



SOLAR PRODUCTS

- SOLAR MICRO INVERTER 260
- COMMUNICATION GATEWAY



THE ONLY MICRO INVERTER WITH
REACTIVE POWER CONTROL CAPABILITY

Smart grid ready / Dynamic power factor regulation /
Extremely precise MPPT / Each individual panel monitoring and control





Letrika's commitment to green energy
leads us to a new product range.

4 - SOLAR MICRO INVERTER 260

6 - COMMUNICATION GATEWAY

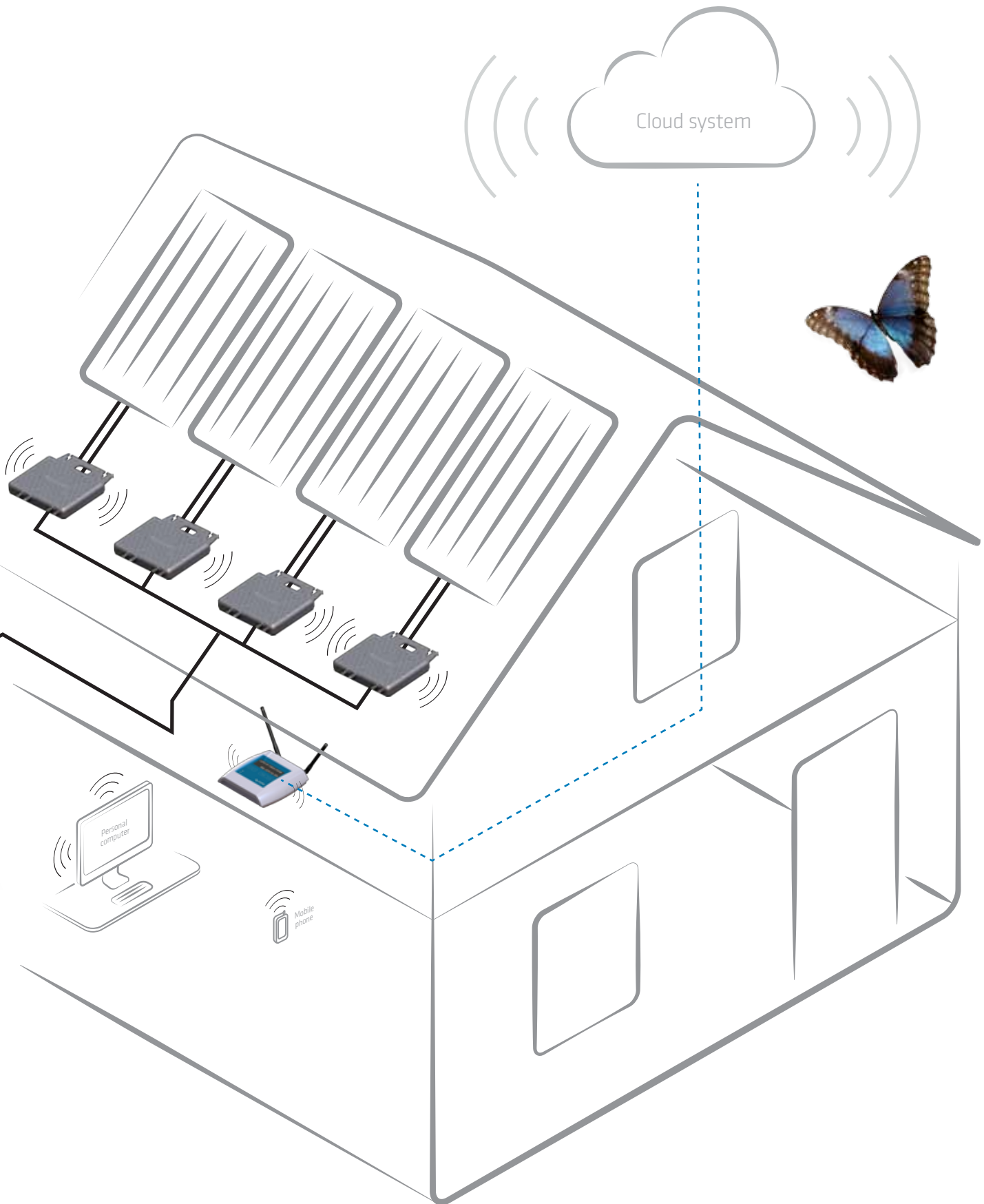


THE MOST EFFICIENT CONVERSION OF LIGHT INTO ELECTRICITY

Advantages

- The best PV levelized cost of electricity (LCOE).
- Up to 20 % more energy efficiency compared to string inverters due to individual panel level shading optimization.
- No single point of failure. In case of one inverter's malfunction, the others continue generating energy.
- Service cost are low, since inverters are simply exchanged in case of failure.
- Modularly built-up system. It can be enlarged gradually in time.
- Wireless monitoring and control. Each panel's performance can be examined and controlled through standard WMBUS communication.
- Simple instalation. No high DC voltage on roof. Simple 230V AC UL and VDE approved, IP69 rated, UV resistant T connection cables used for inverter interconnections.
- In the event of fire, inverters will switch off in max 2 seconds. Only a low voltage (30V) is present on the roof.
