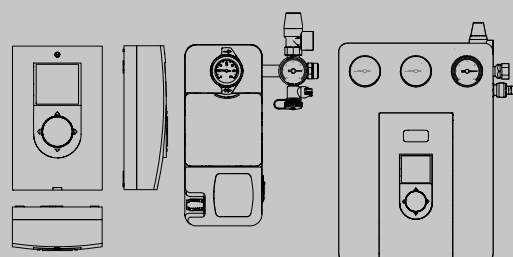




RSS & EVOSOL

Hydraulic groups and solar controls

Hydraulic Groups RSS
EVOSOL Regulator



RSS & EVOSOL

PRODUCT DESCRIPTION RSS

The RSS solar station is available in the flow – return versions with EVOSOL regulator installed on board (MRS), flow – return (MR) and return only (R). RSS MRS and MR are equipped with a PWM controlled circulator, safety devices, loading taps, non-return valve and flow and return thermometers.

RSS R return only is equipped with a circulator that can be controlled both ON – OFF and PWM, safety devices, loading taps, flow regulator and meter, non-return valve and thermometer.

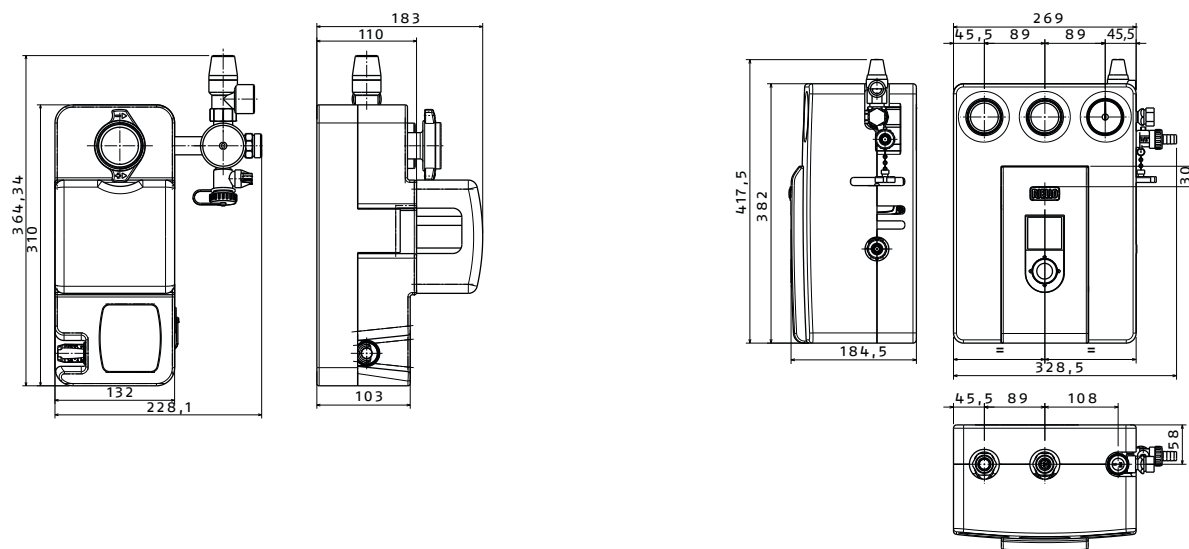
The EVOSOL regulator allows you to easily manage the operation of the system while maintaining the ΔT constant between panels and boilers through flow modulation even in situations of low irradiation (PID logic).

RSS TECHNICAL DATA

DESCRIPTION		SOLAR STATION SEND AND RETURN		
		RSS 75 MRS WITH REGULATOR	RSS 75 MR WITHOUT REGULATOR	RSS 75 R WITHOUT REGULATOR
Maximum operating pressure	bar	6	6	6
Maximum operating temperature	°C	110	110	110
Dimensions WxHxD	mm	313x418x185	313x418x185	264x362x215
Net weight with insulation	kg	5	4,7	3,8
Power supply	V~Hz	230~50	230~50	230~50
Min/max absorbed electric current	A	0,04 ÷ 0,58	0,04 ÷ 0,58	0,04 ÷ 0,58
Min/max absorbed power	W	5 ÷ 63	2 ÷ 60	2 ÷ 45

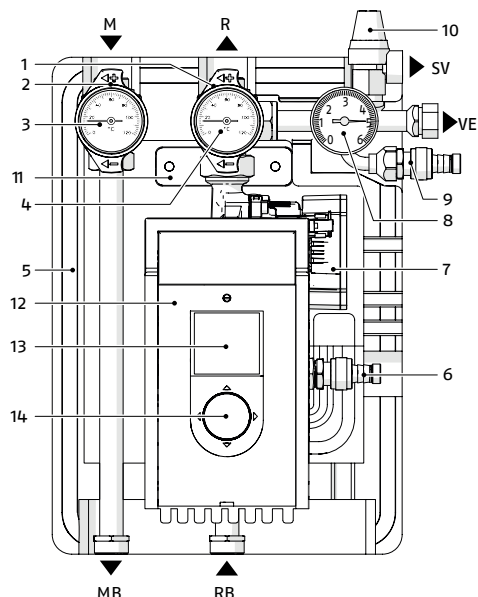
RSS OVERALL DIMENSIONS

Commercial name	H mm	W mm	P mm
RSS MR/MRS	418	329	185
RSS R	364	228	183



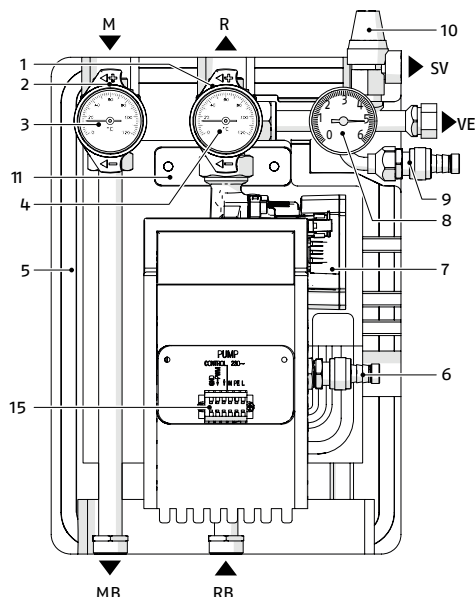
RSS GROUP STRUCTURE

VERSION WITH SOLAR REGULATOR (MRS)



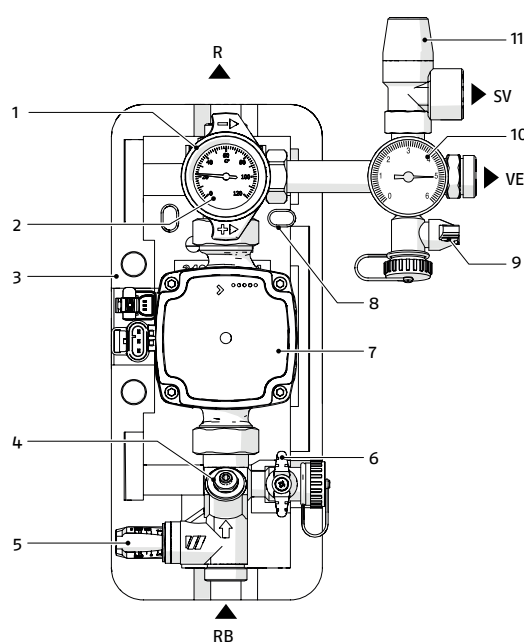
1. Return valve (solar system return) with integrated non-return valve
2. Flow valve (solar system flow) with integrated non-return valve
3. Flow thermometer
4. Return thermometer
5. Insulation
6. System loading/unloading tap A
7. Circulator
8. Pressure gauge
9. System loading/unloading tap B
10. Safety valve (6 bar)
11. Fixing bracket

VERSION WITHOUT SOLAR REGULATOR (MR)



