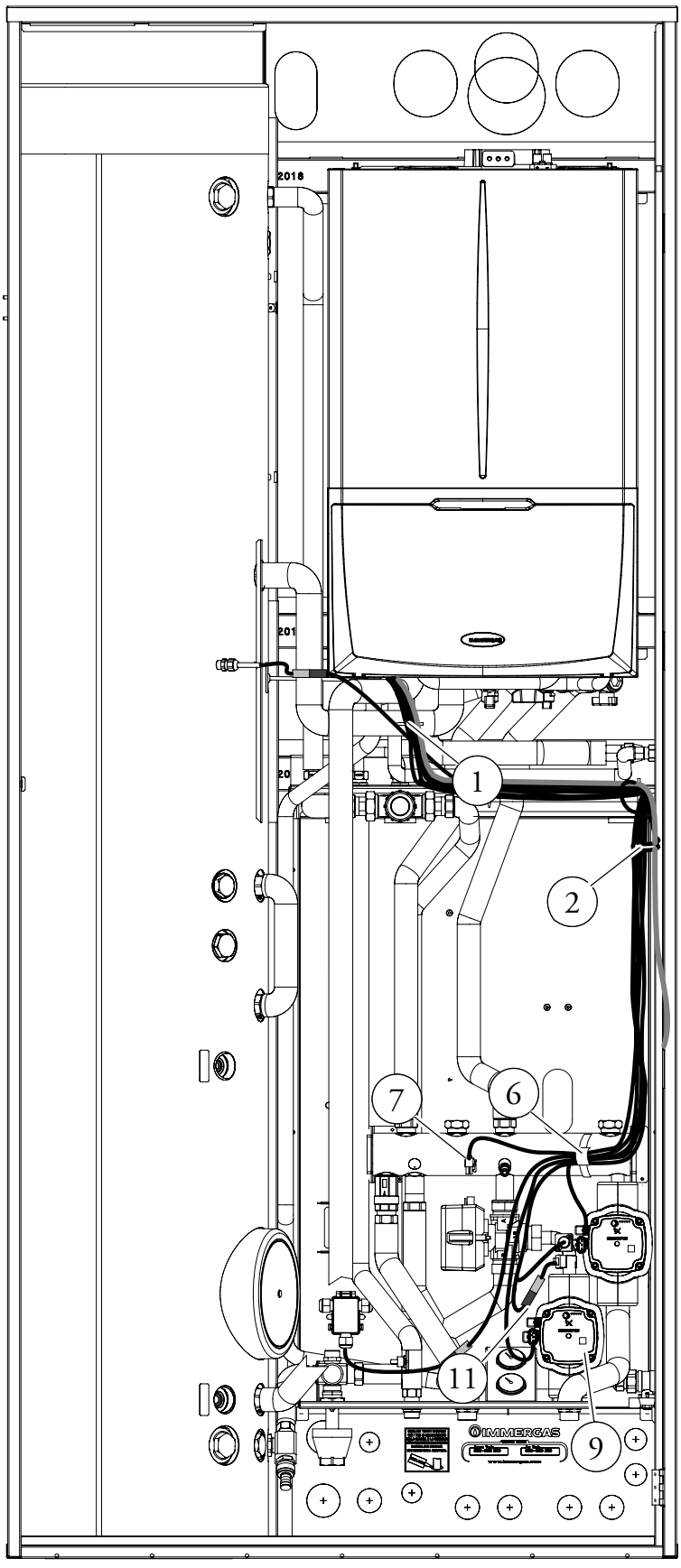


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14	1	Three-way motor cover

Ref.	**Q.ty**	**Description**
15	1	Mixing valve motor
16	1	Mixing valve
17	1	Mixing valve insulation
18	1	Flow probe
19	1	Clip
20	1	Second zone flow pipe
21	1	Second zone flow pipe insulation
22	2	Silent Block Gasket
23	1	Circulator RH insulation
24	1	Second zone pump
25	1	Fitting G 3/4" circulator

WIRING DIAGRAM FOR MAGIS COMBO PLUS V2 INDOOR UNIT WITH OPTIONAL SECOND ZONE KIT IN SOLAR CONTAINER COMBO.

