



## Safe

- Remote monitoring, diagnosis and configuration of the solar power plant from anywhere in the world

- Quick detection of malfunctions and notification in case of a failure via e-mail or text message\*
- Powerful data logger for documentation of all important plant data

## User-friendly

- Easy remote access via the web browser
- Including free standard access for Sunny Portal for the entire service life of the plant

- Flexible display, evaluation, yield and event reports via Sunny Portal

## SUNNY WEBBOX

Remote monitoring and maintenance of large solar power plants

System monitoring, remote diagnosis, data storage and visualization: the Sunny WebBox is the high-performance communication hub for medium- to large-scale solar power plants. It continuously collects all the data from the inverters on the system side, thereby keeping you informed of the system's status at any given time. The Sunny WebBox is a multi-functional, energy-efficient data logger which offers a wealth of options for displaying, archiving and processing data, even in networks with strict security regulations. In case of the event "Error", the WebBox informs you immediately by e-mail or text message\*. Even from remote locations where no DSL or telephone connection is available, measurement data can be transmitted to the Sunny Portal via a GSM modem.

\*optional with existing GSM modem



# SUNNY WEBBOX

## Modular system monitoring for commercial solar power systems

### Plant management

The Sunny WebBox continuously records and stores all available measured values of up to 50 inverters. In addition, the inverter parameters can be called up and modified. The Sunny WebBox is the single point of operation e.g. for changing the operating parameters of the connected inverters - from anywhere in the world.

The Sunny WebBox allows installers and plant operators to have all information concerning the status of a solar power plant at any time and to detect operational faults at an early stage. In case of an event of the type "Error" you are furthermore alarmed actively by e-mail or optionally by text message\*. Wherever you may be - whether at home, in the office or on a business trip: all you need is a PC with internet browser and an internet connection in order to access the data of the Sunny WebBox.

### Data management

The Sunny WebBox provides various modern data processing options for professional data management. The recorded performance values, which provide you with detailed information on the performance of your system, are saved in conventional CSV or XML file formats on the Sunny WebBox. The ability to exchange data by FTP allows you to easily transfer these values to the PC. In this way, valuable system data can not only be saved on your computer for the long-term, but can also be displayed according to your preferences using MS Excel, for example, and create straightforward evaluations over the course of the day, month and year. Additionally, it is possible to send plant data - simultaneously to the Sunny Portal - to a freely selectable FTP-server.

\*optional with existing GSM modem

## Typical plant design

### Electricity generation

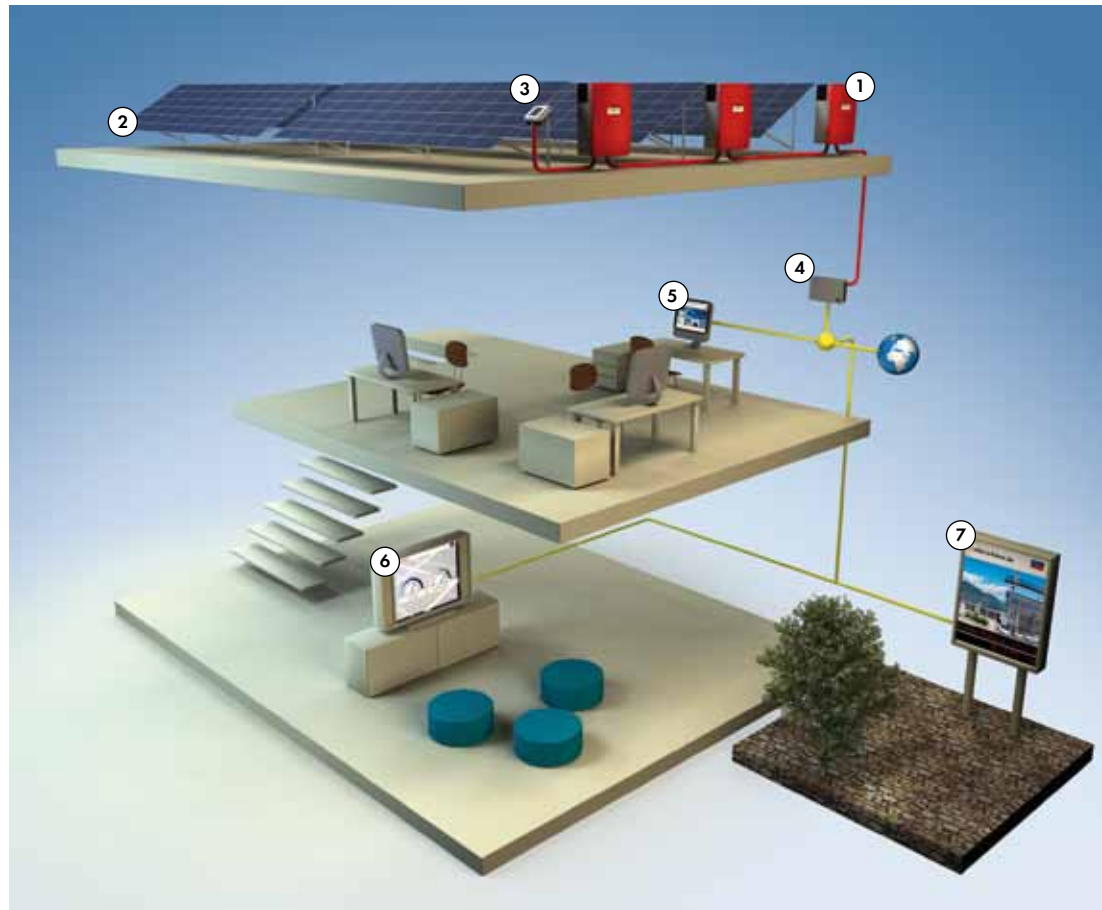
- ① SUNNY MINI CENTRAL
- ② PV generator

### System monitoring

- ③ SUNNY SENSORBOX
- ④ SUNNY WEBBOX
- ⑤ SUNNY PORTAL
- ⑥ FLASHVIEW
- ⑦ SUNNY MATRIX

— RS485

— Local network / Internet



You can just as easily use a SD-card to save your data and transfer it between the Sunny WebBox and your PC. If a SD-card is inserted, the Sunny WebBox will additionally save your data on the removable storage medium. The data read out from the SD-card by a PC provides the identical individual options for processing it as with FTP.

### A perfect duo with Sunny Portal

The next step to even more convenience is to use the Sunny WebBox in combination with our free Internet portal.

At [www.SunnyPortal.com](http://www.SunnyPortal.com), we provide you with a completely pre-configured environment in which the data can be archived, processed and displayed automatically. If desired, the Sunny Portal also generates a daily or monthly plant report that you receive by e-mail. In case the Sunny WebBox does not send any

data, the Sunny Portal also informs about that. On request, the online platform automatically compares the yields of all inverters in a system and keeps you informed about potential deviations. Another advantage: the WebBox software can be automatically updated via Sunny Portal. This ensures that your system monitoring is always kept up-to-date with the latest technology.

The combination of Sunny Portal and WebBox results in an invincible team for keeping track of your solar harvest. And with the SMA Service, plant operators and installers get support for the entire service life of a system. Because in case of an event our employees can log in to the plant and support in the troubleshooting.