12. Solar regulator
 13. Display
 14. Multidirectional joystick
 15. Terminal block
- M Solar flow. Heat transfer fluid inlet from solar collector.
 R Solar return. Heat transfer fluid outlet to solar collector.
 MB Storage system flow. Heat transfer fluid outlet to solar storage system.
 RB Storage system return. Heat transfer fluid inlet from solar storage system.
 SV Safety valve drain
 VE Expansion vessel connection

VERSION WITHOUT SOLAR REGULATOR (R)



1. Return valve (solar system return) with integrated non-return valve
 2. Return thermometer
 3. Insulation
 4. Flow regulator
 5. Flow meter
 6. System loading/unloading tap A
 7. Circulator
 8. Fixing bracket
 9. System loading/unloading tap B
 10. Pressure gauge
 11. Safety valve (6 bar)
- R Solar return. Heat transfer fluid output to the solar collector.
 RB Storage system return. Heat transfer fluid input from solar storage system.
 SV Safety valve drain
 VE Expansion vessel connection

WATER + GLYCOL PREMIX

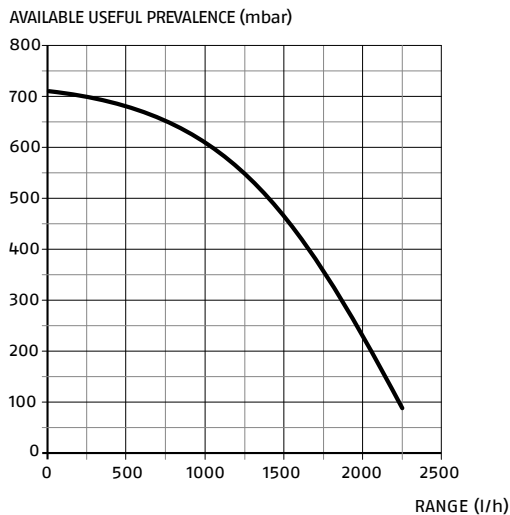
Before filling the system, the glycol, supplied separately, must be premixed with water in a container.
For example, 40% glycol and 60% water allow frost resistance up to a temperature of -21°C.

- The propylene glycol supplied is specifically designed for solar applications as it retains its characteristics in the range 32÷180°C. It is also non-toxic, biodegradable and biocompatible.
- Do not add pure glycol to the system and then add water.
- Do not use manual or automatic filling systems.
- In the presence of a very high chlorine content, it is necessary to use distilled water for the mixture.

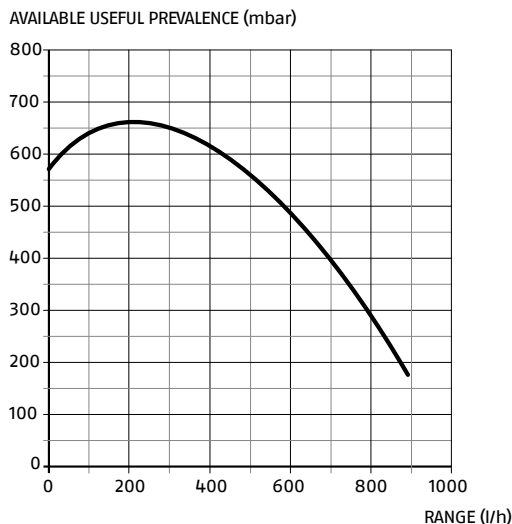
ANTIFREEZE	TEMPERATURE	DENSITY
50%	-32°C	1,045 kg/dm³
40%	-21°C	1,037 kg/dm³
30%	-13°C	1,029 kg/dm³

CIRCULATOR

RSS MRS/MR



RSS R

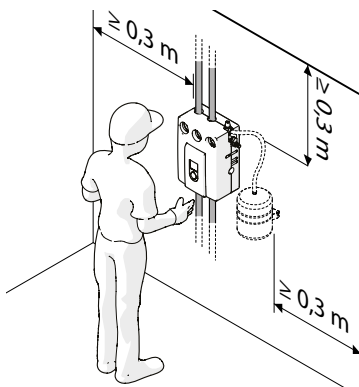


The speed of the circulator is controlled by a PWM signal and varies according to the temperature difference between solar collectors and storage.

Pay attention to the overall pressure drops of the system (exchanger, solar collectors and pipes) at the maximum expected flow conditions. The RSS 75 R solar station (return only) is equipped with a circulator via ON-OFF and PWM and has a mechanical flow regulator.

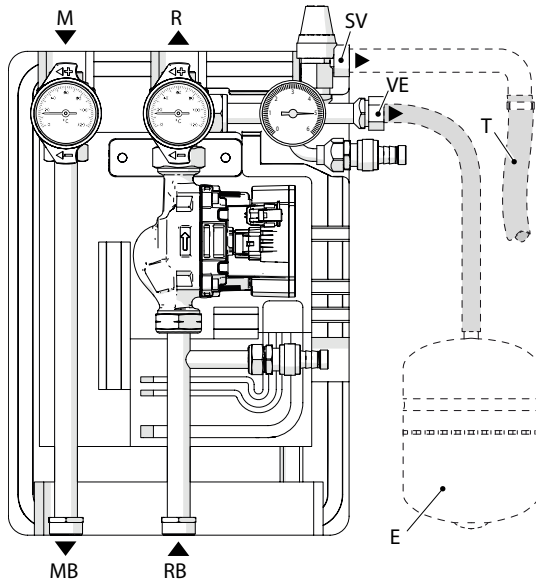
INSTALLATION ROOM

The recommended clearance areas for assembly and maintenance are 300 mm on each side (including the expansion vessel). Position the solar station at a height such that the display and/or thermometers are easily readable.



HYDRAULIC CONNECTIONS

RSS MRS/MR

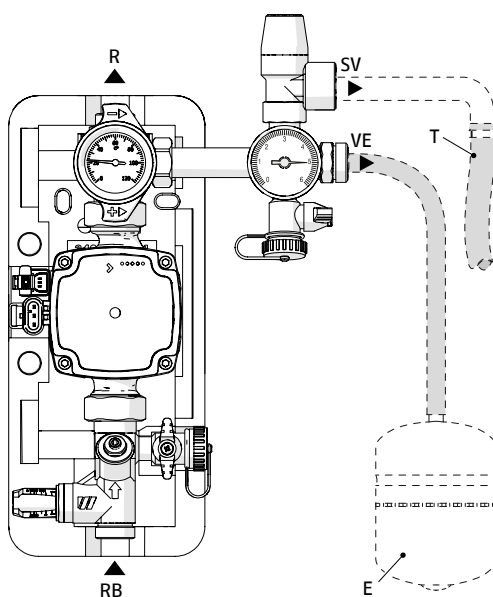


- M Solar flow (3/4" M). Heat transfer fluid inlet from the solar collector.
- R Solar return (3/4" M). Heat transfer fluid outlet to the solar collector.
- MB Storage system flow (3/4" M). Heat transfer fluid outlet to the solar storage system.
- RB Storage system return (3/4" M). Heat transfer fluid inlet from the solar storage system.
- SV Safety valve drain
- VE Expansion vessel connection
- E Solar expansion vessel (not supplied)
- T Safety valve drain pipe (not supplied)

- Connect the flow (M) and return (R) connections, located on the upper part of the solar station, to the solar system
- Connect the flow (MB) and return (RB) connections, located on the lower part of the solar station, to the storage system
- Connect the safety valve drain to a pipe (T) to recover any leaks of solar fluid and to avoid scalding
- Connect the expansion vessel (E) suitable for applications in solar systems to the 1/2" connection (VE).

For hydraulic connections, use silicone gaskets with a hardness of at least 80SH. Where it is not possible to use gaskets, seal the connections with a high temperature sealant (>180°C) suitable for solar applications.