7



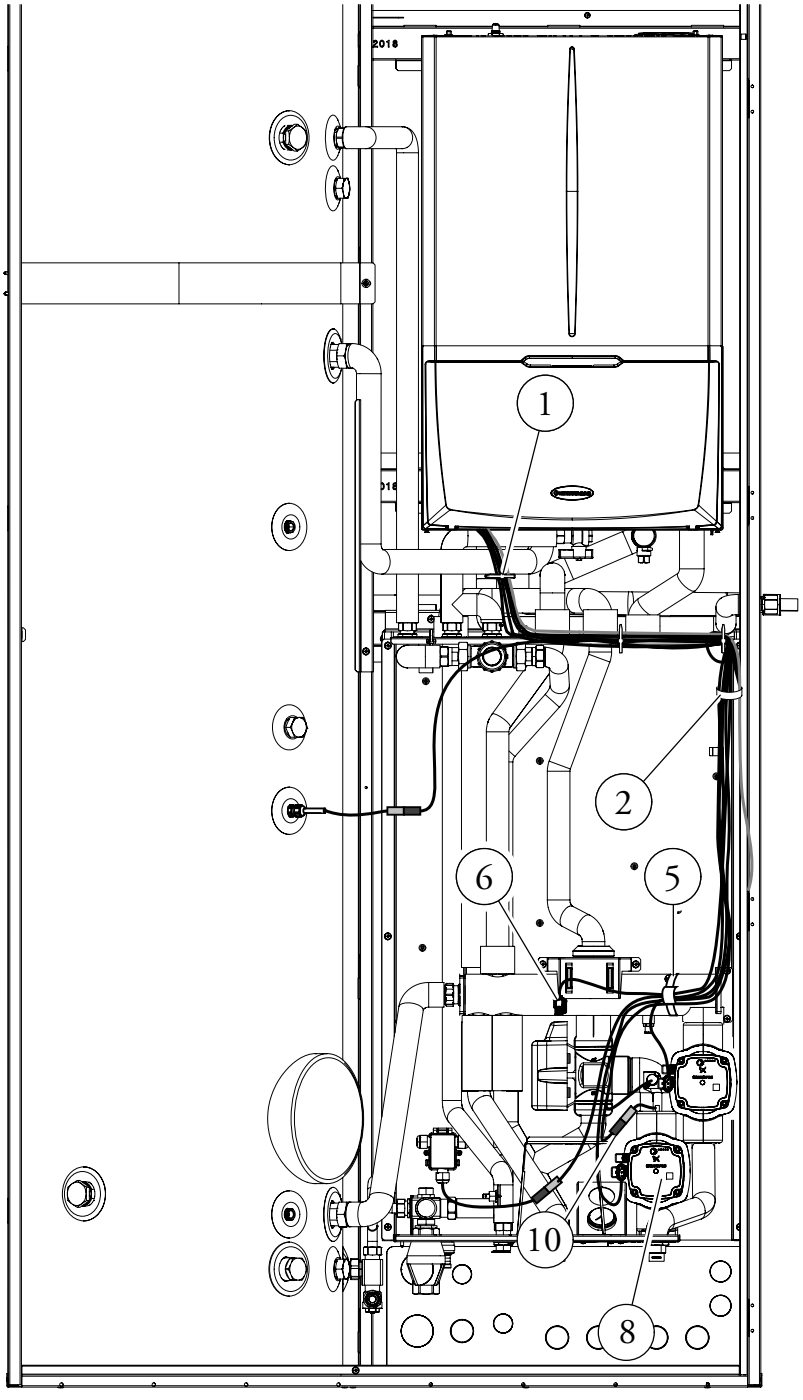
Once the kit is assembled, proceed with the wiring according to the wiring diagram in the instruction booklet.

- Connect the cables in the control panel of the Magis Combo Plus V2 Indoor Unit as shown in Fig. 11.
- Lower the wiring exiting the Magis Combo Plus V2 Indoor Unit until it can be secured with the clips (1-2).
- Connect the flow probe connector (11) to the wiring marked by the label "PROBE", then connect the wiring to the probe and then connect the "T-SIC" connector to the safety thermostat.
- Connect the connector with the green "M-Z2" label to the circulator (9).
- Connect the connector of the mixing valve (7) marked with the "MIX.V" label.
- Now group the various cables and join them with the clip (6) supplied with the hydraulic manifold.

N.B.: wind the uncovered fittings with the insulation present in the kit.

WIRING DIAGRAM FOR MAGIS PRO V2 INDOOR UNIT WITH OPTIONAL SECOND ZONE KIT IN CONTAINER SUPER TRIO.

8



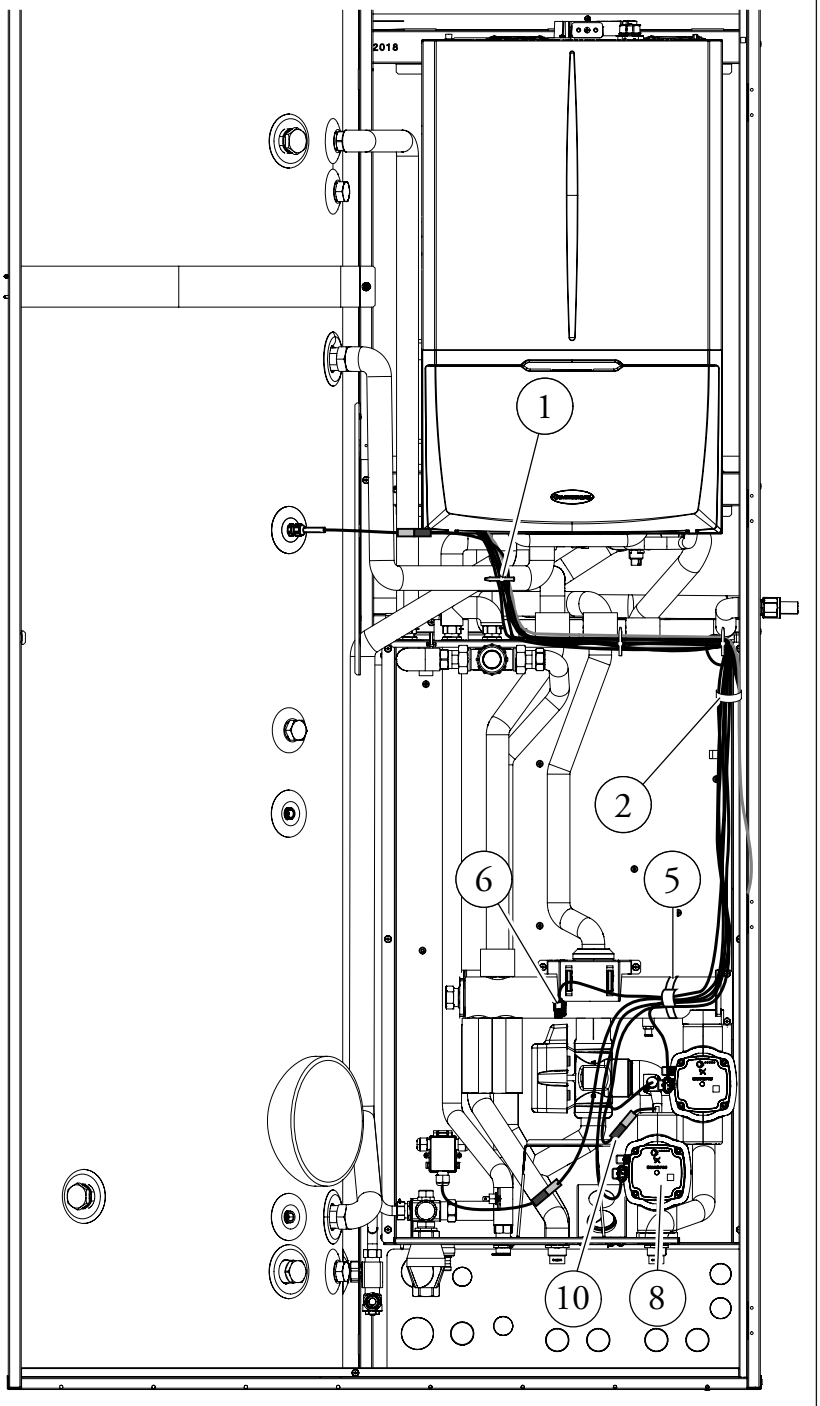
Once the kit is assembled, proceed with the wiring according to the wiring diagram in the instruction booklet.

