

Current-Relay SolarYes

Monitoring of Function at Photovoltaic Systems, Detection of Failure at Inverters, 8 inputs

SolarYes AC



The SolarYes monitors outputs of inverters in PV-systems. Its output-relays (2 potential-free contacts) switch, when there has been no current during the last 24 hours in one of up to 8 monitored lines. Thus the failure of an inverter or a fuse is detected and reported. The operator can initiate repair immediately and saves downtime.

The SolarYes is a simple, easily understandable and economical solution, that protects PV-systems from downtimes.

The device is mounted in a switch cabinet or a distribution box. The current is measured contactless with simple and solid current transformers, that are mounted over the line at any position, e.g. near the fuses. A subsequent installation in an existent system is possible.

Over the course of 24 hours occurring minimal currents (at night there can be wattles currents, caused by interference suppression capacitors in the inverter) are automatically measured and faded out in the evaluation.

The minimum response limit of 0,3 A allows measuring of low current-levels. The limit can be reduced by leading the monitored line multiple times through the transformer (\varnothing 11 mm).

In case of false alarms, e.g. with snow on the solar modules, the monitoring interval can be extended to up to 8 days or the alarm can be suppressed with a switch.

The 2 output-relays can switch alarm-lamps or electroacoustic transducers. The connection of an alarm system or another monitoring unit also is possible.

Function

Inputs:

- 8 inputs for current transformers STWA1 or STWA1H (max. 100 A)
- Not connected inputs disconnectible
- Sensitivity adjustable AC 0,3...2,4 A (lower values by leading the monitored line multiple times through the transformer)
- Autocalibration of inputs
- Enable-input

Displays and Controls:

- 8 LEDs for inputs
- 8 LEDs for alarms
- 4 LEDs for display of state and programming
- 2 LEDs for relays
- 1 LED enable-input
- 3 pushbuttons

Other features:

- 2 change-over contacts, nc and no individually programmable
- Autocalibration for easy startup
- Power-saving (Eco-Mode), disconnectible
- Power consumption <0,5 W, <1,2 VA
- Universal supply-voltage AC/DC 24-240 V
- Housing for DIN-rail mount, 70 mm, mounting height 55 mm

Order-number

S225535

Current transformers STWA1 and STWA1H



For measuring the current, current transformers STWA1 and STWA1H are used, one for every monitored line. The STWA1 consist of a climate-proven sealed-in coil with 2 x 1 m cable.

The STWA1H can be fixed on a DIN-rail or mounted with 2 screws. The electrical connection is made via pluggable terminals. A built-in LED lights up at currents > app. 2 A.

The inner diameter of both current transformers is 11 mm, the maximum current is 100 A.

Order-numbers: STWA1 S225201
 STWA1H S225506

Technical Data SolarYes

Rated Supply Voltage	AC/DC 24-240 V, 0/45...65 Hz DC: 20,4...297 V, AC: 20,4...264 V
Power Consumption	< 0,5 W, < 1,2 VA
Relay-Output	2 Change-over contact (CO) type 2, see general technical hints
Measuring Inputs	1-8 Current transformers STWA 1 or STWA 1 H Sensitivity adjustable AC 0,3 - 2,4 A \pm 30% max. 100 A continuously, 300 A / 10 s
Function	Monitoring interval adjustable 1-8 days
Test Conditions	see general technical hints
Rated ambient temperature range	-20°C...+65°C
Housing	Design V4
Dimensions (w x h x d)	70 x 90 x 58 mm, mounting height 55 mm
Protection housing/terminals	IP 30 / IP 20
Attachment	DIN-rail 35 mm or screw-mount M4
Weight	approx. 180 g