RSS R

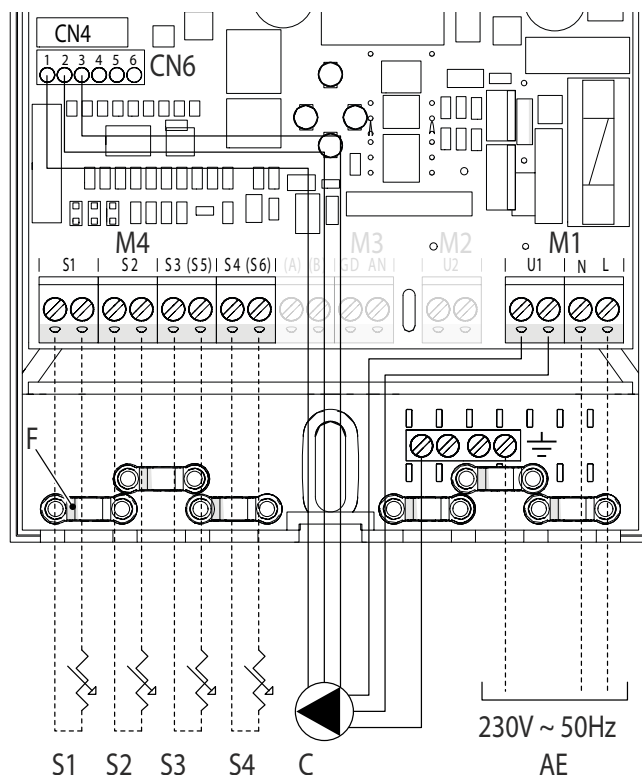


- R Solar return (3/4" M). Heat transfer fluid outlet to the solar collector.
- RB Storage system return (3/4" M). Heat transfer fluid inlet from the solar storage system.
- SV Safety valve drain
- VE Expansion vessel connection
- E Solar expansion vessel (not supplied)
- T Safety valve drain pipe (not supplied)

MRS ELECTRICAL DIAGRAMS AND CONNECTIONS

It is mandatory:

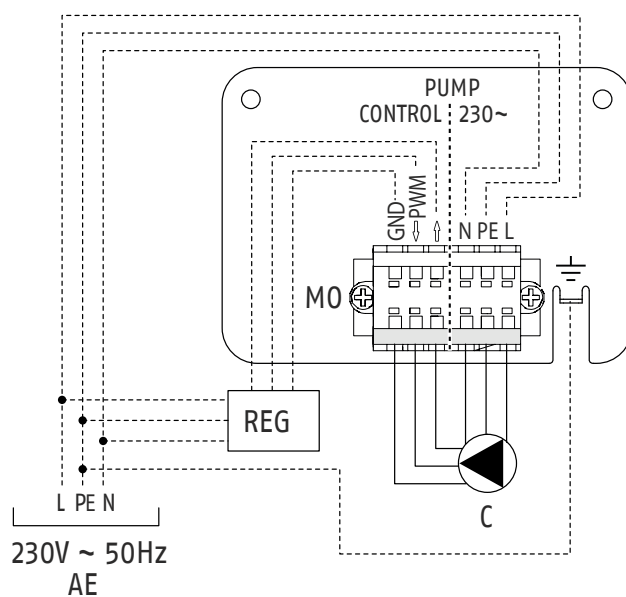
- The use of an omnipolar magnetothermal switch, line disconnecter, compliant with the regulations in force in the country of installation
- Respect the L1 (Phase) - N (Neutral) connection;
- Use cables with insulation characteristics and section compliant with the current Installation Regulations (section greater than or equal to 1.5 mm²)
- Refer to the wiring diagrams in this booklet for any electrical intervention
- Connect the appliance to an effective earthing system.
- The use of any type of piping for earthing the appliance is prohibited.



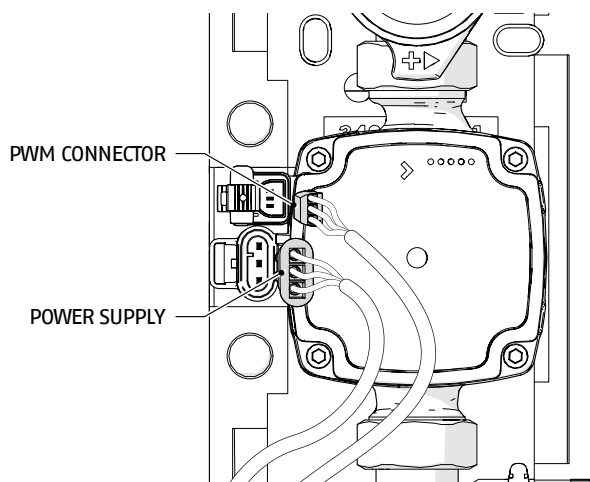
- AE Power supply
- S1 Collector temperature probe 1
- S2 Storage system lower temperature probe
- S3 Storage system upper temperature probe
- S4 Optional probe (not supplied)
- M1-M4 Terminal block
- C Circulator
- CN6 PWM connector
- F Cable clamp

MR ELECTRICAL DIAGRAMS AND CONNECTIONS

In the version without solar regulator (MR), the circulator that equips the MR version requires a PWM signal control with the characteristics reported below. The power and PWM signal connections of the circulator (solar regulator side) are the responsibility of the Installer (dotted lines). The operation of the circulator is subject to the presence of a solar regulator that allows PWM management. Check the compatibility of the chosen regulator with the characteristics of the PWM signal.



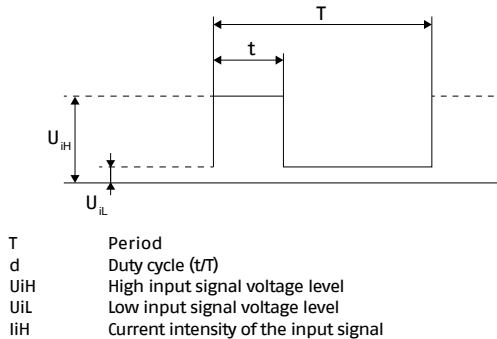
ELECTRICAL DIAGRAMS AND CONNECTIONS R



CONTROL SIGNALS

PWM LOW VOLTAGE DIGITAL SIGNAL

The PWM square wave signal is designed for a frequency range of 100 to 4,000 Hz. The PWM signal is used to set the speed of the circulator.

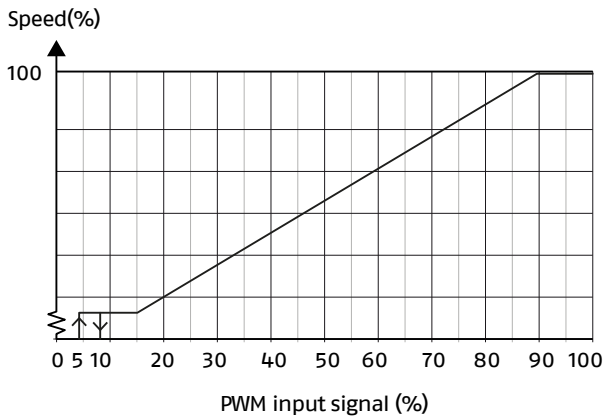


T	Period
d	Duty cycle (t/T)
U _{iH}	High input signal voltage level
U _{iL}	Low input signal voltage level
I _{iH}	Current intensity of the input signal

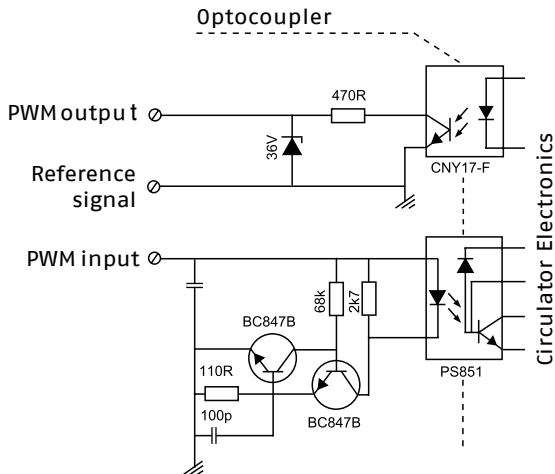
Example	Assessment
T = 2 ms (500 Hz)	U _{iH} = 4-24 V
t = 0,6 ms	U _{iL} ≤ 1 V
d % = 100 × 0,6 / 2 = 30 %	I _{iH} ≤ 10 mA (dependent on U _{iH})

PWM INPUT SIGNAL

With a low input value (<5 % PWM) the pump is prevented from starting. The pump stops if the input signal is between 5 and 8 % of the PWM signal or if there is no PWM signal for safety reasons. If the pump does not receive any input, for example due to a broken signal cable, it stops to prevent overheating of the solar storage tank.



