



System Features:

EDENs Solar PV Power Generation system is an equipment which convert the solar energy to electricity energy by solar module. solar module utilizes the electronics characteristic of semiconductor materials to achieve solar installation of P-V switch, in the no power-grid area, it is convenient to use this kind equipment for lighting, and power supply, it even can be connected with electricity grid system.

Technical features:

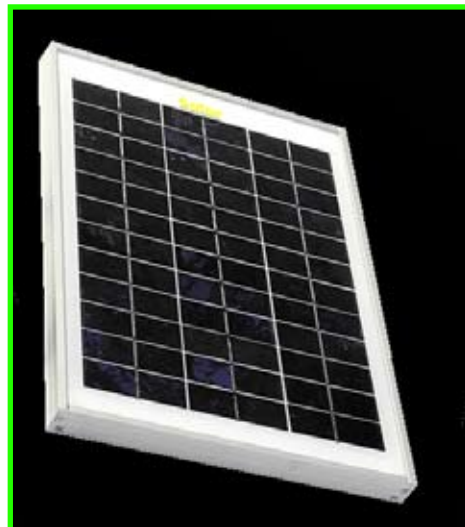
- High-system integrated with system control, inverter, monitor, protection and communication facilities.
- High-transform efficiency, it can up to 92% at control, invert and output working efficiency.
- High automatization, it can automatically on/off, measurement, protection, it is easy to operate and specially for remote area.
- High manufacture precision, it adopt voltage model to control, pure sine wave output, voltage accuracy.
- High digitized, it is digitally control, output, it even can be remotely monitoring by RS232 RS485.
- High execution reliability, it is modularized designed in inverter and whole system, it is master / slave control, so it is easy for maintenance.

System composition

Power system: solar battery module and storage battery.

Control protection system: Controller and inverter.

System loads: User's appliances.



Solar Module 10 Watt ED67-SFM-10W

Product explanation

Specification

Cell name: Mono-crystalline solar cells
Cell size: 62.5mm x 31.25mm
No. of cells and connections: 36 series (4 x 9)
Unit weight: 1.8kg
Module size: 345x285x18 (mm)
Produced in accordance with ISO, IEC, CE and TUV.

Electrical Characteristics

Nominal peak power (Wp): 10Wp
Nominal voltage (Vmp): 17V
Nominal current (Imp): 0.59A
Open circuit voltage (Voc): 21V
Short circuit current (Isc): 0.66A
Solar cell efficiency: 15.0%
Maximum system Voltage: 715V DC

Physical Characteristics

Operating temperature: -40: to +85C
Storage temperature; -40: to +85C
Pressure bearing: \pm 2400Pa
Wind bearing: \pm 5400Pa
Hail impact test 225g steel ball drops from height of 1m

Temperature Coefficients

Noct: 45C \pm 2C
Temperature coefficient of ISC: +0.05%/C
Temperature coefficient of VOC; +0.05%/C
Temperature coefficient of PM: +0.05%/C
Power output Tolerance: \pm 3%

Product Description

SFM-10 solar module is connected in series by 36 pieces of 62.5mmx31.25mm crystalline silicon cells. The product performance is produced according to ISO, IEC, CE and TUV etc. international standard. It can also be tailored to special requirements of customer.

