

SMA SUNNY BOY

A solar energy system is only as good as its inverter. It manages the system and is thus a central element in delivering your solar yields. The Sunny Boy family of inverters offers a wide range of products for every requirement and system size.

Phoenix Solar offers you the greatest possible security for your investment: In addition to the quality control carried out by the manufacturer, a Phoenix Solar technical team also performs stress tests on all products. Random samples of Sunny Boy inverters are tested for reliability and performance – providing the best possible security for your power yields!



The advantages at a glance:

- Tested in a RAL certified process, independent of the manufacturer
- Experienced market leader in Germany and worldwide
- Wide temperature range (-25 °C to + 60 °C)
- A weatherproof, dustproof, and rust-free housing allows trouble-free use outdoors and under extreme conditions (IP 65 certified)
- The ESS (Electronic Solar Switch) integrated into the device allows safe isolation of the solar modules from the inverter
- 5 year product guarantee* – optionally extendable to 25 years
- 24-hour replacement service and customer hotline

* The manufacturer's warranty conditions apply
Example product photograph – the housing can vary according to device type

Experience pays off

Phoenix Solar or your local Phoenix Solar partner chooses the optimal inverter to suit your solar energy system. All our sales partners are highly competent, with years of experience in solar technology, and are selected by us using the strictest quality criteria.

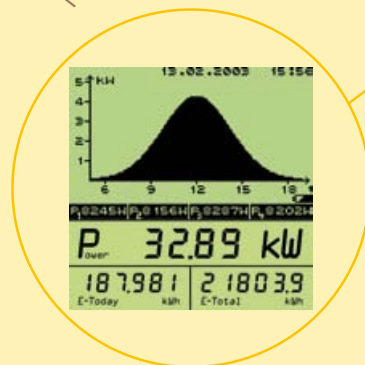
PERMANENT SECURITY – EVERY SOLAR CENT COUNTS

With a solar energy system, you silently produce emission-free energy – a nice feeling to earn money this way! However, because your system is so silent, an additional monitoring system is to be recommended. This allows you to keep an eye on your yields and you can conveniently read the current system performance from your living room, kitchen or on your office PC – as you wish.

Sunny Beam: System monitoring

For smaller systems up to about 10 kWp on residential buildings, the Phoenix Solar technical team recommends the elegant Sunny Beam from SMA for monitoring all system functions. This wireless tabletop device provides

you with the most important data of your solar energy system at a glance – without annoying cables and with simple operation.



Sunny Beam display options:

Current power, daily and monthly data, cumulative system yields, power of individual inverters, feed-in compensation, amount of CO₂ avoided, and more.

The advantages of the Sunny Beam:

- Power supply via an integrated solar cell ensures completely wireless operation
- Wireless communication with the inverters minimises installation effort
- LCD display offering fast presentation of the yield data
- No PC required for operation
- USB interface for optional data transfer to a PC and additional battery charging
- Range of up to 30m inside buildings and up to 100m outside
- 31 day storage and monitoring of up to 4 inverters

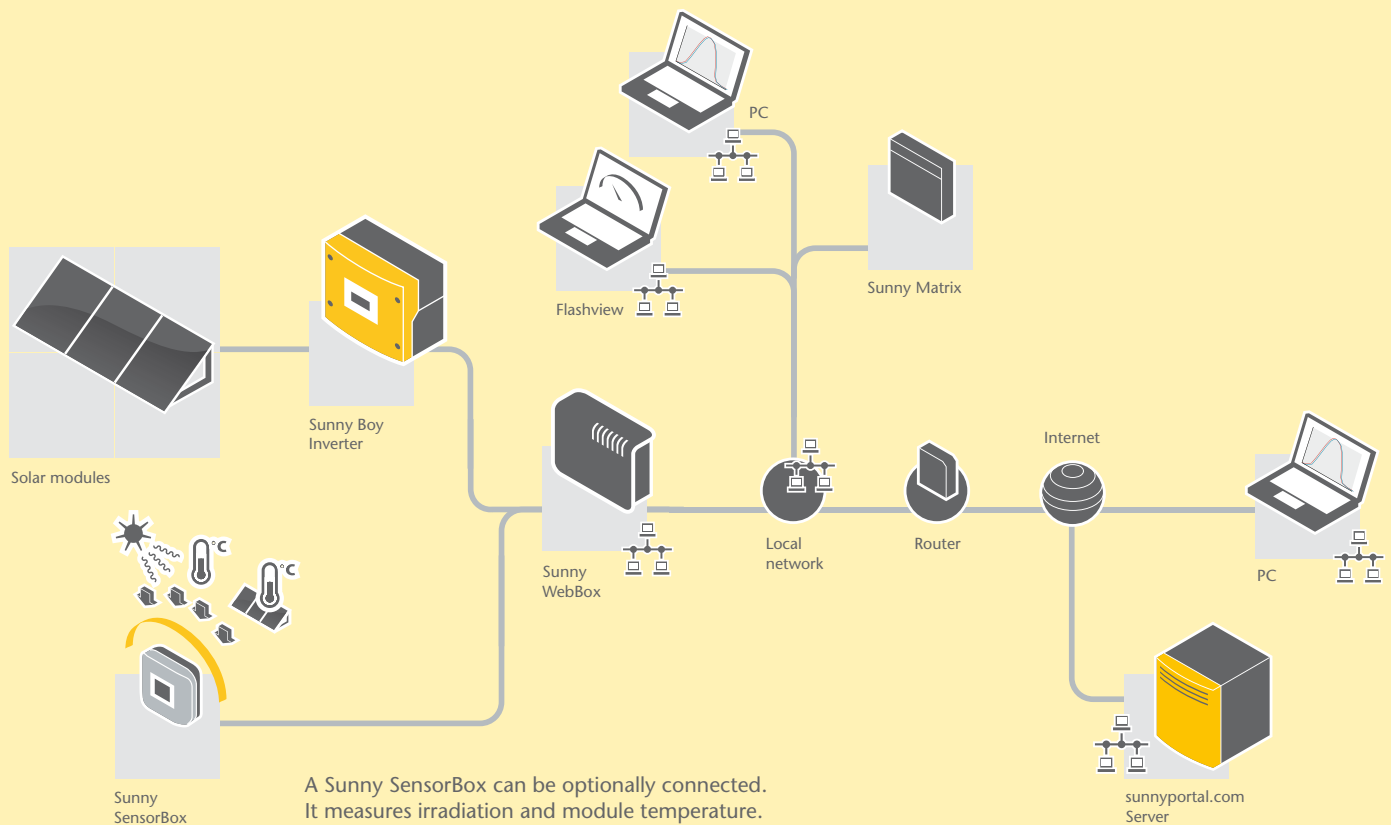
The communications centre for your solar power plant: continuous documentation of the system data.



