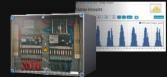
smartgreen

## SOLAR POWER PLANT UNDER CONTROL

SOLAR PLANT SUPERVISORY SYSTEM

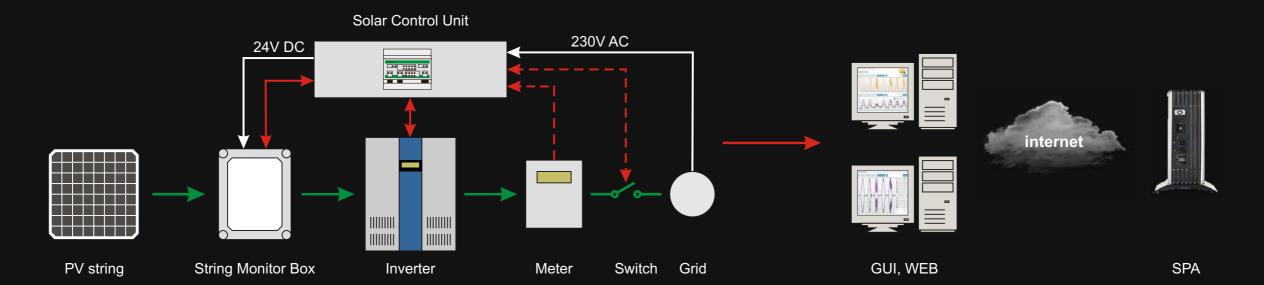


Assure the highest possible reliability and yield of your solar power plant





### SOLAR PLANT SUPERVISORY SYSTEM





#### **FEATURES:**

- Malfunction detection
- SMS, email, voice alarming
- Statistical analysis
- Connection to inverters
- Dynamic analysis (losses, yield,..)



#### FEATURES:

- Symmetric or asymmetric measurement
- U, I, fuse status
- Internal and external temperature
- Reference cell
- Anti theft system
- Programmable relays

#### **SOLAR CONTROL UNIT**

SMB's, inverters and other parts of PV plant are connected to SCU which functions as the main local brain of the system. Its integrated touch screen allows operator to locally monitor and operate the plant. SCU then connects with other SCU's, monitor stations and supervisory computers.

#### TECHNOLOGY:

- Industrial PLC technology
- CAN for reliable communication
- ETHERNET for easy vertical integration and internet conn
- · GSM/GPRS modem for direct access
- · Expandable with various I/O modules
- · Configurable user interface
- OPC server for easy integration

#### STRING MONITOR BOX

String monitor box is the most important part of the system. Strings are connected to SMB and usually SMB is located close to the PV Panels, therefore exposed to all environmental factors. SMB's main task is to measure and monitor strings and other connected devices. Measured data is filtered and transferred to main controller.

#### TECHNOLOGY:

- Extra high reliability design
- Microprocessor controlled
- CAN for reliable communication
- IP 65 Polycarbonate UV resistant housing
- Transparent cover, LED status, self diagnosis
- MC-3, MC-4, terminals

#### COMPONENTS, MODULAR SOLUTIONS, and ACCESORIES

Solar power plants are not equal and so are not you. Someone may need to optimize the plant; others prefer to keep their sophisticated algorithms for themselves. But everybody needs same reliability and performance of an industrial standard system. Therefore we created modular system based on Cybrotech control technology providing everything from measuring, detecting, programmable control unit, communication technology, drivers, server technology, graphical user interface and much more.

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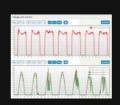
## SOLAR SPECIFIC COMPONENTS

- Carefully designed and tested
- Highly integrated PCB production and 100% automatic PCB functional test
- Custom application of sealing, for endurance
- Laser marking and 100% parameter tracking



#### CONTROLLERS and I/O

- Modular industrial PLC
- Digital I/O
- Analog I/O
- Custom communication
- OPC connectivity
- SCADA, HMI



## WEB MONITORING AND CONTROL

- Integrated view on PV plant
- On-line real-time data monitoring
- Dynamic analysis (yield, malfunction, losses, ...)
- Remote access



#### **ACCESSORIES**

- Diode box
- DC combiner box
- Modular solar plants
- Weather station



#### **PROFILE**

A complete and integrated modular system designed for monitoring and control of solar power plants. Based on highly reliable industrial controllers using best industrial communication technology and providing complete vertical integration, this system offers local malfunction detection, remote monitoring over internet, data logging and connection to control centers. SPSS can be connected over internet to our solar plant analyzer (SPA), which analyzes on-line and offline data providing detection of even the slightest deviation in operation.



#### **ASSURED QUALITY**

Robotina has been focusing on control technology more than 20 years. Industry, buildings, infrastructure and solar power plants are successfully controlled by our systems worldwide. A modular plug and play solution suits all needs at all levels. Totally custom solutions can be built within limited time and expense.

Now we are ready to share our technology with you. Regardless if you need an out of the box system an OEM solution or a complete plant, we can deliver it. We can help to design your solution or design it for you. Sure, the final result counts, but the way to it can make huge difference. Electronic product that has to last 20 years needs careful design, assembly and service. We produce all our solar products in Europe. Most of them coming from our main production plant in Kozina. Best components are used.

There is no better way to assure highest possible reliability and yield of your solar power plant.





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