Connect BASE MIX 2

WARNINGS AND SAFETY DEVICES

⚠ The boilers made in our factories are all built with care being taken over each individual component in order to protect both the user and the installer from any accidents. We therefore urge trained personnel to be particularly careful with the electrical connections on completion of each job done on the product, especially as far as the bare parts of the conductors are concerned. These must not stick out of the terminal board in any way, so as to avoid any possibility of contact with live parts of the conductor itself.

⚠ Both this instruction manual and the user's manual are an integral part of the product. Make sure that they always remain with the machine, even if it is sold to another owner or user, or if it is transferred to another plant. If it should get damaged or lost, ask your local Technical Assistance Service for another copy.

⚠ Installing the boiler and any other assistance and maintenance work must be carried out by qualified personnel in compliance with the relevant laws and current standards.

⚠ We recommend that the installer instruct the user on how the equipment works and on basic safety standards.

⚠ The boiler must only be used for the purposes for which it was expressly made. The manufacturer does not accept any contractual or extra-contractual responsibility for any damage caused to people, animals, or property, due to incorrect installation, setting, or maintenance, or due to improper use.

⚠ On removing thùe packing, check the integrity and completeness of the contents. Should any discrepancies be found, contact the dealer that sold you the equipment.

⚠ The drain from the equipment's safety valve must be connected to an adequate collection and removal system. The manufacturer of this equipment is not responsible for any damage caused by the safety valve opening.

⚠ During installation the user must be informed that:

- Should any water flow out, they are to shut off the water supply and contact the Technical Assistance Service immediately.
- The working pressure for the plumbing system must be between 1 and 2 bar, and must not exceed 3 bar. Where necessary, professionally qualified personnel from the Technical Assistance Service must be called in.
- If the boiler is not to be used for a lengthy period of time, we recommend calling in the Technical Assistance Service to carry out the following operations:

· Switch the main switch for the equipment and the main switch for the entire plant to "off".
· Close the taps on the water and the fuel supplies, for both the heating and the hot water systems.
· Empty the heating and hot water systems if there is any risk of freezing.

- Maintenance must be carried out on the boiler at least once a year, and appointments must be made timeously with the Technical Assistance Service.

For your safety, remember that:

⛔ The boiler should not be used by children or people that are unable to use it properly.

⛔ It is dangerous to activate devices or electrical equipment such as switches, domestic appliances, etc. if you smell any fuel or burning.

⛔ Should a gas leak occur, ventilate the room by opening the doors and windows, shut the main gas valve, call in professionally qualified personnel from the Technical Assistance service immediately.

⛔ Do not touch the boiler when barefoot or when parts of your body are wet or damp.

⛔ Before cleaning, disconnect the boiler from the electricity mains by switching the bi-pole switch for the plant and the main switch on the control panel to "OFF".

⛔ Any modifications to the safety and regulating devices without prior authorisation or instructions from the manufacturer are forbidden.

⛔ Do not pull on, disconnect, or twist the electrical cables that come from the boiler, even when it is disconnected from the electricity mains.

⛔ Do not block up or reduce the size of ventilation openings in the room in which the unit is installed.

⛔ Do not leave containers or inflammable substances in the room in which the equipment is installed.

⛔ Do not leave any part of the packing within reach of children.

