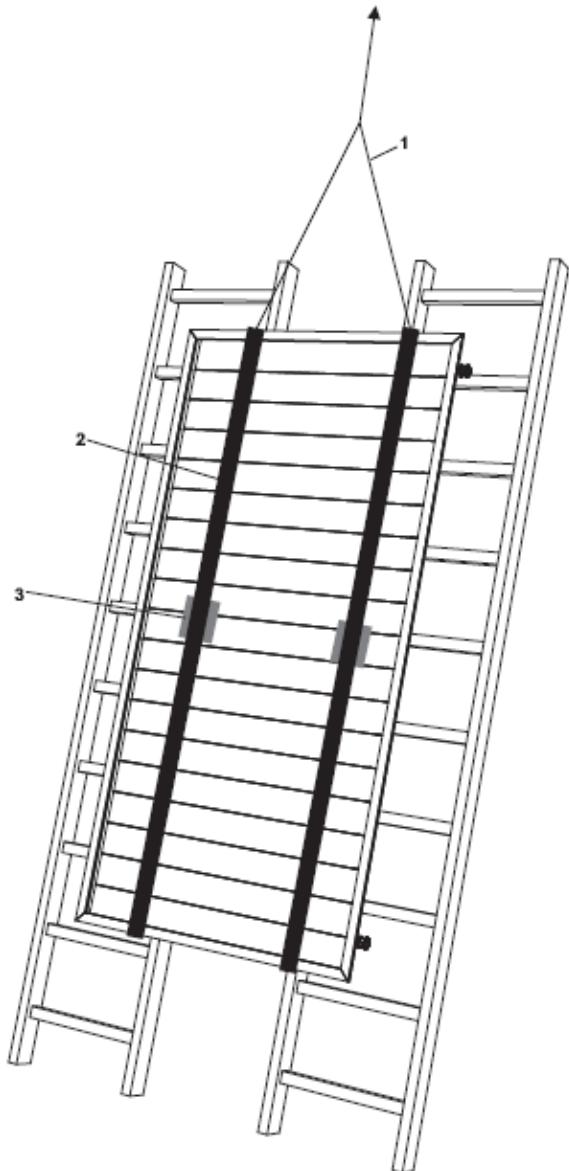




INSTALLATION

Moving the collectors



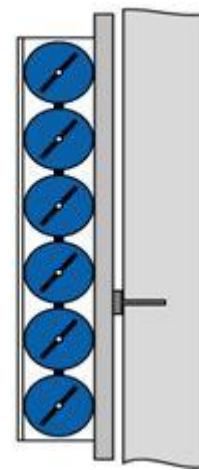
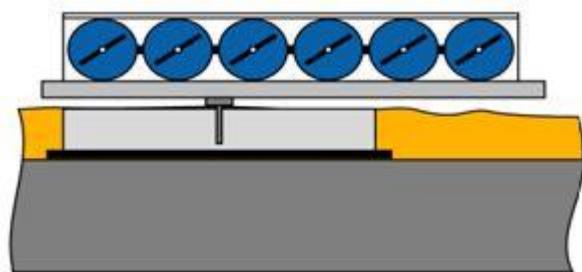
- 1 Rope
- 2 belts
- 3 Rubber protection for the glass

