



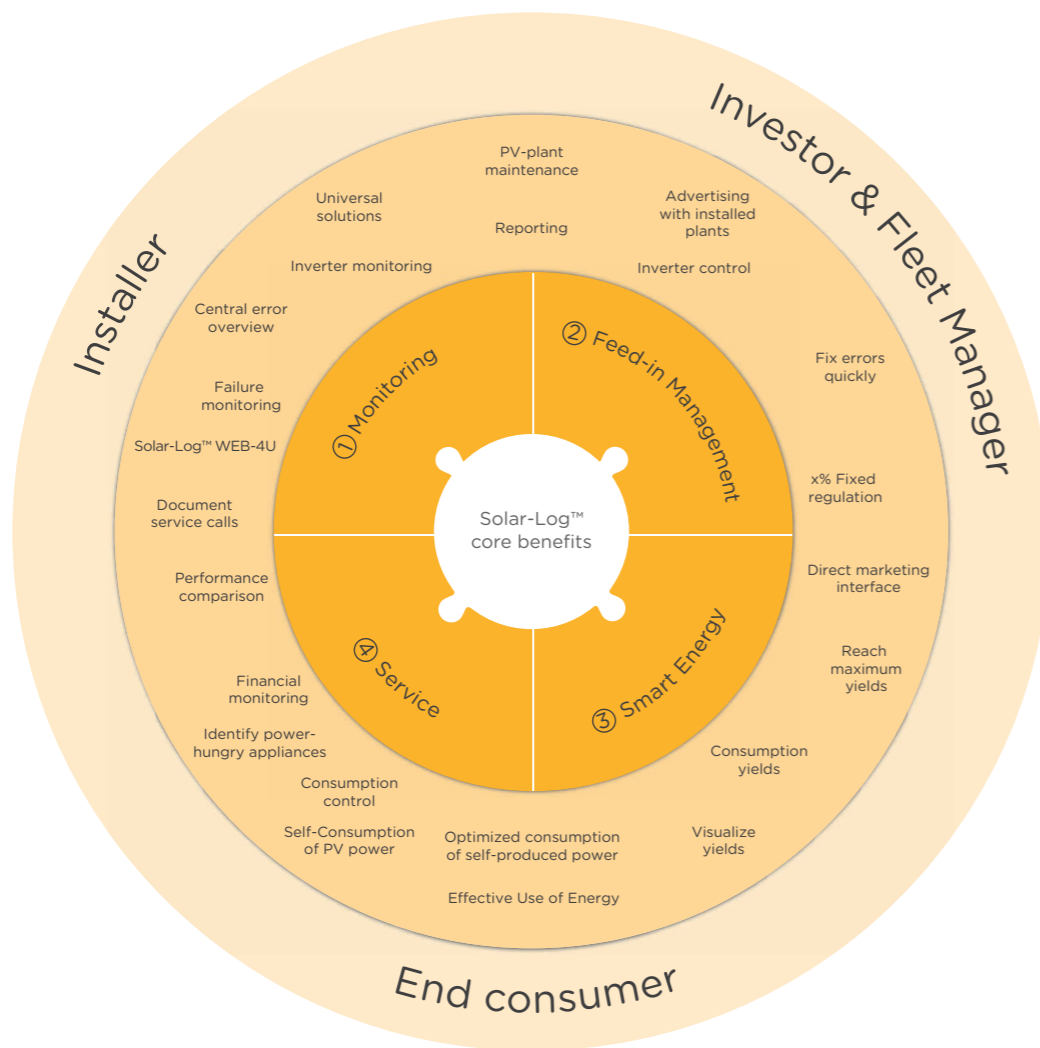
Expert Plant Monitoring and Optimized Management
of Self-Produced Power Consumption

Independent. Forward-thinking. Professional.

A Strong Partner

Solar-Log™ - All-round Talent for Photovoltaic

Solare Datensysteme GmbH (SDS) is one of the leading companies in monitoring photovoltaic plants, optimizing consumption of self-produced power and managing energy fed into the power grid. We continuously monitor renewable energy market developments and analyze customer needs in order to keep developing solutions to fit these changes. Thanks to the wealth of experience we have gained over the years, we are able to provide practical solutions for both individual and legal requirements across the globe.



