

PHOTOVOLTAIC (PV) solar panels

Electricity - CE & ISO 9000 certified

Photovoltaic solar panels convert sunlight into useful electricity.

ZEDfabric supplies high quality mono-crystalline silicon cell PV panels in two sizes: 83W and 180W.

The laminated cells are mounted in an anodised Aluminium frame. On the rear of the module is a waterproof junction box with connection cables.

We are also working with suppliers in China to develop our own building integrated glass laminate PV panes.



Specification

180W panel

Maximum power:	180Wp
180Wp Dimensions:	1581x809x50mm
Number of cells (Pcs):	72
Maximum power voltage (V):	36.31
Maximum power current (A):	4.98
Open circuit voltage (V):	44.97
Short circuit current (A):	5.23
Maximum system voltage (V)	1000
Temperature range:	-40°C to +80°C
Tolerance Wattage (e.g. +/-3°C):	+/-5°C
Surface Maximum Load Capacity:	60m/s(200kg/sqm)
Available Hail Load:	steel ball fall down from 1m height
Weight per piece (kg):	16.3
Junction Box Type:	PV-RH0301 (TUV)
Length of cables (mm):	900mm
Cell Efficiency:	>15.2%
Module Efficiency:	>15%
Output tolerance:	+/-5%
Frame (Materials, corners, etc):	Aluminium
Standard Test Conditions:	AM1.5 100mW/cm ² 25°C

Warranty:

2 years product warranty and 20 years 80% of power

83W panel

Maximum power:	83Wp
Dimensions:	1195 x 542 x 34mm
Number of cells (Pcs):	36
Maximum power voltage (V):	17.2
Maximum power current (A):	4.65
Open circuit voltage (V):	21.6
Short circuit current (A):	4.97
Maximum system voltage (V):	715
Temperature Range:	-40°C to +80°C
Tolerance Wattage (e.g. +/-3%):	+/-5%
Surface Maximum Load Capacity:	60m/s(200kg/sq.m)
Allowable Hail Load:	steel ball fall down from 1m height
Weight per piece (kg):	8
Junction Box Type:	PV-RH0301(TUV)
Length of Cables (mm)	900mm
Cell Efficiency (%):	>13.5%
Module Efficiency (%):	>13.3%
Output tolerance (%):	+/-5%
Frame (Material, Corners, etc.):	Aluminum
Standard Test Conditions:	AM1.5 100mW/cm ² 25°C

Warranty:

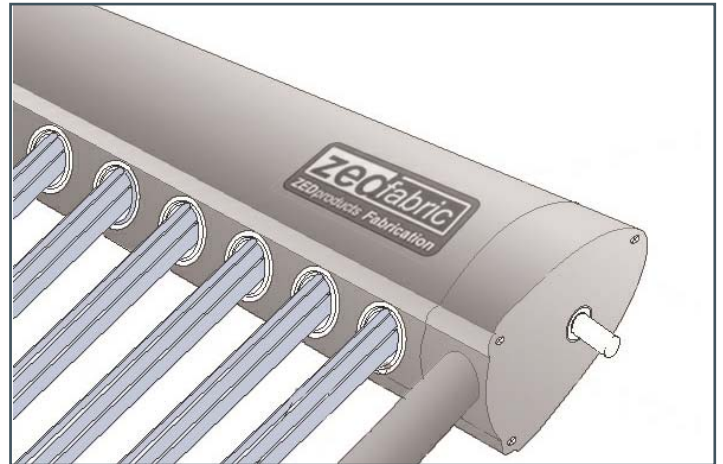
2 years product warranty and 20years 80% of power

SOLAR THERMAL Evacuated Tubes Water Heating

Solar Thermal Collectors use sunlight to heat water. Evacuated tubes have been developed particularly for northern climates where outdoor air temperatures are low.

Evacuated tubes consist of a collector tube, which heats up in sunlight and converts solar energy into heat energy which is used to heat a glycol-water antifreeze mixture flowing over elements at the end of each tube. The collector tube is enclosed in an outer glass tube, which maintains a vacuum around the collector tube eliminating heat loss.

A closed loop system is used to circulate the heated fluid through a storage tank coil to heat water and return the cooled fluid back to the collectors.