Use caution in order to avoid broking the collector's glass

Mounting collectors on flat roofs

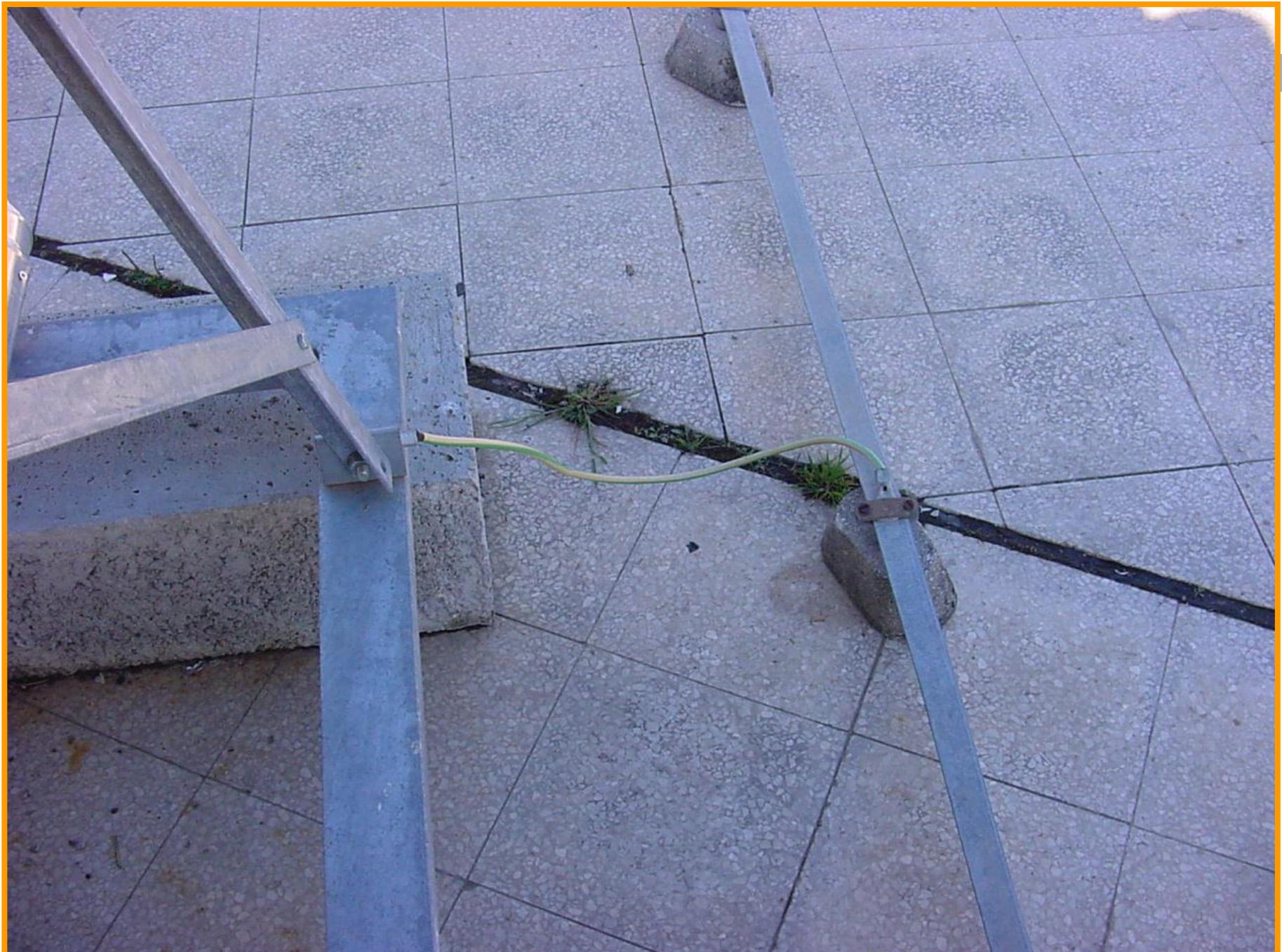


Mounting vacuum tube collectors