- Suitable for off-grid applications with energy storage.
- Micro grid suitable technology.





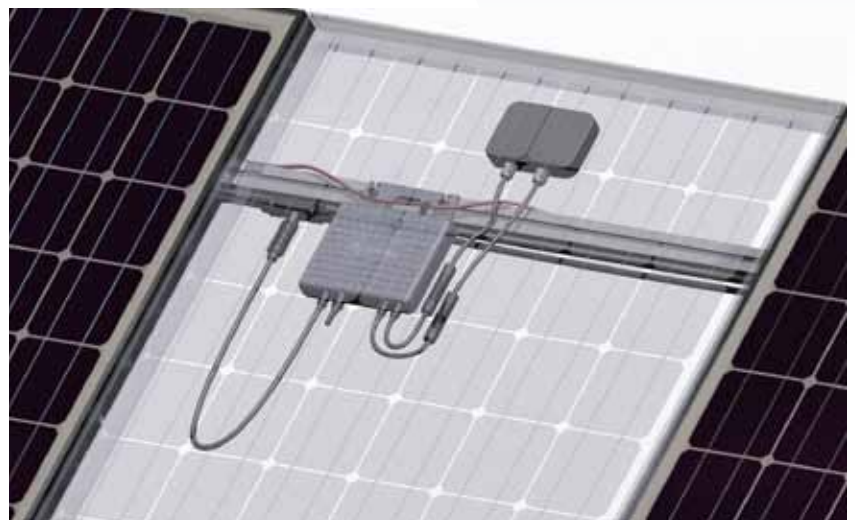


SOLAR MICRO INVERTER 260



Features

- Reactive power control capability / Dynamic power factor regulation.
- Power factor options:
 - Unity (1),
 - Fixed down to 0.8, capacitive/ inductive,
 - Dynamic according to power or grid voltage.
- Very low power needed to start the inverter (< 2W).
- Foil capacitors are used, allowing very long lifetime (25 years) and high MTBF values (up to 600 years MTBF).
- Electronics is designed with automotive standard components, ensuring easy implementation of automated production with automotive quality and traceability.
- Internet access to panel data through the communication gateway (WiFi, Ethernet gateway with embedded web server). The desired real power and power factor can also be set through the communication gateway allowing dynamic control of micro grid performances and adaptation to every grid quality.
- Extremely precise MPPT algorithm.
- Very low panel's DC ripple current (50 mA).
- High efficiency.
- Integrated MSD (Mains Monitoring Switching Device) / Anti-Islanding Protection.
- Optional: parallel connection of two solar panels each with peak power up to 130 W and max DC input voltage up to 55 V (Double DC connector).
- Suitable for 60 and 72 cell panels.





