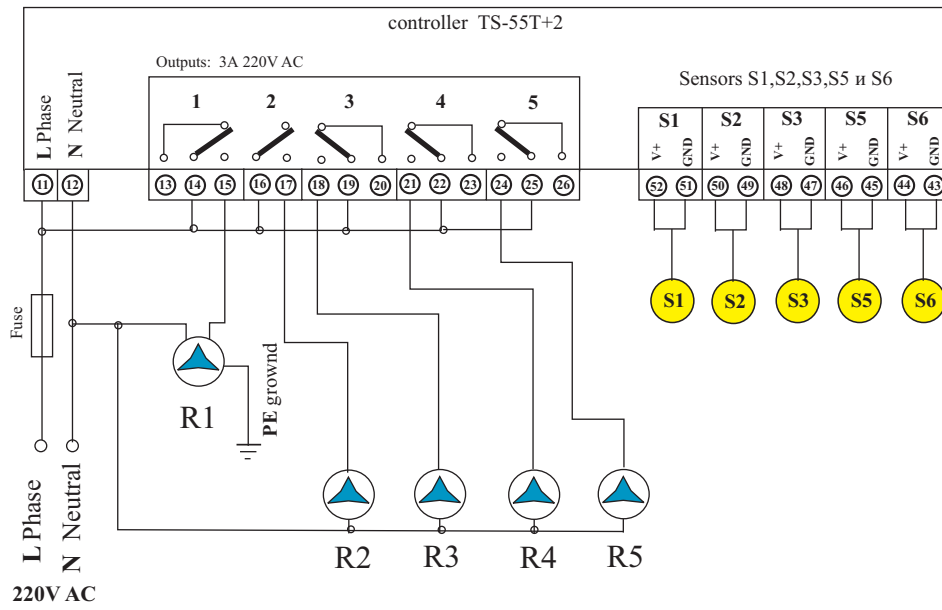


Controller TS-55T+2 (software TS-plus2)

Heating range of radiators from boiler with priority. Heating water accumulator at presence of excess heat in the boiler.
Heating water heater (in preference to the battery) and water accumulator of a solar collector.

Electric scheme



Functional scheme

R1, R2, R3, R4, R5 - Heat pump.
S1, S2, S3, S5, S6-Sensors.

