



Fisuel Seminar – 15-16 of October 2024

Barcelona – Spain

Pierre SELVA



PV Balcony System – Any safety issue ?

Agenda

What are we talking about ?

What is the safety issue ?

How to be safe ?

Actions to be expected

What are we talking about ?



Lot 2 Kits solaires **2000W (2x1000W)** Plug&Play 4 panneaux JOLYWOOD 500W + 2 micro-onduleurs HOYMILES HMS1000W

★★★★★ 1 avis

Référence 2278

✓ En stock

1278,00 €

TTC

OU PAYER EN **3x 4x** **oney**®

Total : 1278,00 €

Lot de 2 kits Guzmania destinés à 2 installations photovoltaïques au sol :

- 4 panneaux solaires Jolywood 500W, dimension du panneau 1950 x 1134 x 30
- 2 micro-onduleurs HOYMILES HMS1000W wifi intégré
- 2 câbles secteur 5 mètres FLEX (2,5mm² - Fiche prise 2P+T)
- 2 Supports au sol à lester SUNBAZ

Il est déconseillé de mettre plus de 1000W sur une ligne de prises avec un câble secteur.

1

Nous vous rappelons que mis à part quelques exceptions (nous consulter) toute création ou modification d'un système de production d'électricité nécessite le passage d'un CONSUEL afin de garantir la conformité et la sécurité de l'installation.

Dutch standardization authority warns about balcony PV risks

The Royal Netherlands Standardization Institute (NEN) has warned Dutch consumers about the risks of poor balcony PV installations.

Swedish authorities issue warning about solar panels on balconies

The Swedish authorities have identified electrocution and fire risks posed by the improper deployment of plug-in solar modules.

JANUARY 30, 2023 EMILIANO BELLINI

Lionsheer Balcony Solar Storage with microinverter PV HUB LiFePO4 Battery Power Plant 1~6kWh Home Energy Storage Power System

What are we talking about ?

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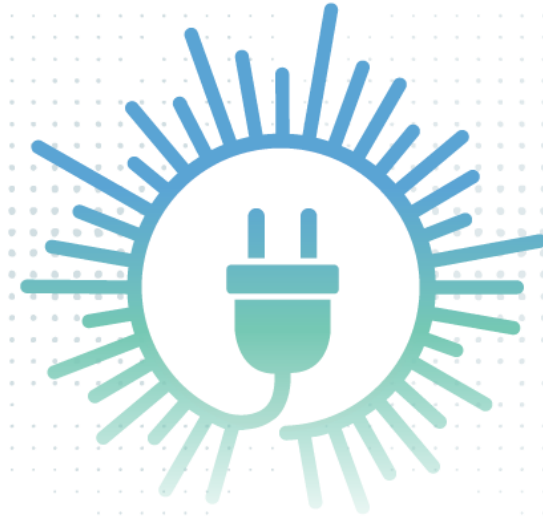
What are we talking about ?

SER, ENERPLAN, ADEME issued a guide for plug & play solutions.

Validated by SGS. 

According to French Standards.

Direct link by clicking on picture on right (In French only 😞)



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KIT PHOTOVOLTAÏQUE
AUTOCONSOMMATION
PLUG & PLAY



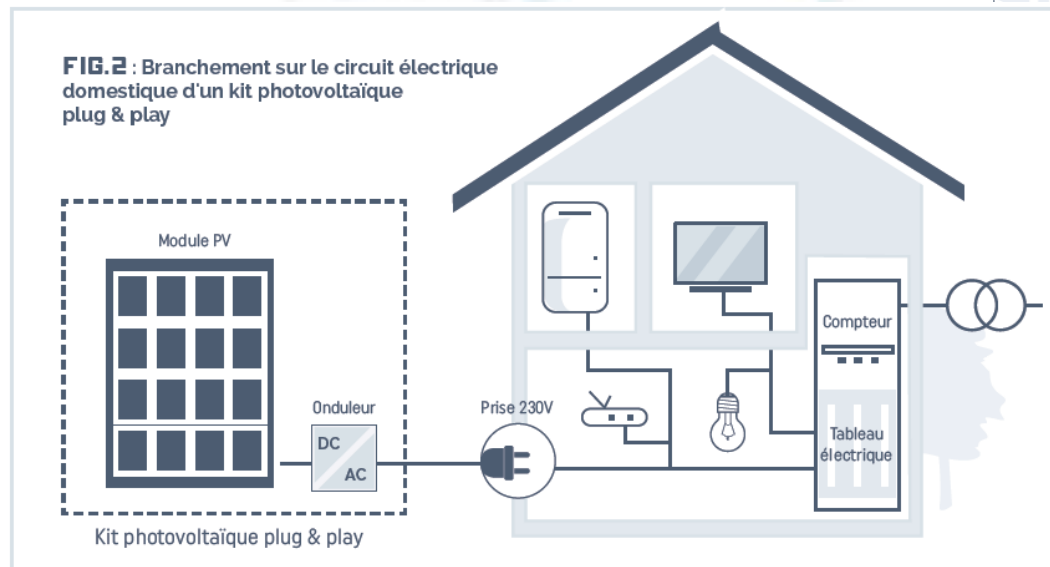
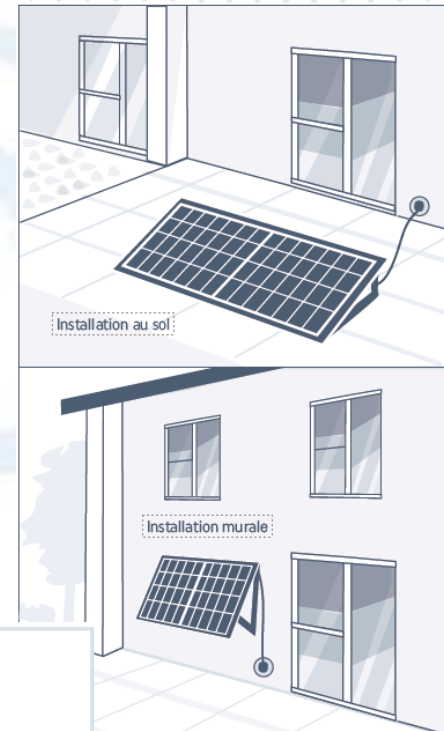
What are we talking about ?

