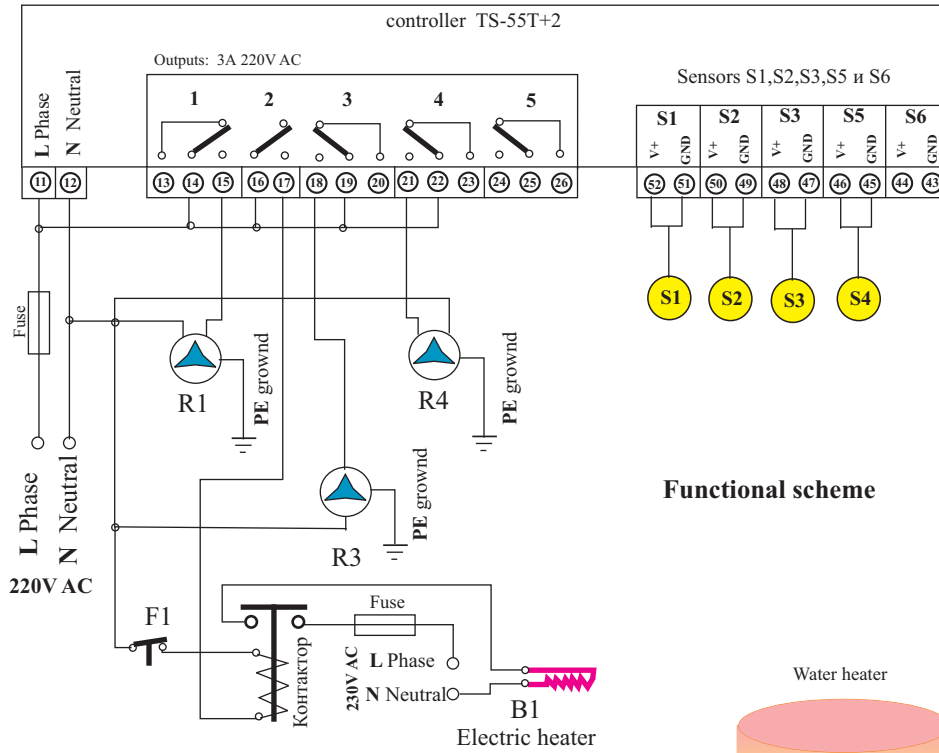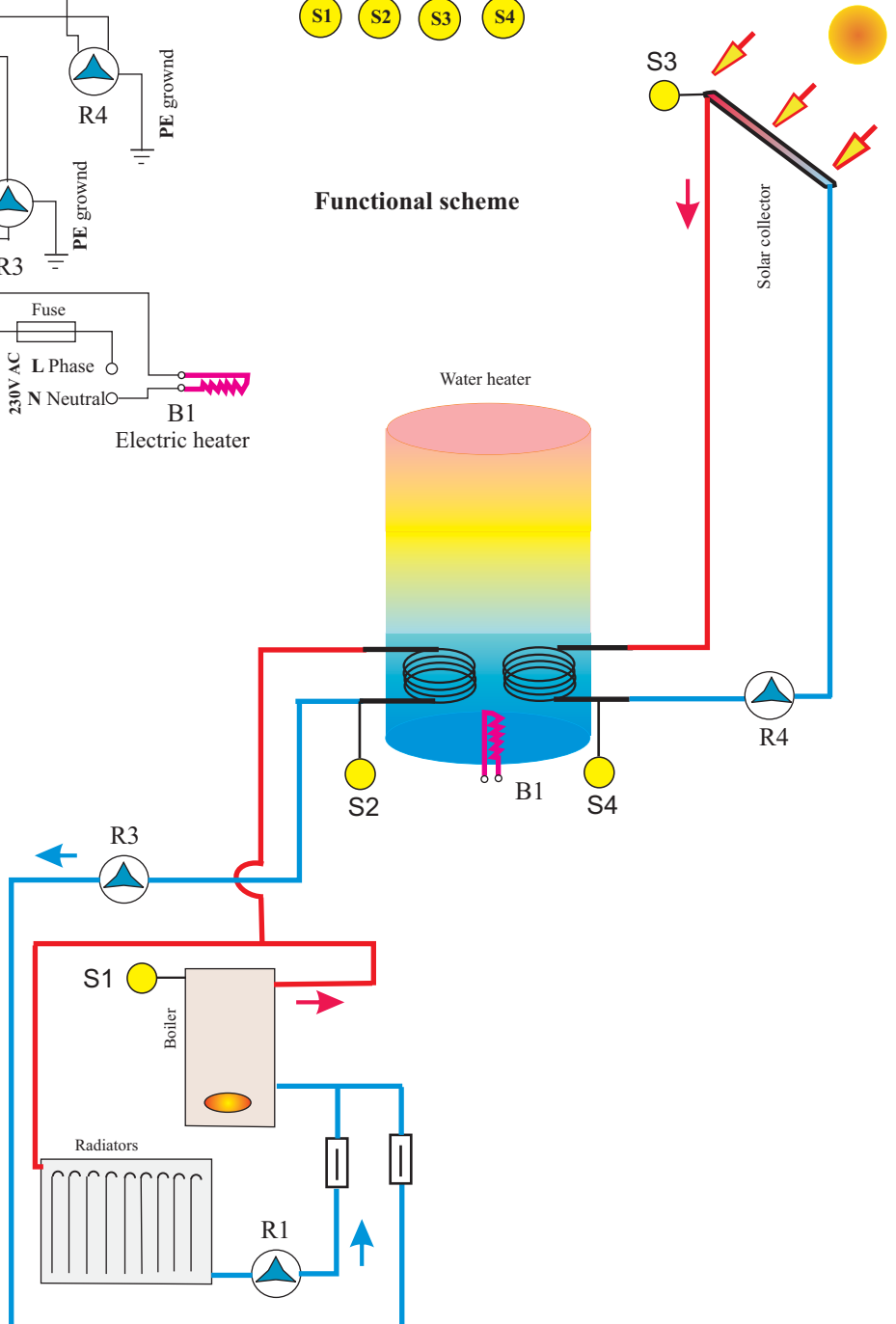# Controller TS-55T+2 (software TS-plus2)

