

# Off grid/Hybrid solar energy solution

## Designed to run average family house



### System capability

#### Solar Generation

- Installed with 12 panels 3.5 -4.2kW. Winter average production 7-8kWh a day - recommended to have generator connected.
- Installed with 22 panels 7 –8.4kW Winter average production 14-16Wh a day - generator may not be necessary, depends on usage
- Installed with 36 panels 10 –12kW Winter average production 20-25Wh a day - generator may not be necessary, depends on usage

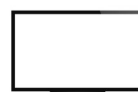
#### Battery Pylontech 12kWh Lithium

- 10kWh for every day use.
- 2kWh emergency capacity
- Extendable battery bank

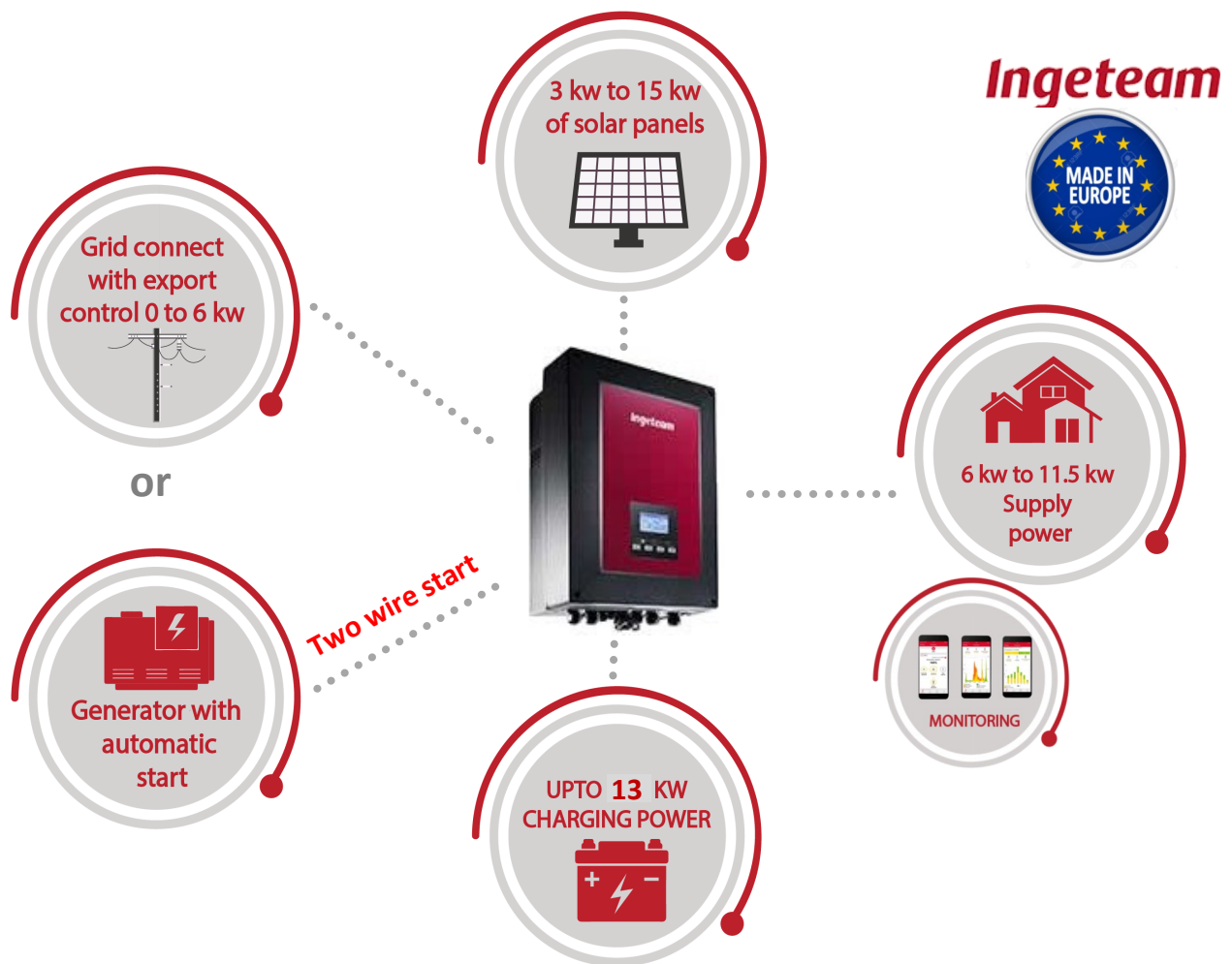
#### Inverter capability

- **Up to 13kW** Solar charger - Battery bank can be charged in one hour , insure no solar energy wasted.
- Peak AC Power supply 7.9kW
- Supplies Continues AC 6kW at ambient temperature 40°C
- System will be connected to 32A circuit breaker .

### Example of what you can run with 6kW power simultaneously



Soft start Water pump	20X10w LED lights	Large 8-10kW Aircon	Kettle	Fridge	LED TV	300L Hot Water Heat pump	Total
0.5kW	0.2kW	2.4kW	1.5kW	0.2kW	0.1kW	0.8kW	5.7kW



## Building your off grid/hybrid solar system

### Important for off grid solar energy

- Generation power - Maximum possible number of panels on the roof to generate enough power on any day. Panels are not expensive and it will save you on generator fuel and services. Ingecon inverter can be installed with up to 15kW of panels.
- Charging power - Effective powerful fast charging to make your battery full by the evening , Ingecon inverter is powerful -up to 13kW solar Battery charger.

### Less important

- Size of energy storage - good to have large energy bank but half of it can be doing nothing most of the time. Average house can start with 10-15kWh storage and upgrade it later if necessary
- Peak power demand - There is nothing worse than spending money on an event that may never happen! Peak power can occur if all your electrical appliances turned on in the same time. Peak power can be avoided if you use the latest energy efficient water pumps and appliances