Specification

Collector

Dimensions:	2290 x 1516 x 134mm
Gross area:	3.472m ²
Aperture area:	1.764m ²
Absorber area:	1.522m ²
Weight empty:	68.2kg
Number of covers:	1
Cover of materials:	Borosilicate glass
Cover thickness:	1.8mm
Number of tubes:	16
Tube length:	2.1m
Tube diameter:	58mm
Absorber diameter:	47mm
Absorber construction:	Evacuated double glass tube
Heat transfer medium:	Water-Glycol
Heat conducting metal sheet:	U-tube Cu
Absorber surface:	AIN/SS-AIN/Cu on glass
Maximum operation temp:	250°C
Maximum operation pressure:	6 bar

Thermal insulation and casing

Thermal insulation thickness: Average 20mm
Insulation material: Polyurethane
Sealing material: Silicon Rubber

Warranty:

2 years product warranty

Grid-Tie PV invertors

ZEDfabric supplies invertors to convert the DC current generated by solar panels into AC power and sell energy back to the national grid.

**1.5 KW****3 KW****Features include:**

- 1.DSP controller
- 2.Using the fifth generation IPM from Mitsubishi company as the power component
- 3.MPPT (Maximum Power Point Tracking) technology
- 4.High efficiency up to 95%
- 5.Perfect protect functions include anti-islanding
- 6.In accordance with IEEE929-2000,UL1741
- 7.Quick and easy installation
- 8.A LCD display for monitoring all system information
9. Can set the operation parameters via LCD and keys
- 10.CE certified

Specification - 1.5kw

Recommended max. PV power	1800Wp
Max. DC input voltage	450 V
MPP voltage range	150V-450V
Max. DC input current	10 A
Nominal AC output power	1500 W
Total Harmonic Distortion (THD)	< 4 %
Power Factor	>0.99
Max. Efficiency	94 %
Europe Efficiency	92.5%
Waterproof and Dustproof Class	IP41(indoor)
Size (W x H x D)	288x410x126 mm
Weight	10.3kg

Operating range of utility voltage	180 °C 265 V AC
Operating range of utility frequency	47.2 °C 51.5 Hz
Self consumption at night	<0.5W
Communication Interfaces	RS485
Operation Surroundings Temperature	-25°C~+60°C
Noise level	<40dB
Connection with PV cables	DC plug connectors

Connection with utility grid cables	AC plug connectors
Cooling	Natural cooling
Isolated style	Low frequency transformer
Standards	IEEE929. EN61000

Warranty:

1 year product warranty

Specification - 3kw

Recommended max. PV power	3600Wp
Max. DC input voltage	450 V
MPP voltage range	200V-450V
Max. DC input current	18 A
Nominal AC output power	3000 W
Total Harmonic Distortion (THD)	< 4 %
Power Factor	>0.99
Max. Efficiency	94 %
Europe Efficiency	92%
Waterproof and Dustproof Class	IP65outdoor)
Size (W x H x D)	490x170x385 mm
Weight	44kg

Operating range of utility voltage	180 °C 265 V AC
Operating range of utility frequency	47.2 °C 51.5 Hz
Self consumption at night	<0.5W
Communication Interfaces	RS485
Operation Surroundings Temperature	-25°C~+60°C
Noise level	<40dB
Connection with PV cables	DC plug connectors

Connection with utility grid cables	AC plug connectors
Cooling	Natural cooling
Isolated style	Low frequency transformer
Standards	IEEE929. EN61000