- Connect the cables in the control panel of the Magis Pro V2 Indoor Unit as shown in Fig. 10.
- Lower the wiring exiting the Magis Pro V2 Indoor Unit until it can be secured with the clips (1-2).
- Connect the flow probe connector (10) to the wiring marked by the label "PROBE", then connect the wiring to the probe and connect the "T-SIC" connector to the safety thermostat.
- Connect the connector with the green "M-Z2" label to the circulator (8).
- Connect the connector of the mixing valve (6) marked with the "MIX.V" label.
- Now group the various cables and join them with the clip (5) supplied with the hydraulic manifold.

N.B.: wind the uncovered fittings with the insulation present in the kit.

WIRING DIAGRAM FOR MAGIS COMBO PLUS V2 INDOOR UNIT WITH OPTIONAL SECOND ZONE KIT IN CONTAINER SUPER TRIO.

9



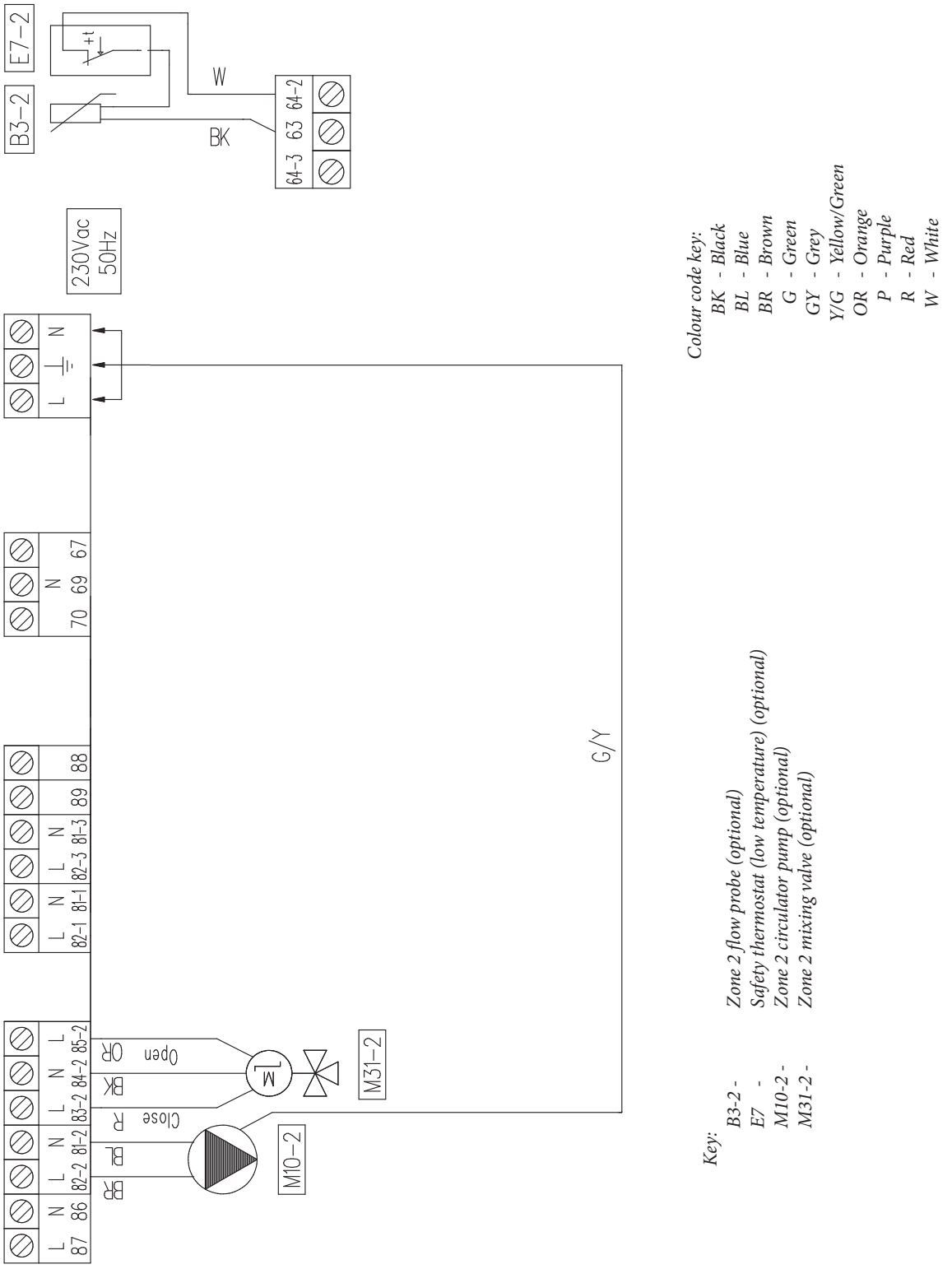
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- Connect the connector with the green "M-Z2" label to the circulator (8).
- Connect the connector of the mixing valve (6) marked with the "MIX.V" label.
- Now group the various cables and join them with the clip (5) supplied with the hydraulic manifold.