SOLAR MICRO INVERTER 260

PARAMETERS	VALUE
Recommended maximum input power	270 W
Maximum DC input voltage	55 V
MPPT range	22 V-44 V
Minimum start voltage	21 V
Maximum start voltage	45 V
Max DC short circuit current	12 A
Max input MPPT current	10.5 A
Operating range	15V-55 V
Peak power AC	260 W
Output current	1.15 A
Voltage range 100/110V split phase systems	179-232 V
Frequency range 50Hz/60Hz	50 Hz (47.5-50.5 Hz) 60Hz (59.2-60.6 Hz)
Voltage range 240V system	206-270 V
Power factor	Unity (1) Fixed down to 0.8, capacitive/inductive Dynamic according to power or grid voltage
THD odd harmonics	<5 %
Efficiency max.	96 %
Efficiency CEC	95.5 %
Efficiency MPPT	99.9 %
Panel's ripple current	50 mA
Ambient temperature	-40 ... +65 °C
Cooling	Natural
Communication	WMBUS 868Mhz complies to EN 13757-1 ... 5
Complies to	EN 50438 / VDE 4105 / CEI 0-21 / EN 62109-1 / EN 62109-2 / EN 61000-6-3 / EN 61000-6-1 / G83 / 1-2 / UL1741 / IEEEl547 / RoHS
Lifetime expectancy	25 years
Limited Warranty	20 years
Housing	Die casted aluminium
Ambient protection	IP67, completely potted
Dimensions	209x243x38 mm
Mounting brackets	M8x16, distance 130 mm
Weight	1.750 g
AC connection system	Amphenol LTW SPS 03 IP67 connector connection system UL & VDE approved
DC connection system	Amphenol MC4
Integrated MSD (Mains Monitoring Switching Device) / Anti-Islanding Protection	

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.

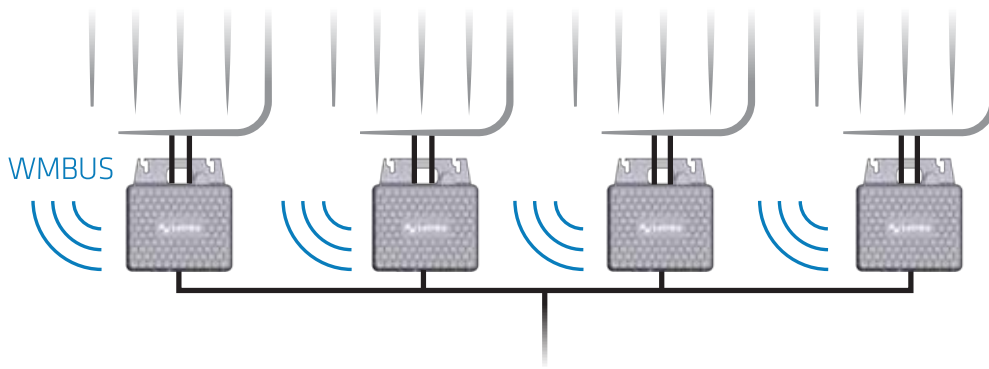
Features

- Embedded linux operating system.
- 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).
- Allows balancing of production and consumption of electricity in micro grid networks.
- Collecting, storing and retransmitting data to the service provider via Wifi, Ethernet and GSM / GPRS communications.
- Works with registered micro inverters, which are filtered by ID number.
- AES-128 encryption.
- WAN connectivity.

Dimensions

- 156 x 150 x 35 mm





Monitoring

- Web application compatible with all platforms: PC, notebooks, smartphones, tablets.
- Generated energy on each PV panel (daily, weekly, monthly, yearly).
- 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 panel.
- Internal temperature of each micro inverter.
- Wake up and sleep time of each micro inverter.

The power plant can be monitored via notebook, tablet and smartphone.

Main information:

- Overall energy
- Overall reduced CO₂ emissions
- Earned / saved money
- Current power
- Alarms

Controlling

- Each micro inverter power.
- Each micro inverter power factor.
- Each micro inverter ON-OFF.

Cloud system

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



WiFi



All solar products are developed and marketed by Letrika Sol, a Letrika & Cosylab joint partnership.

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