

SET 2.0 suspended fresh Water Stations

A plug and play system for transferring heat from the technical water storage tank with a programmable control unit and a circulator. The SET 2.0 unit ensures the DHW production with a limited formation of chalk and at a temperature chosen by the user. The heat exchange is carried out by the AISI 316 stainless steel plate heat exchanger in a high performance and hygienic manner. The unit, connected to the water storage tank from which it takes energy, is composed of all necessary parts. Through a control unit with a graphical display the user can monitor the functioning or easily impose user parameters. The heart of the SET 2.0 unit is the special electronic control unit which keeps up the imposed DHW temperature by modulating the flow in the primary circuit.

In this way the following is guaranteed:

- ✓ max heat drop in the primary circuit in order to optimize the efficiency of the generator (solar thermal power, heat pump, biomass, etc.)
- ✓ precise and trustworthy management

Thanks to the high efficiency heat exchanger the unit is ideal for installations with heat pumps or solar panels that use water storage tanks for low temperatures (50-55°C)

Plus

- ✓ temperature management of the hot water
- ✓ easy and cheap in use
- ✓ high efficiency circulation pump (in accordance with the 2005-35/CE directive) and with an electronic control of the number of turns
- ✓ synoptically graphical display with the indication of the temperatures in the installation and of the power
- ✓ easy Plug and Play installation
- ✓ insulated pipe fittings
- ✓ vessel with a metal structure and thermoform panels for mounting to the wall
- ✓ possibility to manage the sanitary recirculation pump
- ✓ two models are available: one with an electronic entry level (S) and one with electronics with more options (L)



Available versions

Fiorini offers two versions of the SET 2.0 fresh water station. The difference between the two is in the control unit: one version with a limited number of functions (SET 2.0 S) and another version with many functions and control settings (SET 2.0 L).

Below the main features of the two units are indicated.

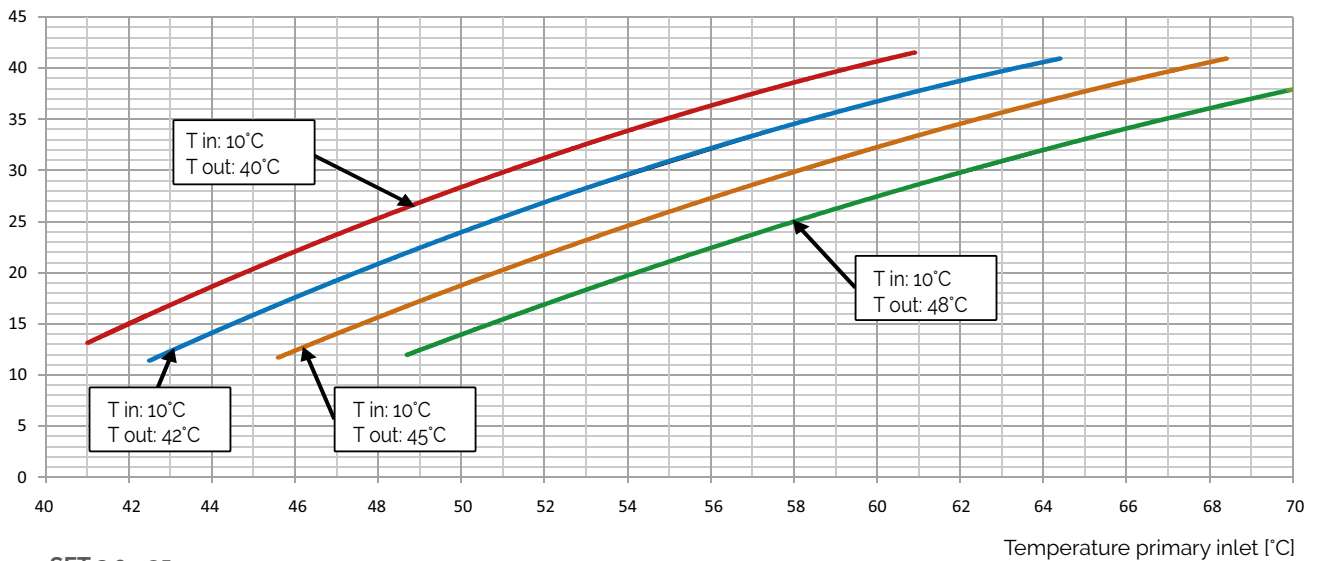
	SET 2.0	
	S	L
Efficient, electronic regulation of the velocity of the pump	✓	✓
Graphical display	✓	✓
Imposing the temperature of the DHW	✓	✓
Imposing the max temperature of the DHW. This is a safety option which stops the unit in case the max value is reached.	✓	✓
Management kit in series		✓
Management kit Mixing valve on the primary circuit		✓
Management kit stratification of the tank		✓
Possibility to control the recirculation pump for sanitary purposes by fixing the activation times of the pump and the temperature of the recirculation circuit	✓	✓
Anti-legionella: carry out anti-legionella treatments through thermal shocks along the DHW adduction line	✓	✓
AL heating: activation of an integrative heat source when the anti-legionella treatment is carried out		✓
Comfort function: when activated, the exchanger is kept warm in order to guarantee a fast recuperation	✓	✓
Anti-chalk protection: when activated, the circulator keeps on running even when the DHW distribution time is up in order to reduce chalk formation	✓	✓
Solar: control and command the circulator of a solar power device		✓
Management of the heat generator: activate and deactivate a heat generator when the temperature in the tank is below the set point		✓