Ground or Wall mounted.

Directly connected to the electrical installation by a domestic power socket outlet.

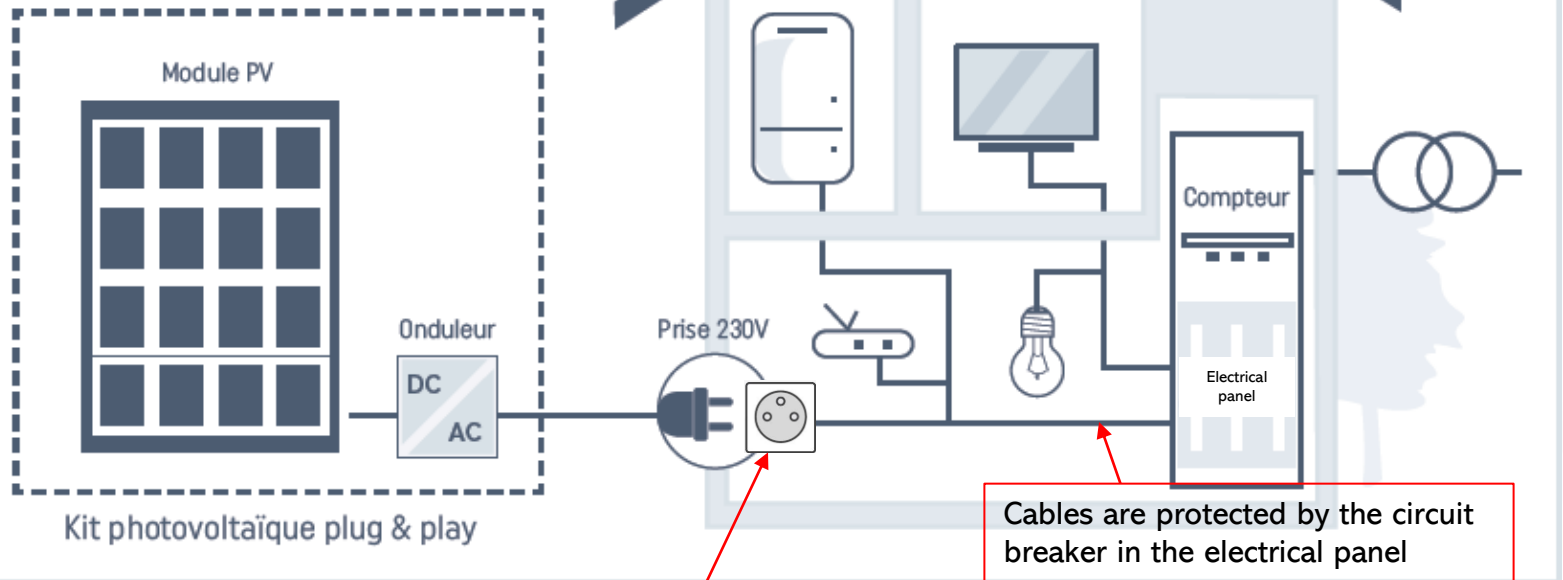
Simple kit with possible extensions.

Easy to install, cheap, movable, answer to “energy transition”, use “free” energy.



What is the safety issue ?

FIG.2 : Branchement sur le circuit électrique domestique d'un kit photovoltaïque plug & play



Power socket outlet (IEC 60884-1) must be energized ONLY by the fixed installation

Cables are protected by the circuit breaker in the electrical panel



How to be safe ?

French NFC15-100 rules

Wiring cables for 230V socket	Rating circuit breaker (A) I_n	Max current in wire (A) I_z	PV current max (A) $I_g = I_z - I_n$	Max PV power per circuit (VA)
Cooper 1,5 mm ²	16 A	17,5 A	1,5 A	350 VA
Cooper 2,5 mm ²	20 A	24 A	4 A	900 VA

PV kits should be limited to 350VA to ensure safety



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Actions to be expected

1. **Promote a safe use of PV
Balcony kits**
2. **Work at standard level to
provide safe rules**
3. **Raise awareness at local level
with authorities and
professional & consumer
organizations**