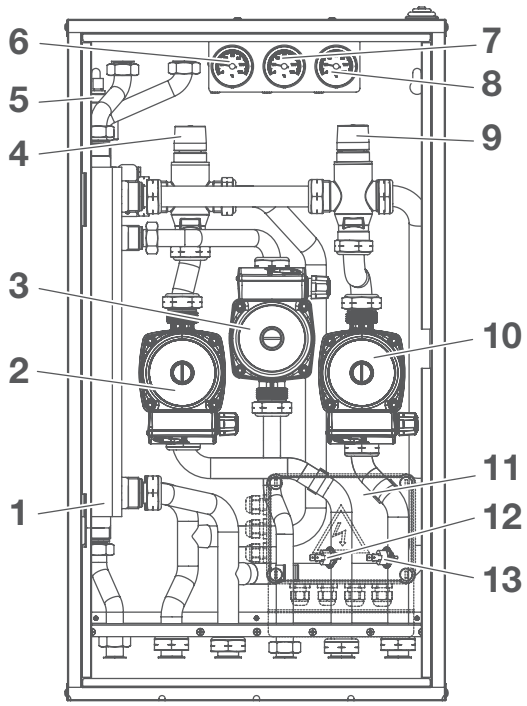
Beretta
Il clima di casa.

Connect BASE MIX 2

The Connect BASE is a water separator that can be used with any boiler, where it separates the water in the generator and in the plant, when the latter is characterised by high flow rates that exceed those developed by the generator itself. It can also be used to manage mixed low and high temperature heating systems (radiators / fan coils and radiant panels). The Connect BASE unit can be built into the wall, thereby avoiding any protrusion, or it can be wall-mounted.

Connect BASE Mix 2 allows 3 room thermostats 1 x high temperature (radiators) and 2 x low temperature (floor heating).

4.1
MAIN COMPONENTS



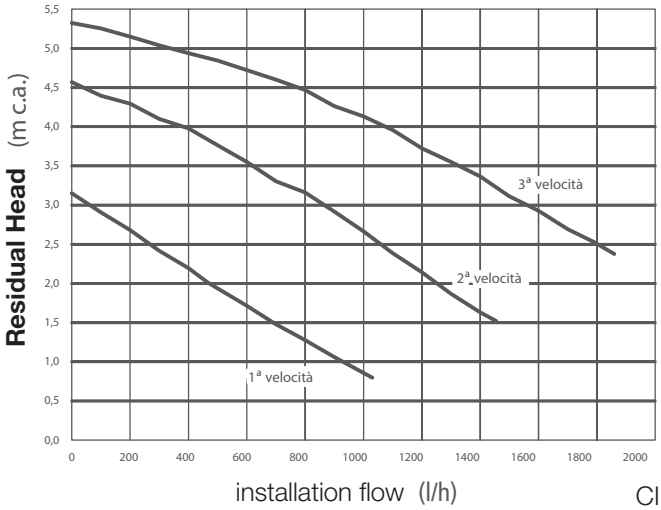
1 - Mixing bottle (separator)
2 - System pump low temperature 2
3 - System pump high temperature
4 - Mixing valve low temperature 2
5 - Air vent valve
6 - Thermometer low temperature 2
7 - Thermometer high temperature
8 - Thermometer low temperature 1
9 - mixing valve low temperature 1
10 - System pump low temperature 1
11 - Electrical connections box
12 - Limit thermostat reset automatic low temperature 2
13 - limit thermostat reset automatic low-temperature 1

4.2
TECHNICAL DATA

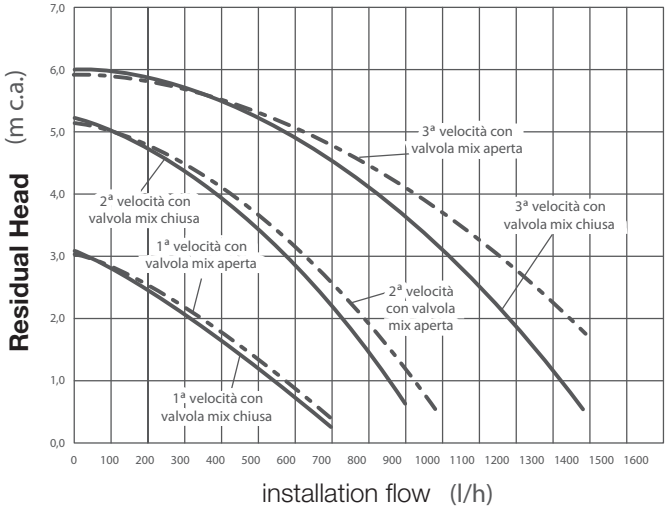
DESCRIPTION	UNIT	CONNECT BASE
Power supply	V-Hz	230(±10%)-50
Maximum power consumption	W	265
Range of temperature mixing valve	°C	20 ÷ 60
Operating temperature	°C	0 ÷ +90
Electrical protection cabinet		IP10D
Electrical protection in-built		IPX4D
Maximum pressure	bar	3
Width	mm	400
Depth	mm	160
Height	mm	720
Box nett weight	kg	8
Overall nett weight	kg	15

