



Solar Electric Mini Power Supply Sets - SEM320Wp; SEM640Wp; SEM1280Wp 1/2/4PVpanels, inverter w/independant MPPT inputs

to a 230V 50Hz electrical socket

for Installation:
on the roof of house
on the flat roof
on the terrace
in the garden
at the wall
adhere to balcony railing
plug - and - play

Completed in 3 steps

- Installation
- Connection
- Finish

VDE-AR-N4105
NA-Protection

Example SEM640:

two 320Wattp PV panels made in Germany; inverter with two independant MPPT inputs

☆ **Each 20 minutes the sun sends more energy to the earth than the whole human population consumes in one year !!**

☆ **Independence of the electricity supply!**

- *The energy of sunshine is available free of charge, no environment pollution, no waste of natural ressources*
- *The energy of sun under clear sky could generate up to 1000Watt/m². This corresponds approx. to the power of a stovetop. The PV panel can transform up to ~20% of the sun energy into electric energy.*

☆ **Save lot of electricity everyday!**

- *It's time that you use the free sun energy potential for generating electricity for your home!*

☆ **Install the mini PV sets for more independance of big power companies.**

- *Example: The SEM640Wp with 2 PV panels can save you up to 170€/year of your electricity costs in Germany*



Example SEM640: mounting two PV panels on a flat ground

Your electric Solar Power Supply is your contribution against waste of natural resources and less pollution of our earth !

Simply place the mini PV set on a sunny place, towards to the south and connect the PV panel to the micro inverter. Plug in the Micro inverter connector into a suitable 230V 50Hz AC socket, DONE.

* The electricity generated from the mini PV set comes from free available sunlight, therefore does NOT need to be purchased from any electricity supplier. The electricity counter turns slower! Money saved!

What you will get?

* A set containing high-quality PV solar module(s), mainly manufactured in Germany, a micro inverter with independent MPPT inputs, cable and mounting parts.

* The micro inverter converts the energy of the mini pv set into your 230V50Hz AC inhouse power grid. The micro inverter is mounted directly on the mini PV set. The efficiency of micro inverter is high(up to 96% !!), therefore as less solar energy as possible is wasted.

* Mounting materials for non-standard installation is on request.

Where can I install the mini PV set ?

* A mini PV set can be installed in virtually all places with unobstructed sunlight access. E.g. normally on a house roof, but also on a flat roof, on the lawn in the garden, on the balcony, on the balcony railing, on a wall, three-pin plug into the socket. Finished.

* It is important to have unobstructed sunlight access to the mini PV set for the whole day and installation of the mini PV set in the direction of the sun.

How does the Mini PV set work?

* The micro inverter is connected to the mini PV set via special weatherproof cables. It converts the generated DC direct current, which is generated from the PV panel into line-compatible AC alternating current. The mini PV set provides this power for self-consumption immediately (without tax or EEG payment). The current is fed into the main grids via a standard three-pin plug.

Is the mini PV set safe?

* The micro inverter complies with VDE-AR-N 4105 and is equipped with an integrated NA protection. That means no current flows when the plug is not plugged in - no risk of injury! In case of a power failure in network e.g. In case of a fuse blow out, no electricity flows from the mini-PV set into the network - no risk of injury. The mini PV set meets all technical and legal requirements for being connected to the public grid. According to German regulation only your electricity meter must have a so called backstop. If your electricity meter does not have such a backstop, it can be obtained from the electric energy supplier. Please contact your local energy provider in case of more questions

Does the mini PV set save me money?

Definitely yes, for reference pls see the table below:

For example, the SEM640Wp can produce each year more than 600kWh in South Germany or around 1000kWh in sunny south Spain. According to the local tariffs of buying or selling electrical energy of the local energy providers, you can save each year more than 170€ in South Germany or 280€ in sunny south Spain.

Can I also feed (sell) electricity and make money?

* Of course your mini PV can also feed in(sell) excess electricity. Then you have to contact your electricity supplier regarding approval. He will install a special 2-way electricity counter that counts your inserted excess electricity. But since it is a mini PV system, you will most likely consume most of electricity generated from this mini PV set.

For Questions, Quotes and Orders please refer to below contacts by phone or by email.

System	Energy production average [kWh]		Saving potential average [Euro]	
	South Spain	South Germany	South Spain	South Germany
SEM320Wp	532 (per year)	302 (per year)	144 (€ per year)	90 (€ per year)
	10.644 (20years)	6.032 (20 years)	2.880 (€ 20 years)	1.791 (€ 20 years)
SEM640Wp	1.064 (per year)	603 (per year)	288 (€ per year)	179 (€ per year)
	21.289 (20years)	12.064 (20 years)	5.760 (€ 20 years)	3.583 (€ 20 years)
SEM1280Wp	2.129 (per year)	1.206 (per year)	576 (€ per year)	358 (€ per year)
	42.578 (20years)	24.127 (20 years)	11.521 (€ 20 years)	7.166 (€ 20 years)

Buying price Electricity per kWh 0,28€; annual increase buying price Electricity 2%
Energy Self Usage: 80%, orientation of panel to sun, no shadow