Overheat Protection

For vertically installed EURO C20 and C22 AR collectors.

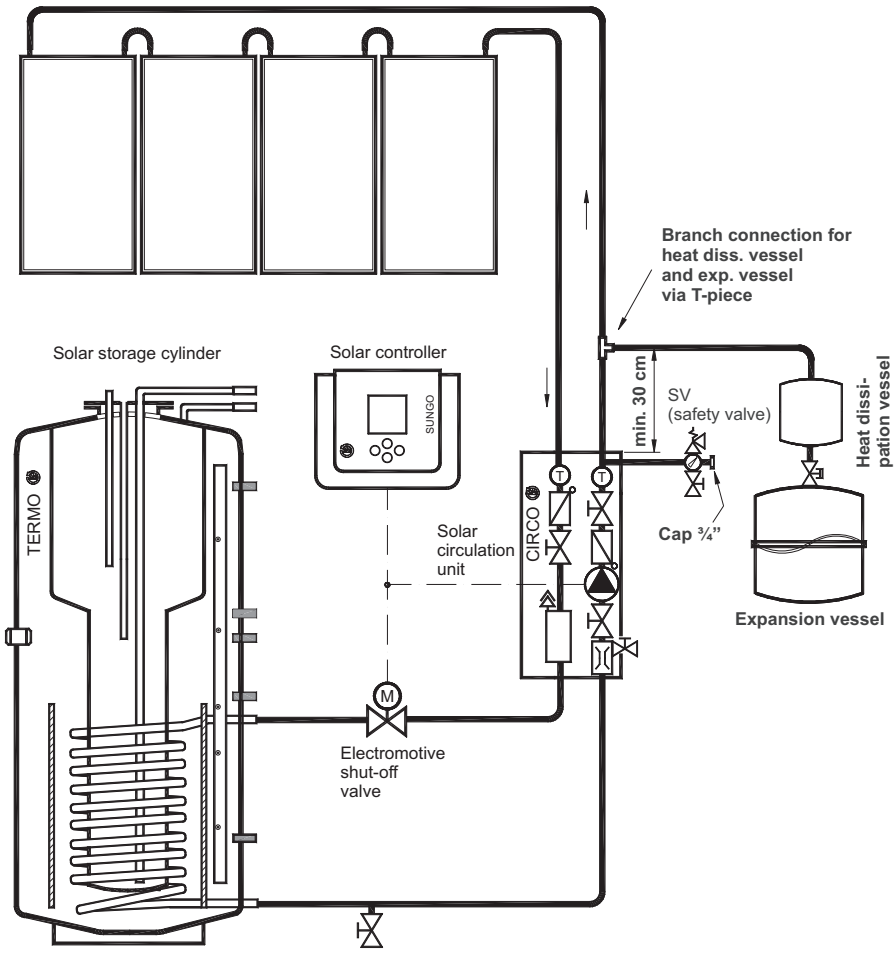

Figure 1 Solar installation with additional overheating protection.

For some solar installations featuring vertically installed EURO C20 or C22 AR, an overheat protection should be included to protect components of the solar circuit.

Table 1 Installation Types	Collector type/qty	Action
Installations for hot water preparation for sports arenas/gyms with summer break – and comparable settings and installations with space heating support	– From 4 x EURO C20 or C22 AR	Install heat dissipation vessel and expansion vessel and place the expansion vessel above the solar circulation unit via T-piece.
Installations for hot water preparation and space heating support in the context of roof/attic heating centrals (short piping distances, small height differences between solar exp. vessel and collectors)	– From 4 x EURO C20 or C22 AR	As above and additionally electromotive shut-off valve in the supply leg of the solar circuit.
Size of heat dissipation vessel	– Up to 4 x EURO C20 or C22 AR – Up to 8 x EURO C20 or C22 AR	5 l 12 l

Installation Steps

- Install the heat dissipation vessel approx. 30 cm above the solar circulation unit (fig. 1).
- Install expansion vessel downstream. (fig. 1).
- The shut-off valve has to be installed into the supply leg behind the solar circuit unit (fig. 1). This way it can be avoided that during collector stagnation periods (vapour formation in collectors) hot vapour enters and potentially damages the unit.
- The shut-off valve is controlled parallelly to the solar circulation pump. When using solar controllers with speed control: set it to 100 % or install optional relais (Relais S-SXL with switching delay). To avoid constant electricity consumption during operation, it is intended to use a electromotive shut-off valve with single-phase activation (¾" OT or 1" OT).
  Note: When an electricity failure occurrs while the valve is open, it does not close automatically! If this is a desired function, a valve with spring reset or thermal actuator should be used.
- Install automatic air vents in such a way that they can be closed to the solar circuit. More comfortable is the installation of special air separators at accessible points of the circuit instead. In this case the installation must be vented as completely as possible when filled with the filling pump.
- All additional installations and add-ons should be carefully documented in the schematics and/or the system documentations for later reference.
- Only utilize temperature resistant piping for the solar circuit (up to 175 °C)

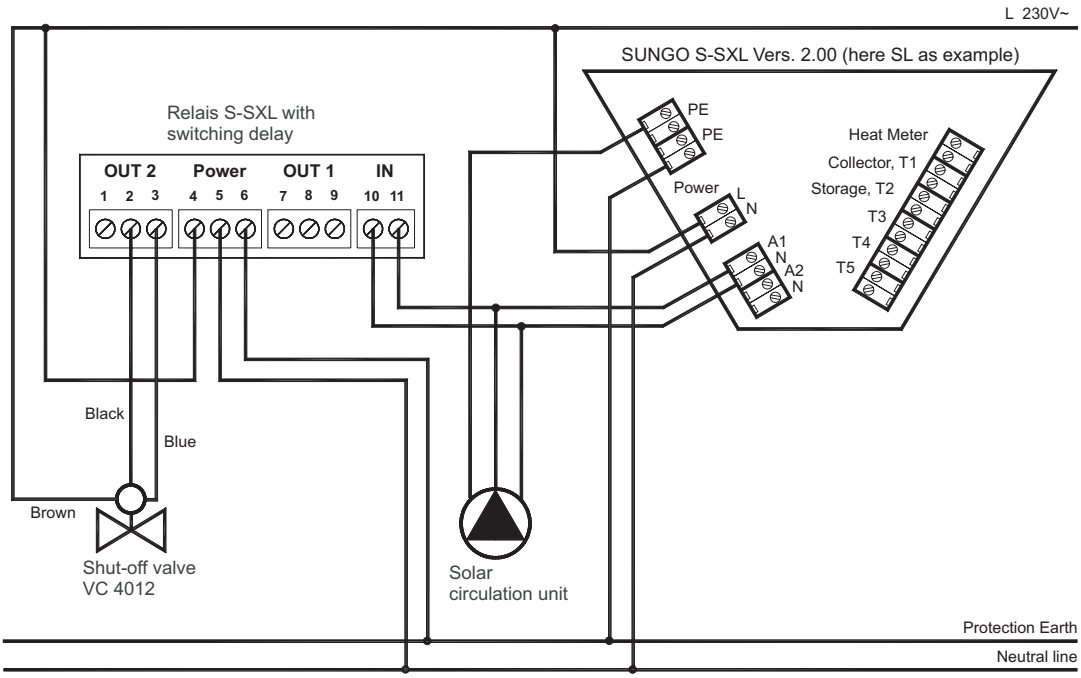

Figure 2 Connect electromotive shut-off valve and additional "relais S-SXL with switching delay".

WAGNER & CO · Zimmermannstraße 12 · D-35091 Cölbe/Marburg · ☎ +49 6421 80 07-0 · Fax 80 07-22