4.3 Residual Pump

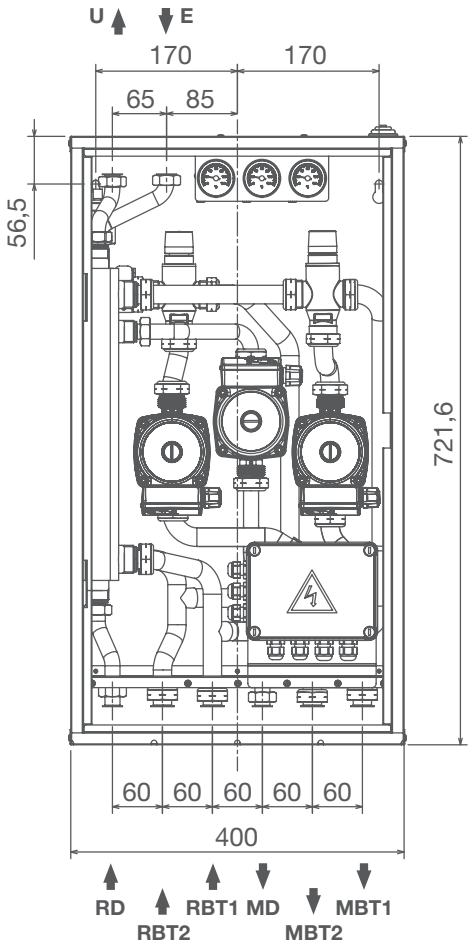
CIRCUIT HIGH TEMPERATURE

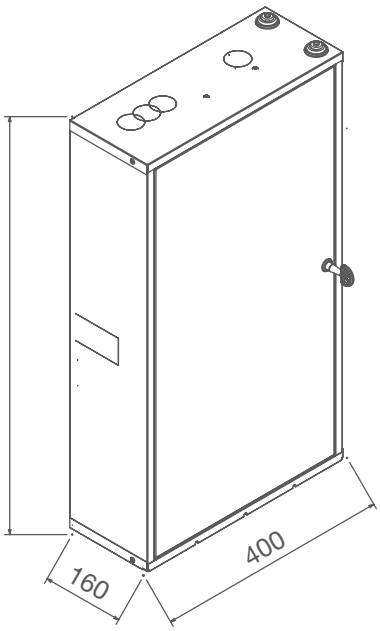


CIRCUIT LOW TEMPERATURE



4.4 DIMENSIONS





***E* - inlet** *(3/4")*
***U* - outlet** *(3/4")*
***MD* - delivery direct system** *(3/4")*
***MBT1* - delivery mixed system** *1 (1")*
***MBT2* - delivery mixed system** *2 (1")*
***RBT1* - return mixed system** *1 (1")*
***RBT2* - return mixed system** *2 (1")*
***RD* - return direct system** *(3/4")*

4.5
INSTALLATION OF THE APPLIANCE

The Connect Base can be installed "Wall" (hanging) or "concealed" and can be located near the boiler or at a distance as long as the length of the plumbing and electrical connections between the boiler and the Connect Base do not exceed 15 meters. It can be installed in areas exposed to the elements (rain, sun, frost, etc.) only if in a "built-in" installation.