ZEDfabric wind cowl

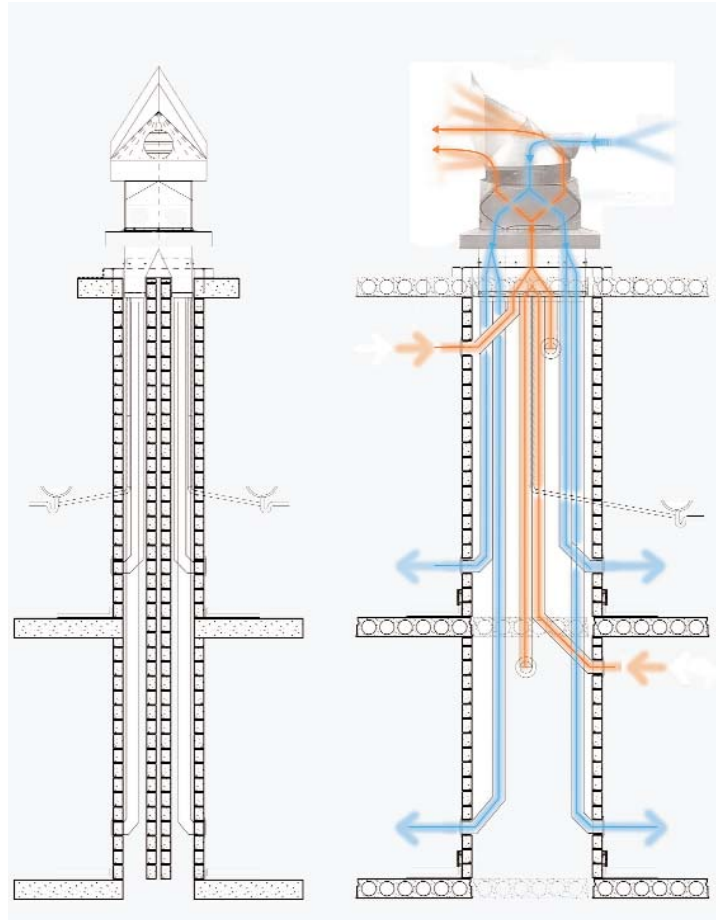
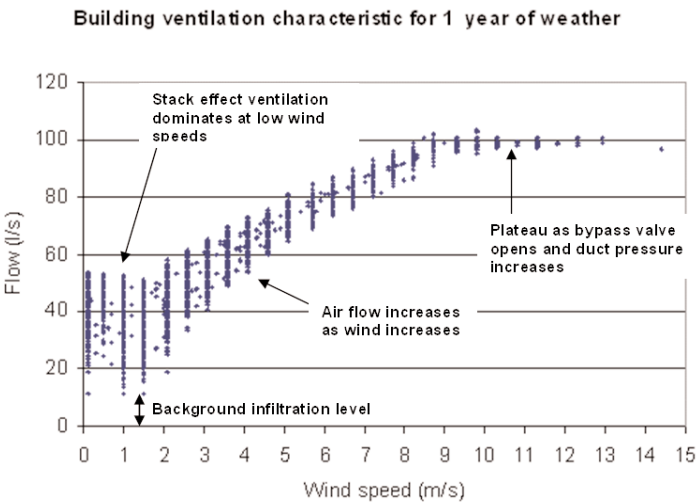
The ZEDfabric Wind Cowl passive heat recovery ventilation system supplies and extracts air to and from a building to maintain good air quality whilst minimising heat loss. The heat recovery system used is 70% efficient.

At an average windspeed of 4m/s in London, depending on the external temperature, the flow rate of the Wind Cowl is between 50-70 litres per second.



Specification

The ZEDfabric wind cowl works like an active ventilation system in that it has dedicated inlet and outlet ducts and a heat recovery system, but instead of using electrical fans to drive the air flow it uses the wind to create both positive pressure at the inlet and negative pressure at the outlet ensuring a throughput of air for no electrical input. In low wind conditions it will continue to produce reasonable ventilation levels through stack effect.



Retail prices

Solar Hot Water

Solar Thermal Collector

16-tube panel £490.00 exc VAT

Solar Electricity

Solar PV panels

180W ZEDfabric Mono-crystalline PV Solar Panel (1581 x 809 x 50mm) £630.00 exc VAT

83W ZEDfabric Mono-crystalline PV Solar Panel (1195 x 542 x 34mm) £305.00 exc VAT

180W Sharp Mono-crystalline PV Solar Panel (1318 x 994 x 46mm) £675.00 exc VAT

Solar Grid-tie inverters

1.5kW ZEDfabric inverter £760.00 exc VAT

3kW ZEDfabric inverter £1385.00 exc VAT

1.7kW Sunny Boy inverter £940.00 exc VAT

2.5W Sunny Boy inverter £1240.00 exc VAT

All prices are subject to change without notice. VAT is excluded in the prices shown.
Payment terms: 100% on order