SET 2.0 (S and L) thermal performance

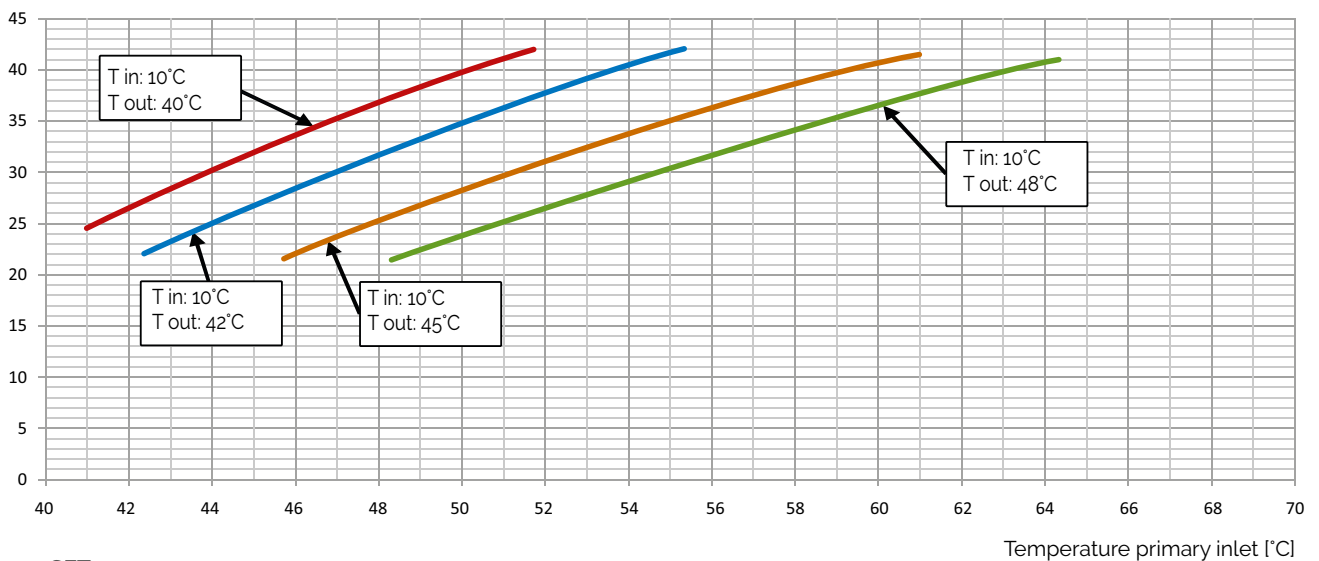
SET 2.0 - 25

Flow of DHW to be distributed [L/min]