Solar-Log WEB Enerest - Online Portal

Keeping a Close Watch on Your System

The Solar-Log WEB Enerest is a professional online portal for the efficient monitoring and administration of photovoltaic plants. With Solar-Log WEB Enerest, installers, plant operator, and service providers can provide plant owners individual care according to their specific needs and preferences. The classification of the three module categories of M, L or XL depends on the plant size and the desired monitoring functions.



Fast Service*

The status of all of the PV plants can be reviewed at a glance. Errors are quickly detected, analyzed and remedied with the diagnostic tools.



Time-Saving Remote Access*

Detailed status messages help with accurate error detection and analysis as well as quick access to the PV plants. Users can react quickly via remote access, often solving problems without having to leave the office.



Regular Reports

With Solar-Log WEB Enerest L and XL, yield reports based on the forecasted values and other detailed reports can be easily created and displayed in TXT, CSV or PDF formats.



Simple Documenting Options*

With the Timeline Module, events such as inverter replacements and configuration modifications can be documented. All of the changes are listed in a log.



Efficient Monitoring*

The Weather and Reference Data Comparison module detects deviations from the potential power output of the plant and its current production.



Professional Maintenance*

With a service contract, installers and service providers can offer plant owners comprehensive and professional plant monitoring and maintenance.

*Available with the Solar-Log WEB Enerest XL portal

Solar-Log™ WEB-4U

Overview of Our Services



Your Advantages

With the Solar-Log™ WEB-4U, we offer services related to all aspects of the Solar-Log WEB Enerest online portal. If desired, we are happy to take care of the daily monitoring of the photovoltaic plants in your portfolio. You and your customers benefit from our technical expertise. We immediately detect any errors, allowing you to concentrate on your regular daily work.

Our technical specialists

- support with years of experience and extensive knowledge
- immediately detect occurring errors
- perform any necessary modifications remotely
- create customized reports as needed
- provide important information for troubleshooting
- allow you to use your precious time more effectively

