PRODUCT MANUAL

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ECO SOLAR BOOST
FOR HEATING WATER, BOILER

GREEN BOOST 3000 / 3000T

VOLT POLSKA

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Congratulations on choosing a VOLT product!

Important Safety Information:

Please read this entire manual carefully before using the device. This manual contains important safety and operating instructions. Keep this manual in a safe place for future reference. Only use the device as instructed in this manual and for the intended applications. If you give this device to someone else, make sure to include this manual. We are not responsible for accidents or damage resulting from using the device in a manner not conforming to the instructions. This manual may be subject to change.

Always refer to the latest version of the manual available at https://voltpolska.pl
Green Boost 3000/3000T (120-350VDC) for water heating, boilers, underfloor heating, and more.

Key Features:High Output Voltage:
Even at high input voltages from solar panels, the inverter maintains a stable output voltage of around 245V.

TECHNICAL DATA GREEN BOOST 3000 / 3000T	
Max constant power	3000W
Max power	6000W
Efficiency	> 95%
Output voltage	120 ~ 245VAC/ 50Hz
Output voltage Vmp from panels PV	120VDC ~ 350VDC
Max Imp current from PV	14A
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	GB3000:2pcs / GB3000T: terminal strip
Mode	MPPT/STABLE
Displayed	LED
Overload protection	Yes
Short circuit protection	Yes
Thermal protection	Yes100±10℃
Cooling	Built-in fan
Warning system	Sounds and light signals
Operating temperature	od -25～+55℃
Storage temperature	od -20～+45℃
Weight	3,3kg
Dimensions	311x232x140mm

INTENDED USE

The eco solar boost - **Green Boost 3000/3000T (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 3000/3000T (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.

In STABLE mode - The output voltage is 230VAC (50Hz) and it is maintained if the power from solar panel is sufficient. If the power from the panels is too low, the output voltage will not be 230VAC.
In MPPT mode - The output voltage can oscillate between 120-245VAC (50Hz). When the power from solar panels is low, the output voltage is still from 120V AC.

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

Connecting Solar Panels

Cable Requirements:
- Use appropriate PV installation cables to connect the panels to the inverter.
- Cable cross-section should not be smaller than 4mm².

Using excessively thin cables will cause:
- Heating
- Voltage drop at the inverter input

In extreme cases, this can lead to:
- System losses
- Fire

Ventilation

- Ensure unrestricted airflow for proper inverter operation.
- Do not cover the ventilation openings on the housing.
- This could cause overheating and damage to the device.

Mounting
The recommended mounting position for the inverter is vertical.
Mount the device to non-combustible surfaces such as concrete or metal.

Safety Precautions

The solar inverter produces hazardous output voltage.This can cause fire or electric shock.When using the inverter, follow general safety guidelines for 230V devices.

Residual Voltage Even after disconnecting the power supply, high voltage may remain on the power terminals and internal components for several seconds.

Authorized Service
Any repairs must be carried out by an authorized service center.

Prohibited Uses

Do not use the inverter in high humidity environments.Do not expose the inverter to direct sunlight, fire, or flammable substances.In case of water contact, immediately turn off the device.Do not short-circuit the inverter output or connect a load exceeding the permissible continuous load. Overloading the inverter can damage it.In case of fire, use a fire extinguisher suitable for extinguishing electrical devices under voltage.

AC Output Connection
Under no circumstances should the AC outputs of the Green Boost inverter be connected to a new or existing power grid.

CONNECTION

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.

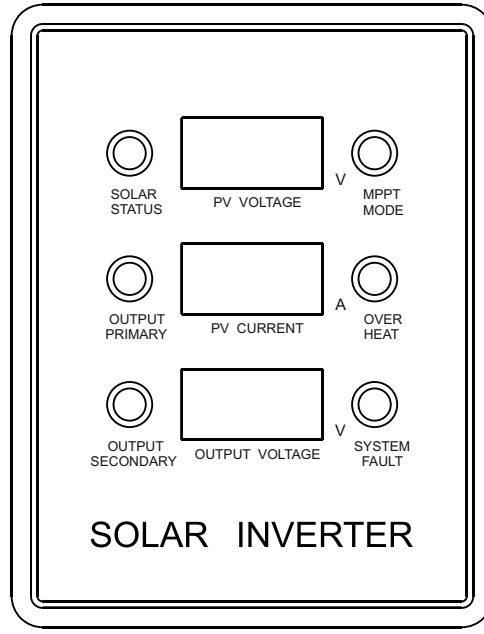
For the GREEN BOOST 3000T model, the sockets have been replaced with a terminal strip.This means that instead of individual sockets, the inverter has a terminal strip with multiple connection points. This allows for more flexibility and easier wiring when connecting the inverter to your electrical system.Here are some additional details about the terminal strip:The terminal strip has multiple connection points for AC output, DC input, and grounding.Each connection point is clearly labeled and has a corresponding color-coded wire for easy identification.

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 works only with a bi-metal thermostats. 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.