ELECTRONIC CIRCUIT



TECHNICAL DATA

MAXIMUM POWER	SYMBOL	VALUE
PWM input frequency	f	100-4000 Hz
Standby consumption		< 1 W
High input signal voltage level	U _{iH}	4-24 V
Low input signal voltage level	U _{iL}	< 1 V
Input signal current intensity	I _{iH}	< 10 mA
Input duty cycle	PWM	0-100%

EVOSOL

EVOSOL is a solar regulator capable of meeting domestic and professional system needs; the on-board software allows the management of numerous system schemes. The aesthetics are simple and pleasant, easily inserted into any context.

The menu is intuitive, easy to understand and the display allows easy control of the functions and viewing of the selected scheme. The EVOSOL regulator allows you to easily manage the operation of the system by maintaining the constant Dt between panels and boilers through the modulation of the flow rate even in situations of low irradiation (PID logic).

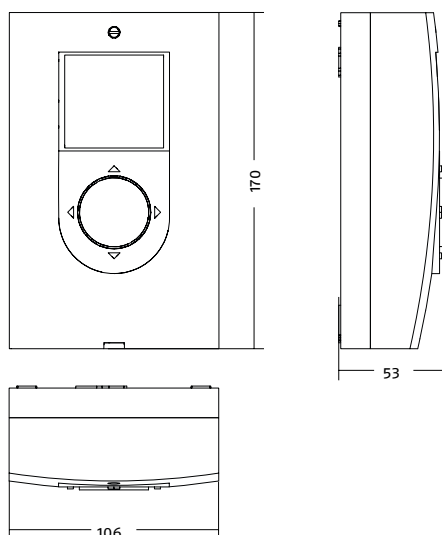


Commercial name	N. Relay Standard Output	No. Inputs for Probes	N. Probes supplied in the kit	N. Configurable system diagrams
EVOSOL	2	4	1x collector + 2x boiler	9

EVOSOL TECHNICAL DATA

Description	EVOSOL
Power supply	230Vac +10 -15% 50-60Hz
Protection (fuse)	F 3.15A - 250V - 5x20mm - quick
Maximum absorption in stand-by	3W
Maximum total admissible absorption	600W
Degree of protection from external agents	IP20
Outputs	n°1 static output 230Vac 1.3A Max @ $\cos \phi > 0.5$ n°1 clean contact output without potential 230Vac 1A Max
Piloting outputs	n°2 static PWM outputs at 24VDC 25mA Max
Temperature sensors	PT1000 class B NTC 10K @ 25°C (B 3435)
Conversion accuracy	±2°C
Interconnection with other control units	RS-485 line (Modbus RTU protocol)
Maximum number of interconnected devices	32
Maximum interconnection length (sum of nodes)	500 m AWG 22-24 twisted pair shielded cable @ 9600 Baud transmission speed
Termination start and end interconnection control units	via jumper position J4
Net weight	300g

EVOSOL OVERALL DIMENSIONS



Commercial name	H mm	W mm	P mm
EVOSOL	170	106	53

SOLAR THERMAL AND BOILERS

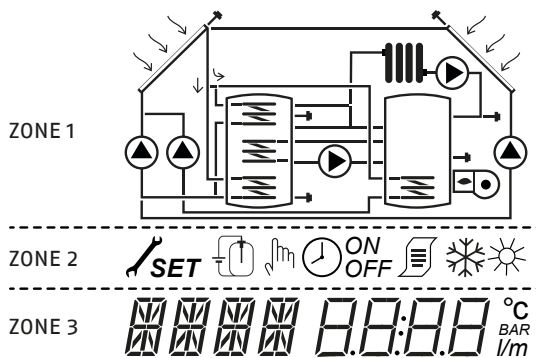
Hydraulic groups and adjustments

VIEWING

The solar controller features a 2.8-inch backlit LCD display.

The display can be divided into 3 viewing zones:

1. System diagrams area
2. Symbols area
3. Parameters area



1. Plant diagrams area

The system diagram area shows the active and stored diagram via the SYSN parameter. The displayed symbols flash, remain fixed or disappear depending on the current system status.

2. Symbols area

The symbols area indicates the system status.

3. Parameters area

In the lower area of the display it is possible to view the parameters of the solar regulator; on the left side the abbreviation of the parameter is displayed while on the right side the value with the relative unit of measurement or the parameter setting.

DISPLAY ICONS

	Solar Collector
	Pump The symbol flashes during the operating phase
	Storage tank
	Burner/integration system The symbol flashes during the operating phase
	Radiator/Heating System
	Accumulation coil
	Temperature probe The symbol flashes when the relevant display parameter is selected
	Alarm present (maintenance required)
	Antifreeze symbol
	Panel overtemperature

SET

Parameter programming

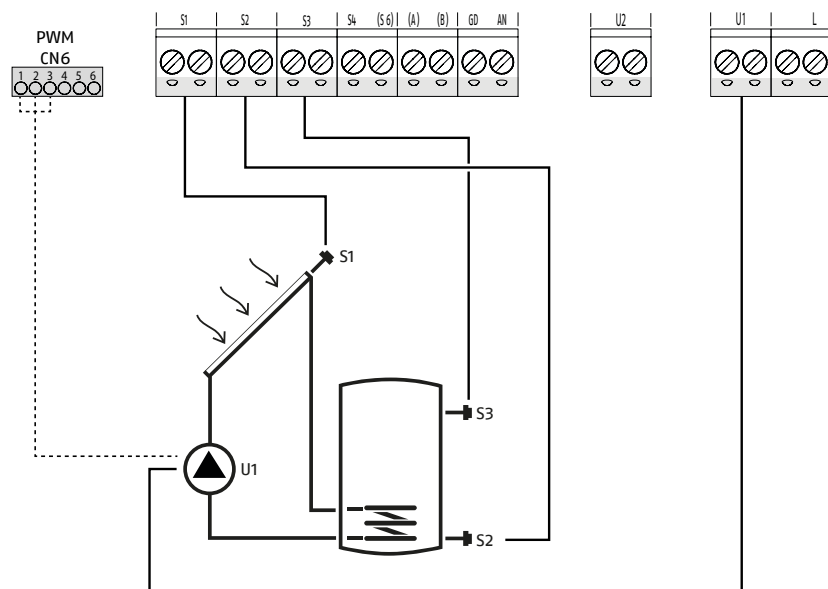
When the displayed parameter can be modified, the fixed word SET appears on the display. When you enter the modification mode, the wording starts to flash until confirmation.

	"Automatic" time programming
	Manual mode (enables forced management of U1/U2 outputs)
	Energy accounting (not used)
	These symbols start flashing when the thermal disinfection function (anti-legionella) is active.

System 1 – SOLAR HEATING WITH 1 STORAGE TANK

SYSTEM SET BY DEFAULT

The system works on the temperature difference between the solar collector (S1) and the lower area of the storage tank (S2) to maintain the temperature set in the B1L0 parameter (LOW BOILER1 SETPOINT). If the S1-S2 difference is greater than or equal to the value set in the ON12 parameter, the pump connected to U1 is activated. The storage tank is heated until the temperature difference between S1 and S2 reaches the value set in the OF12 parameter.