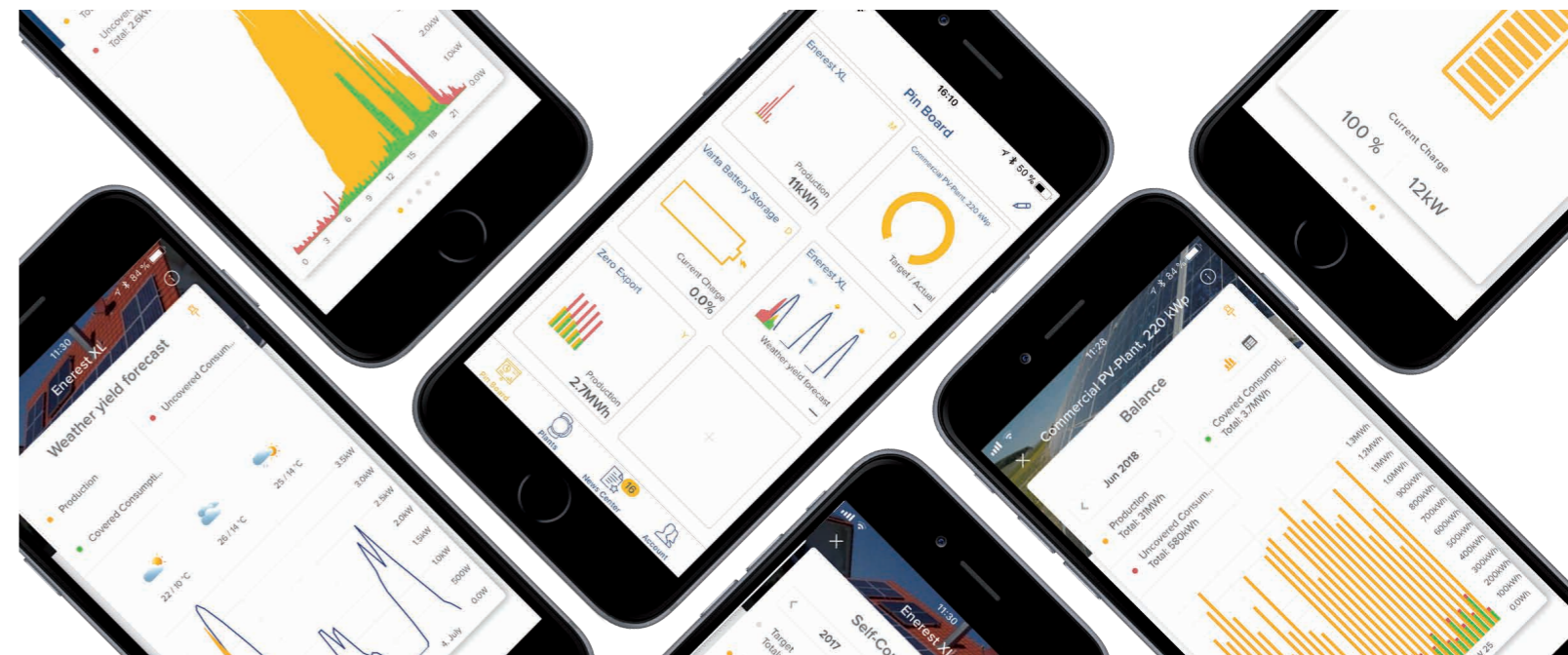
Solar-Log WEB Enerest Details

Solar-Log™ Dashboard

With the Solar-Log™ Dashboard, Solar-Log WEB Enerest L and XL provide a dynamic display of important plant information such as yields, CO₂ savings and performance. The Dashboard can also be customized with individually configurable modules: current output, yield history including self-consumption, financial yields, weather data, plant information and environmental contribution. The Data Overview module makes it possible to display the total yield data from several plants in one Dashboard. The Image and Text module allow you to add your own content to the Solar-Log™ Dashboard. There is the option to display one to four modules in the full-screen mode as a slide-show.

App for the Solar-Log WEB Enerest Portal

The app with its modern design and user-friendly operating concept is available free of charge for smartphones and tablets. It offers many features and interactive graphics. For example, a single PV plant or several plants can be presented on a pinboard with customized views. Current and historical plant data as well as data from connected components such as heat pumps and heating rods can be visualized with its interactive graphics. Feed-in power and self-consumption are transparently compared. The News Center keeps users informed and up-to-date.



The Highest Quality from the Market Leader

Solar-Log™ devices are the most precise and reliable data loggers on the market. Offer your customers high-quality “Made in Germany” products and top-of-the-line service. Solar-Log™ is ready for whatever the future brings – at the forefront with smart solutions and new ideas to ensure more certainty and higher yields. Solar-Log™ is compatible with more than 100 inverter models and many other components.

Reliable and Professional Monitoring

A photovoltaic plant can only reach maximum yields when it is producing power uninterrupted and free of disturbances. Solar-Log™ ensures precise and efficient management of PV plants.

Limited Feed-in (x %)

Solar-Log™ records the power consumption and factors this consumption with the production from the inverters to ensure that the feed-in limit is not exceeded and that the amount of self-consumption is maximized.

Energy Meters – Counting and Measuring

Energy meters record the amount of power consumed for self-consumption and compare this value to the amount of power produced. This data can be visualized by the Solar-Log™ and Solar-Log WEB Enerest.

Battery Storage Monitoring

The Solar-Log™ can visualize the battery’s charging capacity.

Charging Stations

The Solar-Log™ ensures that electric cars are always charged with the maximum amount of available power from the photovoltaic plant – cost effective and environmentally friendly at the same time.

Intelligent Heating

The Solar-Log™ reports the amount of available surplus PV power to a smart heating rod and/or heat pump. The heating system can be used as buffer storage, offering enormous financial savings potential.