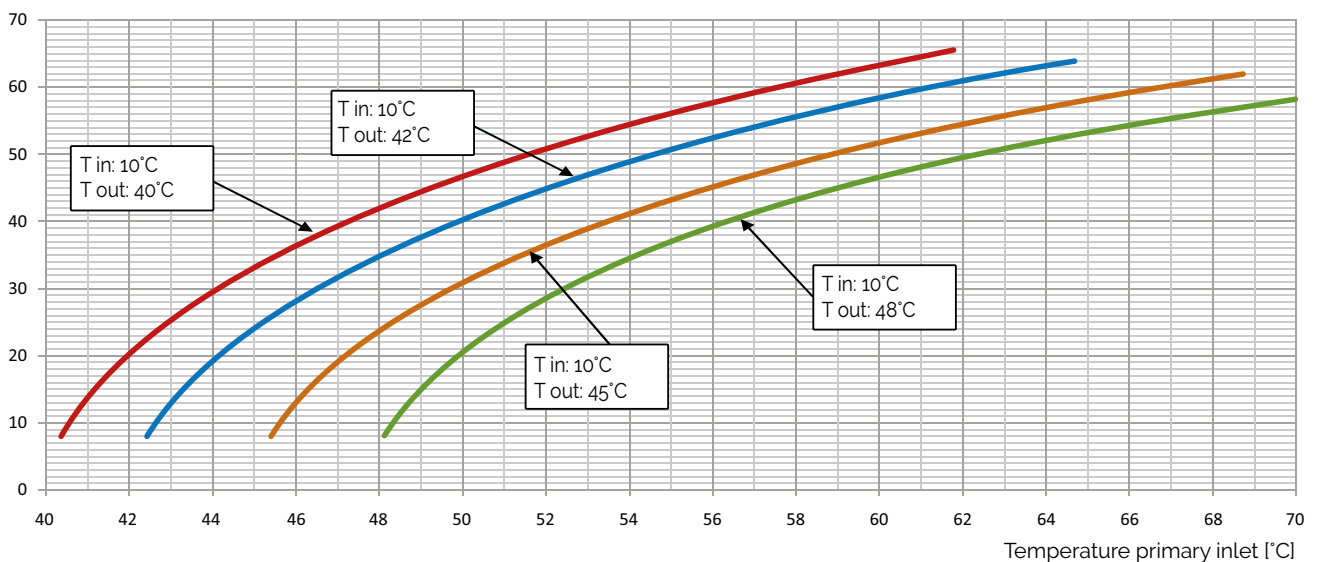
SET 2.0 - 35

Flow of DHW to be distributed [L/min]