The eco solar boost inverter **Green Boost** 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.
For the GREEN BOOST 3000T model, the sockets have been replaced with a terminal strip.This means that instead of individual sockets, the inverter has a terminal strip with multiple connection points. This allows for more flexibility and easier wiring when connecting the inverter to your electrical system.

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 it 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

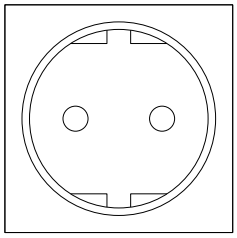
MPPT MODE - It lights when the MPPT mode is on
OVER HEAT - It lights when the inverter is overheated
SYSTEM FAULT - It lights when the PV voltage is too high or the inverter does not work properly (continuous light) or warns of overload.

CONNECTING DIAGRAM „1” i „2”

Connection Diagram for Terminals "1" and "2" (GREEN BOOST 3000) and Terminal Strip (GREEN BOOST 3000T)

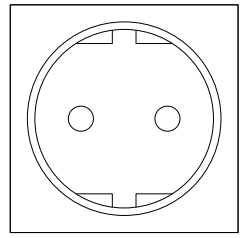
GREEN BOOST 3000

PRIMARY



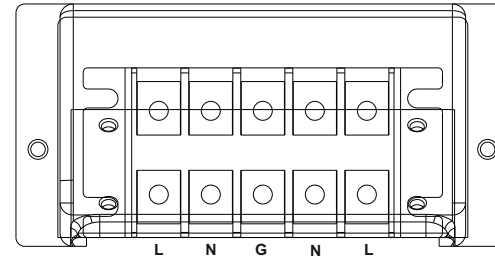
WYJŚCIE PODSTAWOWE

SECONDARY
(ACTIVE ONLY WHEN NO LOAD ON PRIMARY)



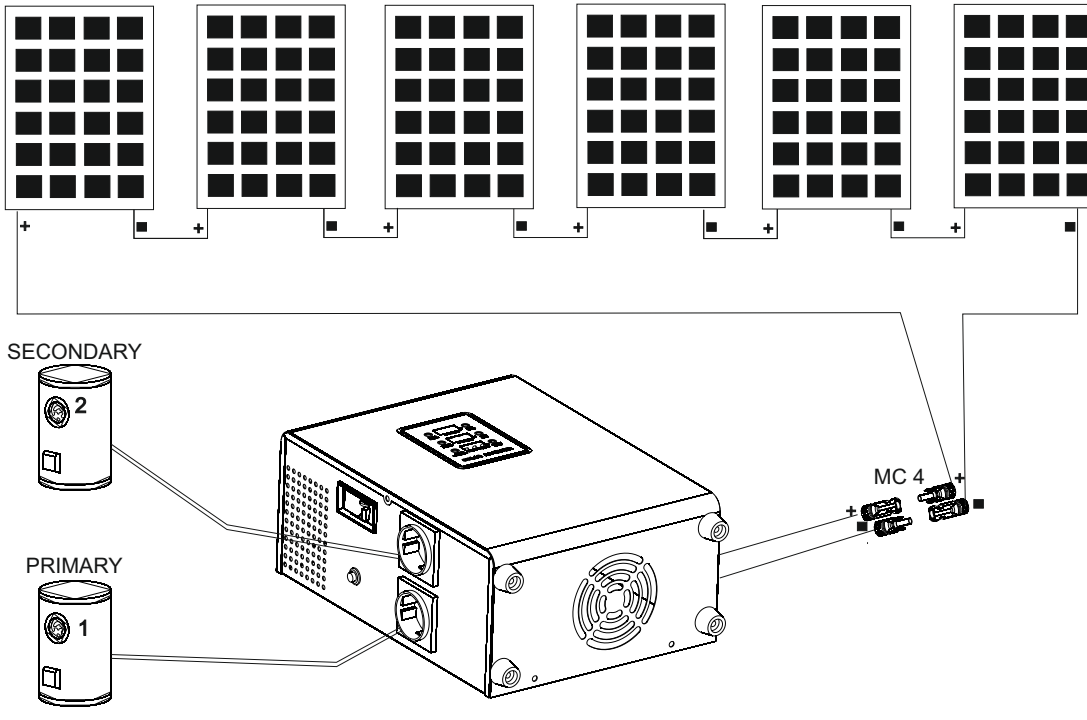
WYJŚCIE POMOCNICZE
(AKTYWNE TYLKO GDY BRAK OBCIĄŻENIA NA WYJŚCIU PODSTAWOWYM)

GREEN BOOST 3000T



AC OUTPUT
PRIMARY
WYJŚCIE PODSTAWOWE

AC OUTPUT
SECONDARY
(ACTIVE ONLY WHEN NO LOAD ON PRIMARY)
WYJŚCIE POMOCNICZE
(AKTYWNE TYLKO GDY BRAK OBCIĄŻENIA NA WYJŚCIU PODSTAWOWYM)



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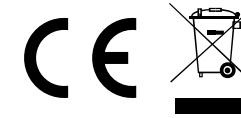
WARRANTY SERVICE COMMENTS

DATE OF PURSCHASE	
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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