



LANGLOIS Portable Solar Power Unit Type Restitution Network Instructions

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LANGLOIS Portable Solar Power Unit Type Restitution Network



The SOL-RES solar power plant includes

1. a technical case.
2. photovoltaic panels on tilting frames of approximately 200Wp each.
3. the solar cable of 30 m to connect the panels to the case.
4. portholes with 60W lamps to observe consumption.
5. set of safety cords.
6. power cord.

EDUCATIONAL OBJECTIVES

- Discover the different elements of a photovoltaic installation network restitution.
- Apprehend and understand the security elements present.
- Perform electrical measurements of the various quantities.
- Analyze & interpret the results.
- Study the performance and the effects related to the positioning of the panels
- Study the energy chain (production, use, resale, energy behavior).
- Wiring a photovoltaic installation with grid restitution.

STUDENT + TEACHER PEDAGOGICAL FILE

1. This learning case allows the study of the return of photovoltaic energy on the national 230VAC 50Hz grid.
2. You can choose between two types of operation: the total return of the energy produced or the return of the energy not consumed only.
3. A silkscreen represents the different components.
4. The components are to be connected with safety cables.
5. This case must be connected to a 45Vmin photovoltaic voltage source.

6. Input voltage between 45VDC and 150VDC.

Composition of the technical case


- Impact-resistant polypropylene case. It can be closed without unwiring the safety cords from the front panel.
Lightweight and easily transportable using its handle.
- 2 photovoltaic connectors for connecting solar panels.
- 1 surge arrester.
- bipolar fuse holder with PV cartridge protecting the solar panel circuit and use.
- 1 disconnecter to isolate the circuit of the solar panels from the technical case.
- 1 up 500W synchronizable on the network
- 1 On / Off switch for maintenance.
- 3 energy meters
- 1 disconnecter to isolate the connection to the network.
- 1 voltage controller
- 1 bipolar 30mA differential circuit breaker
- 1 230VAC-500W 50Hz output on 4mm safety terminals
- 1 230VAC-500W 50Hz output on the electrical outlet
- Dimensions: 580 x 460 x 205mm

Supplied with an educational file including

- A theoretical reminder of the different types of cells and photovoltaic energy.
- The detailed wiring diagram of the solar power plant.
- Complete theoretical and practical work in student/teacher notebook form.
- Complete instructions for each component.

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Documents / Resources

	<p>LANGLOIS Portable Solar Power Unit Type Restitution Network [pdf] Instructions Portable Solar Power Unit Type Restitution Network, Portable Solar Power Unit, Solar Power Unit, Power Unit</p>
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References

- [France.fr](https://france.fr) : Actualités, destinations et infos du tourisme en France
- [Langlois](https://www.langlois.fr)