Features and Advantages

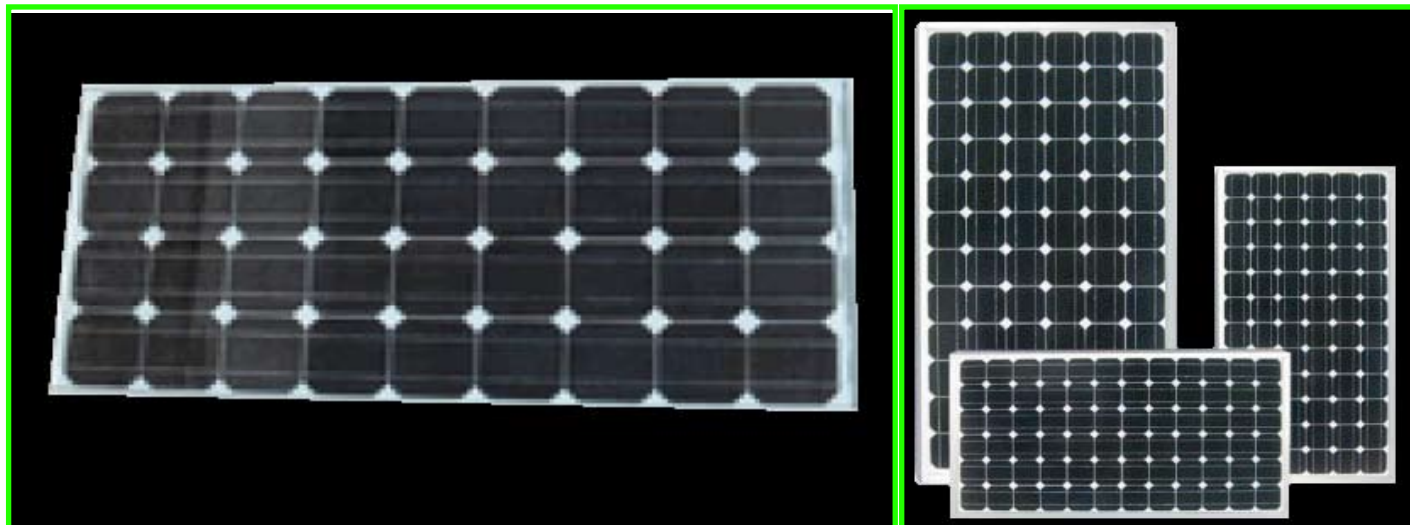
1. High luminousness low iron hardened glass;
2. Anti-ageing EVA and excellent anti-climate back sheet;
3. Anodized excellent aluminum alloy frame;
4. High conversion efficiency, long life, convenient installation, wind protection, hail-stone protection;
5. High quality product warranty for 25 years.

Application

1. Power supply for remote telecommunication equipment;
2. Monitoring systems for the oil & gas industry;
3. Traffic, security, environment and other remote monitoring and signaling systems;
4. Water pumping systems;
5. Rural electrification;
6. Small home power systems;
7. 12V and 24V battery charging systems;
8. Other industrial and commercial applications

Installation

1. Install the PV modules facing South (in Northern hemisphere), or North (in Southern hemisphere).
2. PV modules connected in series should be installed at same orientation and angle. Different orientation or angle may cause loss of power output due to difference of amount of sunlight exposed to the modules.



Solar Module 60 Watt ED67-SFM-60W

Product explanation

Specification

Cell name: Mono-crystalline solar cells
Cell size: 156mm x 78mm
No. of cells and connections: 36 series (4 x 9)
Unit weight: 5kg
Module size: 770x665x35 (mm)
Produced in accordance with ISO, IEC, CE and TUV etc.

Electrical Characteristics

Nominal peak power (Wp): 60Wp
Nominal voltage (Vmp): 17V
Nominal current (Imp): 3.53A
Open circuit voltage (Voc): 21V
Short circuit current (Isc): 3.97A
Solar cell efficiency: 14.0%
Maximum system Voltage: 715V DC

Physical Characteristics

Operating temperature: -40C to +85C
Storage temperature: -40C to +85C
Pressure bearing: +2400Pa
Wind bearing: +5400Pa
Hail impact test 225g steel ball drops from height of 1m

Temperature Coefficients

Noct: 45C +2C
Temperature coefficient of ISC: +0.05%/C
Temperature coefficient of VOC: +0.05%/C
Temperature coefficient of PM: +0.05%/C
Power output Tolerance: +3%

Product Description

SFM-60 solar module is connected in series by 36 pieces of 156mmx78(1/2)mm crystalline silicon cells. The product performance is produced according to ISO, IEC, CE and TUV etc. international standard. It can also be tailored to special requirements of customer.