N.B.: wind the uncovered fittings with the insulation present in the kit.

MAGIS PRO V2 WIRING DIAGRAM.

10



Colour code key:

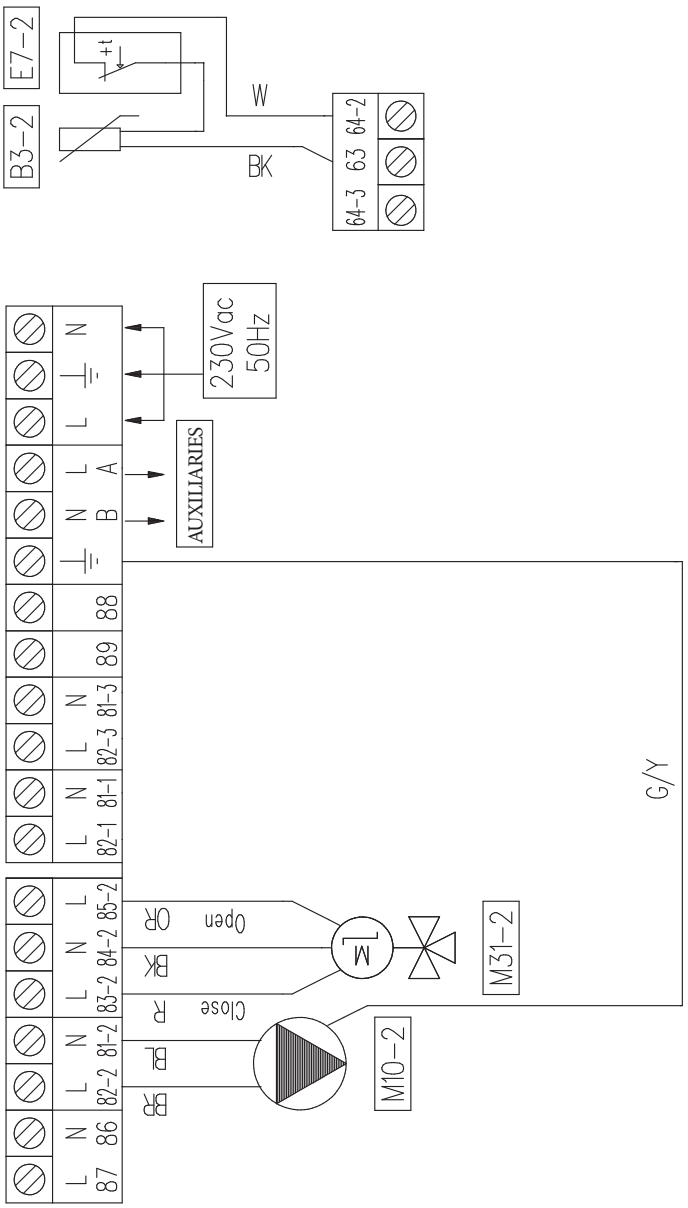
BK - Black
BL - Blue
BR - Brown
G - Green
GY - Grey
Y/G - Yellow/Green
OR - Orange
P - Purple
R - Red
W - White

Key:

B3-2 - Zone 2 flow probe (optional)
E7 - Safety thermostat (low temperature) (optional)
M10-2 - Zone 2 circulator pump (optional)
M31-2 - Zone 2 mixing valve (optional)

MAGIS COMBO PLUS V2 WIRING DIAGRAM.

11



Colour code key:

BK - Black
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G - Green
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Key:

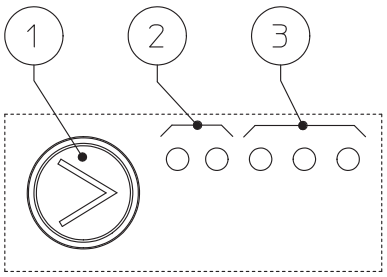
B3-2 - Zone 2 flow probe (optional)
E7 - Safety thermostat (low temperature) (optional)
M10-2 - Zone 2 circulator pump (optional)
M31-2 - Zone 2 mixing valve (optional)

CIRCULATION PUMP.
The boiler is supplied with circulator fitted with speed regulator. These settings are suitable for most systems.

In fact, the pump is equipped with electronic control to set advanced functions. For proper operation one must select the most suitable type of operation for the system and select a speed in the available range, with a focus on energy savings.

By-pass Regulation.
The boiler leaves the factory with all bypasses open.
If necessary, the by-pass can be regulated to system requirements from minimum (by-pass closed) to maximum (by-pass open). Adjust using a flat head screwdriver, turn clockwise and open the by-pass, anticlockwise it is closed.

Selection of operating mode.
When running, the pump indicates the set configuration by means of the codified lighting of the LEDs. The setting is changed by a short pressing of the button.