Heating range of radiators from boiler with priority. Heating of water heater or water accumulator at presence of excess heat in the boiler.
Use weekly temperature timer, for additional heating of the water in the boiler.
Protection collector frost with antifreeze.

Electric scheme

controller TS-55T+2

Outputs: 3A 220V AC

Sensors S1,S2,S3,S5 и S6

| 1 | 2 | 3 | 4 | 5 |

| S1 | S2 | S3 | S5 | S6 |

V+ GND   V+ GND   V+ GND   V+ GND   V+ GND

L Phase   N Neutral

⑪ ⑫   ⑬ ⑭ ⑮   ⑯ ⑰   ⑱ ⑲ ⑳   ㉑ ㉒ ㉓   ㉔ ㉕ ㉖

㊾ ㊶   ㊿ ㊾   ㊽ ㊻   ㊻ ㊺   ㊹ ㊸

S1 **S2** **S3** **S4**

Fuse

R1   PE grownd

R4   PE grownd

R3   PE grownd

L Phase   **N Neutral**

220V AC

F1

Fuse

Контактор

230V AC

L Phase
N Neutral

B1
Electric heater

Functional scheme

S3

Solar collector

Water heater

R4

S2   B1   S4

R3

S1

Boiler

Radiators

R1

R1, R2, R3, R4 - Heat pump.
S1, S2, S3 - Sensors.
F1 - Thermal cutoff.
B1 - Electric heater.

◄— Non-return valve.

Row from the table for programming	1	2	3	4	5	Note
Top Level - °C Top level thermostats XX=2 до 90°C	50	90	60	90	90	Temperature to TURN ON the conditional output of the thermostat
Top Level-Sensor ^S Sensor for thermostat top level S=0-6	1	0	1	0	0	
Low Level - °C Low level thermostats XX=2 до 90°C	5	45	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	2	0	0	0	
Differential regulator ON TEMPERATURE 2 - 90°C	5	5	6	6	5	Temperature difference ST-SP to TURN ON the conditional output of the regulator
Differential regulator OFF TEMPERATURE 2 - 90°C	2	2	2	2	2	Temperature difference ST-SP to TURN OFF the conditional output of the regulator
Differential regulator sensor ST 0 - 6	0	0	1	3	0	Sensor heat source *
Differential regulator sensor SP 0 - 6	0	0	2	4	0	Sensory hot-receiver *
Used logical function AND, OR	OR	OR	AND	OR	OR	A(AND) / O(OR)

Table setup of the differential regulators, logical functions and thermostats.

* - Do not put ST = SP !

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>50°C then the output is TURN ON.
If S1<50°C then the output is TURN OFF.
Изход 2:
If S2<Td°C then the output is TURN ON.
If S2>Td°C then the output is TURN OFF.
Изход 3:
If S1>60°C и (S1-S2)>6°C then the output is TURN ON.
If S1<60°C или (S1-S2)<2°C тthen the output is TURN OFF.
Изход 4:
If (S3-S4)>6°C then the output is TURN ON.
If (S3-S4)<2°C then the output is TURN OFF.