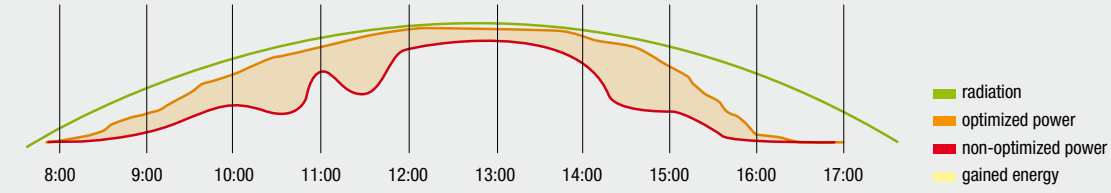
RENEWABLE ENERGY

EEI PV STRING OPTIMIZER
FOR PHOTOVOLTAIC SYSTEMS

- **The solution for real cost-effectiveness**
- **Maximizes performance**
- **Minimizes loss in wires and inverter**
- **Can be applied to new or old systems: no changes needed**
- **Simple, fast installation**

+10%*

Pn 5 kW



Multiple factors can limit the performance of a photovoltaic system:
- Shade
- Dirt
- Different temperature
- Mismatching and panel aging
- Damaged panels
- Current inversion on low voltage strings

PV String Optimizer is a DC/DC converter which implements evolved Maximum Power Point Tracking MPPT, **capable of optimizing the power produced by each string.**

One-of-a-kind on the market, the EEI String Optimizer operates on string and not module level. This feature makes it easy to install, cost-effective and efficient.
In traditional systems, the different behaviour of the strings forces the inverter to work on a point of the V-I curve which optimizes only some of the strings.

Each single string would need to be optimized to collect all the energy. Considering endogenous mismatching alone, i.e. the panel production tolerance, the unexpressed power easily reaches 3%.
By adding the other effects, **8-12%** can be totalled up according to the problems of the system.
The EEI String Optimizer **can collect this energy** and make it available to the centralized inverter.

*Improvement in terms of energy on strings with shade and mismatching problems

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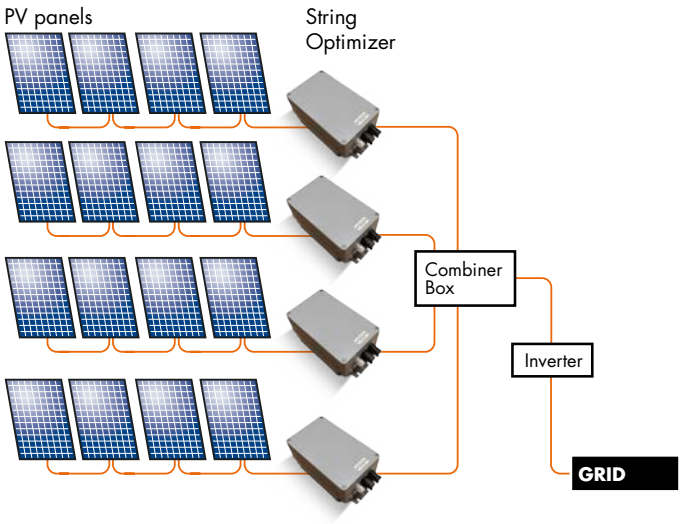
SPECIFICATIONS

- High efficiency (max. > 99%)
- High reliability, no fan
- Maximum Power Point Tracking (MPPT)
- Pn = 5 kW
- Iin, Iout = 0...10 A
- Vin, Vout = 300...900 V
- Self-powered
- Internal string lock diode
- Robust IP65 rated aluminium case
- Suitable for outdoor installation
- Suitable for any type of panel
- IP67 quick connectors (MC4)
- RS485 Modubus communication interface
- Display (optional)



DC Input Parameters

MPPT number	1
Maximum input current	10 A
MPPT input voltage range	300 ÷ 800 V
Output Voltage	Depends on main inverter

Efficiency

@ 10A - 550 < Vmppt < 650 V	>99,0%

Weight and dimensions

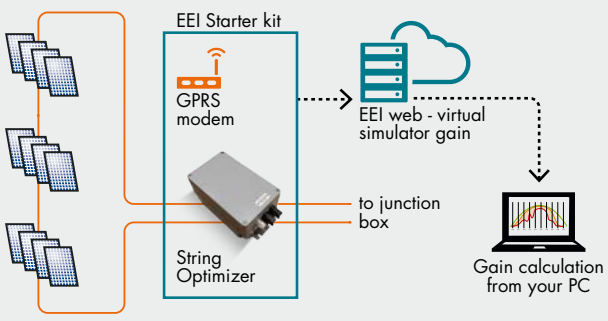
Enclosure	Aluminium
L / H / D	Approx. 160/260/132 mm
Weight	4,6 kg

Environmental condition

Operative temperature range	-15°C / +40°C
Storage temperature range	-20°C / +50°C

STARTER KIT

Evaluate the unexpressed potentials of your system yourselves with the starter kit. Installation is simple. No changes to the existing wiring needed.
The results illustrated on charts updated in real time are available on our mini-site at **www.eei.it/string_optimizer.html**



WWW.EEI.IT/STRING_OPTIMIZER

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