OffGrid

FuturaSun®

GRID-FREE **100 - 12 V**

This is a basic kit for lighting small huts, storage sheds and garages.

The system is composed of:

- One 100 Wp PV module FU 100 M
- One 15 A charge controller PowerKey
- One hermetic battery for PV systems, 100 Ah - 12 V
- Three 5 W - 12 V LED bulbs (400 lumen)

Optional: one 1000 W - 12 V sine wave inverter

GRID-FREE **200 - 230 V**

This is an intermediate kit for lighting and powering of huts, rural houses and other places not connected to the electrical grid.

The system is composed of:

- Two 100 Wp PV modules FU 100 M
- One 15 A charge controller PowerKey
- Two hermetic batteries for PV systems, 100 Ah - 12 V
- Three 5 W - 24 V LED bulbs (400 lumen)
- One 2000 W - 24 V sine wave inverter

GRID-FREE **250 - 230 V**

This is a kit for greater comfort and autonomy, useful for lighting and powering electrical appliances and small consumers not connected to the electrical grid at 230 V.

The system is composed of:

- One 250 Wp PV module FU 250 P
- One 15 A charge controller PowerKey MPP
- Two hermetic batteries for PV systems, 150 Ah - 12 V
- Three 5 W - 24 V LED bulbs (400 lumen)
- One 3000 W - 24 V sine wave inverter

All the Grid-Free kits can be customized.
Contact us for further details!

Charge controllers FuturaSun PowerKey

A charge controller is the brain of a stand-alone photovoltaic plant. It allows the management of power generated by PV modules in the most efficient way and keeps personalized control of the loads.

The microprocessor-controlled devices of the “PowerKey” series are made in Italy and satisfy the most diverse requirements for a plant. In fact, all of them are easily adjustable to 12 or 24 V and have a current range between 15 and 30 A. They are available either with an integrated display or an external display, for monitoring of the parameters of the whole PV system.

PowerKey 15 A / 30 A (12/24 V- 15 o 30 A)

It is available in two versions, 15 and 30 A.
This PWM controller manages loads that usually need to operate 24 hours a day. In the version with a display (PowerKey View) it is possible to set up a timer for the the programmed time in advance. It can be used for PV modules with 36 (nominal voltage 12 V) or 72 cells (nominal voltage 24 V).

PowerKey Light Control (PWM - 12/24 V - 15 A)

This is a perfect option for PV street lamps because of the day/night recognition function. It sends the signal in a completely automatic way, depending on the duration of the night, the amount of the energy stored in the battery and the state of the battery charge. This type of operation extends the medium lifespan of accumulators. Besides, it is possible to set up personalized timers.

PowerKey Free Time (PWM - 12/24 V - 15 A)

It can be used for camper vans and sailing. It manages the charge of the engine battery and of the auxiliary battery, either when the means of transport is standing still or moving. It is available in one version,15 A.

PowerKey MPPT (MPPT - 12/24 V- 15 A)

With the step up MPPT technology, this charge controller is created to connect PV modules with 60 cells (Voc 36 V). So two 250 W photovoltaic modules, usually used in grid-connected systems, can be connected in parallel. This solution is particularly convenient for the 24 V stand-alone plants.

FuturaSun®
anticipate tomorrow

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1 The power produced by two of the FU 250 P modules, satisfies the electricity demand in this mountain hut in Trentino (Italy).

2 Asmara (Eritrea): the 4 kWp hybrid plant on the rooftop of the Ministry of Justice guarantees electrical power supply for the digital library, also when blackouts occur.

3 Futura has supplied modules and charge controllers to four sites that, being interconnected through wi-fi, allow to have video surveillance and environmental control on the water quality of the Navicelli Canal in Pisa (Italy).

4 A 1800 Wp photovoltaic plant in Taereshi (Eritrea): the produced energy powers a pump bringing water from the well depths to a tank, which then supplies water to the taps in the center of the village.

Cover: installation of an off-grid system on the dispensary of Bassin Zim (Haiti). Thanks to this plant, vaccine storage at controlled temperature has finally become possible.