Features and Advantages

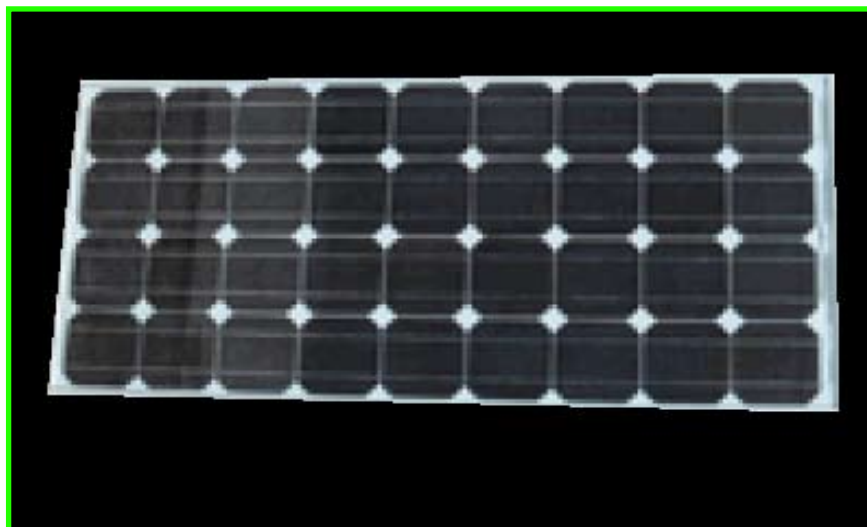
1. High luminousness low iron hardened glass;
2. Anti-ageing EVA and excellent anti-climate back sheet;
3. Anodized excellent aluminum alloy frame;
4. High conversion efficiency, long life, convenient installation, wind protection, hail-stone protection;
5. High quality product warranty for 25 years.

Application

1. Power supply for remote telecommunication equipment;
2. Monitoring systems for the oil & gas industry;
3. Traffic, security, environment and other remote monitoring and signaling systems;
4. Water pumping systems;
5. Rural electrification;
6. Small home power systems;
7. 12V and 24V battery charging systems;
8. Other industrial and commercial applications

Installation

1. Install the PV modules facing South (in Northern hemisphere), or North (in Southern hemisphere).
2. PV modules connected in series should be installed at same orientation and angle. Different orientation or angle may cause loss of power output due to difference of amount of sunlight exposed to the modules.



Solar Module 80 Watt ED67-SFM-80W

Product explanation

Specification

Cell name: Mono-crystalline solar cells
Cell size: 125mm x 125mm
No. of cells and connections: 36 series (4 x 9)
Unit weight: 7.8kg
Module size: 1196x541x35 (mm)
Produced in accordance with ISO, IEC, CE and TUV etc.

Electrical Characteristics

Nominal peak power (Wp): 80Wp
Nominal voltage (Vmp): 17V
Nominal current (Imp): 4.71A
Open circuit voltage (Voc): 21V
Short circuit current (Isc): 5.29A
Solar cell efficiency: 14.5%
Maximum system Voltage: 715V DC

Physical Characteristics

Operating temperature: -40C to +85C
Storage temperature: -40C to +85C
Pressure bearing: +2400Pa
Wind bearing: +5400Pa
Hail impact test 225g steel ball drops from height of 1m

Temperature Coefficients

Noct: 45C +2C
Temperature coefficient of ISC: +0.05%/C
Temperature coefficient of VOC: +0.05%/C
Temperature coefficient of PM: +0.05%/C
Power output Tolerance: +3%

Product Description

SFM-80 solar module is connected in series by 36 pieces of 125mmx125mm crystalline silicon cells. The product performance is produced according to ISO, IEC, CE and TUV etc. international standard. It can also be tailored to special requirements of customer.

