sinapsi
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esolar

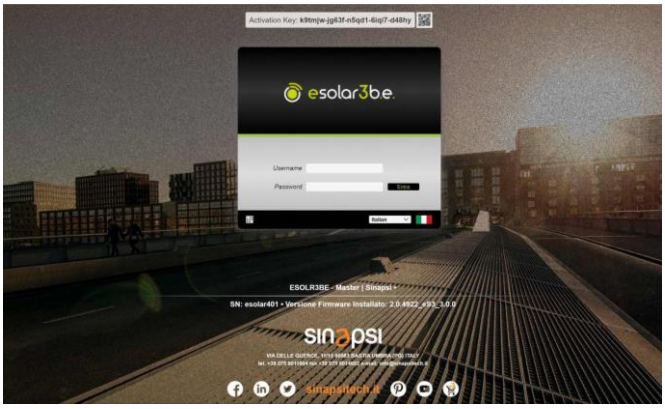
SGH-COMPLIANT SYSTEM FOR MONITORING PRODUCTION AND ENERGY EFFICIENCY OF PV PLANTS

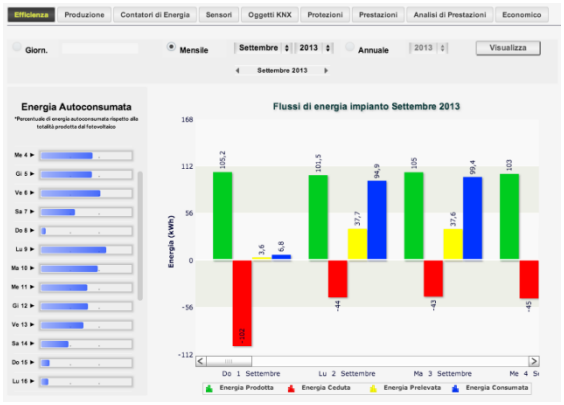
esolar 3 Black Edition (B.E.) is an integrated device for monitoring the production and optimization of energy efficiency of photovoltaic installations.

It allows interfacing of inverters, string controllers, meters, interface/general protections, multi-brand sensors and other devices. Supports data acquisition via RS232, RS485, ethernet, KNX (available on specific versions). It allows the management of large PV parks with up to 500 strings (real-time monitoring).

esolar 3 B.E. supports PR calculation according to EN61724.
esolar 3 B.E. combines the powerful features of the ESOLAR family products with those of analysis and planned management of consumption optimization, typical of energy efficiency control systems.

It allows the automated export of data to third party platforms in multiple formats.
esolar 3 B.E. is an SGH-Compliant device. This feature allows it to benefit from a wide range of tools/services including the SGHnet service for the accessibility of the integrated web-server without any kind of configuration.





STRENGHTS

- Integrated web interface for easy consultation
- SINAPSI GLOBAL HUB (SGH) compatibility and multidevice technical management via MY SINAPSI platform
- SGHnet service support for the reachability of the integrated web-server without any kind of configuration
- Easy installation and configuration
- Equipped with two optoisolated RS485 ports
- Equipped with KNX interface for a perfect integration with the most popular Building Automation systems (available on specific versions)
- Possibility to configure logics related to the energy efficiency of the plant
- Compatibility with inverters, string controllers, interface/general protection, multi-brand energy meters
- O&M activity support tool
- Management of data history with possibility of backup on remote server
- Automatic data export functions (FTP, Web API, Modbus TCP, email, etc.) for integration with third-party platforms

SYSTEM ELEMENTS

- Standalone Monitoring
- Centralized management via connection with SINAPSI DATA SERVICE portal for cloud-based monitoring
- Display via web / tablet / smartphone via Web App
- Wide availability of communication accessories (wired and wireless), Building Automation devices, sensors

ELECTRICAL CHARACTERISTICS

Power Supply	9...48 VDC max 4A, 3-pin terminal block connector
Ethernet	No. 2 (2 MAC): ETH1 (for internet and devices), ETH2 (service)
Fieldbus	RS232, RS485, Ethernet, KNX (available on specific versions)

MECHANICAL CHARACTERISTICS

Temperature Range	Operating temperature: -20°C to +70°C Storage temperature: -25°C to +85°C
Humidity	95% RH @ 40°C (no condensation)
Dimensions	150x150x52.3 mm (WxDxH)
Degree of protection	IP20

SYSTEM I/O PORTS

RS232	1 x 9-pin D-Sub male connector, COM4
RS485	2 x 3-pin, COM1 / COM3 OPTOISOLATED connectors
KNX	1 x 9-pin D-Sub male connectors, COM5
USB	1 x 3-pin connectors, for KNX (available on specific versions)
ON/OFF	3 x USB 2.0 connectors
Power Supply	1 x Remote power on/off connector, 2-pin terminal block

DATALOGGING

Data retection	2 years quartorary 10 years daily summary data
Max. number of supported devices	120
Max. number of strings supported	500 channels
Manuals Reports	XLS / CSV / TXT format, Web server (Report creation and download)
Data export	Http-calls / XML / Modbus TCP / FTP push (data set available variable depending on the selected mode)
Data backup	Local (redundant) manual/planned backup via PENDRIVE (SIN.USB8) Schedulable remote data & configuration backup via FTP

USER INTERFACE

Led Power	1 x Activity LED
HTTP	1 x Power LED Multilingual web server for data consultation and configuration

LOGICS / ALARMS / PLANNING

Alarm notification	Anomalies/alarms as per interfaced device protocol, production failure, communication anomaly, logical execution notifications
Logics	AND/OR based on data acquired from the field by the various devices interfaced with activation/adjustment of digital/analog outputs.
Planned Actions	Local backup (redundant, via USB pendrive) with daily, weekly, monthly, annual granularity selection. Send synthetic multi-format production reports (XLS / CSV) with daily, weekly, monthly, annual granularity selection. Activation / deactivation digital outputs (hour, day, week, month). Backup on multiple remote servers via FTP.

SUPPORTED SERVICES

Service of reachability (SGHnet)	Integrated service for the reachability of the integrated web server without the need of: router configuration (no portforwarding), static or dynamic IP address, deNated/bidirectional SIM card
SGH Compliance	Sinapsi Global Hub Compatible
Sinapsi Data Service (SNPDS)	Compatible with ESOLAR's centralized management platform SNPDS

ORDER CODE: **SIN.ES3BE**

ORDER CODE: **SIN.ES3BEKNX (equipped with integrated KNX port)**

SGH-Compliant system for monitoring production and energy efficiency of photovoltaic systems

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