Key:
1 - Function selection button
2 - 2 Green (G) / red (R) LED
3 - 3 yellow LEDs (Y)

12

ATTENTION:
the circulator has various built-in operation modes, however the constant curve operation mode must be selected according to the following table.

Circulating pump LED	Description
G G Y Y Y	Do not use
G G Y Y Y	Do not use
G G Y Y Y	Do not use
G G Y Y Y	Do not use
G G Y Y Y	Do not use
G G Y Y Y	Do not use
G G Y Y Y	Constant curve speed 1
G G Y Y Y	Constant curve speed 2
G G Y Y Y	Constant curve speed 3

Constant curve: the circulator operates maintaining constant speed.

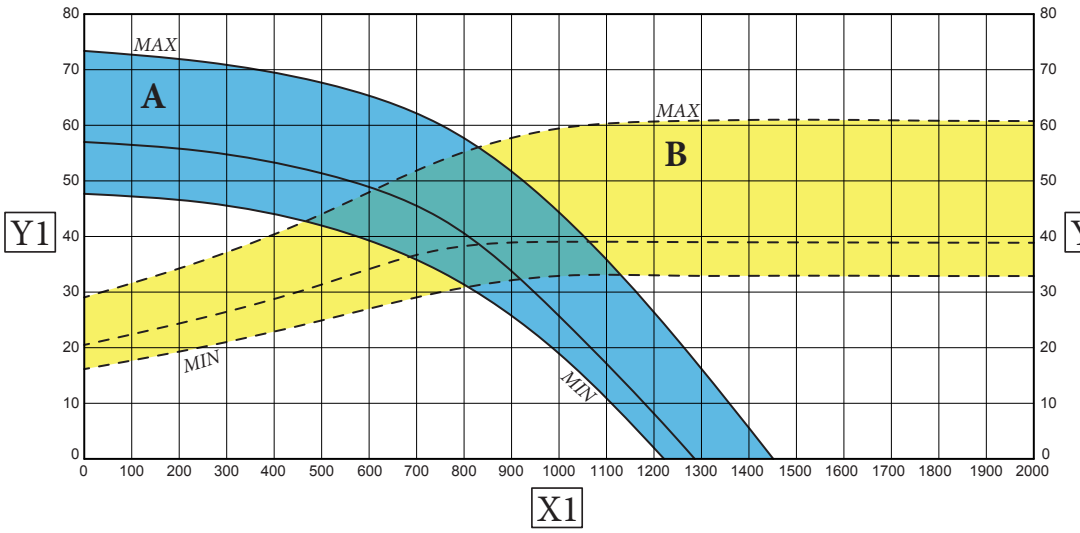
The pump is set at “Constant curve speed 3” by default.

Real time diagnostics: in the event of malfunction the LEDs provide information on the circulator operation status, see table (Fig. 13):

Circulating pump LED (first red LED)	Description	Diagnostics	Remedy
R Y Y Y Y	Pump blocked mechanically	The circulator pump cannot restart automatically due to an anomaly	Wait for the circulator to make automatic release attempts or manually release the motor shaft acting on the screw in the centre of the head. If the anomaly persists replace the circulator.
R Y Y Y Y	Abnormal situation (the circulator continues operating). low power supply voltage	Voltage off range < 160 Vac	Check power supply.
R Y Y Y Y	Electrical fault (Circulator pump blocked)	The circulator is locked due to power supply too low or serious malfunction	Check the power supply, if the anomaly persists replace the circulator.

13

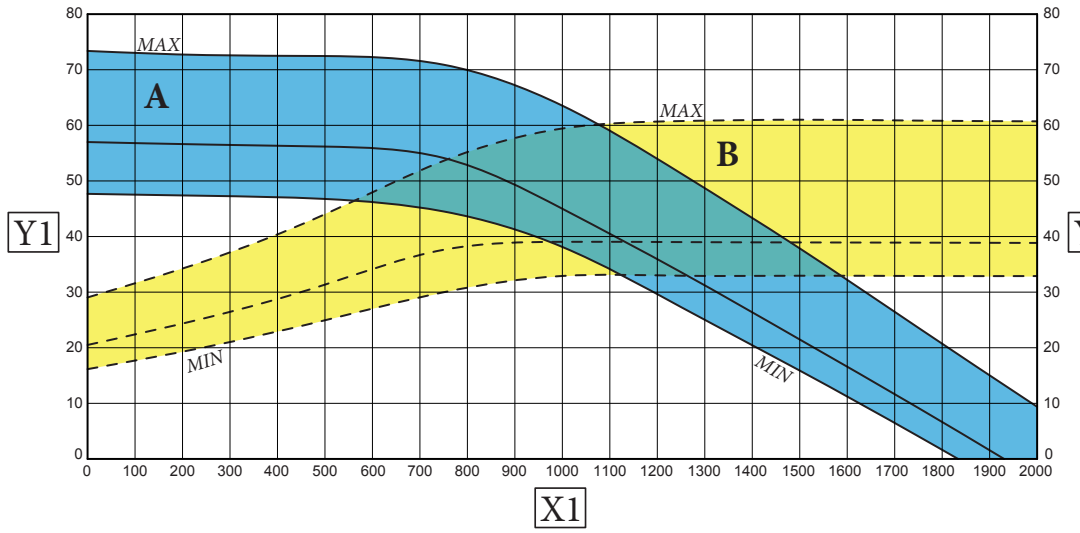
Head available at the system high temperature zone - Constant speed program.



