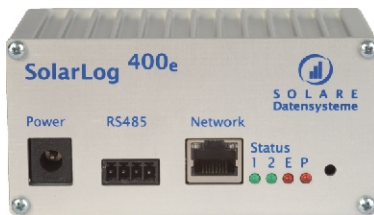
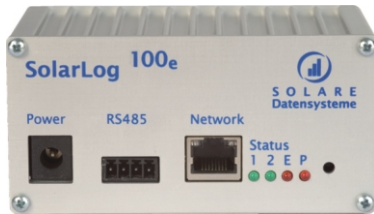


SolarLog^{100e} / 400e



SolarLog^{100e} and SolarLog^{400e} are devices to monitor photovoltaic systems. Version 100e is suitable for one inverter and version 400e for up to 10 inverters.

A network web browser is used to operate either unit easily and conveniently and therefore does not require any software to be installed.

SolarLog™ units work with all commonly available inverters, e.g. models by SMA, Kaco, Sputnik/SolarMax and Fronius. The RS485 interface is used to log data from all inverters individually and to store and analyze their data.

Features Overview:

- PC operation with modern web interface does not require any software to be installed
- Direct connection to inverters via RS485. Provides access to all important energy data
- SolarLog^{100e}: For 1 inverter
- SolarLog^{400e}: For up to 10 inverters (max. of 30 kWp recommended)
- Detects errors reliably by comparing output of all connected inverters
- Completely Internet ready. Online data on free homepage. Sends messages via email and SMS
- Capable of using existing DSL routers / cable modems
- Currently supported inverter manufacturers: SMA, KACO, Sputnik/SolarMax, Fronius, Sunways, Kostal, Danfoss, Vaillant, Mastervolt, Schüco, Refu, Solutronic, Suntime/Phoenixtec, Diehl and many other similar models

Easy Installation

Connects directly to the inverter interface. This means easy access to all available data such as voltage / current on DC and AC side, status and error messages. Separate software is not required to operate or control the units; this is done with the Internet browser integrated in the operating system. Installation problems are thus eliminated. The SolarLog™ units are also compatible with Linux or Mac computers.

Data are saved to high-volume nonvolatile memory that protects from data loss in case of power outages. The memory depth with

daily values is 15 years, with monthly/annual values 30 years. The memory depth of minute values depends on the number of inverters and is between 10 and 120 days. Four hundred status/error events are stored.

Internal, preconfigured clock. Buffered capacitor (gold cap), with 50 days operational reliability. Multifunction push-button auto detects the network address and inverters and restores factory settings to unit.





Comprehensive System Monitoring

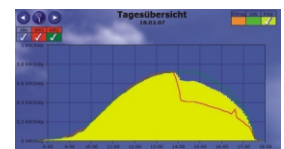
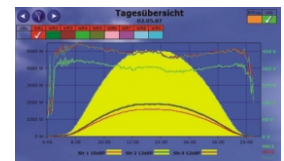
- Monitors each individual inverter for failure/malfunction
- Efficiency tuning of individual strings and inverters
- Analyzing status/error messages of the inverters
- Daily yield message

All messages can be sent as either email or SMS.

Detailed Graphical Display and Diagnosis

Each graphical analysis is available locally on a computer and via Internet.

- Data is visualized with graphics and tables in an easy to browse and informative layout. Users can choose between day, month, year, and overall views (all years). Displays nominal values for any annual yield. The day view also depicts a yield graph and the input voltage. Data of the individual inverters can be compared with one another
- Additional view specifically for mobile PDAs and other handhelds with small screens. Modern PDAs are equipped with a WLAN interface used to connect to the computer network. The SolarLog™ can then also be used for a compact display for home or office similar to that offered by the SMA SunnyBeam display. But in color and with more information
- Logs events such as inverter status and errors. Up to 400 events are stored accurately to the second. This makes it possible to detect derating states or power supply problems of utility companies
- Automatic calculation of the module degradation across individual years



