



## POWER-FAB | Solar Power Systems For Your Home Grid Connected Photovoltaic Generation System

### What is a Grid Connected Photovoltaic Generation System?:

PowerFab Solar Power Systems generate mains compatible, 240V AC electricity for your home. Systems include all the components required to power your home or office with clean solar energy.



### Quality Assurance

Kyocera | Solar Module:

- ▶ Thermal cycling test
- ▶ Thermal shock test
- ▶ Electrical isolation test
- ▶ Hail impact test
- ▶ Mechanical and wind test
- ▶ Thermal / Freezing and high humidity cycling test

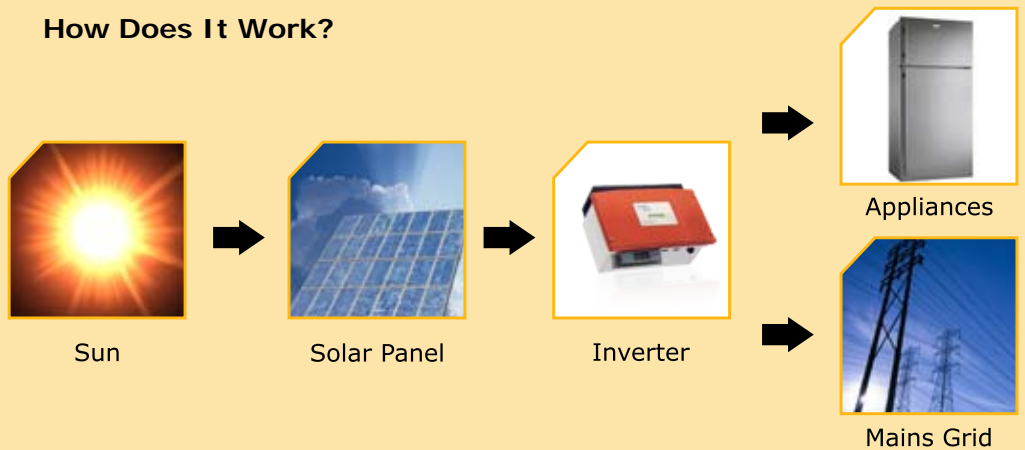
### Applicable Standards

PowerFab | Solar Power Systems:

- ▶ AS1170 Structural roof system
- ▶ AS4777 – Inverter Standard
- ▶ AS5033 – Solar Array Standard
- ▶ AS3000 – Wiring Standard



### How Does It Work?



- ▶ Sun shines on the solar modules that then generate DC electricity.
- ▶ This DC current is routed into an inverter that converts it to 240 volts AC, the same as your mains supply. During the day this power can be used to power your house.
- ▶ At night you simply draw this energy back from the electricity supply grid.
- ▶ Any surplus electricity generated by the system not used by your appliances is fed back into the mains electricity supply grid.
- ▶ This excess power is registered by your homes electricity meter and you'll receive a reduction in your energy bill from your electricity authority.
- ▶ Depending on the size of the system installed, the electricity generated can potentially offset your entire energy bill.

### Advantages:

- ▶ Virtually maintenance free operation
- ▶ High efficiency solar modules by Kyocera
- ▶ Quick and safe installation to minimise cost
- ▶ Long system Life

## Warranty:

- ▶ 20 years limited warranty on solar module output
- ▶ 10 years on all other major components

## Installation:

- ▶ Frames are installed independently of the solar modules
- ▶ All electrical connections on roof are made via multi-contact connectors
- ▶ easily installed on all common roof types



PowerFab by:  
**BlueSky Energy (Aust) Pty Ltd**  
[www.blueskyenergy.com.au](http://www.blueskyenergy.com.au)

## System Sizes:

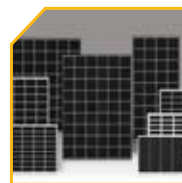
- ▶ PowerFab 1000 – 1kW Grid Connected Solar System
- ▶ PowerFab 1300 – 1.3kW Grid Connected Solar System
- ▶ PowerFab 1500 – 1.5kW Grid Connected Solar System
- ▶ PowerFab 2000 – 2kW Grid Connected Solar System
- ▶ PowerFab 3000 – 3kW Grid Connected Solar System
- ▶ PowerFab 4000 – 4kW Grid Connected Solar System
- ▶ PowerFab 5000 – 5kW Grid Connected Solar System
- ▶ PowerFab 6000 – 6kW Grid Connected Solar System

Powerfab also offers Expansion Grid Connect Solar Systems. These systems are available on request and allow home owners to install a minimum amount of modules. This provides the ability to add additional modules and increase the system size without the need to upgrade the inverter.

## | Solar Power Systems Components

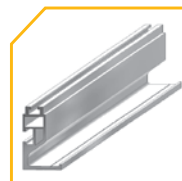
### Kyocera Solar Modules

Convert sunlight to DC electricity. Kyocera solar modules are the most efficient of their type in the world. This means less space required on your roof. Kyocera products are renowned for their quality and reliability.



### PowerFab Mounting Hardware

Anodised aluminium and marine grade stainless steel to prevent corrosion. Allows quick and easy installation to reduce labour costs.



### Grid Connect Inverter

Converts DC power from the solar modules to grid compatible 240V AC power. Automatically connects and disconnects to the grid.



### Electricity Meter

New meter supplied by your electricity authority allows electricity to be fed back to the grid resulting in a reduction in your account.



### Safety and Disconnect Switches

Ensure safe operation and comply with all relevant standards. Includes all necessary safety labelling.



### Optional Monitoring and Display

A range of options for logging and displaying data are available to monitor your systems performance. These include the portable Sunny Beam display which connects wirelessly to the inverter to display a range of system data, such as how much power the solar modules are producing.



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