Key:
A = Head available
B = Power absorbed by the circulator pump (dotted area)
X1 = Flow rate (l/h)
Y1 = Head (kPa)
Y2 = Circulator pump absorbed power (W)

14

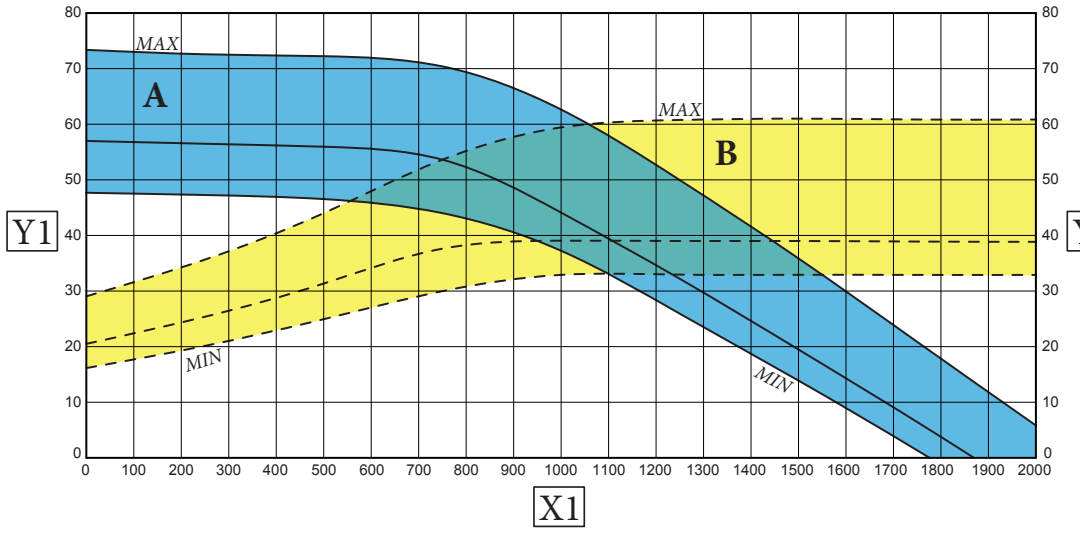
Head available at the system low temperature zone with mixer open (kit optional) - Constant speed program.



Key:
A = Head available
B = Power absorbed by the circulator pump (dotted area)
X1 = Flow rate (l/h)
Y1 = Head (kPa)
Y2 = Circulator pump absorbed power (W)

15

Head available at the system low temperature zone with mixer closed (kit optional) - Constant speed program.