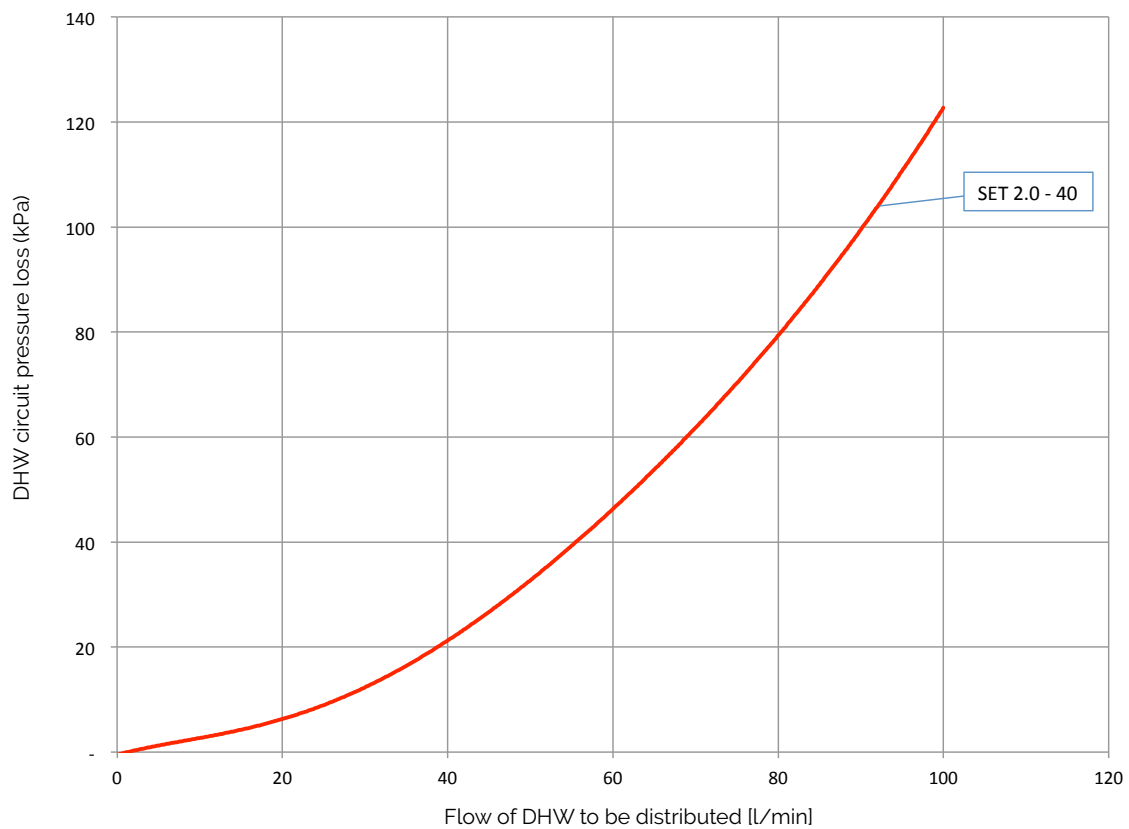
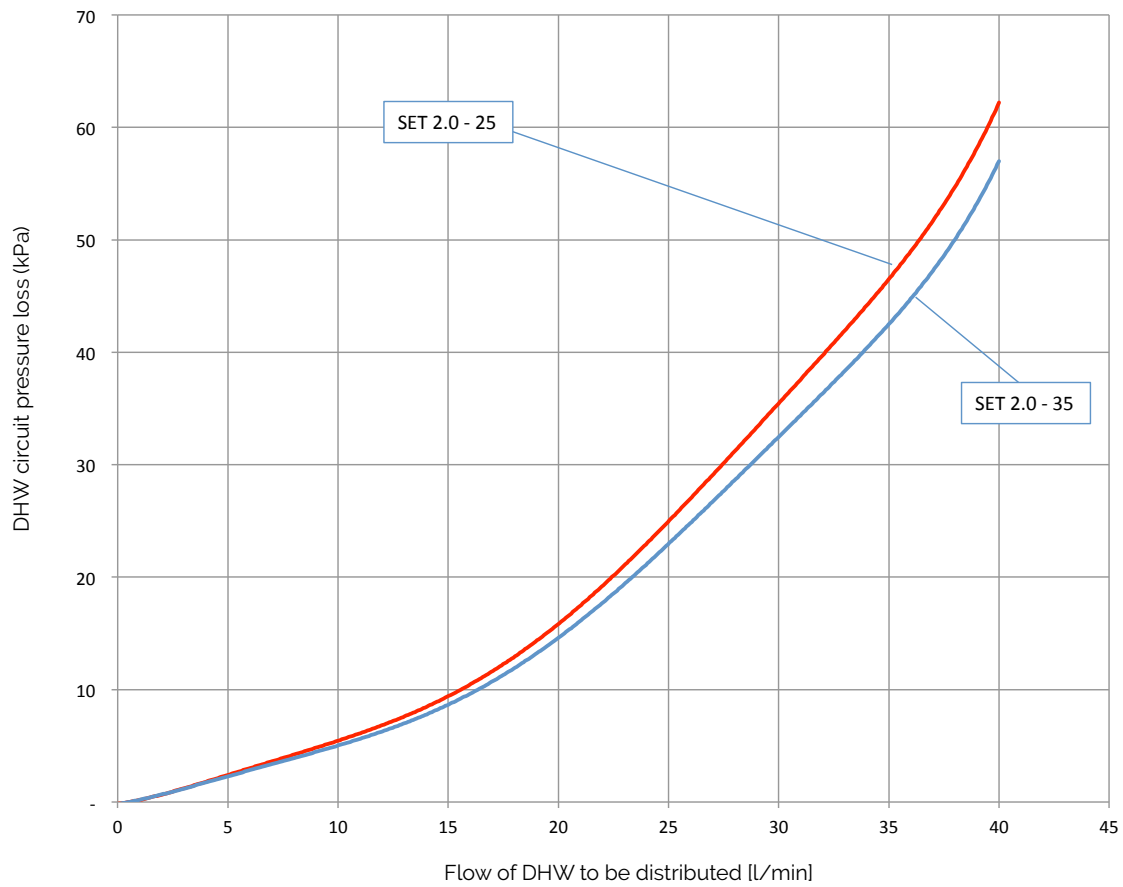


