



# Solar-Log 2000

For Solar Power Stations and Large-Scale PV Plants

# Functions

#### Feed-In Management

The Solar-Log 2000 is equipped with all of the functions needed for feed-in management. This includes solutions for active and reactive power control as well as response signals for the grid control center.

### Self-Consumption

The Solar-Log 2000 offers the option to measure the amount of self-produced power consumed and to present it graphically via the Solar-Log WEB Enerest™. An additional power meter serves as a consumption meter.

#### Solar-Log 2000 Alarm Function

The external alarm can be used to provide anti-theft protection to protect the system from burglars.

#### **Direct Marketing**

In Germany since 01 January 2016, PV plants with an installed output of more than 100 kWp are required to participate in direct marketing. Solare Datensysteme GmbH offers the Solar-Log 1900 as technical solution for all direct marketers.

# **Display Option**

### TFT-Touch-Display and access to Solar-Log™

The Solar-Log™ can be operated from a computer with a web browser or directly via the device's TFT-Touch-Display.

# Licenses

Detailed information on the direct marketing and feed-in management licenses, FTP and SCB licenses as well as the advanced options of the Solar-Log™ are described on page 95 and 96 in our portfolio.



# Solar-Log 2000 PM+

### Interfaces

#### Options

#### Solar-Log 2000 PM+ & Solar-Log™ Utility Meter

Combining the Solar-Log 2000 and Utility Meter simplifies implementation of the diverse requirements for powermanagement in Germany. The voltage-dependent reactive power control, Q(U) function, is accomplished by measuring the medium voltage with the Utility Meter. The combination of the Solar-Log 2000 and Utility Meter is also needed to send a confirmation of the current amount of feed-in power to the grid operator.

#### Solar-Log 2000 & PM-Package

For plants larger than 100 kWp, remote control of the reactive power supply and power limitations are required along with a confirmation of the current amount of feed-in power. In practice, each grid operator stipulates its own signalization variant in the technical connection requirements (TAB). To fulfill the requirements from a particular grid operator, Solare Datensysteme offers a grid company specific PM-Package. This package includes hardware that is adjusted to a company's remote control technology and profile file.

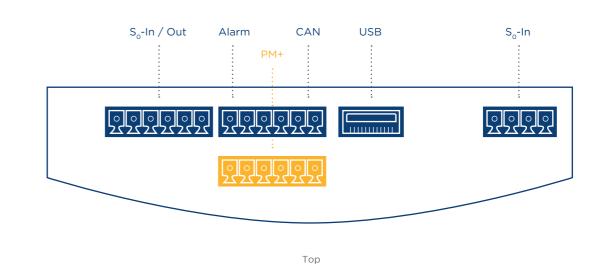
#### String Connection Box (SCB) or String Monitoring Box (SMB)

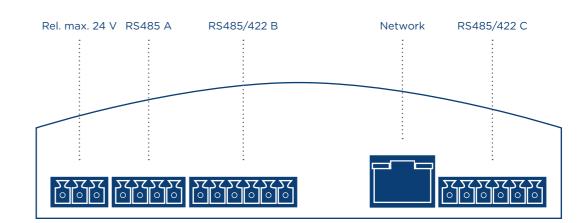
When used with the Solar-Log WEB Enerest<sup>™</sup> XL and either the SCB or SMB, the Solar-Log 2000 monitors every single string, ensuring the most complete and secure monitoring for large-scale PV plants with exact error identification and localization.





Feed-in management - feed balance: The times when there was a grid feed and when electricity was purchased from the grid can be seen at a glance in this graph. Negative (red) values indicate that electricity was purchased from the grid and positive (yellow) values that there was grid feed.





Bottom

#### Inverters

A maximum of 100 inverters (just one manufacturer per bus), maximum plant size 2000 kWp.

#### Interfaces

The interfaces can be used to connect inverters and components such as the Utility Meter, Pyranometer and SCBs. The Solar-Log 2000 Standard and Solar-Log 2000 PM+ have two RS485/RS422 interfaces and one RS485 interface.



# Solar-Log 300, 1200, 1900 and 2000

**Common Features** 

## Functions

LCD-Status-Display Status display for installation and operations.

#### Smart Energy

Recording and presentation of self-consumption control and visualization of individual appliances for the optimization of self-consumption.

#### Feed-in Management

Reduction of feed-in power with a dynamic allowance for self-consumption.

### **Display Options**

#### Solar-Log WEB Enerest™

The Solar-Log WEB Enerest<sup>™</sup> online portal expands the presentation and monitoring functions of the Solar-Log™ and offers comprehensive reporting options in the form of graphs and tables.

#### The App for Solar-Log WEB Enerest™

This app offers users comfort and security with its structured operating concept, intuitive controls, modern features and interactive graphics. The app is available for free from the app store.

#### Solar-Log<sup>™</sup> Dashboard

The Dashboard is a feature of the Solar-Log WEB Enerest™ L and XL that displays all important information for a plant such as yields, CO<sub>2</sub> savings and plant performance.

#### Solarfox<sup>®</sup> Large and External Display

A large external display used in combination with the Solar-Log™ can visually present live data from a PV plant. You can also add personalized advertisements. Large external displays can be connected via the RS485 or  $S_0$  interface.

# **Connections**

#### Inverters

The Solar-Log™ is compatible with inverters from all major manufacturers.

#### Sensors RS485

The sensors measure solar irradiation, temperature and wind speed. They can even be combined with some inverters on an RS485 bus.

#### Meter S<sub>o</sub>-In or RS485

The meter can record your consumption data or serve as an inverter and measure the power from incompatible inverters. In addition, batteries can be visualized via meters.

#### RS485 or S<sub>o</sub>-Out

Connect a large external display to gain an additional overview of the data.

#### Solar-Log<sup>™</sup> USB Connection and Data Export

A USB stick can be connected for safe and guick manual installations of new firmware updates, configurations, and backups. The backup and configuration can be exported as a file via USB.

#### **Ripple Control Receiver**

The signal to reduce active power is generally sent via a Ripple Control Receiver or remote control technology. Up to two Ripple Control Receivers can be connected to the Solar-Log™ PM+, one for power reduction and one for reactive power control.

#### Ethernet / Speedwire\*

The Solar-Log™ models can be connected to compatible inverters with an Ethernet connection. SMA inverters can be connected directly to a regular network infrastructure with SMA's own Speedwire protocol. The SMA inverter only has to be connected to an Ethernet switch or router.

# **Additional Functions**

#### Protection for the Interfaces and Cables

The cable cover for the Solar-Log™ offers the best possible mechanical protection for interfaces and cables as well as an attractive design.

#### Data Security

The data volume from the Solar-Log™ can be recorded. The micro SD card is used to protect against any loss of data in the event of a power failure.

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\*In many countries, the designation "Speedwire" is a registered trademark of SMA Solar Technology AG.