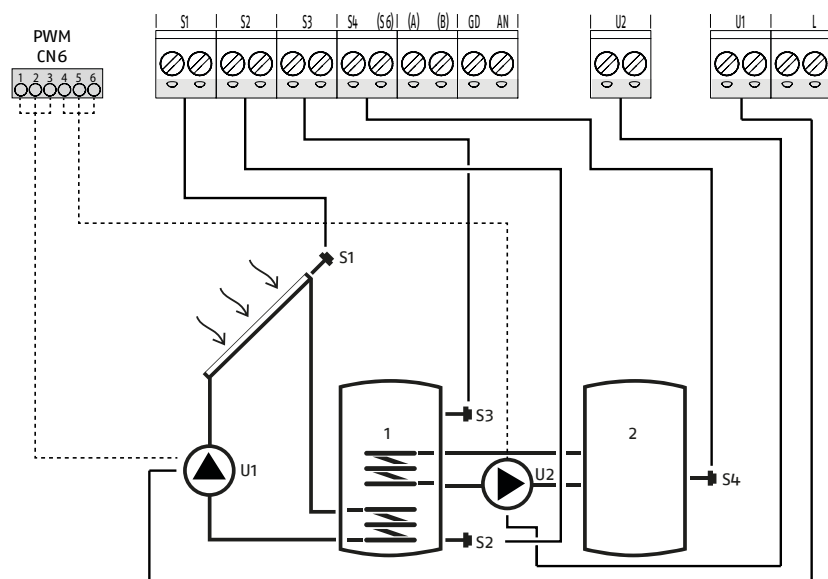
Legend:

- SET editable parameter
- / unused parameter or value
- R/O parameter available for modbus read only
- R/W parameter available for modbus in writing and reading
- S temperature probe
- U pump/valve controlled by controller

For more information on the parameters, refer to the installer manual

System 2 – SOLAR HEATING WITH HEAT TRANSFER

The system works on the temperature difference between the solar collector (S1) and the lower area of the first storage tank (S2) to maintain the temperature set in parameter no. 59 (B1L0 – LOW BOILER1 SETPOINT) in storage tank 1. It also works on the temperature difference between the upper area of the first storage tank (S3) and the lower area of the second storage tank (S4) to maintain the temperature set in parameter no. 64 (B2L0 – LOW BOILER2 SETPOINT) in storage tank 2. If the S1-S2 difference is greater than or equal to the value set in parameter no. 8 (ON12), the pump connected to output U1 is activated. The pump (U1) remains active until the temperature difference between S1 and S2 reaches the value set in parameter no. 9 (OF12). If the S3-S4 difference is greater than or equal to the value set in parameter no. 16 (ON34) and the S3>ST12 probe, the pump connected to output U2 is activated. The pump (U2) remains active until the temperature difference between S3 and S4 reaches the value set in parameter no. 17 (OF34).



Legend:

- SET editable parameter
- / unused parameter or value
- R/O parameter available for modbus read only
- R/W parameter available for modbus in writing and reading
- S temperature probe
- U pump/valve controlled by controller

For more information on the parameters, refer to the installer manual

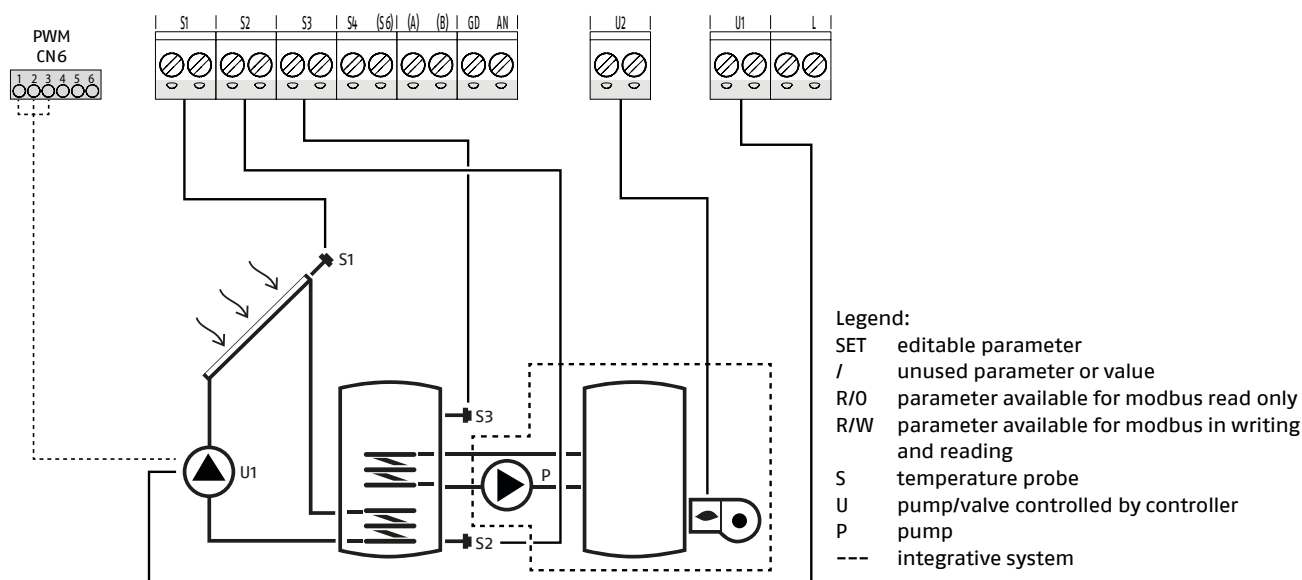
SOLAR THERMAL AND BOILERS

Hydraulic groups and adjustments

System 3 – SOLAR SYSTEM WITH SUPPLEMENTARY HEATING

The system works on the temperature difference between the solar collector (S1) and the lower area of the storage tank (S2) to maintain the temperature set in parameter no. 59 (B1LO – LOW BOILER1 SETPOINT) in the storage tank.

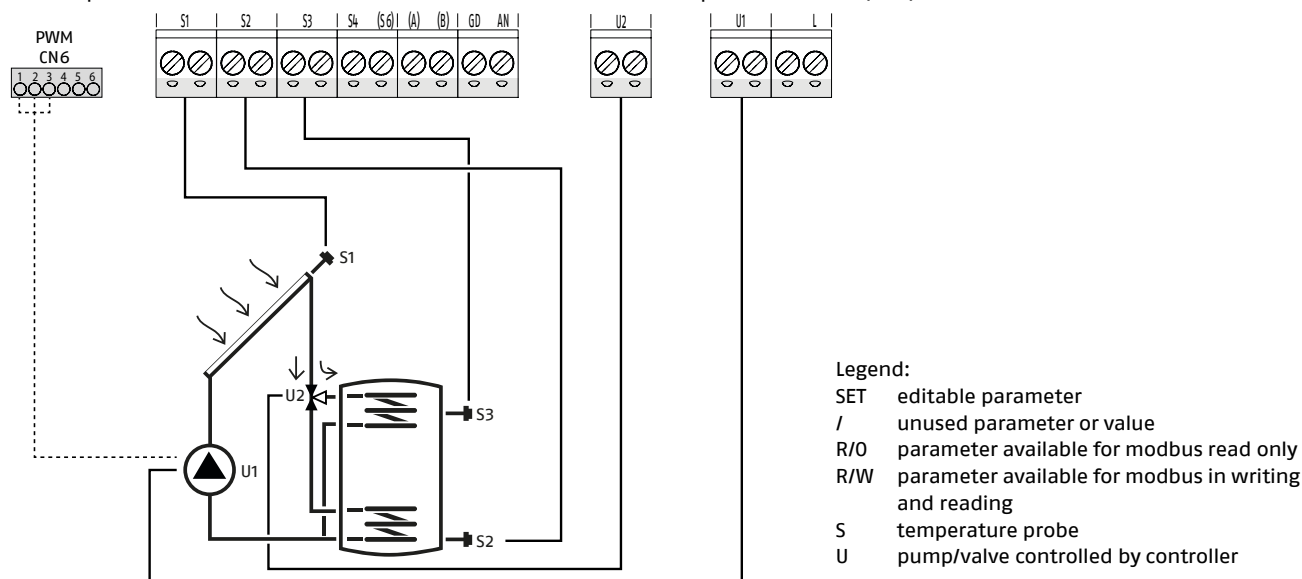
An additional heating system, activated via a time program with parameters no. 103÷109 (DAYn), acts as an integration to the solar collector. If the difference S1-S2 is greater than or equal to the value set in parameter no. 8 (ON12), the pump connected to the U1 output is activated. The pump (U1) remains active until the temperature difference between S1 and S2 reaches the value set in parameter no. 9 (OF12). Through the time program set in the DAYn parameters, it is possible to use an additional system to integrate the heat exchange between solar collectors and storage tank.



