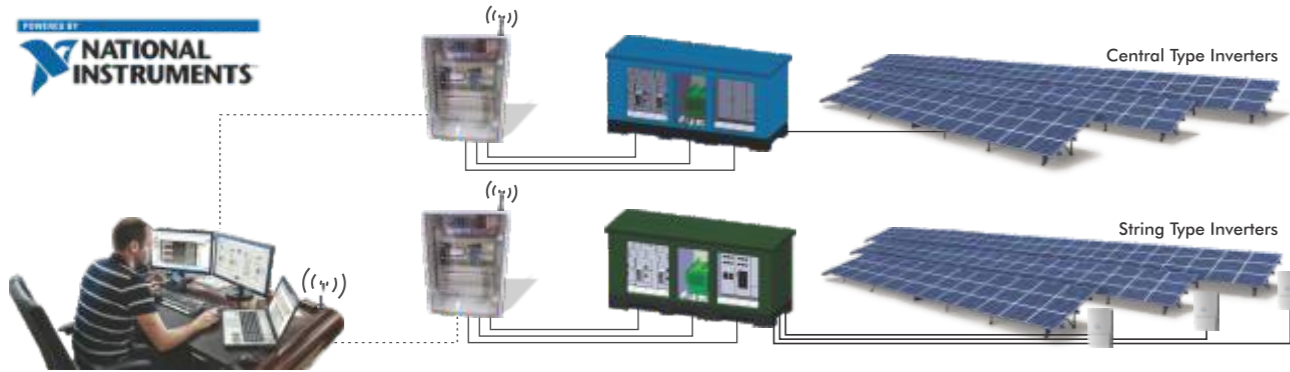


# euroSUNSCADA

## AUTOMATION & SCADA SYSTEM FOR PV POWER PLANTS



Europower Enerji designs standardized and tailor-made automation & SCADA systems for power plants in conformance with IEC61850 standards, using NI (National Instruments – USA) components.

EuroSUNSCADA panels, software and systems ensures the performance of the power plant by giving the user the power to control, monitor and record all the information from the key elements in a solar power plant from relays, transformers, batteries and all other components.

- Monitoring and reporting of the meteorological data, panel performance data, central/string type inverter performance data and the total performance ratio,
- Web access, direct connection or cloud monitoring from computers, tablets and/or smartphones.
- Monitoring and reporting of IEC 61850 protection relays and energy analyzers,
- Panel cleaning warning by monitoring the environmental conditions,
- Monitoring and control of the MV/LV components,
- Monitoring of the transformers,
- Monitoring of the batteries and battery charger system,
- Monitoring of fire and safety equipment,
- Monitoring of the kiosks, kiosk doors and internal kiosk temperature,
- Control of kiosk ventilation systems,
- Data acquisition and recording, reporting monthly/weekly/daily,
- Control and management of tracker PLCs and drivers in sun tracking systems,

## A COMPLETE SCADA SOLUTION



According to the project and customer needs EuroSUNSCADA systems can be customized with a very wide range of options. Standard solutions have up to 16 digital inputs, up to 10 digital outputs, up to 8 analog inputs and GPS, but additional modules with a higher number of inputs and outputs are available if needed, according to the customer and project needs. Please note that for these services, necessary components such as meteorological stations, fire detectors, energy analyzers etc. should be present and installed to the system. Please contact us for more information.



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# euroSUNSCADA

## MONITORING & CONTROL SYSTEM FOR PV POWER PLANTS



## MUCH MORE THAN JUST A SCADA



go green with Europower Solar

- Real-time yield monitoring from inverters or energy meters,
- Real-time solar irradiation and environmental data monitoring via existing sensors and stations,
- Performance ratio monitoring,
- Expandable data storage using an SD memory card,
- Web access, direct connection or cloud monitoring from computers, tablets and/or smartphones.
- Database storage on an FTP server,
- Modbus and Ethernet communication,
- Easy installation and use,
- Inverter limiting capability,
- No need for routine maintenance,
- Compatible with all standard inverter and sensor brands and models,
- Provides the real-time status of each component in the system, any current or past faults and the yield history to the user and the O&M personnel without being on site, and saves time by providing opportunity to detect faults or troubleshoot remotely.
- Optional individual string performance monitoring capability for more specific maintenance planning.

EuroSUNSCADA is a complete integrated monitoring system and software package that collects local data from all standard inverters, modules, energy meters, environmental stations, substations, low voltage panels, medium voltage cubicles and kiosks to monitor, log and store the performance of the power plant comprehensively. By collecting, logging and storing these data, this system allows the user to ensure the efficiency and performance optimization of their PV system 24/7 for high O&M performance by the real-time supervision of all key parameters via a direct connection, web access or a cloud monitoring portal from their computers, tablets and/or smartphones.

\*Environmental stations, sensors or any other auxiliary equipment is not included, should be requested separately.



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RTU TECHNICAL SPECIFICATIONS	ESS-PRO	ESS-PRO PLUS	ESS-FIBER
<b>GENERAL SPECIFICATIONS</b>			
Digital Inputs	8	16	30
Digital Outputs	5	10	10
Analog Input	1x PT100/1000, 1x 0-10V, 2x 4-20mA	8x User Configurable, PT100/1000, 4-20mA, 0-10V	8x User Configurable, PT100/1000, 4-20mA, 0-10V
GPS	10ms	1ms	1ms
GSM Router	External 3G	Internal 3G	Internal LTE
RAM	512 MB	512 MB	512 MB
ROM	512 MB	512 MB	512 MB
Storage Memory	Optional SD Card Slot	SD Card Slot	SD Card Slot
Display	Optional LCD Touchscreen	5" LCD Touchscreen	5" LCD Touchscreen
LED Indicators	5 x Single Color / User Configurable	10 x Triple Color / User Configurable	10 x Triple Color / User Configurable
Power Supply	9V-30V DC/ Double, Redundant	9V-30V DC/ Double, Redundant	9V-30V DC/ Double, Redundant
<b>INFORMATION FLOW &amp; ACCESSIBILITY</b>			
Remote Control	Yes	Yes	Yes
Web Interface	Yes	Yes	Yes
Real-Time Values	Yes	Yes	Yes
Customer SCADA Interface	Yes	Yes	Yes
E-mail Reports & Information	Yes	Yes	Yes
<b>PORTS</b>			
SFP	None	None	1
Ethernet	1	2	1
RS485	1xRJ45	2xRJ45	2xTerm Block
RS232	Optional	1	1
CAN-Bus	Optional	1	Optional
USB	1	2	1
<b>COMMUNICATION PROTOCOLS</b>			
IEC 61850	Yes	Yes	Yes
IEC 60870-5-101	Yes	Yes	Yes
IEC 60870-5-104	Yes	Yes	Yes
MODBUS TCP (Client - Server)	Yes	Yes	Yes
MODBUS RTU - ACII	Yes	Yes	Yes
<b>PHYSICAL SPECIFICATIONS</b>			
Weight	1325 gr	1500 gr	1525 gr
Dimensions (WxHxD)	250x120x130 mm	250x135x130 mm	250x135x130 mm
Body Type	Anodized Aluminum	Anodized Aluminum	Anodized Aluminum
Protection Class	IP20	IP20	IP20
Operating Temperature	-20 to +50 °C	-20 to +50 °C	-20 to +50 °C

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