

NEW PRODUCT

eko-oze-pv

Photovoltaic micro
installation performance
optimiser



**Prevents
inverters from
being shut off**

**Increases the efficiency
of photovoltaic energy
self-consumption**

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Photovoltaic micro installation performance optimiser

Our product optimises the operating parameters of the resistive receivers connected thereto so that they can constitute a modulated load when voltage spikes occur that could cause the inverter to be shut off.

To perform this function, the devices of the EKO-01 set use **PID controllers** that continuously monitor voltage and temperature levels, and react to changes in real time.



3 relay outputs 5 A

Smooth adjustment of a load for each phase

6 modes of operation

Configuration via Wi-Fi

3-phase measurement of energy parameters

Integration of MQTT with Home Assistant

Intuitive configuration page

SELF-CONSUMPTION

Meet an energy demand by using a photovoltaic installation for current needs

The eko-oze-pv product is an intelligent energy management system that optimises the operation of a photovoltaic micro-installation. With our solution, the amount of energy used can be increased when produced by one's means for current needs. The eko-oze-pv unit allows the selection of an operating mode in which energy is fed to the grid only after a predetermined task has been carried out, e.g. water heated in the DHW storage container or another receiver switched on. With the eko-oze-pv, it is the user who decides how much energy is to be fed back to the grid and configures the devices that are to be activated when successive levels of energy production are reached. Specific tasks that require a significant amount of energy can thus be scheduled to avoid drawing power from the grid. Such characteristics are particularly attractive to net-billing users.

TECHNICAL DATA

eko-oze-pv	
Rated voltage	230 / 400 V 3 ~
Voltage tolerance	- 20% to 15 %
Rated power input	1.5 W
Frequency	50 / 60 Hz
Transmission power	ERP < 20 mW
Measurement accuracy	Class 2 ($\pm 2\%$)
Current transformer parameters	0.1 – 33.3 mA / 100 A
Operating temperature range	-10°C to 55°C
Maximum cable cross-section	\varnothing 2.5 mm ²
Number of terminals	25
Outputs	<ul style="list-style-type: none">• 3 x contact NO (COM1, OUT1, COM2, OUT2, COM3, OUT3)• 3 x regulated 4-20 mA (SCR1, SCR2, SCR3, +12V)• bus (1-WIRE, +3.3 V, GND)• voltage (+12 V, GND)
Housing attachment	surface-mounted
Transmission	Wi-Fi 2.4 GHz 802.11 b/g/n
Operating range	Wi-Fi network range
Dimensions	202 x 150 x 57 mm
Weight	0.437 kg
Voltage supply terminals	L1; L2; L3; N
Current transformer terminals	S1 S2 – I1; S1 S2 – I2; S1 S2 – I3



Prevents inverters from being shut off

The eko-oze-pv device monitors the voltage level in the grid and activates a specific receiver whenever the limit level may be exceeded. Hot water storage containers with electric heaters are used in eko-oze-pv systems. The load generated by such receivers is modulated by the eko-oze-pv control module and used to reduce voltage locally.



DHW economical heating

Water heating accounts for nearly half of household electricity consumption. Eco-oze-pv devices allow the associated costs to be optimised by using varied algorithms to heat water when energy is being produced by the photovoltaic micro-installation.



Priority for self-consumption

Eko-oze-pv devices allow domestically generated energy to be managed in such a way that pre-determined needs are first met before it is fed to the grid. It is only after the pre-set temperature of the DHW storage container has been reached that energy may be transferred to the grid. Such a solution is intended to reduce the share of the energy drawn from the grid in the overall amount consumed by the storage container heaters.

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