◀ Non-return valve

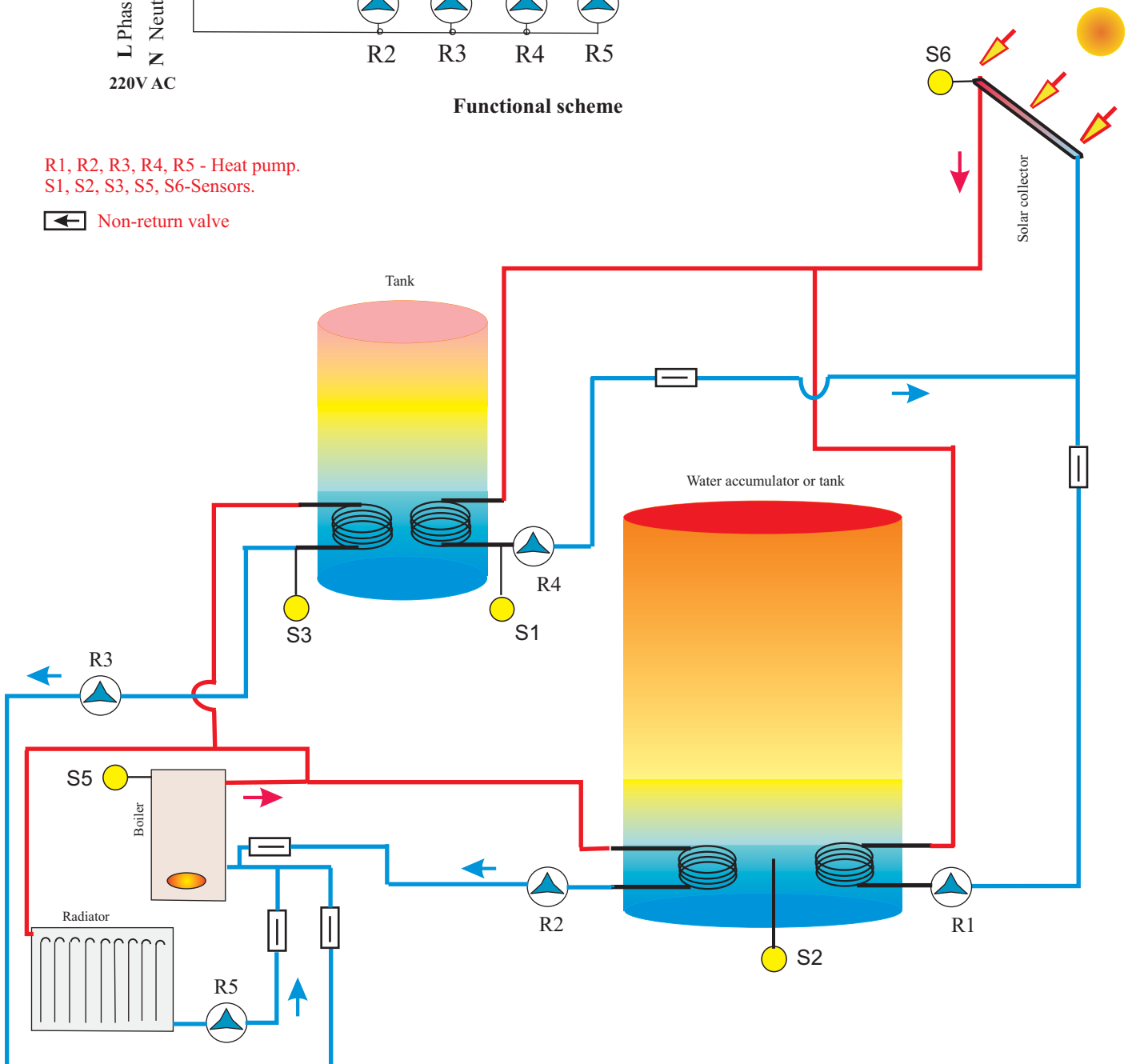


Table setup of the differential regulators, logical functions and thermostats. for example 1						
Row from the table for programming	Output number					Note
	1	2	3	4	5	
Top Level - °C Top level thermostats XX=2 до 90°C	60	65	65	90	50	Temperature to TURN ON the conditional output of the thermostat
Top Level-Sensor ^S Sensor for thermostat top level S=0-6	1	5	5	0	5	
Low Level - °C Low level thermostats XX=2 до 90°C	5	5	5	5	5	Temperature to TURN ON the conditional output of the thermostat
Low Level-Sensor Sensor for thermostat top level S=0-6	0	0	0	0	0	
Differential regulator ON TEMPERATURE 2 - 90°C	10	20	8	8	8	Temperature difference ST-SP to TURN ON the conditional output of the regulator
Differential regulator OFF TEMPERATURE 2 - 90°C	3	3	3	3	3	Temperature difference ST-SP to TURN OFF the conditional output of the regulator
Differential regulator sensor ST 0 - 6	6	5	5	6	0	Sensor heat source *
Differential regulator sensor SP 0 - 6	2	2	3	1	0	Sensory hot-receiver *
Used logical function AND, OR	AND	AND	AND	OR	OR	A(AND) / O(OR)

* - Do not put ST = SP !

Realize of the priority of solar collector:

1. The inclusion of a pump R1 is allowed only if sensor S1 > 60 ° C.
2. To warm the water heater is provided differential difference 8 ° C,
while the water accumulator are required differential difference 15 ° C.
Water heater will always outstrips the accumulator with 7 ° C, after the water heater have a temperature greater than 60 ° C.

Realizing the priority of the radiators circuit at the boiler and then water heater outstrips boiler:

1. Permitting are heating the water heater and the battery only if the sensor S5 > 65 ° C.
We believe that over 65 ° C in the boiler has excess heat.
2. To warm the water heater is provided temperature difference 8 ° C,
while the accumulator is required temperature difference 20 ° C.
Water heater will always ahead of the accumulator with 12 ° C at heating from boiler.

Programming:

1. Set the time and date.
2. Set the timer program if necessary.
3. Program the top table in the controller.
4. Perform calibration of the sensors.
5. Select "Automatic mode".

TURN ON / TURN OFF outputs:

Output 1:

If S1 > 60 ° C (ST6-SP2) > 15 ° C then the output is TURN ON.
If S1 < 60 ° C or (ST6-SP2) < 3 ° C then the output is TURN OFF.

Output 2:

If S5 > 65 ° C and (ST5-SP2) > 20 ° C, then the output is TURN ON.
If S5 < 65 ° C (ST5-SP2) < 3 ° C then the output is TURN OFF.

Output 3:

If S5 > 65 ° C and (ST5-SP3) > 8 ° C then the output is TURN ON.
If S5 < 65 ° C (ST5-SP3) < 3 ° C then the output is TURN OFF.

Output 4:

If (ST6-SP1) > 8 ° C then the output is TURN ON.
If (ST6-SP1) < 3 ° C then the output is TURN OFF.

Output 5:

If S5 > 50 ° C then the output is TURN ON.
If S5 < 50 ° C then the output is TURN OFF.