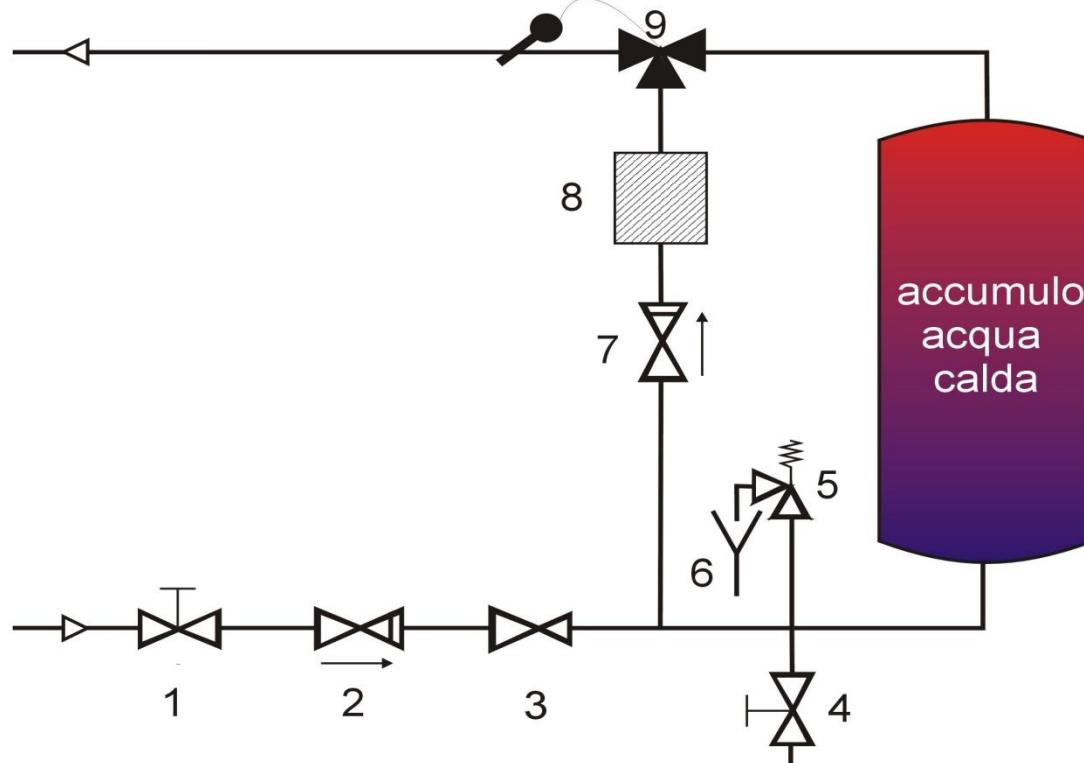


Source: Target/Viessmann

Lightning protection



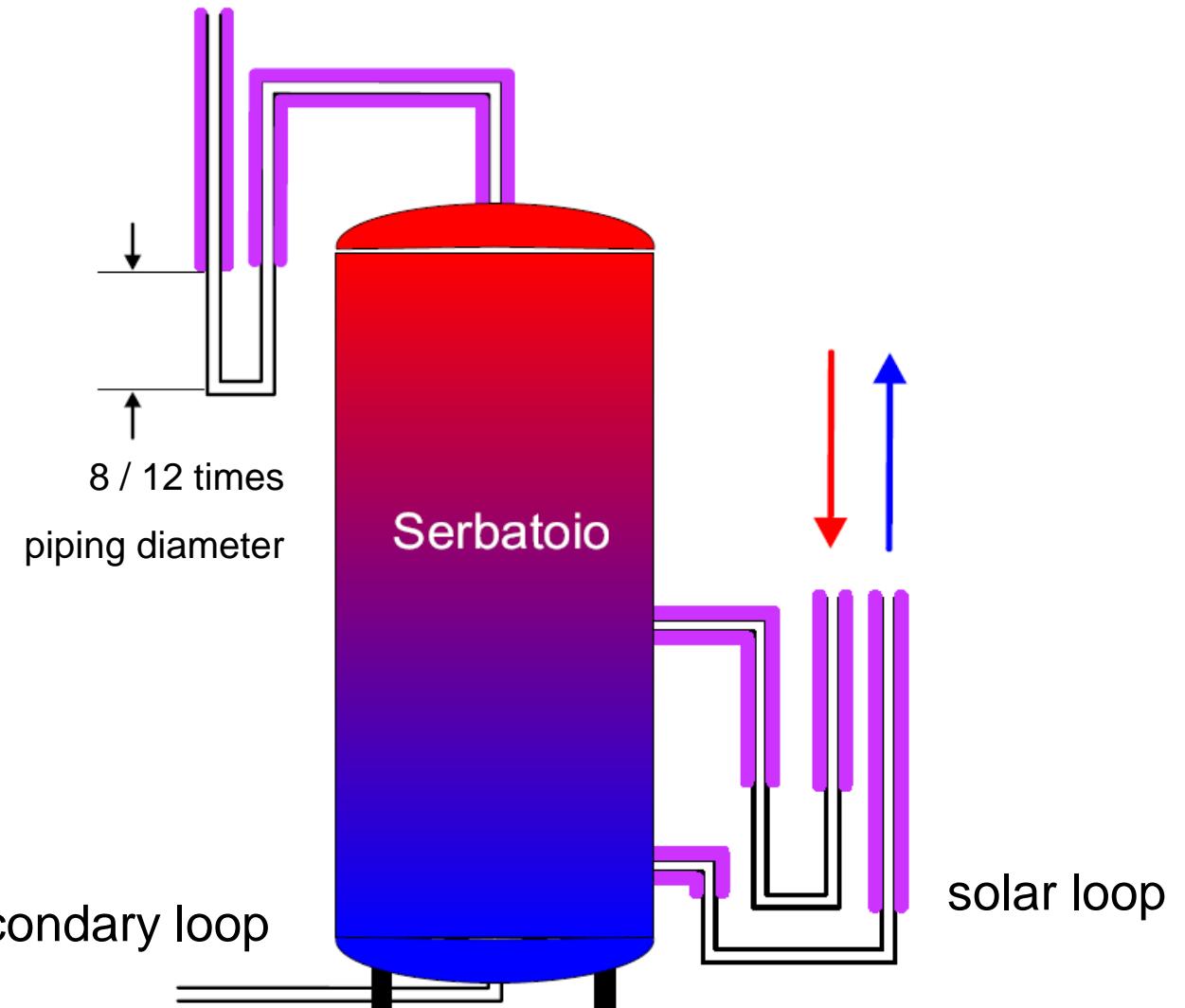
Connecting the tank to the hydraulic loop