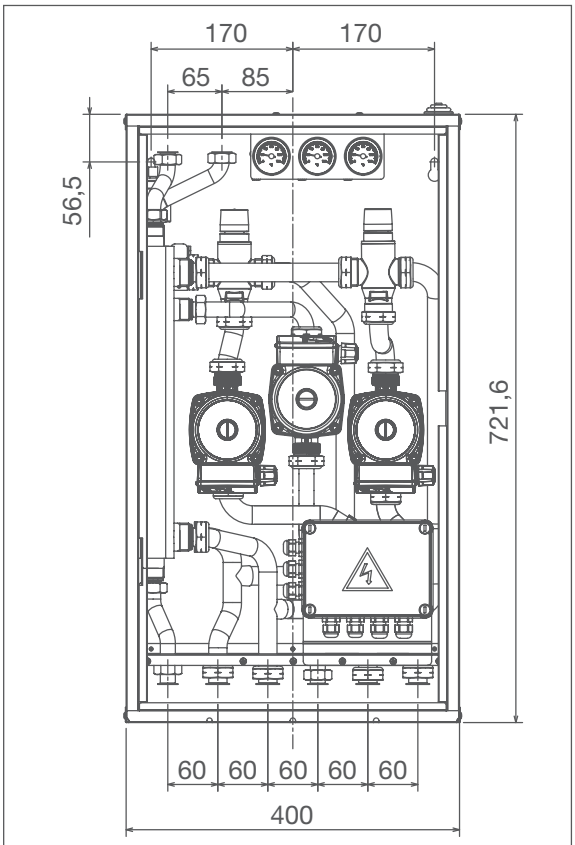


Fig. 4.1

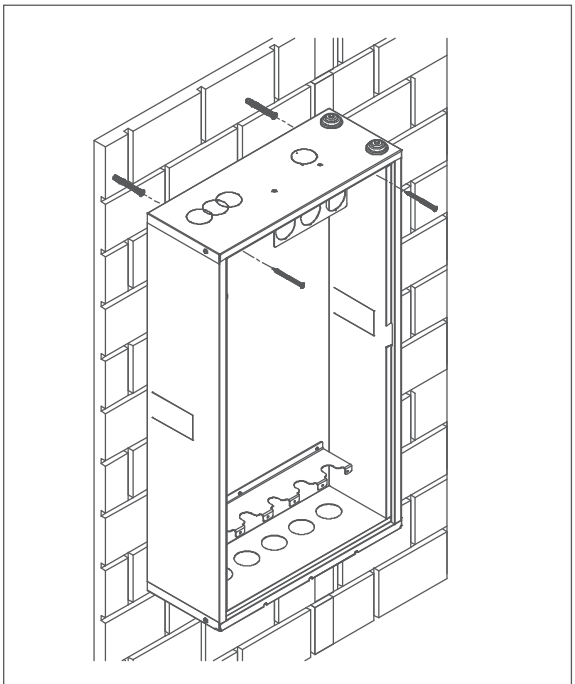


Fig. 4.2

Installation on the wall (hanging) 4.2

When the Connect Base is wall-mounted it must be supported by, two expanding wall anchors that are suitable for the type of wall and weight of the equipment. We recommend using pipe sleeves built into the wall in order to limit the infiltration of water.
These pipe sleeves are not supplied with the unit.
Electrical protection level IP10D.

Built in installation 4.3

When the Connect Base unit is built-in:
- Provide the building work, complete with a niche of suitable size for the Connect BASE, to suit the thickness of the wall (minimum indicative dimensions shown in the figure).
- Position the Connect BASE in position, and remember to open out the two support lugs to fix it more securely.
- Protect the side edges and front while building in the device.

Since the plumbing and electrical connections between the system and the Connect Base must be contained within the overall size of the device itself, first position the Connect Base and then the entry and exit pipes for the system and the conduiting for the electric cables.
Electrical protection level IPX4D.