Solar-Log™ Weather Forecast Data

Based on the weather forecast, the Solar-Log WEB Enerest calculates the specific yield forecast for today and the next two days. IDM heat pumps, for example, factor in this data for the next 12 hours, allowing for efficient heat pump operation.

Direct Marketing - Installed Power Output > 100 kWp

Solare Datensysteme GmbH offers ready-to-connect packages for all direct marketers to connect to virtual power plants.



The Solar-Log™ Product Line in Detail

As one of the leading companies on the market, we offer a wide range of solutions for small, medium and large PV plants. With Solar-Log™, self-produced power consumption can be cleverly managed and individual and regulatory requirements of the global market can be effectively implemented.

The Gateway – Solar-Log 50

A professional monitoring solution that includes power reduction to x %



- Optimized for small plants
- Small and compact, ideal for top-hat DIN rail for mounting
- Data transfer to Solar-Log WEB Enerest
- Basic version includes power reduction to x %
- Expandable according to the functions and services required

Power reduction to x % and Software Licenses

The basic version of the Gateway comes with the active power reduction to x % option and additional add-on functions can be enabled by purchasing software licenses from the license portal (license.solar-log.com). To enable this, the Solar-Log 50 has to be connected to the Internet.

Videos

The following videos are available on our website

(www.solar-log.com/en/products-components/monitoring-gateway):

- [Top-hat-rail mounting](#)
- [Configuration assistant](#)
- [Setup in the Solar-Log WEB Enerest Portal](#)
- [Purchase and install a license](#)

Solar-Log 250

Entry-level Model



- Number of inverters: a single inverter with a maximum plant size of 10 kWp
- Entry-level model for professional monitoring of smaller PV plants
- 1 x S₀ In and 1 x RS485/RS422, Ethernet, USB connection
- Record and visualize power consumption with an energy meter

Solar-Log 300

For small PV plants



- Number of inverters: one manufacturer per bus with a maximum plant size of 15 kWp
- 2 x S₀ In, 1 x S₀ Out and 1 x RS485/RS422, Ethernet, USB connection
- Visualization and consumption optimization of self-produced power, as well as control and visualizing of individual electrical appliances
- Optional Powermanagement
- Expansion license to increase the plant size to 30 kWp

Solar-Log 1200

For small and medium-sized plants



- Number of inverters/devices: one manufacturer per bus with a maximum plant size of 100 kWp
- 2 x S₀ In, 1 x S₀ Out, Ethernet, USB connection
- 1 x RS485/RS422, 1 x RS485 and relay
- Color TFT-Touch-Display
- Visualization and consumption optimization of self-produced power, as well as control and visualizing of individual electrical appliances
- Optional Powermanagement
- Expansion license to increase the plant size to 250 kWp

Solar-Log 1900

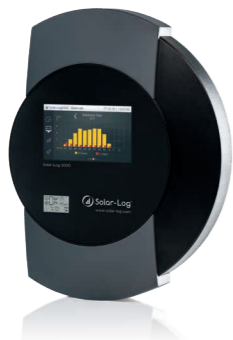
For large-scale PV plants and solar power stations



- Number of inverters/devices: a maximum of 100 inverters (just one manufacturer per bus), maximum plant size 2000 kWp.
- 2 x S₀ In, 1 x S₀ Out, 1 x CAN
- Standard and PM+: 2 x RS485/RS422 and 1 x RS485
- Visualization and consumption optimization of self-produced power, as well as control and visualizing of individual electrical appliances
- String Connection Box (SCB) support
- Optional Powermanagement

Solar-Log 2000

For large-scale PV plants and solar power stations



- Number of inverters/devices: a maximum of 100 inverters (just one manufacturer per bus), maximum plant size 2000 kWp.
- 2 x S₀ In, 1 x S₀ Out, 1 x CAN
- Standard and PM+: 2 x RS485/RS422 and 1 x RS485
- Color TFT-Touch-Display
- Visualization and consumption optimization of self-produced power, as well as control and visualizing of individual electrical appliances
- String Connection Box (SCB) support
- Optional Powermanagement