SET 2.0 - 40

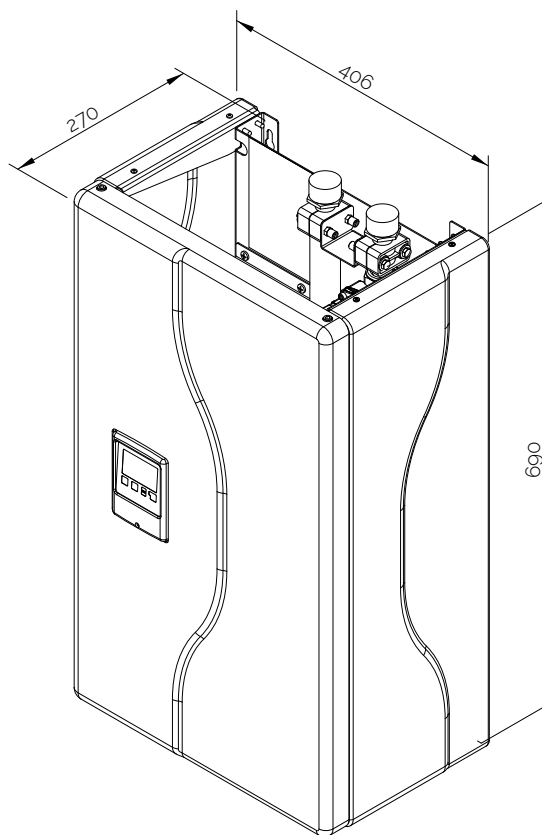
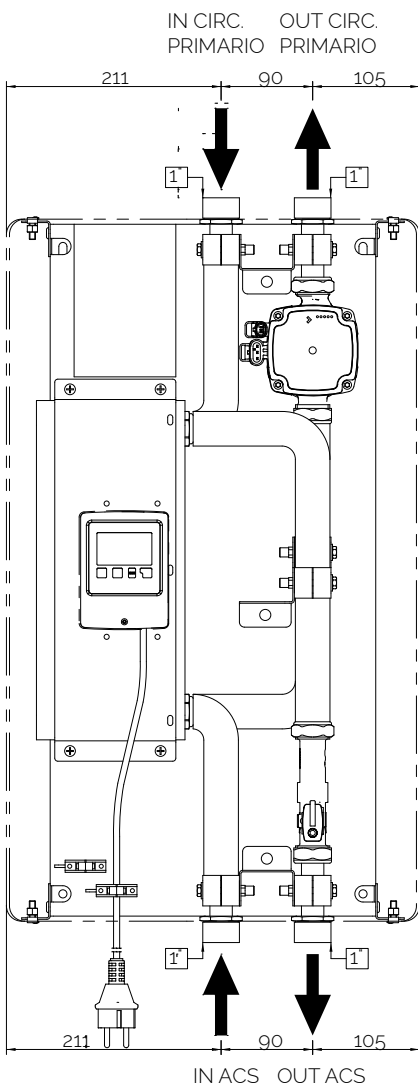
Flow of DHW to be distributed [L/min]