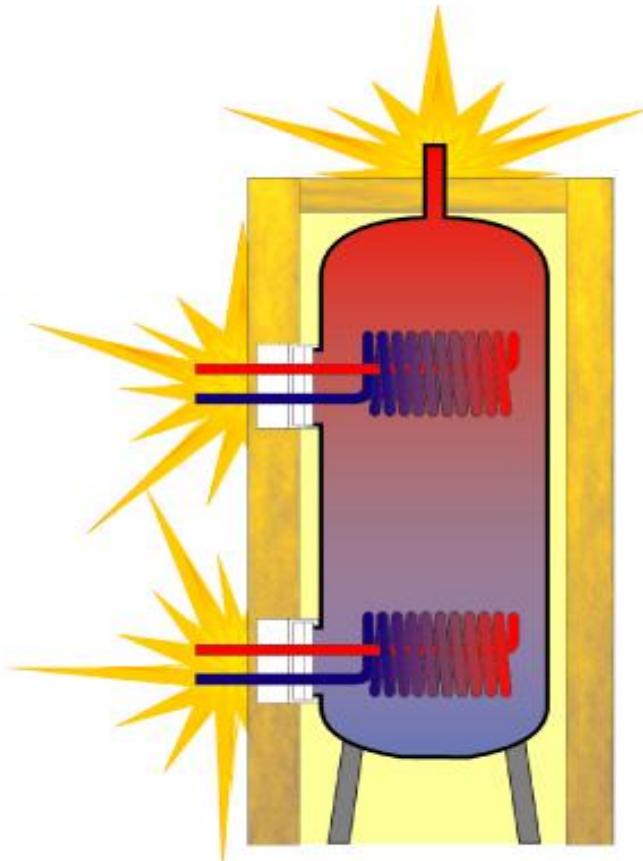
- 1 shut-off valve
- 2,7 non return valves
- 4 drain valve
- 5 security valve
- 8 filter
- 9 mixing valve

Syphons

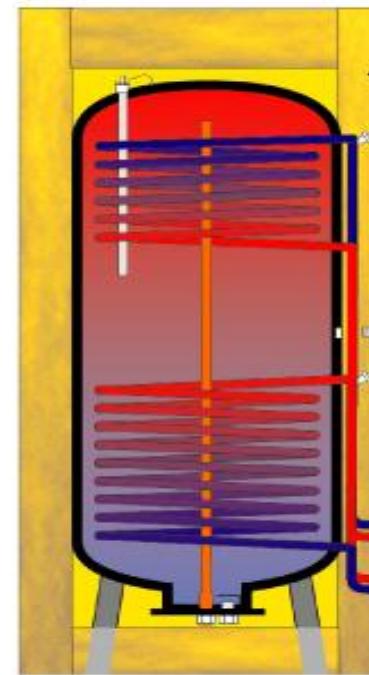
In order to avoid energy losses due to natural circulation, syphons should be used.