For more information on the parameters, refer to the installer manual

System 4 – SOLAR SYSTEM WITH STRATIFIED LOADING OF THE STORAGE

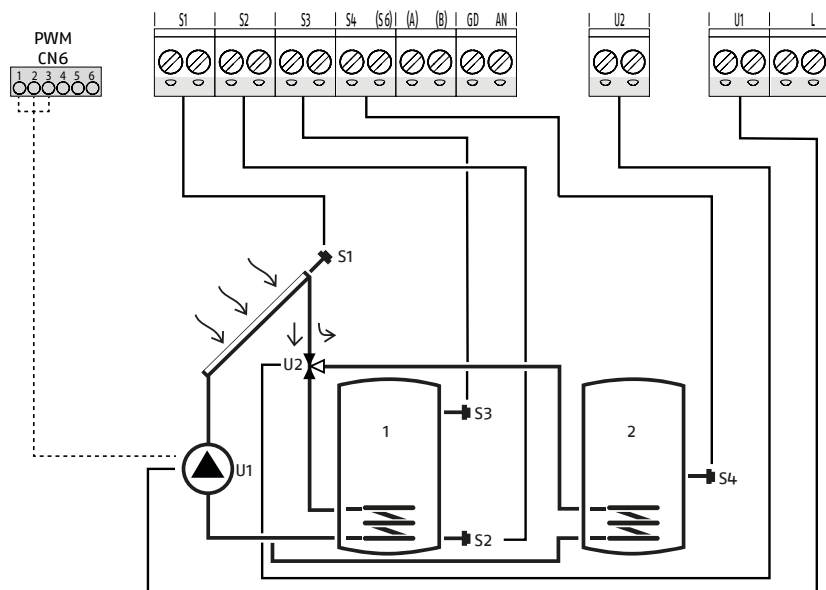
The system allows you to heat two zones of the storage tank at different times, allowing you to choose which of the two zones has temporal priority over the other. Using parameter no. 67 (PZB1) you can change the priority of the zone to be heated (the upper zone is the default). The system works on the temperature difference between the solar collector (S1) and the storage tank, both to heat the upper zone (S3) and maintain the temperature set at parameter no. 56 (B1HI – HIGH BOILER1 SETPOINT) and to heat the lower zone (S2) and maintain the temperature set at parameter no. 59 (B1LO – LOW BOILER1 SETPOINT). It is thus possible to manage the heating of the storage tank by controlling the stratification between the upper part (S3) and the lower part (S2). If the difference S1-S3 is greater than or equal to the value set in parameter no. 10 (ON13), the pump connected to output U1 is activated and the solenoid valve connected to output U2 switches to allow circulation between the solar collector and the upper part of the storage tank (output contact U2 closed). The pump (U1) remains active until the difference reaches the value set in parameter no. 11 (OF13). If the difference S1-S3 is greater than or equal to the value set in parameter no. 8 (ON12), the pump connected to output U1 is activated and the solenoid valve connected to output U2 switches to allow circulation between the solar collector and the lower part of the storage tank (output contact U2 open). The pump (U1) remains active until the temperature difference between S1 and S2 reaches the value set in parameter no. 9 (OF12).



For more information on the parameters, refer to the installer manual

System 5 – SOLAR SYSTEM WITH 2 TANKS AND PRIORITY LOGIC

The system works on the temperature difference between the solar collector (S1) and the lower area of the first storage tank (S2) to maintain in storage tank 1 the temperature set in parameter no. 59 (B1L0) (LOW BOILER1 SETPOINT). It also works on the temperature difference between the solar collector (S1) and the lower area of the second storage tank (S4) to maintain in storage tank 2 the temperature set in parameter no. 64 (B2L0) (LOW BOILER2 SETPOINT). If the S1-S2 difference is greater than or equal to the value set in parameter no. 8 (ON12), the pump connected to output U1 is activated and the solenoid valve connected to output U2 switches to allow circulation between the solar collector and the lower area of storage tank 1 (output U2 contact open). The pump (U1) remains active until the temperature difference between S1 and S2 reaches the value set in parameter no. 9 (OF12). If the difference S1-S4 is greater than or equal to the value set in parameter no. 12 (ON14), the pump connected to output U1 is activated and the solenoid valve connected to output U2 switches to allow circulation between the solar collector and the lower area of storage tank 2 (output U2 contact closed). The pump (U1) remains active until the temperature difference between S1 and S4 reaches the value set in parameter no. 13 (OF14). It is possible to change the priority of the storage tank to be heated with parameter no. 53 (PRB0) (the first storage tank is the default).



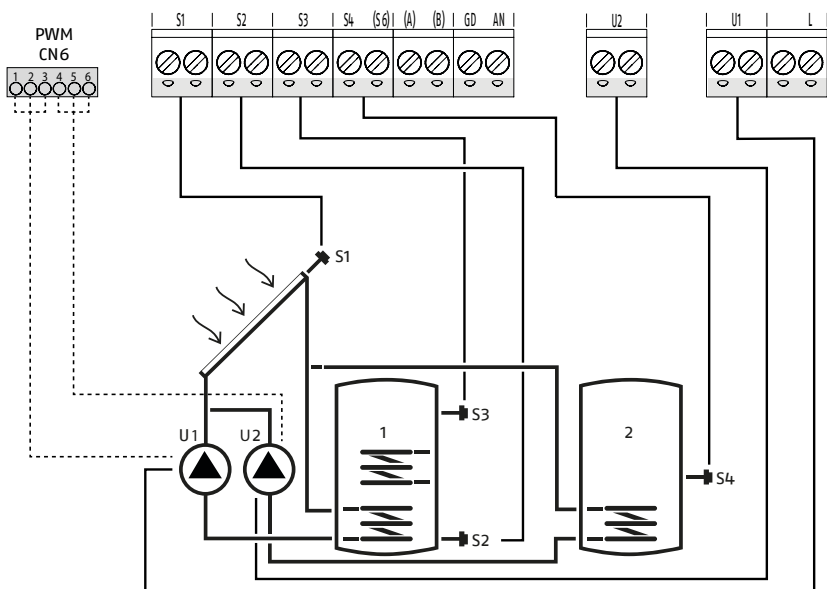
Legend:

- SET editable parameter
- / unused parameter or value
- R/O parameter available for modbus read only
- R/W parameter available for modbus in writing and reading
- S temperature probe
- U pump/valve controlled by controller

For more information on the parameters, refer to the installer manual

System 6 – SOLAR SYSTEM WITH 2 TANKS AND PUMP OPERATION

The system works on the temperature difference between the solar collector (S1) and the lower area of the first storage tank (S2) to maintain the temperature set in parameter no. 59 (B1L0 – LOW BOILER1 SETPOINT) in storage tank 1. It also works on the temperature difference between the solar collector (S1) and the lower area of the second storage tank (S4) to maintain the temperature set in parameter no. 64 (B2L0 – LOW BOILER2 SETPOINT) in storage tank 2. If the S1-S2 difference is greater than or equal to the value set in parameter no. 8 (ON12), the pump connected to output U1 is activated. The pump (U1) remains active until the temperature difference between S1 and S2 reaches the value set in parameter no. 9 (OF12). If the S1-S4 difference is greater than or equal to the value set in parameter no. 12 (ON14), the pump connected to output U2 is activated. The pump (U2) remains active until the temperature difference between S1 and S4 reaches the value set in parameter no. 13 (OF14). The system works with priority logic (alternating between the two storage tanks) and it is possible to change the priority of the storage tank to be heated first with parameter no. 53 (PRB0) (the first storage tank is the default). NOTE: as a second pump (U2), it is recommended to use a pump with PWM modulation.



