

# PRODUCT MANUAL

ECO SOLAR BOOST  
FOR HEATING WATER, BOILER

## GREEN BOOST 3000



**VOLT**  
POLSKA

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**Congratulations on choosing our high-quality eco solar boost - Green Boost 3000 (DC 1210-350V) for water heating, boiler, heating floor and others.**



Above the output voltage of 250V from the panels, the inverter offers the output of approx. 245V!

<b>TECHNICAL DATA GREEN BOOST 3000</b>	
Max constant power	3000W
Max power	6000W
Efficiency	> 95%
Output voltage	120 ~ 245VAC/ 50Hz
Output voltage from panels PV	120VDC ~ 350VDC
Max panels power	≤ 4500W
Output voltage waveform	Modified sine wave
Connection of PV panels	Series or series-parallel
Power connector (input)	MC4-2pcs
Output socket	2pcs
Working modes	MPPT / STABLE
Displayed	LED
Overload protection	Yes
Short circuit protection	Yes
Thermal protection	Yes 100±10°C
Cooling	Built-in fan
Warning system	Sounds and light signals
Operating temperature	od -25~ +55 °C
Storage temperature	od -20~ +45 °C
Weight	2,7kg
Dimensions	345x215x120mm (with MC4)

## INTENDED USE

The eco solar boost - **Green Boost 3000 (DC 1210-350V)** is designed to power heating devices such as boilers, heaters, electric heaters or heating mats directly from PV panels.

The system requires: 4 to 9 typical PV panels (250W - 400W) connected in series, with a total voltage from 120V to 350V.

Our inverter is equipped with internal maximum power protection of 3kW. However, the total power of the panels connected to the inverter should not be higher than 5kW.

**Green Boost 3000 (DC 1210-350V)** allows to connect two heating devices (e.g. two boilers). One will be heated first and the second one will be heated only, if the thermostat of the first one stops receiving energy from the inverter. This ensures that energy from the PV panels will not be lost when one of the units reaches a set temperature.

**Green Boost 3000 (DC 1210-350V)** is equipped with MPPT. Thanks to that, the inverter will automatically adjust to the power of boiler and maximizes the amount of energy drawn from PV panels.

## INSTALLATION

To connect the PV panels to the inverter, use suitable PV installation cables with a cross section not less than 4mm. Using wires that are too thin will cause heating up and a voltage decreasing at the inverter input. In extreme cases it can cause a fire.

The inverter requires unobstructed air circulation for proper operation. Do not, under any circumstances, cover the ventilation holes as this may be a direct cause of overheating and damage of the device.

To improve heat dissipation and for your own safety, we suggest to screw the inverter vertically to nonflammable surfaces (concrete, metal).

## SAFETY

The eco solar boost - **Green Boost 3000 (DC 1210-350V)** produces a dangerous voltage at the output that may cause electrical shock or fire. To avoid that, we suggest to follow all safety rules that apply to electrical equipment (230V).

Please note, that the high voltage may persist even after disconnecting the power supply for a quarter of a minute.

Any repairs should only be carried out by an authorised service centre.

Do not put the voltage inverter in a high-humidity area, near a fire source, flammable substances. Do not also expose it to direct sunlight. If the device gets wet, immediately disconnect the power supply.

Do not connect a load greater than that permitted for continuous operation to the inverter output. Overloading may cause damage to the device.



In case of fire, use a fire extinguisher designed for extinguishing electrical equipment.

Under no circumstances may the input and output of eco solar boost - **Green Boost 3000 (DC 1210-350V)** be connected to the power grid.

## CONNECTION

### URGENT!

The polarity of the supply voltage is very important while connecting PV panels to inverter. The reverse wiring will cause damage to the inverter and void the warranty!

The eco solar boost - **Green Boost 3000 (DC 1210-350V)** has two MC4 connectors which must be connected to the PV installation. The connector shaped  should be connected to the negative pole of the PV installation and the connector shaped  should be connected to the positive pole of the PV installation.

ADC safety switch, designed for such installations, shall be installed on the PV system power cord.

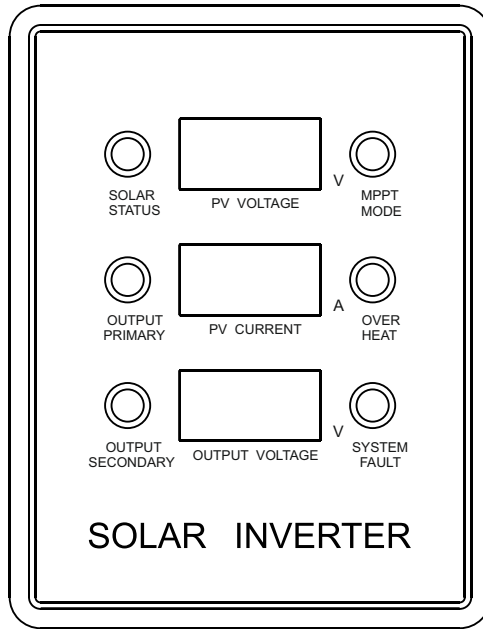
We connect device e.g. an electric boiler to the inverter output marked - "1". When the inverter detects the presence of voltage from the PV panels within the appropriate range, the inverter will automatically turn on. This will be confirmed by the LED indicator.