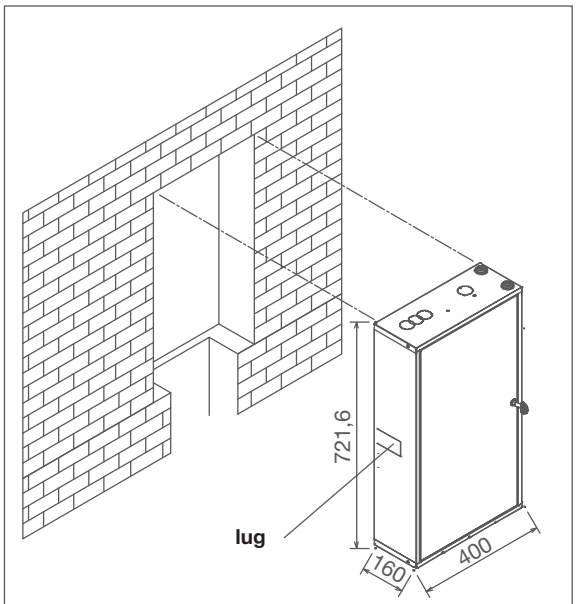


Fig. 4.3

4.6 Typical Installation Layout

(Fig. 4.4)

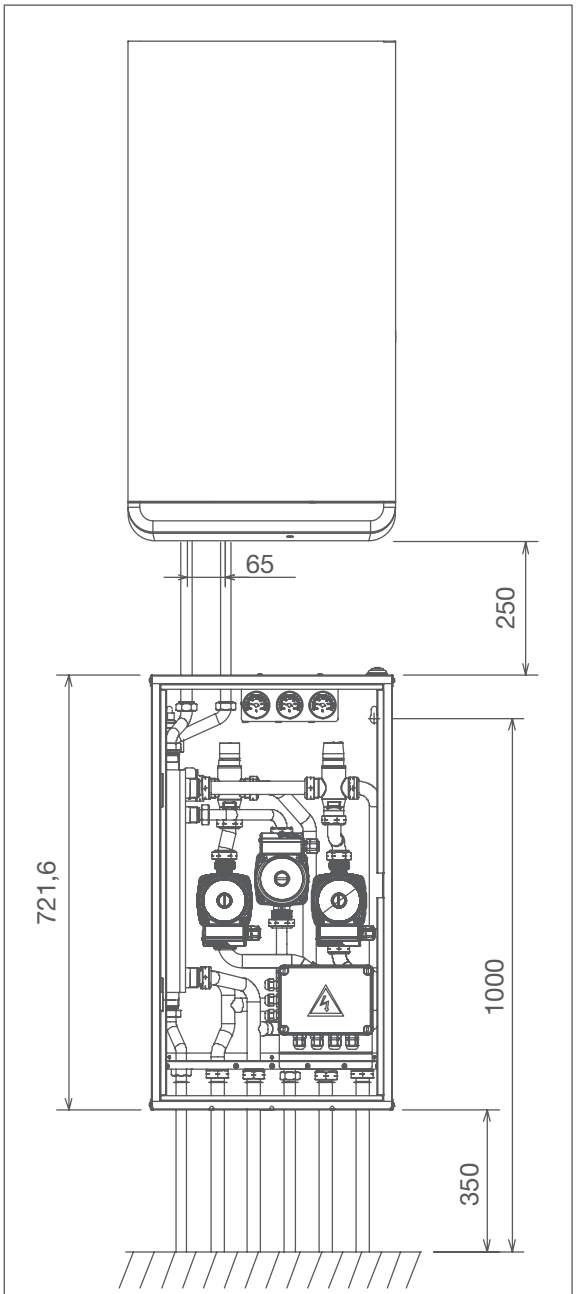


Fig. 4.4

4.7 Hydraulic Connections

Before forming the connections all the piping must be thoroughly flushed to remove any residue that could compromise the proper functioning of the Connect Base.
The plumbing connections to the boiler and the system must be carried out, as indicated in the figure. Direct connections can be formed using the female couplings on the delivery and return pipes for the Connect Base, or taps (not supplied) can be fitted on the lines for shutting off the lines. These taps are very useful when maintenance is carried out, as they allow the Connect Base to be drained without having to drain the entire system.