Legend:

- SET editable parameter
- / unused parameter or value
- R/O parameter available for modbus read only
- R/W parameter available for modbus in writing and reading
- S temperature probe
- U pump/valve controlled by controller

For more information on the parameters, refer to the installer manual

SOLAR THERMAL AND BOILERS

Hydraulic groups and adjustments

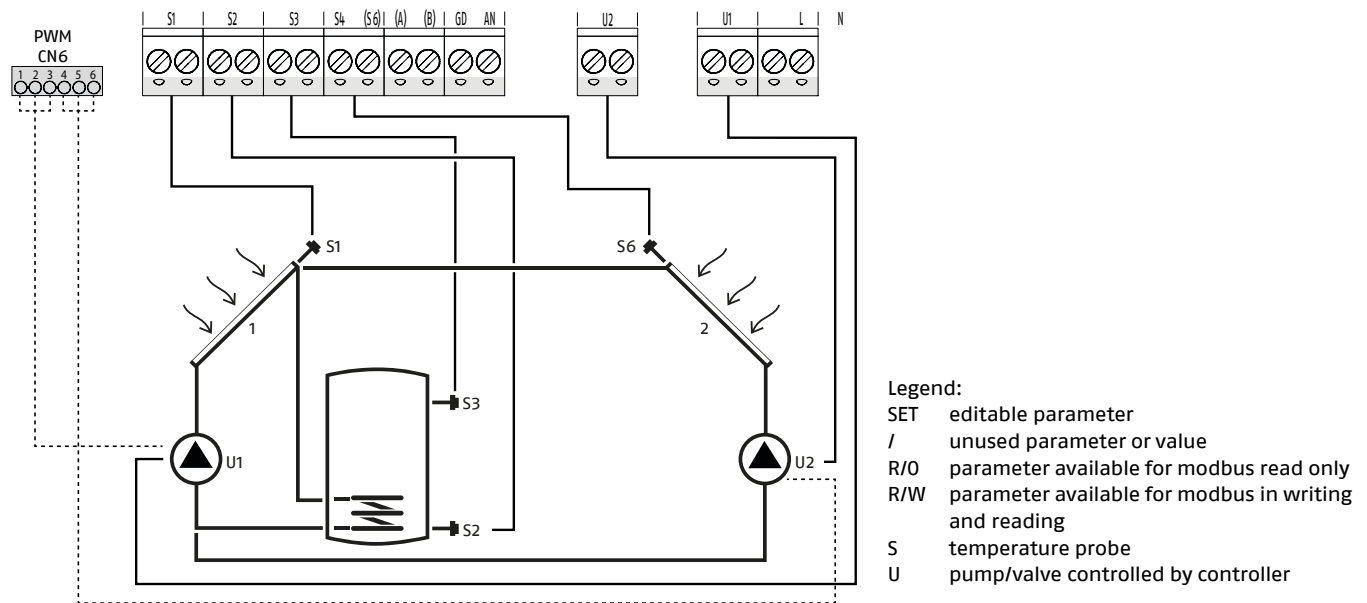
System 7 – SOLAR SYSTEM WITH 2 COLLECTORS AND 1 STORAGE

The system works both on the temperature difference between the first solar collector (S1) and the lower area of the storage tank (S2) and on the temperature difference between the second solar collector (S6) and the same area (S2), to maintain the temperature set in parameter no. 59 (B1LO – LOW BOILER1 SETPOINT) in the storage tank. If the difference S1-S2 is greater than or equal to the value set in parameter no. 8 (ON12), the pump connected to the U1 output is activated. The pump (U1) remains active until the temperature difference between S1 and S2 reaches the value set in parameter no. 9 (OF12).

If the difference S6-S2 is greater than or equal to the value set in parameter no. 14 (ON62), the pump connected to the U2 output is activated.

The pump (U2) remains active until the temperature difference between S6 and S2 reaches the value set in parameter no. 15 (OF62).

NOTE: as a second pump (U2), it is recommended to use a pump with PWM modulation.



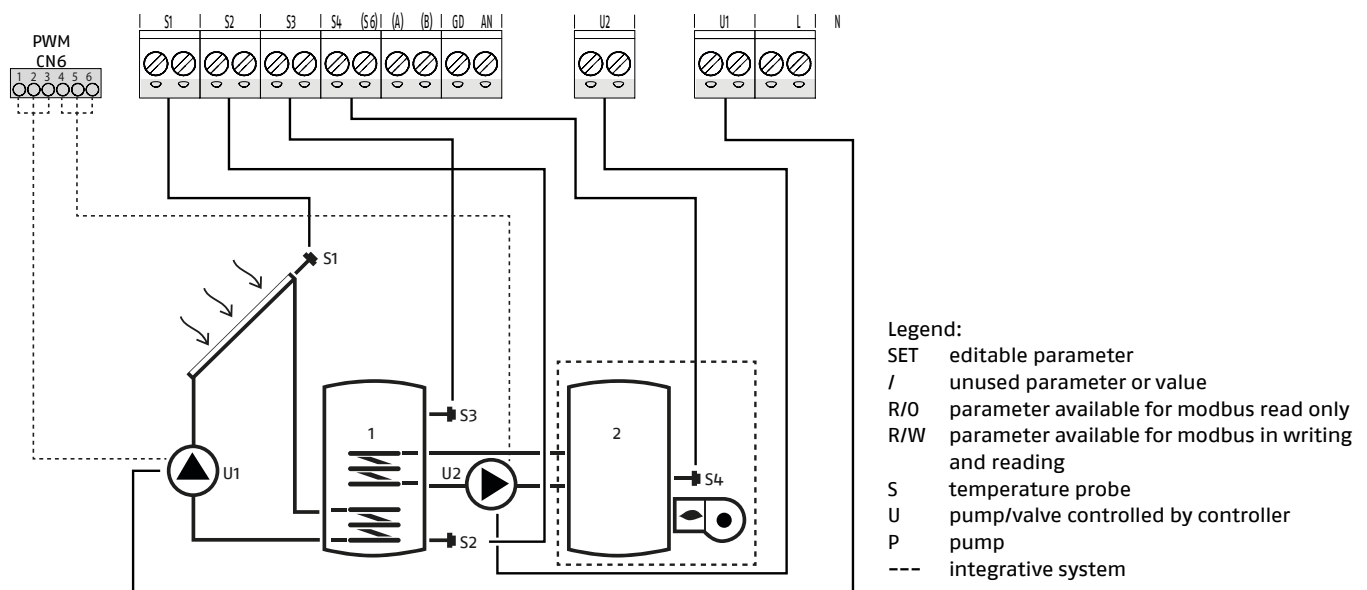
For more information on the parameters, refer to the installer manual

System 8 – SOLAR SYSTEM WITH SUPPLEMENTARY HEATING BY SOLID FUEL GENERATOR

The system works on the temperature difference between the solar collector (S1) and the lower area of the storage tank (S2) to maintain the temperature set in parameter no. 59 (B1LO – LOW BOILER1 SETPOINT). It manages an integration system (2), for example a solid fuel generator, working on the temperature difference between this system (S4) and the upper area of the storage tank (S3), to maintain the temperature set in parameter no. 56 (B1HI – HIGH BOILER1 SETPOINT).

If the S1-S2 difference is greater than or equal to the value set in parameter no. 8 (ON12), the pump connected to the U1 output is activated. The pump (U1) remains active until the temperature difference between S1 and S2 reaches the value set in parameter no. 9 (OF12).

If the difference S4-S3 is greater than or equal to the value set in parameter no. 24 (ON43) and the temperature of the solid fuel generator (S4) is greater than the value set in parameter no. 160 (T10N), the pump connected to the U2 output is activated. The pump (U2) remains active until the difference S4-S3 reaches the value set in parameter no. 24 (OF43) or if the temperature of the solid fuel generator (S4) reaches the value set in parameter no. 163 (T10F).