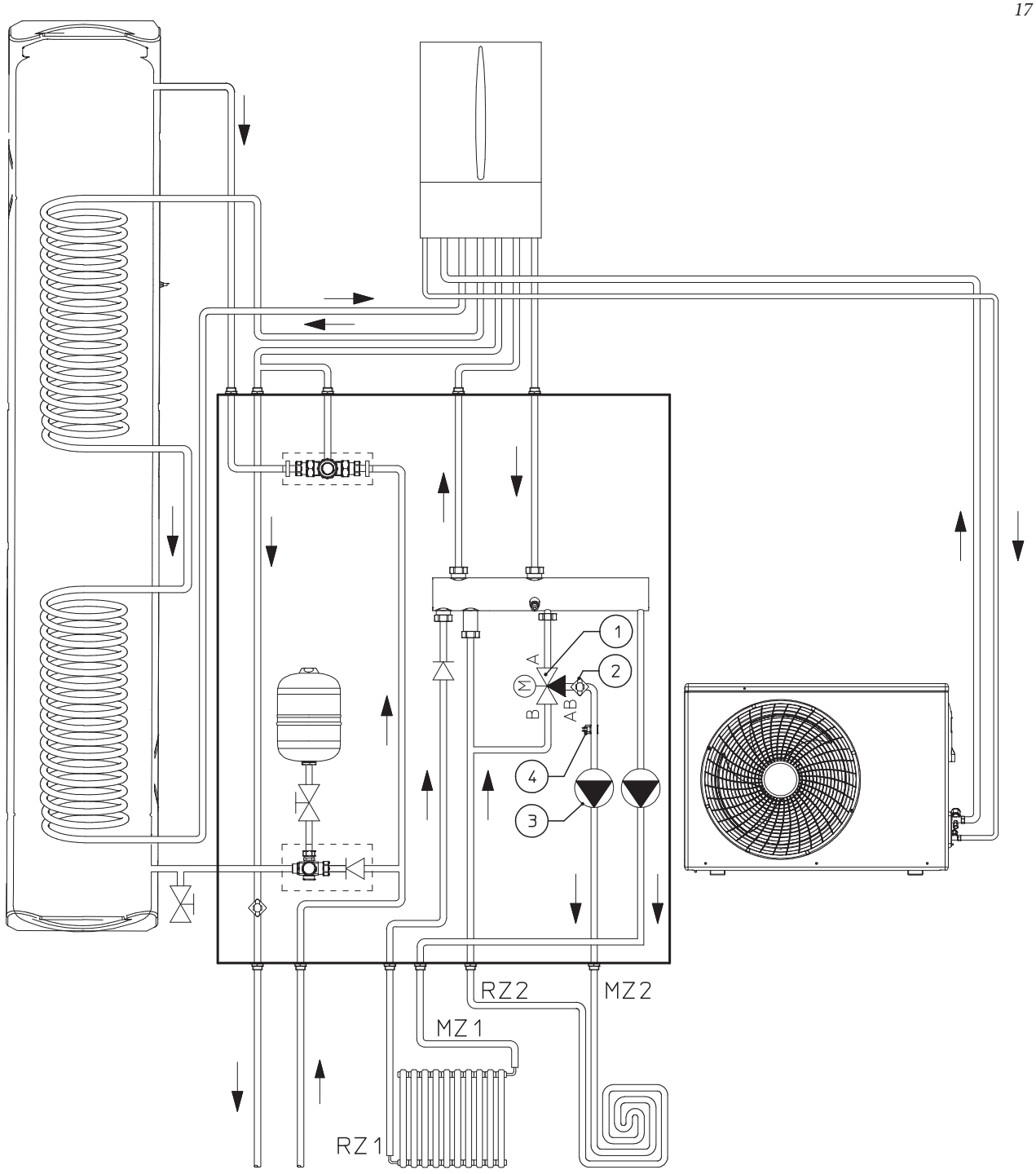


Key:
A = Head available
B = Power absorbed by the circulator pump (dotted area)
X1 = Flow rate (l/h)
Y1 = Head (kPa)
Y2 = Circulator pump absorbed power (W)

16

HYDRAULIC DIAGRAM FOR THE CONNECTION OF THE INDOOR UNIT MAGIS COMBO PLUS V2 WITH MIXED SECOND ZONE KIT IN SOLAR CONTAINER COMBO.

17

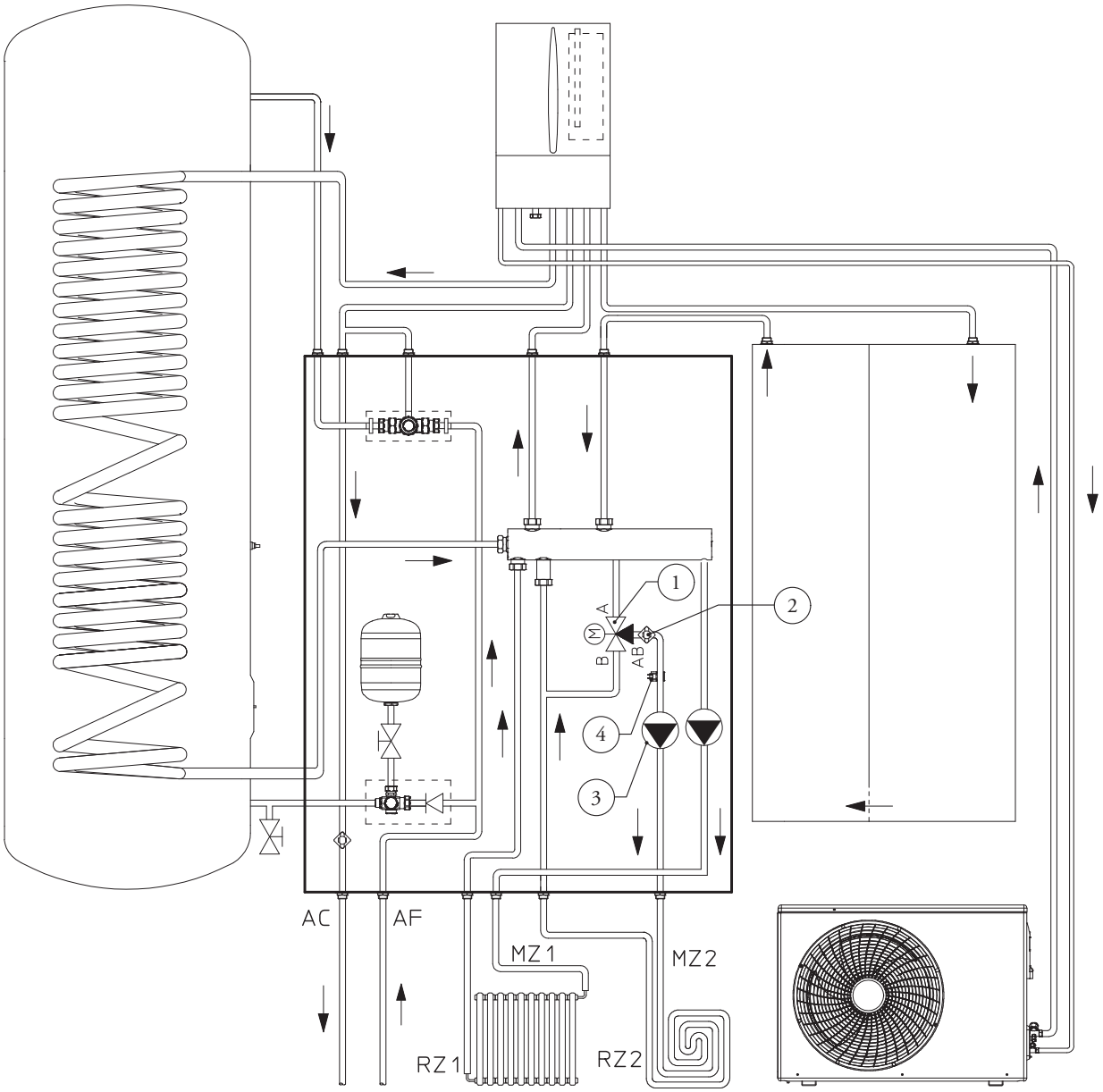


Key:

1 - 3-way Mixing valve
2 - Safety thermostat
3 - Mixed zone pump / circulator
4 - System flow probe mixed zone

MZ2 - Mixed zone system flow
RZ2 - Mixed zone system return
MZ1 - Direct zone system flow
RZ1 - Direct zone system return

HYDRAULIC DIAGRAM FOR THE CONNECTION OF THE INDOOR UNIT MAGIS PRO V2 WITH MIXED SECOND ZONE KIT IN CONTAINER SUPER TRIO.