Tank insulation

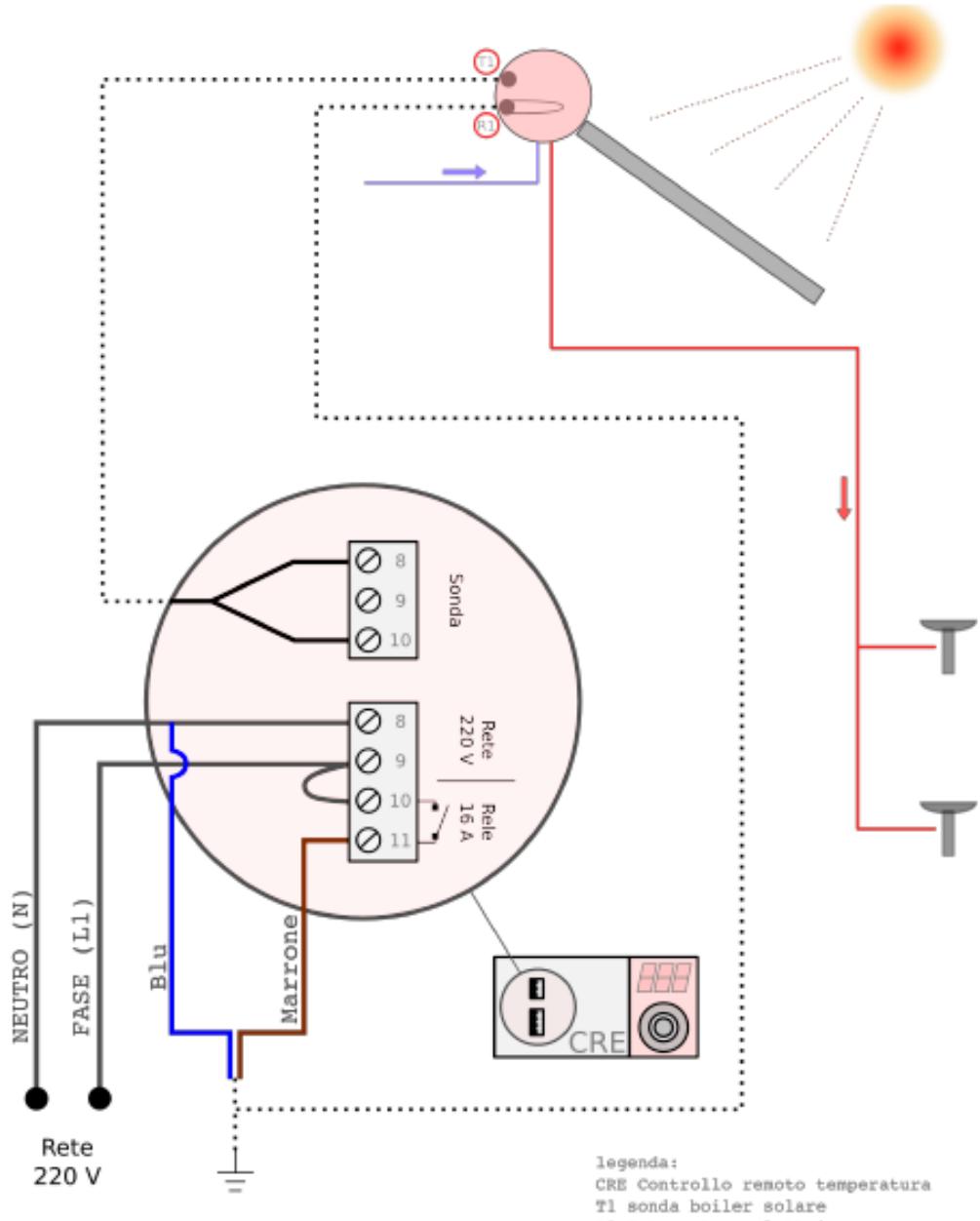


Conventional tank: ΔT (24 h): 30 °C



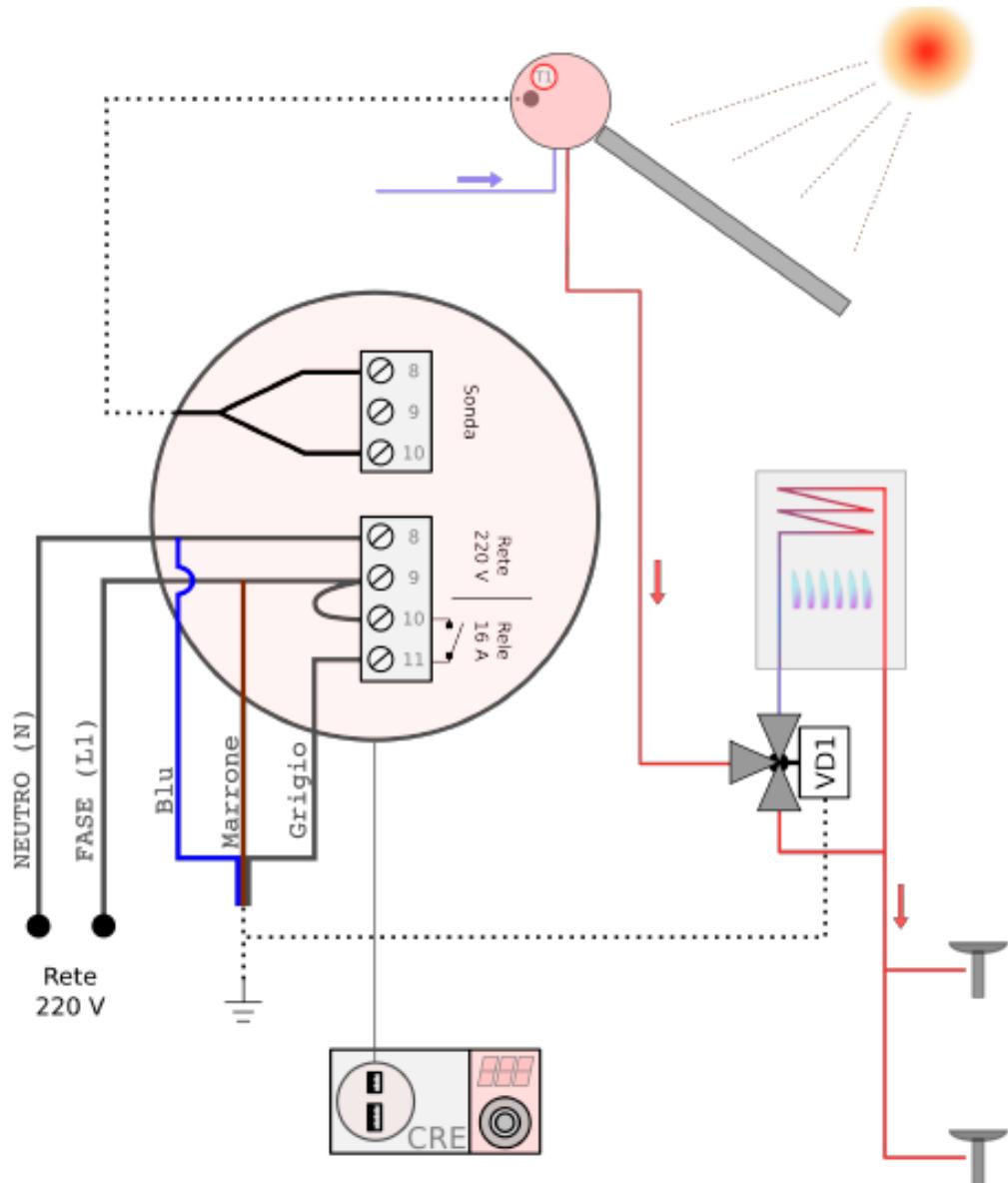
Solar tank: ΔT (24 h): 5 °C

Control unit



Electric scheme of a natural circulation system with electric auxiliary integration

Control unit



Electric scheme of a natural circulation system with gas auxiliary integration

Solar loop insulation



External piping



Checklist for design and installation

- Are collectors well fixed, in order to resist to wind?
- Is the collector fiel accessible for maintenance?
- Is a lightning protection installed?
- Has piping expansion been considered?
- Is external piping protected against UV radiation, rain and animals?
- Has the roof been checked for impermeability?
- Has a mixing valve been installed after the solar tank?
- Is an instruction manual available for the user?

Only for forced circulation sytems:

- Does the tank fit inside the technical room and are doors large enough?
- Have the proper pressures been chosen?
- Has the sensor in the collector been installed correctly and not in a shady place?
- Is the temperature sensor protected against overvoltage?
- Has the pump been installed in the return loop (cold)?