Zeitraum	Ertrag absolut (kWh)	Ertrag pro kWp (kWh/kWp)	Ertrag pro m² (kWh/m²)	Ertrag pro kWh (kWh/kWh)
01.01.2008	100,0	1,0	10,0	100,0
02.01.2008	100,0	1,0	10,0	100,0
03.01.2008	100,0	1,0	10,0	100,0
04.01.2008	100,0	1,0	10,0	100,0
05.01.2008	100,0	1,0	10,0	100,0
06.01.2008	100,0	1,0	10,0	100,0
07.01.2008	100,0	1,0	10,0	100,0
08.01.2008	100,0	1,0	10,0	100,0
09.01.2008	100,0	1,0	10,0	100,0
10.01.2008	100,0	1,0	10,0	100,0
11.01.2008	100,0	1,0	10,0	100,0
12.01.2008	100,0	1,0	10,0	100,0
13.01.2008	100,0	1,0	10,0	100,0
14.01.2008	100,0	1,0	10,0	100,0
15.01.2008	100,0	1,0	10,0	100,0
16.01.2008	100,0	1,0	10,0	100,0
17.01.2008	100,0	1,0	10,0	100,0
18.01.2008	100,0	1,0	10,0	100,0
19.01.2008	100,0	1,0	10,0	100,0
20.01.2008	100,0	1,0	10,0	100,0
21.01.2008	100,0	1,0	10,0	100,0
22.01.2008	100,0	1,0	10,0	100,0
23.01.2008	100,0	1,0	10,0	100,0
24.01.2008	100,0	1,0	10,0	100,0
25.01.2008	100,0	1,0	10,0	100,0
26.01.2008	100,0	1,0	10,0	100,0
27.01.2008	100,0	1,0	10,0	100,0
28.01.2008	100,0	1,0	10,0	100,0
29.01.2008	100,0	1,0	10,0	100,0
30.01.2008	100,0	1,0	10,0	100,0
31.01.2008	100,0	1,0	10,0	100,0
01.02.2008	100,0	1,0	10,0	100,0
02.02.2008	100,0	1,0	10,0	100,0
03.02.2008	100,0	1,0	10,0	100,0
04.02.2008	100,0	1,0	10,0	100,0
05.02.2008	100,0	1,0	10,0	100,0
06.02.2008	100,0	1,0	10,0	100,0
07.02.2008	100,0	1,0	10,0	100,0
08.02.2008	100,0	1,0	10,0	100,0
09.02.2008	100,0	1,0	10,0	100,0
10.02.2008	100,0	1,0	10,0	100,0
11.02.2008	100,0	1,0	10,0	100,0
12.02.2008	100,0	1,0	10,0	100,0
13.02.2008	100,0	1,0	10,0	100,0
14.02.2008	100,0	1,0	10,0	100,0
15.02.2008	100,0	1,0	10,0	100,0
16.02.2008	100,0	1,0	10,0	100,0
17.02.2008	100,0	1,0	10,0	100,0
18.02.2008	100,0	1,0	10,0	100,0
19.02.2008	100,0	1,0	10,0	100,0
20.02.2008	100,0	1,0	10,0	100,0
21.02.2008	100,0	1,0	10,0	100,0
22.02.2008	100,0	1,0	10,0	100,0
23.02.2008	100,0	1,0	10,0	100,0
24.02.2008	100,0	1,0	10,0	100,0
25.02.2008	100,0	1,0	10,0	100,0
26.02.2008	100,0	1,0	10,0	100,0
27.02.2008	100,0	1,0	10,0	100,0
28.02.2008	100,0	1,0	10,0	100,0
29.02.2008	100,0	1,0	10,0	100,0
30.02.2008	100,0	1,0	10,0	100,0
31.02.2008	100,0	1,0	10,0	100,0

100% Internet

- Extended-range Internet connection. This requires that the SolarLog™ unit is connected to the Internet via a DSL router or cable modem using the integrated network adapter
- Automatic notification of daily yield as email or SMS
- Transferring of online values to any other user homepage in freely adjustable cycles (min. 5 minutes). The HTML pages of the homepage do not require programming knowledge
- Simply export to homepage and configure the web address in SolarLog™. Access data from anywhere and anytime
- Free homepage and email at: www.solarlog-home.eu
- Expanded Internet portal for commercial use available starting January 2009 (management of customer systems, remote configuration of the SolarLog™ units, access control)



Large Displays (Only SolarLog^{400e})

- Large displays by Schneider Displaytechnik, Rico, and HvG can be connected to the RS485 interface parallel to the inverters