SET 2.0 (S and L) thermal performance

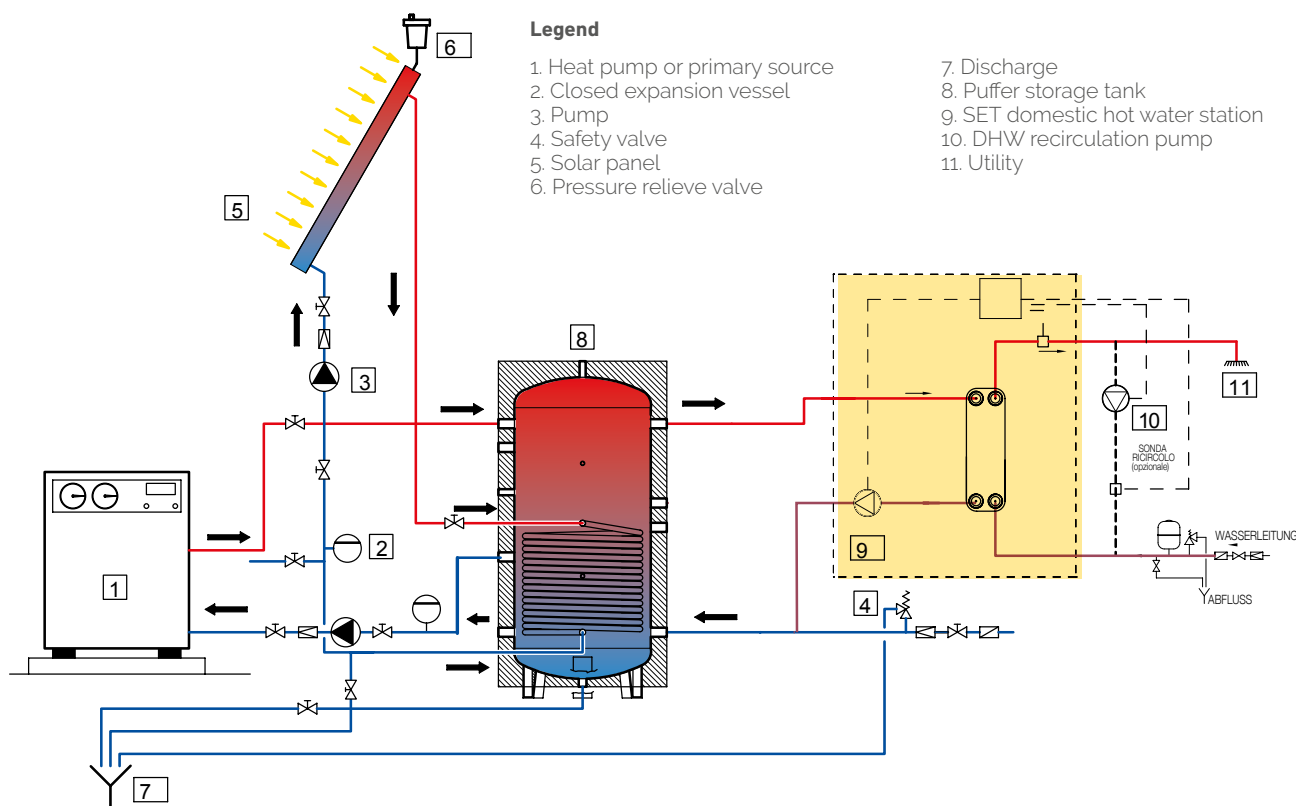


Dimensions



technical information	SET 2.0 (S e L)		
	25	35	40
Electrical supply	230V / 50 hz / 1 ph		
Power of primary pump min/max (W)	2/52		
Absorption of primary pump min/max (A)	0.04/0.52		
Max power of the recirculation pump (can be managed from the control unit)(pump not supplied)	185		
Primary flow (litri/h)	2000	2800	2800
Residual prevalence of the primary circuit (m.c.a.)	2,0	2,5	1,0
Weight unpacked/packed (kg)	15/22	18/25	20/27
Volume of the primary circuit (l)	1,1	1,62	1,6
Volume of the domestic circuit (l)	0,85	1,75	1,4
Max operating pressure (bar)	6		
Couplings primary circuit (inch)	1" GAS M		
Couplings secondary circuit (inch)	1" GAS M		
Max operating temperature (°C)	95		
Category of electrical protection	IP40		
Type of plug (electrical connection)	Schuko 10-16A/250V		
Length of the electric cable (m)	1,5		
Min DHW ignition flow (L/min)	2	2	5
Max DHW flow (L/min)	40	40	100

Installation chart in combination with the water storage tank



Equipment

The SET 2.0 fresh water station is delivered in a cardboard box with:

- ✓ Fresh water station with electric cable with a Schuko plug
- ✓ Template to facilitate making the holes in the wall for anchoring the fresh water station
- ✓ Pegs and screws to anchor the fresh water station to the wall

Accessories on request

Several accessory kits are available that can be combined with the SET 2.0 fresh water station. Some can only be coupled with the SET 2.0L. Below you can consult the compatibility chart.

Description	Set 2.0 S	Set 2.0 L
kit to connect the SET in series		✓
recirculation kit	✓	✓
kit with mixing valve on the primary circuit		✓
kit with stratification valve for the storage tank		✓