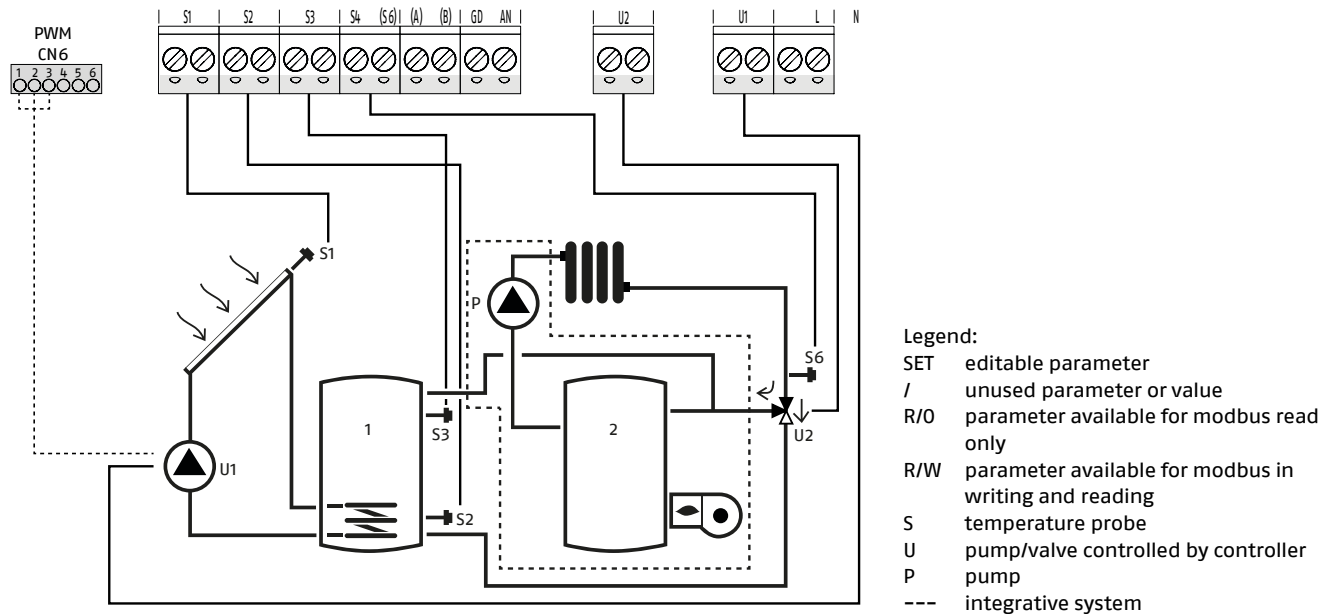
For more information on the parameters, refer to the installer manual

System 9 – SOLAR SYSTEM WITH TEMPERATURE RAISING SYSTEM IN THE HEATING CIRCUIT RETURN

The system works on the temperature difference between the solar collector (S1) and the lower area of the storage tank (S2) to maintain the temperature set in parameter no. 59 (B1L0 – LOW BOILER1 SETPOINT) in the storage tank. It also controls the temperature difference between the upper area of the storage tank (S3) and the return circuit of the heating system (S6) to integrate this system if the storage tank is sufficiently heated. The integrative raising system is used for the return circuit of the heating system.

If the difference S1-S2 is greater than or equal to the value set in parameter no. 8 (0N12), the pump connected to the U1 output is activated. The pump (U1) remains active until the temperature difference between S1 and S2 reaches the value set in parameter no. 9 (0F12).

If the difference S3-S6 is greater than or equal to the value set in parameter no. 18 (0N36), the solenoid valve connected to the U2 output is switched. The heating circuit is heated until the difference S3-S6 reaches the value set in parameter no. 19 (0F36).



For more information on the parameters, refer to the installer manual

HYDRAULIC GROUPS

RSS DESCRIPTION R (RETURN ONLY)

The return hydraulic group allows you to connect a solar boiler to a set of solar collectors, and allows you to transfer energy from the solar collectors to a storage system.

The RSS solar station is enclosed in an insulating casing in PPE (expanded polypropylene) and is designed to perform:

- washing the system
- loading and emptying the system
- disassembling the circulator.

The main components are:

- high efficiency variable speed circulator (electrically pre-wired) controllable both in ON-OFF and PWM
- non-return shut-off valves with non-return function
- thermometer
- flow meter with mechanical flow regulator
- pressure gauge
- system loading and unloading taps
- safety valve with intervention pressure at 6 bar;
- connection for connection to a solar expansion vessel
- fixing brackets

RSS MR DESCRIPTION (SEND/RETURN)

The flow and return hydraulic group allows you to connect a solar boiler to a set of solar collectors, and allows you to transfer energy from the solar collectors to a storage system.

The RSS solar station is enclosed in an insulating casing in PPE (expanded polypropylene) and is designed to perform:

- washing the system
- loading and emptying the system
- disassembling the circulator.

The main components are:

- high efficiency variable speed circulator (electrically pre-wired) in PWM and does not require a flow regulator
- non-return shut-off delivery and return valves with non-return function
- delivery and return thermometer
- pressure gauge
- system loading and unloading taps
- safety valve with intervention pressure at 6 bar;
- connection for connection to a solar expansion vessel
- terminal board for interface connections to an external regulator capable of controlling a PWM pump;
- fixing brackets

DESCRIPTION RSS MRS (SEND/RETURN WITH SOLAR REGULATOR)

The flow and return hydraulic group allows you to connect a solar boiler to a set of solar collectors, and allows you to transfer energy from the solar collectors to a storage system.

The RSS solar station is enclosed in an insulating casing in PPE (expanded polypropylene) and is designed to perform:

- washing the system
- loading and emptying the system
- disassembling the circulator.

The main components are:

- high efficiency variable speed circulator (electrically pre-wired) in PWM and does not require a flow regulator
- non-return flow and return valves with non-return function
- flow and return thermometer
- pressure gauge
- system loading and unloading taps
- safety valve with 6 bar intervention pressure
- connection for connection to a solar expansion vessel
- pre-wired solar regulator. The on-board software allows the management of numerous system schemes. The EVOSOL regulator allows you to easily manage the operation of the system by maintaining the constant ΔT between panels and boilers through flow modulation even in situations of low irradiation (PID logic); the self-adaptive logic allows you to speed up the commissioning of the solar system (automatic flow regulation)
- n° 3 probes of length 1.5 m
- fixing brackets

SOLAR POWER STATIONS

DESCRIPTION EVOSOL

EVOSOL is a solar regulator capable of meeting domestic and professional system needs; the on-board software allows the management of numerous system schemes. The aesthetics are simple and pleasant, easily inserted into any context.

The menu is intuitive, easy to understand and the display allows easy control of the functions and viewing of the selected scheme. The front access facilitates electrical connections and the range of accessories dedicated to the regulator and hydraulic units allow you to meet the system customization needs.

The EVOSOL regulator allows you to easily manage the operation of the system by maintaining the constant ΔT between panels and boilers through the modulation of the flow rate even in situations of low irradiation (PID logic); the self-adaptive logic allows you to speed up the commissioning of the solar system (automatic flow rate regulation).

ACCESSORIES

Electronic anode

Platinum immersion temperature probe Pt1000 2.5 m PUR cable ($-10/+80^{\circ}\text{C}$) for boilers or return pipe (FRP6 Pt1000)

Platinum bracelet contact temperature probe Pt1000 2.5 m olflex cable ($-10/+80^{\circ}\text{C}$) for boilers or return pipe (FRP21 Pt1000)

Platinum high temperature well temperature probe Pt1000 1.5 m PTFE cable ($-50/+230^{\circ}\text{C}$) for vacuum collectors (FKP6/H Pt1000)

Probe protection kit against overvoltages (SP1)

Accessory temperature probe solar collector – boiler

RIELLO



RIELLO S.p.A.
37045 Legnago (VR) ITALY
tel. +39 0442 630111

www.riello.com



Riello reserves the right to change the information and specifications contained herein at any time and without notice. The contents and information contained herein are for informational purposes only and are not intended to provide legal or professional advice. Therefore, this document cannot be considered binding towards third parties.

©Riello S.p.A. All rights reserved