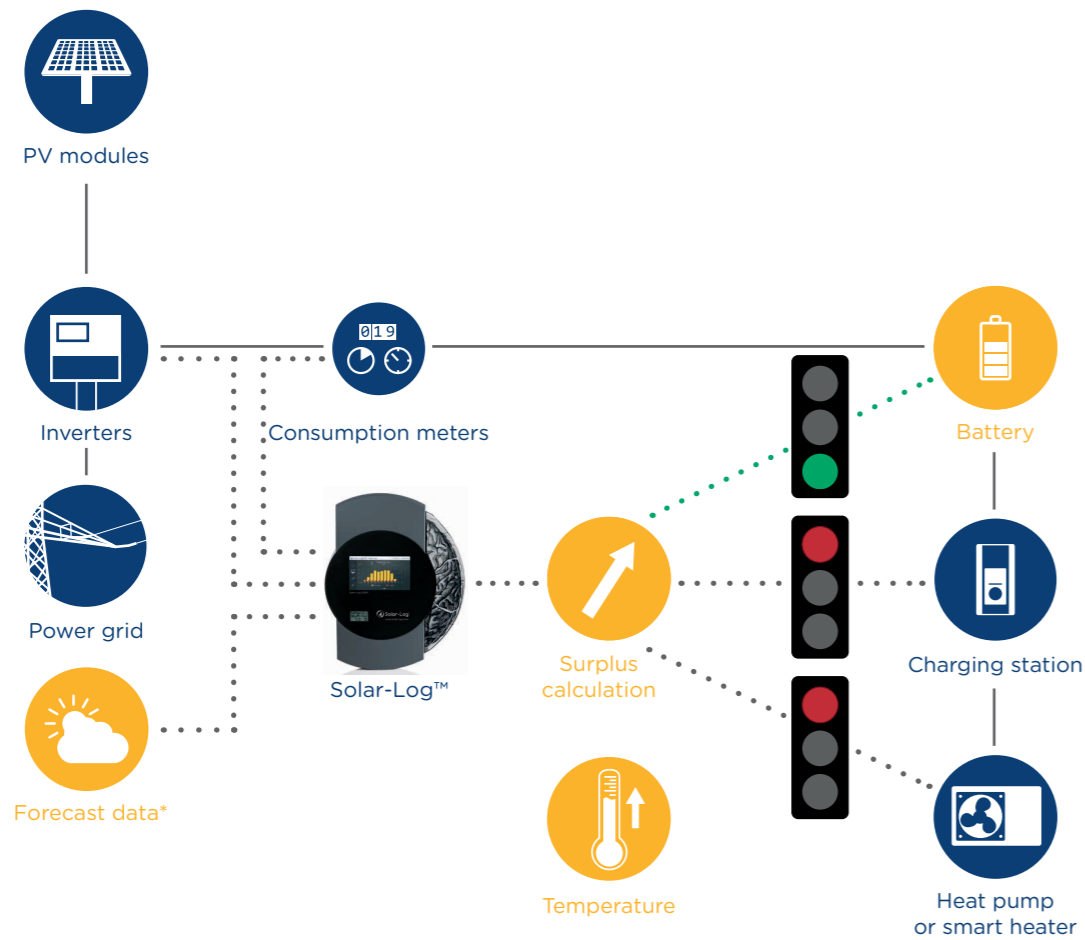
The licenses are available from the license portal (license.solar-log.com) starting with firmware version 4.0 and later.