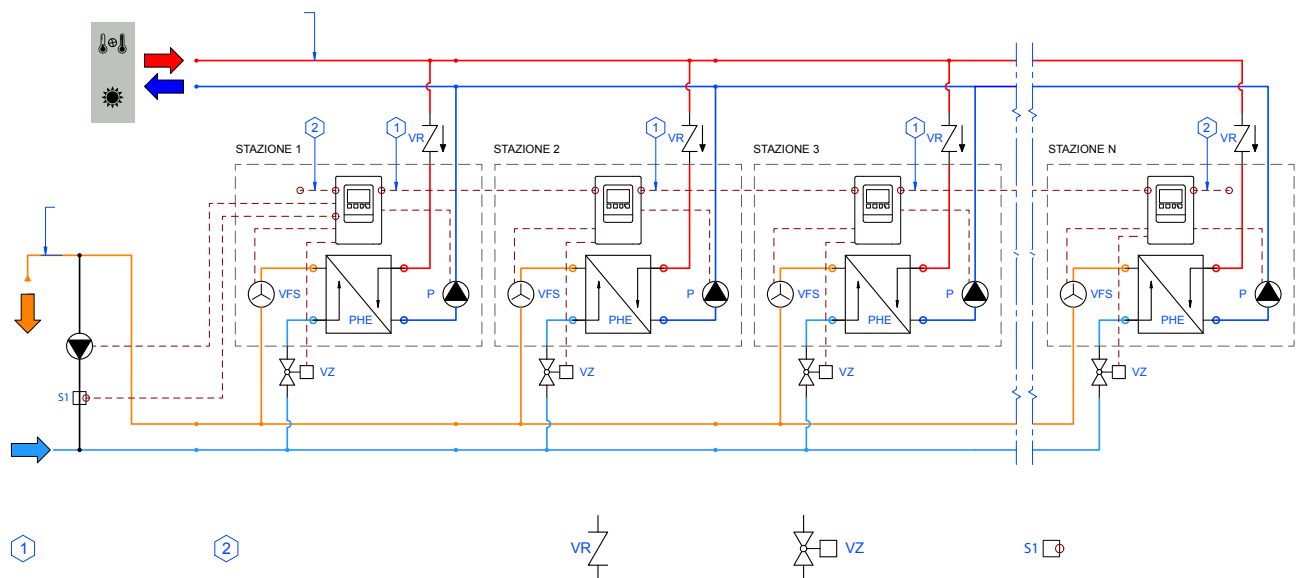
Kit to connect the SET in series

The kit to connect the SET in series is the option for all applications in which the need for Domestic hot water is very variable. In this way it is possible to connect max 8 fresh water stations and ensure a DHW production of min 2 L/m and max 800 L/min*. The electronic control units that are mounted on every fresh water station enables communication between the stations via Modbus (only the L version). As such, the electronics decide how many and which fresh water stations are activated, depending on the user conditions.

Advantages and benefits:

- ✓ variable DHW production: from 2 to 800 L/min*
- ✓ trustworthy. Because the control unit carries out diagnoses by itself, in case of malfunctioning of one of the stations, the station is automatically deactivated and another station is activated. In this way the DHW distribution continues.
- ✓ regulation of the temperature is even more precise. The regulation makes it possible to activate the right number of fresh water stations based on the flow and the temperature of the DHW. In this way, every fresh water station always operates in circumstances that approach the nominal circumstances and the precision and efficiency of the regulation is improved.
- ✓ The system with the fresh water system in series can be expanded. You can add more units, even after the initial installation.
- ✓ The programmed maintenance of the fresh water stations can be executed without interrupting the DHW distribution.
- ✓ every fresh water station operates for an equal number of hours which guarantees a long life span of the system.

Installation chart



Installation of the Kit

Install one kit for every fresh water station. The kit is supplied in parts, non-assembled and is composed of:

- ✓ one motorized zone valve with a fast 230V motor
- ✓ one pipe fitting for the coupling
- ✓ one CanBus cable
- ✓ the instructions

* The production by several SET connected in series depends on the temperature in the primary circuit and the DHW production. The flow of DHW to be distributed by the stations connected in series equals the sum of the flow of the fresh water stations indicated in the section hydraulic performance

Recirculation kit

The recirculation kit offers multiple possibilities for the electronic control unit to control the pump of the sanitary recirculation circuit (circulator not supplied).

Possible settings

- ✓ Programming the recirculation in time slots. The recirculation pump is activated only during the indicated time slots and when the recirculation temperature is below the programmed temperature
- ✓ recirculation pump is always activated
- ✓ activation of the recirculation pump after a brief sampling period. This option activates the recirculation pump only when strictly necessary, as such heating the domestic circuit without wasting drinking water.

Composition of the kit

The kit is supplied in parts, non-assembled and is composed of:

- ✓ temperature probe to be put on the recirculation ring
- ✓ instructions

Recirculation pump

The recirculation pump is not supplied with the kit because the pump has to be selected on the basis of the specifics of your installation.

However, because the pump is to be controlled by the SET regulator, it has to have the following features

- ✓ power supply 230V/50hz/1ph
- ✓ max power 185 W

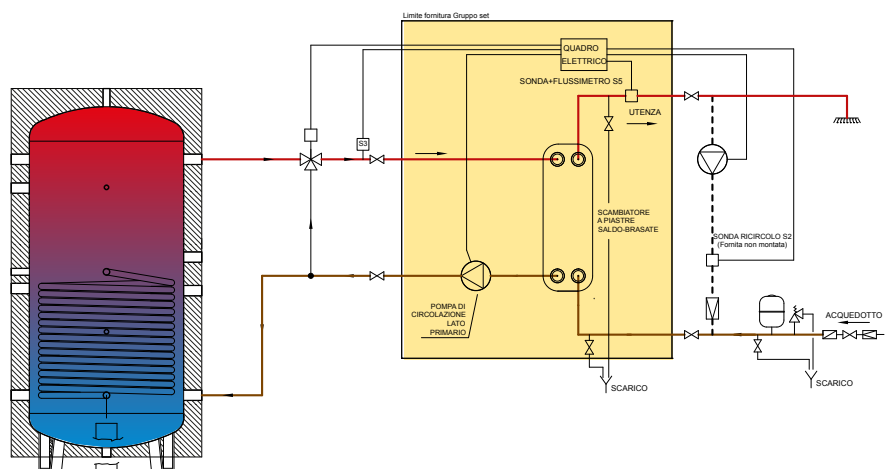
Kit with mixing valve on the primary circuit

The kit helps regulate the temperature at the entrance of the fresh water station. In this way, especially in installations that can reach high temperatures in the primary circuit, the precision of the regulation is improved, which guarantees better comfort.