Sunny WebBox: System monitoring

Increased investment volume for systems also increases the need for automated system monitoring. Also, these systems are often not located directly at the place of residence. Today's modern technology makes remote monitoring of solar energy systems child's play. If necessary, even from the other side of the planet.

System monitoring, remote diagnosis, data storage, and visualisation: for the ambitious solar power plant operator, the Phoenix Solar technical team recommends the Sunny WebBox from SMA as a communications centre.



The advantages of the Sunny WebBox:

- Early detection of operational faults, also for very remote systems
- Data storage for analysis, e.g. using Microsoft Excel
- Diagnosis and system monitoring using any PC: Windows, Linux & Mac OS
- Automatic data transfer
- Optional internal analogue modem or GSM modem
- Storage expansion and data transfer to a PC using an exchangeable SD card
- Monitoring of up to 50 inverters
- Free data preparation and graphic presentation in the Internet

SMA Sunny Boy inverters

The following table provides an overview of all the technical data of the individual Sunny Boy inverters:

Model description	SB 1100	SB 1700	SB 2100 TL	SB 2500	SB 3000	SB 3300	SB 3300 TL HC	SB 3800	SB 3000 TL-20	SB 4000 TL-20	SB 5000 TL-20
Material number	100902	100903	100904	100905	100908	100910	100911	100912	100938	100926	100927
Max. DC power (W)	1210	1850	2200	2700	3200	3820	3440	4040	3200	4300	5300
Min. MPP voltage (V)	139	139	125	224	268	200	125	200	125	125	125
Max. MPP voltage (V)	320	320	480	480	480	400	600	400	440	440	440
Max. DC voltage (V)	400	400	600	600	600	500	750	500	550	550	550
Max. DC current (A)	10	12.60	11	12	12	20	11	20	17	2 x 15	2 x 15
Rated AC power (Wp)	1000	1550	1950	2300	2750	3300	3000	3800	3000	4000	4600
Max. AC power (Wp)	1010	1700	2100	2500	3000	3600	3300	3800	3000	4000	5000
Max. efficiency (%)	93.00	93.50	96	94.10	95	95.20	96	95.60	97.00	97.00	97.00
European efficiency (%)	91.60	91.80	95.20	93.20	93.60	94.40	94.60	94.70	96.00	96.20	96.50
Transformer	yes	yes	no	yes	yes	yes	no	yes	no	no	no
Weight (kg)	22	25	16	30	32	38	28	38	22	25	25
Width (mm)	939	434	434	434	434	450	470	450	470	470	470
Height (mm)	295	295	295	295	295	352	490	352	445	445	445
Depth (mm)	214	214	214	214	214	236	225	236	180	180	180
IP protection degree	65	65	65	65	65	65	65	65	65	65	65
Temperature range (°C)	- 25 to + 60° C for all inverters										
Number of strings	2	2	2	3	3	3	2	3	2	2 x 2	2 x 2
Multi-Contact™	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
AC plug	yes	yes	yes	yes	yes	yes	no	yes	no	no	no
ESS (Electronic Solar Switch)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Availability (certified)	BE/DE/ES/ FR/GR/UK	BE/DE/ES/ FR/GR/UK	DE/FR	BE/DE/ES/ FR/GR/UK	BE/DE/ES/ FR/GR/UK	BE/DE/ES/ FR/GR/UK	DE/FR/GR	BE/DE/ES/ FR/GR/UK	DE/FR/ GR/UK	BE/DE/FR/ GR/UK	DE/FR/ GR/UK
Limited availability*	LU/NL	LU/NL	BE/ES/ NL/LU	LU/NL	LU/NL	LU/NL	BE/ES/ NL/LU	LU/NL	BE/ES/ NL/LU	BE/ES/ NL/LU	BE/ES/ NL/LU

* For further information please get in contact with your local partner.
Source: SMA, subject to errors and technical modifications

BE = Belgium
DE = Germany

ES = Spain
FR = France

GR = Greece
LU = Luxembourg

NL = Netherlands
UK = United Kingdom

The manufacturer SMA Technologie

SMA Technologie AG was founded in 1981. As one of the leaders in the solar technology market, SMA sells inverters for various sizes of solar energy systems. With the innovative string technology used in their products, the German company has developed from a pioneer of

solar system technology into a world market leader. The range of inverter products is enhanced by modern communications technology allowing continuous system monitoring and presentation of the yields and the CO₂ savings.