



5KW OFF-GRID SOLAR SYSTEM (ON-GRID BACKUP function optionally)

System design, package supply and function warranty provided by PHOTON SOLAR, Germany.

We hereby offer a high-quality photovoltaic OFF-GRID SOLAR SYSTEM (PACKAGE) with supply and functionality warranty from Germany to you. With this PV package you are able to produce your own electricity, reliable and anywhere in the world, independent of the public power grid.

The PV package consists of the highest quality photovoltaic components, including poly crystalline PV panels of the Photon Solar PH series or equivalent, sine wave inverter for stand-alone operation, energy storage and assembly with mounting material.

German Engineering: Selected components were optimally matched by our German engineers to maintain long-term reliable autonomous power supply. The package presented here is just a sample of many. In some cases, depending on the individual power consumption profile and local project parameters, it is necessary that we develop an individual and customized system.



PHOTON SOLAR – 5KW OFF-GRID Solar System (48V System)

5.2 KWp PV field – panel type PHOTON SOLAR PH-260P-60*

20 x 260W+ poly crystalline high performance PV solar panels
25 years guarantee from German manufacturer

5KW PV Premium Sine Inverter (1ph)*

International guarantee from European manufacturer

9,6KWh energy storage (German Engineering):

4 x solar gel (or AGM) battery 12V/200Ah C20 (48V system),
3 x 40A charge controller with intelligent battery management & deep discharge protection,
Battery Fuse , electrical kit battery cable kit

Mounting material-Kit*– DEKRA certified assembly for roof mounting with roof connectors of stainless steel (optionally roof hooks, grub screws or cap profile brackets), anodized aluminum profiles, incl. MC4- and Y-connectors (for parallel wiring) and PV cable, 15 year guarantee by German manufacturer.

FOB Germany price for authorized dealers upon request.

(free delivery in Germany, in case of delivery to foreign country, additional transport costs appear)

*) According to the attachments: PV panel data sheet, inverter data sheets, mounting material list

Professional engineering support from Germany: This package will be delivered with a manual (instruction guide) for the electrical connection and PV wiring. For any questions regarding the connection or extensions of the PV package, our engineers in Germany will be available at any time, even after the purchase (we provide service in English and German).

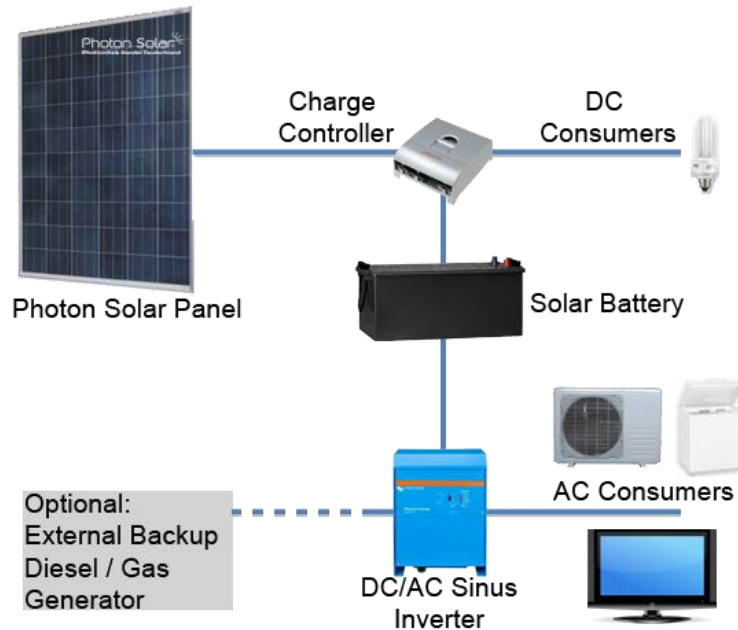
Expandability: Due to increasing energy demand, this system is designed to be expanded at any time with further PV panels or more batteries.

Combined packages: Multiple packages can be combined with the equal inverter type (e.g. 3 x 5KW (1-phase) = 15KW (3-phase)).

Upgrade Functions: The basic version of this package is designed for 100% OFF-GRID use, independent from the public grid or any other external AC power source. Optionally (upgrade price), you can add more applications to the basic package, such as 1 or 2 external AC power sources or to let the system run parallel to the public grid.



PHOTON SOLAR OFF-GRID SOLAR SYSTEM



Upgrade functions - Expansion options

Public Grid Connection, BACK UP System (against public grid power blackouts): In the case, you would like to let the system run in connection to the public grid or any other external AC power source, you will need an upgrade inverter (with external AC power source connection) and extra special components (extra control unit) which are required to run the battery system parallel to the grid. Upgrade inverter and special components prices upon request.

External generator: In the case of several days of no sunshine, you can add an external power generator (e.g. diesel-, petrol- or gas generator, wind turbine, etc.) or the public grid in order to back up the shortage period. Upgrades available with either 1 or 2 external power AC sources. Upgrade prices upon request.

More PV panels: You can increase the PV panel field in numbers of 4 panels each 260Wp. Example: Increase the number of 20 panels (5.2 kWp) up to 24 panels (6.24 kWp) etc. Each step of additional 4 panels requires 1 more charge controller, extra PV wire and connectors as well additional mounting material. Upgrade prices upon request.

Higher Battery storage: You can increase the battery capacity in steps of 4 batteries each. 4 solar gel battery 12V/200Ah C20 = 9.6 kWh. For example: 9.6 kWh, 19.2 kWh, 28.8 kWh, 38.4 kWh etc. Each step of additional batteries require extra battery wire, fuses and connectors. Upgrade prices upon request.

Horizontal panel layout: Offered mounting material is calculated as standard assembly (parallel to the roof) for vertically installed PV panels (see attached mounting material list). If panels are installed horizontally, more aluminum profile meter and accessories will be required. Flat roof top requires other material. Mounting material upgrade for horizontally module or flat roof top installation, please refer to upgrade prices upon request.

Warning: Life Danger and Fire Danger could result from improper connection! This OFF-GRID SOLAR SYSTEM (PACKAGE) must be connected by a professionally qualified and licensed electrician only. Electrical connection has to be carried out in accordance with the legal rules and requirements of the country.

Note: This offer is excluding installation. This package is not exhaustive. Due to local circumstances changing or additional material may be required. This data sheet is subject to the General terms and conditions of Sale of Photon Solar GmbH.

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