Top Features	Solar-Log 250	Solar-Log 300	Solar-Log 1200	Solar-Log 1900	Solar-Log 2000
LCD-Status-Display	Displays the current operating status during installation and during operation.				
TFT-Touch-Display	-	-	Color touch display for visualization of graphics and operation	-	Color touch display for visualization of graphics and operation
Configuration assistant	Helps with the important Solar-Log™ installation steps.				
Network detection / DHCP	Automatic DHCP server search and assignment of a valid IP address in the local network.				
Local network accessibility	The device is accessed locally via its web interface by entering its device name. The Solar-Log™ can be accessed directly from a web browser with its name "http://solar-log".				
	Record and visualize energy meters, no control of external appliances		Record, optimize and manage the consumption of self-produced power		
	Connection of a Sensor Box Professional Plus to record environmental data (irradiance, module and ambient temperature, wind sensor).				
	Sensor Box Professional				
	Meter connection, numerous options				
Additional functions	-		Connection of the display panels produced by Schneider Displaytechnik, Rico or HvG.		
	-		Connection of the Smart Relay Box to control appliances.		
	-	-	Based on the weather forecast in combination with the Solar-Log WEB Enerest, the specific yield forecast is calculated for today and the next two days.		
	-	-			Monitoring of central inverters
Multi-lingual	DE, EN, ES, FR, IT, CN				
Plant Expansion License	-	To 30 kWp	To 250 kWp	-	-
Solar-Log™ FTP License	-	Increases the data export options for third-party portals.			
Solar-Log™ SCB License	-	-	-	Activates data recording in the Solar-Log 1900 PM+ and 2000 PM+, as well as the visualization and monitoring of individual string values in the Solar-Log WEB Enerest portal.	
Solar-Log™ Modbus TCP Feed-in Management License	-	-	Activate the Modbus TCP feed-in management (PM) interface for the Solar-Log 1200 PM+, 1900 PM+ und 2000 PM+.		
Solar-Log™ Modbus TCP License for Direkt Marketing	-	-	Communication between direct marketers and remotely controlled PV plants with Solar-Log 1200 PM+, 1900 PM+ and 2000 PM+.		

Smart Energy with Solar-Log™

Efficient Power Management and Optimized Consumption of Self-Produced Power

Constantly rising energy needs make the storage and optimized consumption of self-produced power essential. Battery storage systems, for example, offer ideal solutions that make the self-produced PV power when it is needed. The combination of the PV plant, Solar-Log™, and charging station ensures that electric cars are always charged with the maximum amount of available power from the photovoltaic plant – cost effective and environmentally friendly at the same time. Smart heating with PV power offers additional potential for optimization. The Solar-Log™ coordinates the consumption of power by supplying the appropriate amount of PV power to the right appliance.



* Based on the weather forecast, the Solar-Log WEB Enerest calculates the specific yield forecast for the next three days.

Solar-Log™ Functions for Power-management	Solar-Log 250	Solar-Log 300, 1200, 1900 and 2000	Solar-Log 300 PM+ and 1200 PM+	Solar-Log 1900 PM+ and 2000 PM+
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Limit of X % (with and without calculation of self-consumption) ¹⁾	-	●	●	● ²⁾
Remote controlled active and reactive power control (with the calculation of self-consumption) ¹⁾	-	-	●	● ²⁾
Limit of X % (adjustable reduction)	●	●	●	●

1) Only with an additional meter
2) Allocation of self-consumption is not possible when using PM packages or Modbus TCP interface at the same time.



Daily Overview: The battery system is charged when there is a surplus of PV power at the plant (light green) and is used when there is not enough PV power to cover consumption needs, preventing the need to purchase electricity from the grid.

Battery Storage



Ideal solution to store self-produced power from a PV plant for self-consumption.



When self-produced power is stored locally, there is no need to purchase power from the grid.

Charging Station E-Mobility



The charge data is recorded and concisely visualized with the Solar-Log WEB Enerest portal.



The interaction of the PV plant, Solar-Log™, and charging station ensures that electric cars are always charged with the maximum amount of available power from the photovoltaic plant.



Reference Plant for the Solar-Log™ PM Box

The optimal solution for the ONIX spa in Kosovo

In Kosovo, no electricity can be fed into the power grid. To ensure this, the 0% grid feed-in reduction is applied using the Solar-Log™ PM Box to implement this requirement.



Middleware Data Systems – ECOsys Division

One of the largest private PV plants in Lebanon, monitored by the Solar-Log 2000

The amount of energy generated is equivalent to the demand of about 500 households, an annual output of 621 MWh.

We Offer Customer-Oriented Comprehensive Solutions



Our Partners for Smart Solutions



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