Key:

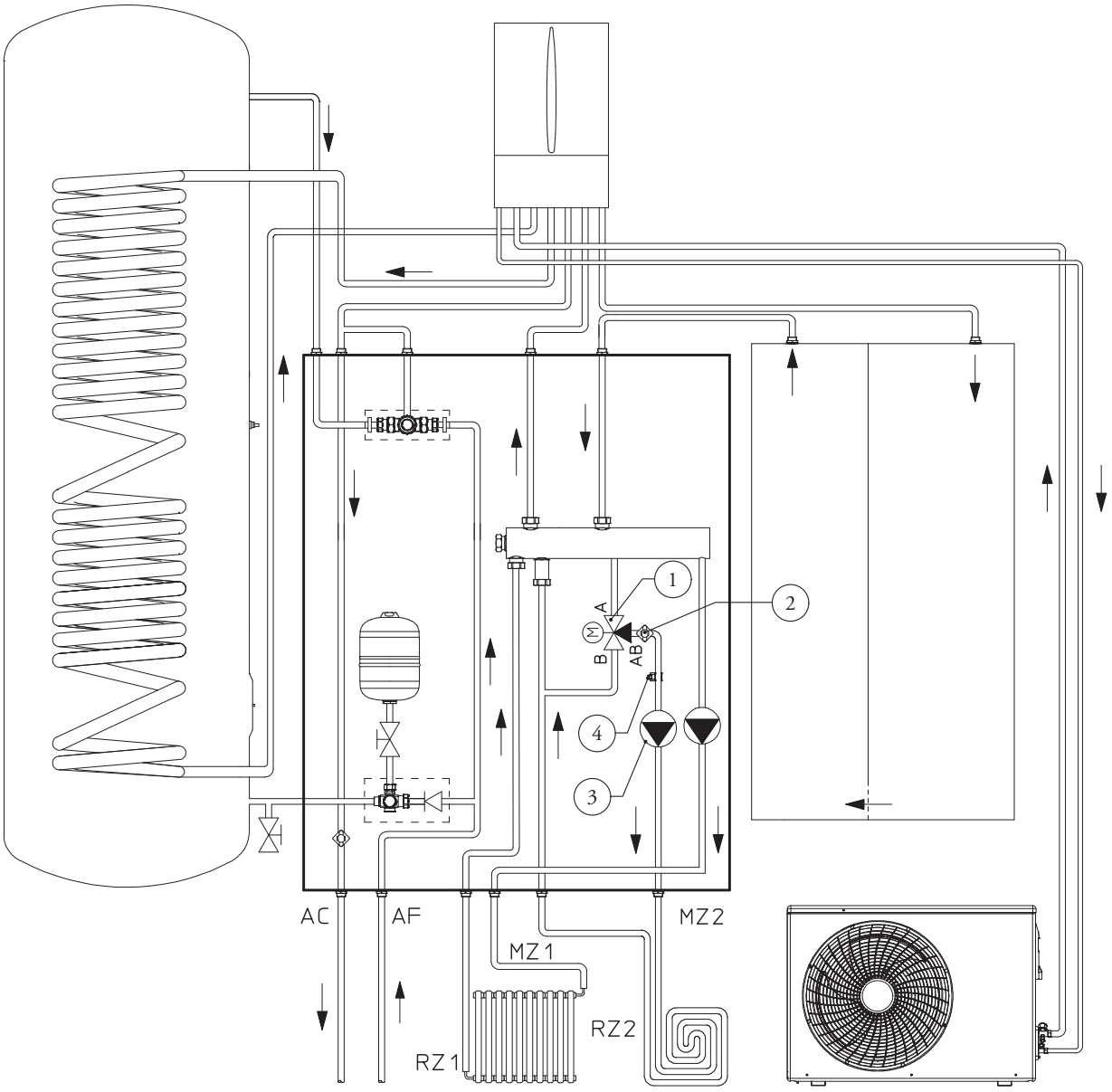
1 - 3-way Mixing valve
2 - Safety thermostat
3 - Mixed zone pump / circulator
4 - Low temperature system flow probe

AC - Domestic hot water outlet
AF - Domestic cold water inlet

MZ2 - Low temperature system flow
RZ2 - Low temperature system return
MZ1 - High temperature system flow
RZ1 - High temperature system return

HYDRAULIC DIAGRAM FOR THE CONNECTION OF THE INDOOR UNIT MAGIS COMBO PLUS V2 WITH MIXED SECOND ZONE KIT IN CONTAINER SUPER TRIO.

19



Key:

1 - 3-way Mixing valve
2 - Safety thermostat
3 - Mixed zone pump / circulator
4 - Low temperature system flow probe

AC - Domestic hot water outlet
AF - Domestic cold water inlet

MZ2 - Low temperature system flow
RZ2 - Low temperature system return
MZ1 - High temperature system flow
RZ1 - High temperature system return

Nel corso della vita utile dei prodotti, le prestazioni sono influenzate da fattori esterni, come ad es. la durezza dell'acqua sanitaria, gli agenti atmosferici, le incrostazioni nell'impianto e così via. I dati dichiarati si riferiscono ai prodotti nuovi e correttamente installati ed utilizzati, nel rispetto delle norme vigenti.
N.B.: si raccomanda di fare eseguire una corretta manutenzione periodica.

During the useful life of the products, performance is affected by external factors, e.g. the hardness of the DHW, atmospheric agents, deposits in the system and so on. The data declared refer to new products that are correctly installed and used with respect to the Standards in force.
N.B.: correct periodic maintenance is highly recommended.

Il libretto istruzioni è realizzato in carta ecologica
This instruction booklet is madeof ecological paper.

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