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COMMUNICATION GATEWAY



The communication gateway enables simple wireless monitoring and control of each individual panel of a solar power plant from any web enabled device through an intuitive graphical interface.

Key features:

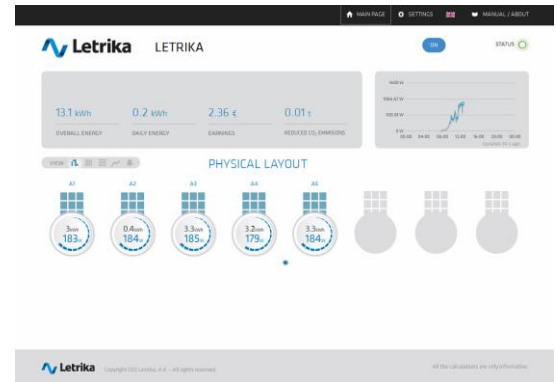
- Embedded Linux operating system running on 400 Mhz ARM core processor
- Up to 32GB SD card for data storage
- 4 X 20 lines LCD display and keyboard for limited direct access to gateway functions
- Integrated web server (no need to have external cloud server to access the micro inverters)
- 868 Mhz WMBUS communication with micro inverters
- IEEE 802.11 standard Wireless communication
- Ethernet line
- USB OTG connector
- Real time clock
- Additional features include possibility to export data to cloud servers through desired protocols
- Skilled customers are allowed to access open source software used in the communication gateway (except WMBUS protocol with micro inverters)

Features:

- Embedded linux operating system
- Web application (integrated) compatible with all platforms: PC, notebook, smart phone, tablet
- RF, 868MHz WMBUS communication
- Software stack complies to EN 13757-1 ... 5 and EN 870-5
- Possibility to send special command to the micro inverters (desired power factor, desired generating power, start/stop command)
- Collecting, storing and retransmitting data via WiFi, Ethernet and GSM/GPRS communications
- Works with registered micro inverters, which are filtered by ID number
- AES-128 encryption
- WAN connectivity

Monitoring:

- Generated energy on each PV panel (daily, weekly, monthly)
- Actual power from each PV panel
- Each PV panel DC voltage and current
- Each micro inverter AC output current and voltage
- Efficiency of each PV panel
- Presence of each PV panel
- Faults on each PV panel
- Internal temperature of each micro inverter
- Wake up and sleep time of each micro inverter

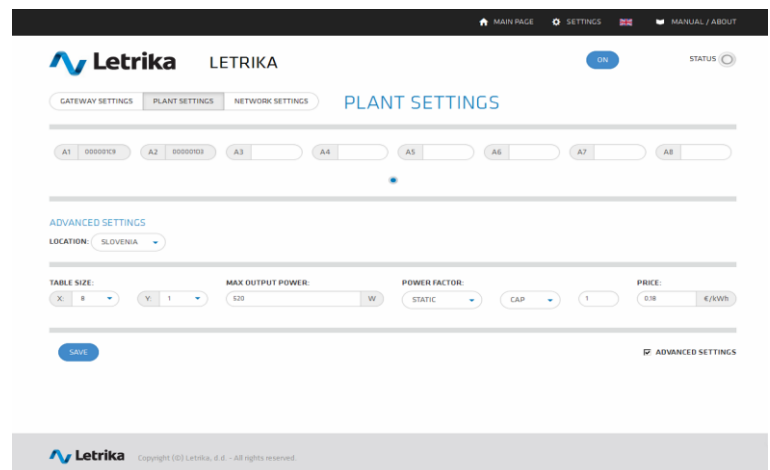


Controlling:

- Each micro inverter maximum power
- Each micro inverter power factor
- Each micro inverter ON/OFF

Main information:

- Current power
- Overall energy
- Daily energy
- Overall reduced CO₂ emissions
- Earnings
- Alarms



Cloud server:

- Data available for exporting to external cloud server
- Documented interface based on https protocol allows access to real time data for external cloud server

Main technical characteristics:

- IP protection: IP 40
- Ambient temperature: -20 °C ... + 55 °C
- Power supply:
Input 100 Vac - 240 Vac; 50 Hz - 60 Hz
Output 12 Vdc, 700 mA
- Communication: Wmbus 868MHz, Wlan, Lan, USB
- Dimensions: 150 x 37 x 155 mm
- Weight: 350 g
- Optional: Extension cable for WMBUS antenna