Once the Connect Base has been installed, the 2 ramps supplied (along with their seals) that interface with the boiler centres (see drawing) must be fitted inside the Connect Base.

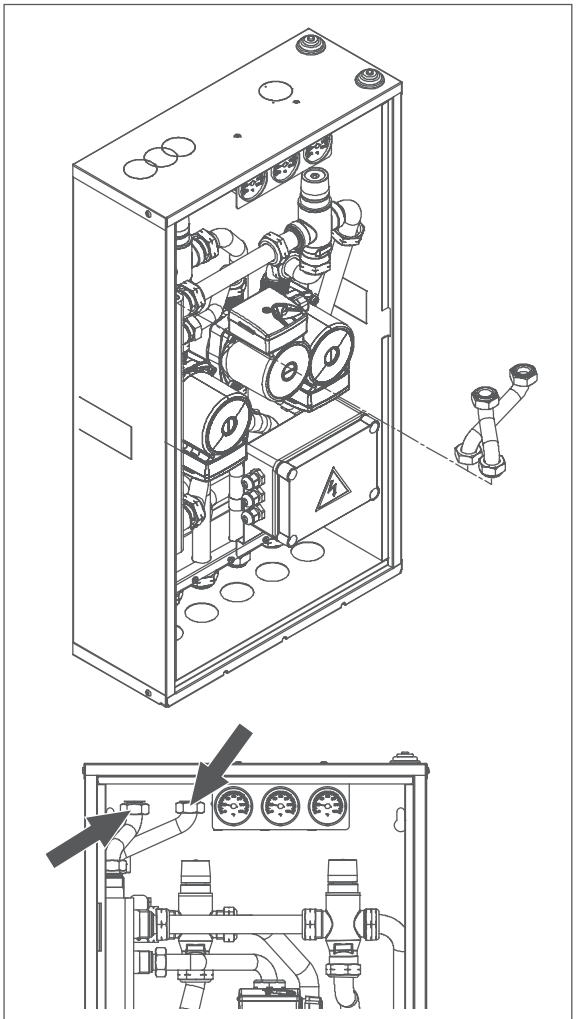


Fig. 4.5

4.8 Appliance Settings (Fig. 4.6)

Low temperature appliance setting
Fix low appliance's flow temperature regulating the mix valve manually referring to the following table :

POS	MIN	1	2	3	4	5	MAX
T (°C)	20	22	25	35	45	55	60

Ref. mixing valve with inlet temperature =80°C

High temperature appliance settings
Set the temperature heating control of the boiler to the desired high temperature.

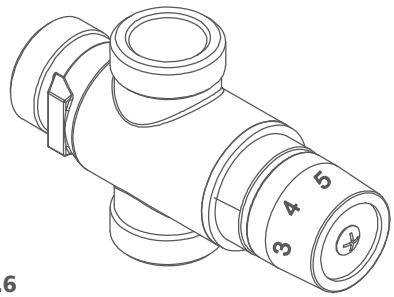


Fig. 4.6

4.9
Electrical Connections

To form the electrical connections for the Connect Base, access must be obtained to the Connect Base and the boiler card.
To gain access to the Connect Base:
- Remove the front cover panel from the Connect Base

CONNECTING THE CONNECT BASE TO THE ELECTRICITY MAINS

Connect Base unit to the electricity mains (phase /neutral /earth) using the cable supplied.
Drawing the power supply for the Connect AT/BT from the boiler is absolutely forbidden as the boiler's fuse is not sized to take the electrical loads associated with the Connect AT/BT.