Composition of the kit

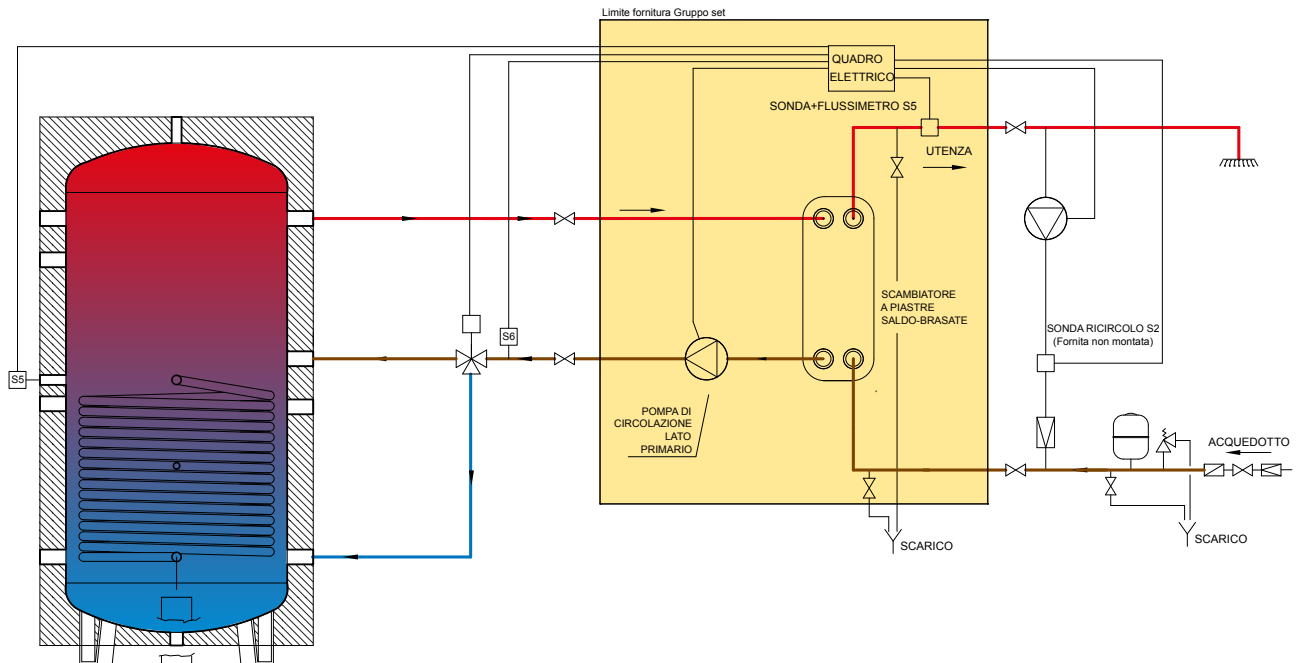
The kit is supplied in parts, non-assembled and is composed of:

- ✓ S3 temperature probe to be placed at the entrance of the exchanger on the primary circuit
- ✓ instructions
- ✓ Mixing valve



Kit with stratification valve for the storage tank

The kit makes it possible to direct the return from the fresh water station to the lower part instead of the mid part of the storage tank. Because of this, the stratification phenomenon in the storage tank is favoured and the efficiency of the entire heating system is maximized.



Composition of the kit

The kit is supplied in parts, non-assembled and is composed of:

- ✓ S5 temperature probe to be placed in the middle of the storage tank
- ✓ S6 temperature probe on the return of the primary circuit
- ✓ instructions
- ✓ Stratification valve

Codes

SET 2.0 (S)

code	description	price	packed	
			dimensions cm	weight kg
842030034X	SET 2.0 (S) - 25		77x45x39	25
84203A018X	SET 2.0 (S) - 35		77x45x39	28
842030035X	SET 2.0 (S) - 40		77x45x39	31

SET 2.0 (L)

code	description	price	packed	
			dimensions cm	weight kg
842030090X	SET 2.0 (L) - 25		77x45x39	25
84203A024X	SET 2.0 (L) - 35		77x45x39	28
842030088X	SET 2.0 (L) - 40		77x45x39	31

Kits with external accessories			price	
842030089X	External kit in series			
842030099X	External kit recirculation SET 2.0			
842030097X	External kit mixing valve set 2.0			
842030095X	External kit deviation valve set 2.0			