Optionally, a second energy consumer can be connected to the inverter output marked "2". This can work only with a bi-metal thermostat. Electronic temperature controllers can only work with an output "1". Lack of activities on both outputs for a long time will cause a delay of load sense on output up to several minutes.

### USE

The eco solar boost inverter **Green Boost 3000 (DC 1210-350V)** is equipped with two power outputs - type E (labelled "1" and "2"). After connecting the correct supply voltage from the solar power system (120-350V), the inverter checks the presence of connected receivers.

In the case of connecting two resistance receivers, firstly, the device connected to the socket "1" will be powered. When the device stops consuming energy, the eco solar boost inverter **Green Boost 3000 (DC 1210-350V)** will switch to power socket "2". However, if the load on socket "1" will reappear, the inverter will automatically cut the power supply to output "2" and start to power outputs "1".



**SOLAR STATUS** - When the PV voltage is greater than 80% of the rated voltage of the device, the indicator lamp will be lit. Otherwise, it will blink.

**OUTPUT PRIMARY** - It lights when socket 1 is working

**OUTPUT SECONDARY** - It lights when socket 2 is working

**PV VOLTAGE** - Actual PV input voltage

**PV CURRENT** - Actual PV input current

**OUTPUT VOLTAGE** - Output voltage status, shows the actual output voltage current of the inverter

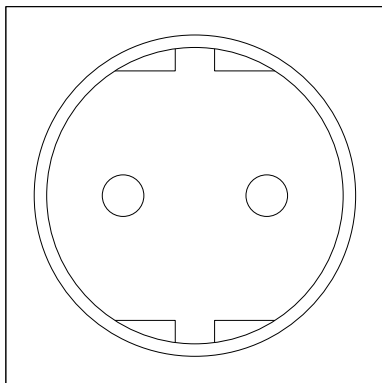
**MPPT MODE** - It lights when the MPPT mode is on

**OVER HEAT** - It lights when the inverter is overheated

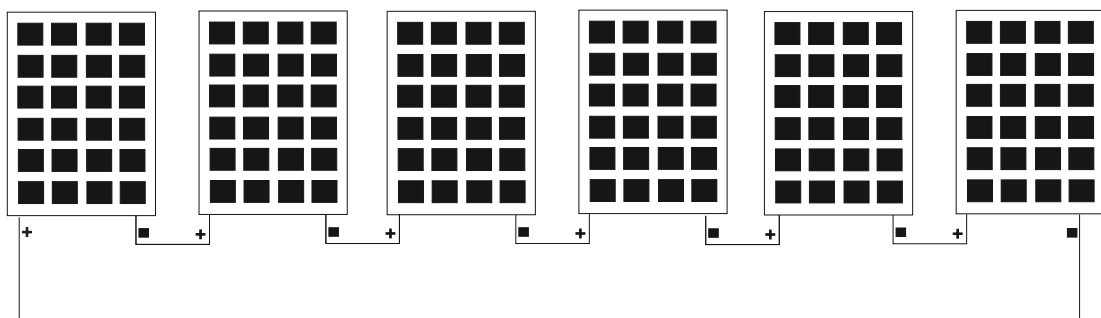
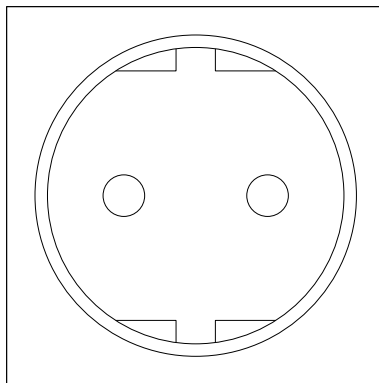
**SYSTEM FAULT** - It lights when the PV voltage is too high or the inverter does not work properly (continuous light) or warns of overload.

# CONNECTING DIAGRAM „1” i „2”

PRIMARY



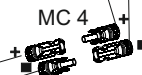
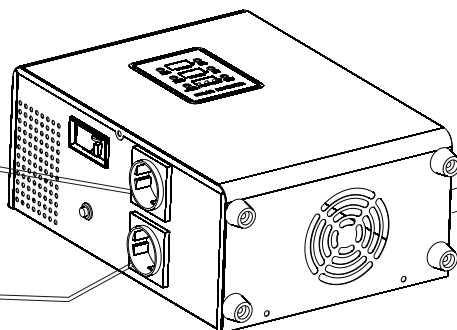
SECONDARY  
(ACTIVE ONLY  
WHEN NO LOAD  
ON PRIMARY)



SECONDARY



PRIMARY



# WARRANTY SERVICE COMMENTS

DATE OF PURCHASE	
SHIPPING ADDRESS	
SIGNATURE / STAMP	
DAMAGE DESCRIPTION	
SERVICE COMMENTS	

## Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

The marking on the product or in related texts indicates that it is at the end of its useful life should not be disposed of with other household wastes. To avoid harmful effects on the environment and human health as a result of uncontrolled waste disposal, please separate the product from another type of waste and responsible recycling to promote the reuse of material resources as a permanent practice. Users in the households should contact the retailer where they purchased the product, or with a local authority. Business users should contact their supplier and check the terms of the contract purchase. The product should not be disposed of with other commercial waste.

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