CONNECTING THE AMBIENT THERMOSTATS (TA)

The TAs for the low and high temperature system must be directly connected to the CONNECT BASE using a cable with minimum section 1 mm2.The pump power load will be direclty supported by the related TA, therefore the TA connection must be adequately designed for this application and compatible with the electrical features of the pumps (it is recommanded not lower than 230 Vac 50 Hz 6A).

CONNECT BASE CONNECTION TO THE BOILER

Connect the Connect Base socket B-B (fig. 4.7) to boiler TA socket using a min 2x0.5 mm2 cable (refer to the electric diagram on the boiler instruction manual).

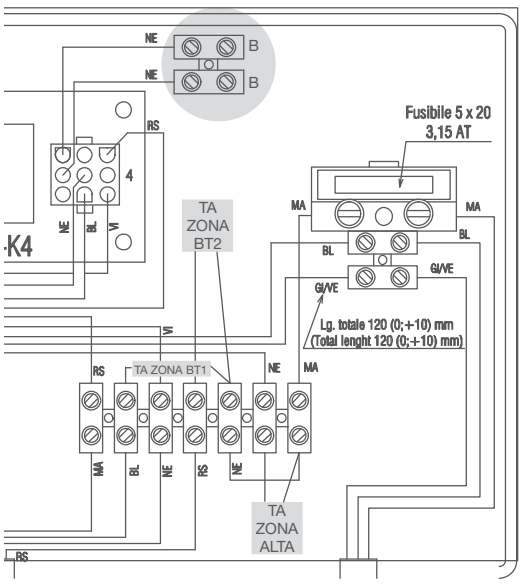
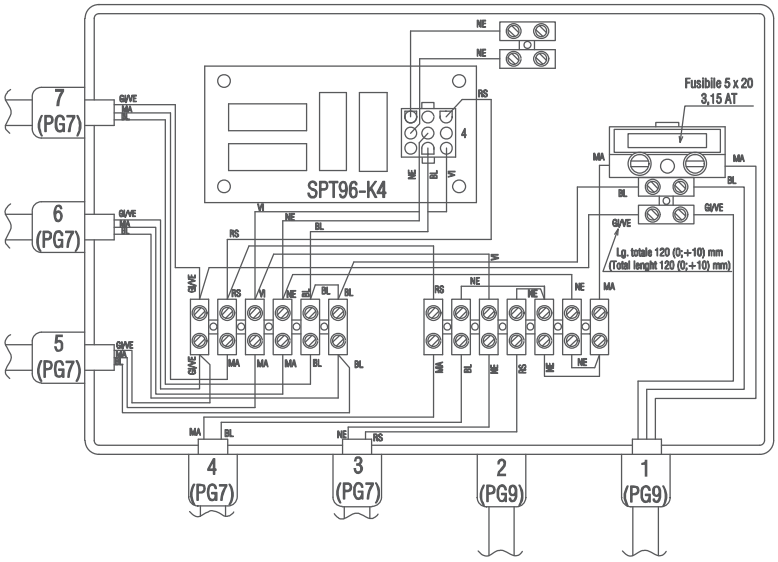