Data Security

- All data can be manually backed up to the user's hard disk or automatically transferred to a homepage (CSV format, data in plain text file with fields separated by semicolon) and exported for further processing or analyses
- Old yield data can be imported in a CSV file as "initial balance" (not with SMA) or added manually as a daily yield
- The SolarLogTM unit can be maintained with new updates from the Internet. The corresponding update page is at www.solare-datensysteme.de, updates are free

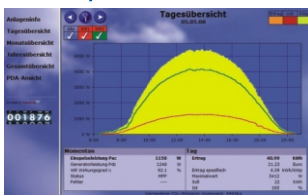
Technical Connection

The SolarLogTM is equipped with a standard 10/100 Mbit Ethernet interface. Any commonly available PC technology can be connected to this port.

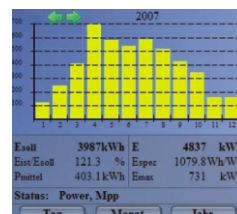
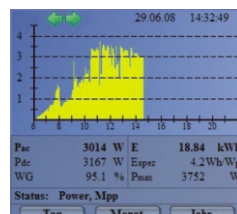
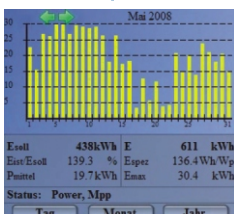
- Direct connection of the SolarLogTM to a computer via crossover network cable. Advantage: very cheap
- Connection to an Internet router via patch cable
- Connection to a WLAN access point for wireless networking
- Connection to a Powerline adapter, etc. The possibilities are endless

For remote-controlled systems without Internet router, we recommend using the SolarLog^{800e} since modems can be easily connected to this unit without requiring network configuration knowledge.

PC Depiction



PDA Depiction



Product Comparison

	SolarLog ^{100e}	SolarLog ^{400e}	SolarLog ^{800e}
Inverter communication			
Max. number of Inverter	1	10	100
Communication interface	RS485	RS485	2 x RS485
Inverter mixed-mode operation	-	-	•
Recommended max. system size	6kW	30kW	1MW
Max. cable length	max. 1000 m		
System monitoring			
String monitoring (depends on Inverter type)	•	•	•
Inverter failure	•	•	•
Efficiency monitoring per Inverter	•	•	•
Status/error monitoring	•	•	•
Sensor technology connections (solarization/2x temp./wind)	-	-	•
Email- and SMS Alarm	•	•	•
Local alarm (pot.-free contact)	-	-	•
Yield forecast	•	•	•
Degradation calculation	•	•	•
Visualization			
Integrated web server	•	•	•
Graph. visualization - local computer	•	•	•
Graph. visualization - USB stick	-	-	•
Graph. visualization - Internet	•	•	•
LED status indicator	•	•	•
Graph. touch display	-	-	•
Large display RS485 / SO pulse	-	•/-	•/•
Interfaces			
Ethernet - network	•	•	•
USB Stick	-	-	•
Analog modem / GPRS(GSM) / DSL	-	-	•
Potential-free contact (relays)	-	-	•
Alarm contacts (theft)	-	-	•
General data			
Power supply / equipment voltage	220V / 12V		
Electricity consumption	4W	4W	3W
Ambient temperature	-10°C bis +50°C		
Case	Alu. cooling fins		Plastic
Dimensions (WxDxH) in cm	11 x 7 x 6		21 x 20 x
Installation	Wall mount		
Protection class	IP 20 (only indoor use)		
Warranty	24 months		

(Information may differ depending on device type)

Delivery Scope

- SolarLog^{100e/400e} basic unit
- 12 volt power pack
- Data cable between SolarLogTM and first inverter
- Operating manual

SolarLog^{100e/400e} Accessories

- SolarLogTM Powerline kit connects SolarLogTM and computer/router via electrical wiring in home
- SolarLogTM RS485 cellular phone kit connects SolarLogTM and Inverter router via radio link

SMA Inverter Accessories

- Special piggyback RS485
(Lower price alternative to SMA original, electrically insulated, 6.5kV insulation protection, suitable for all SMA string inverters except NG-SB4000/5000TL-20)

All information without guarantee.

MADE IN GERMANY.