Fig. 4.7

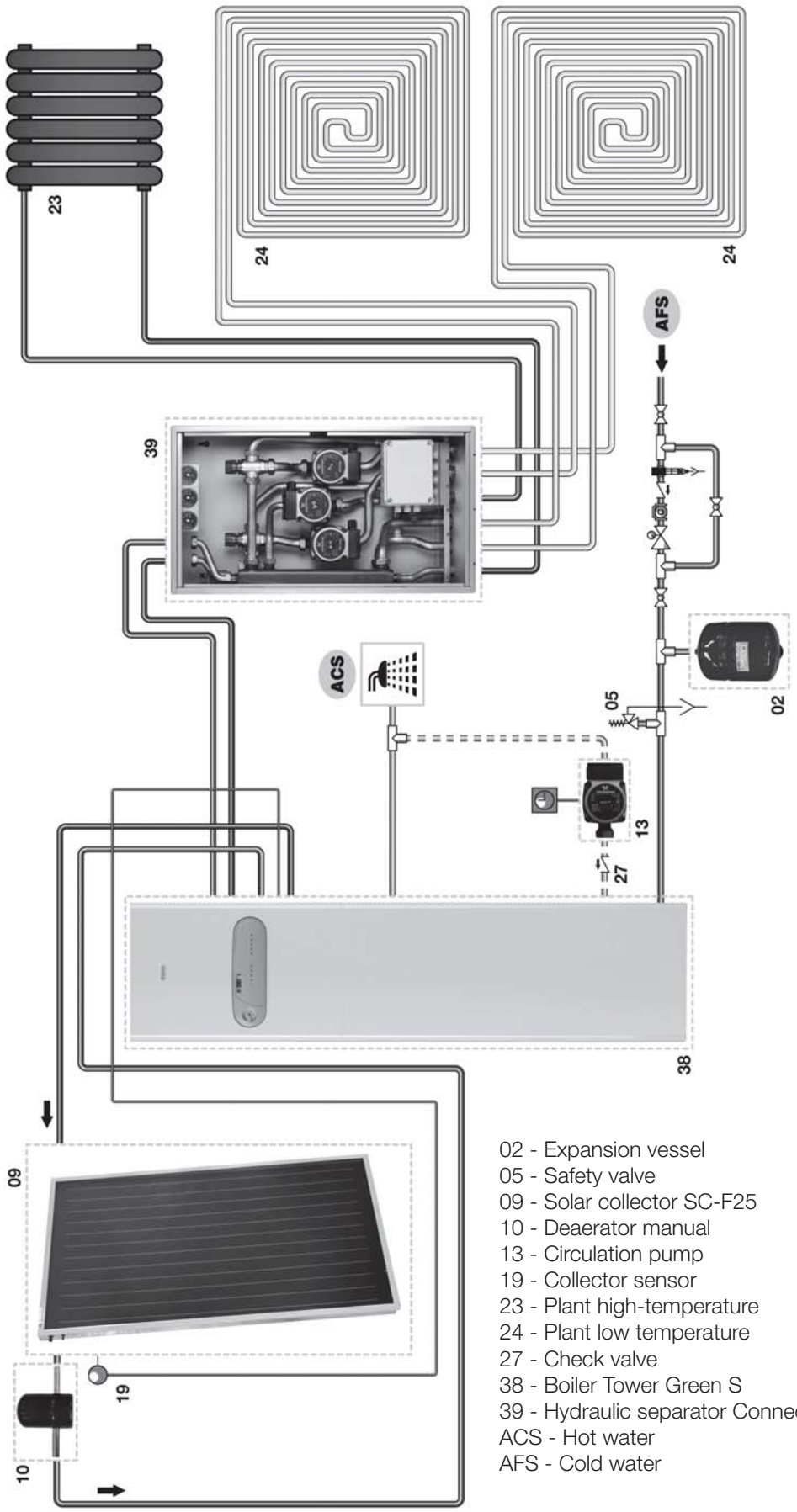
4.10
Connect wiring diagram BASE MIX 2



NE - Black
BL - Blue
MA - Brown
GI/VE - Yellow/Green
RS - Red
VI - Violet

4.11
Example system diagram

Solar system for the production of domestic hot water and heating integration with hydraulic separator Connect BASE MIX 2



02 - Expansion vessel
05 - Safety valve
09 - Solar collector SC-F25
10 - Deaerator manual
13 - Circulation pump
19 - Collector sensor
23 - Plant high-temperature
24 - Plant low temperature
27 - Check valve
38 - Boiler Tower Green S
39 - Hydraulic separator Connect BASE MIX 2
ACS - Hot water
AFS - Cold water