Features and Advantages

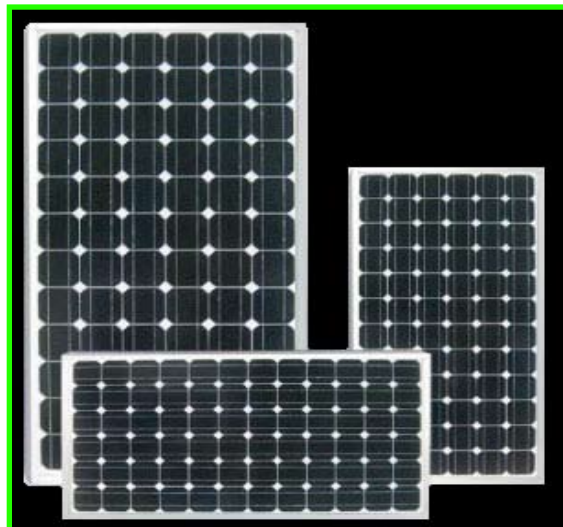
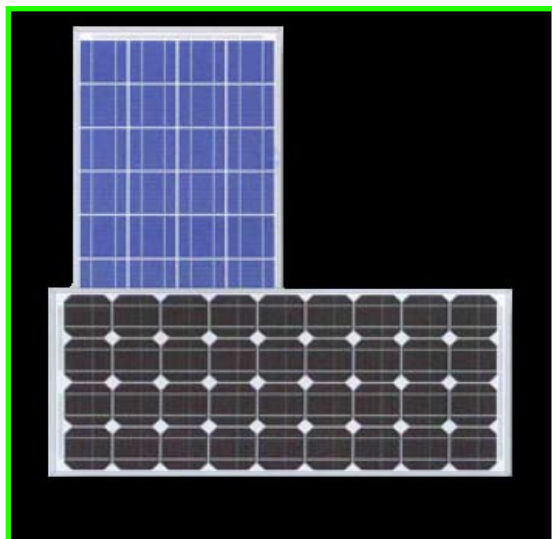
1. High luminousness low iron hardened glass;
2. Anti-ageing EVA and excellent anti-climate back sheet;
3. Anodized excellent aluminum alloy frame;
4. High conversion efficiency, long life, convenient installation, wind protection, hail-stone protection;
5. High quality product warranty for 25 years.

Application

1. Power supply for remote telecommunication equipment;
2. Monitoring systems for the oil & gas industry;
3. Traffic, security, environment and other remote monitoring and signaling systems;
4. Water pumping systems;
5. Rural electrification;
6. Small home power systems;
7. 12V and 24V battery charging systems;
8. Other industrial and commercial applications

Installation

1. Install the PV modules facing South (in Northern hemisphere), or North (in Southern hemisphere).
2. PV modules connected in series should be installed at same orientation and angle. Different orientation or angle may cause loss of power output due to difference of amount of sunlight exposed to the modules.



Solar Module 120 Watt ED67-SFM-120W

Product explanation

Specification

Cell name: Mono-crystalline solar cells
Cell size: 156mm x 156mm
No. of cells and connections; 36 series (4 x 9)
Unit weight: 11.5kg
Module size: 1476x671x35 (mm)
Carton size: 1541x736x110(mm)/2pcs
Produced in accordance with ISO, IEC, CE and TUV etc.

Electrical Characteristics

Nominal peak power (Wp): 120Wp
Nominal voltage (Vmp): 17V
Nominal current (Imp): 7.06A
Open circuit voltage (Voc): 21V
Short circuit current (Isc): 7.93A
Solar cell efficiency: 14.0%
Maximum system Voltage: 1000V DC
Series fuse rating: 10A

Physical Characteristics

Operating temperature: -40C to +85C
Storage temperature: -40C to +85C
Pressure bearing: +2400Pa
Wind bearing: +5400Pa
Hail impact test 225g steel ball drops from height of 1m

Temperature Coefficients

Noct: 45C +2C
Temperature coefficient of ISC: +0.05%/C
Temperature coefficient of VOC: +0.05%/C
Temperature coefficient of PM: +0.05%/C
Power output Tolerance: +3%

Product Description

SFM-120 solar module is connected in series by 36 pieces of 156mmx156mm crystalline silicon cells. The product performance is produced according to ISO, IEC, CE and TUV etc. international standard. It can also be tailored to special requirements of customer.

Features and Advantages

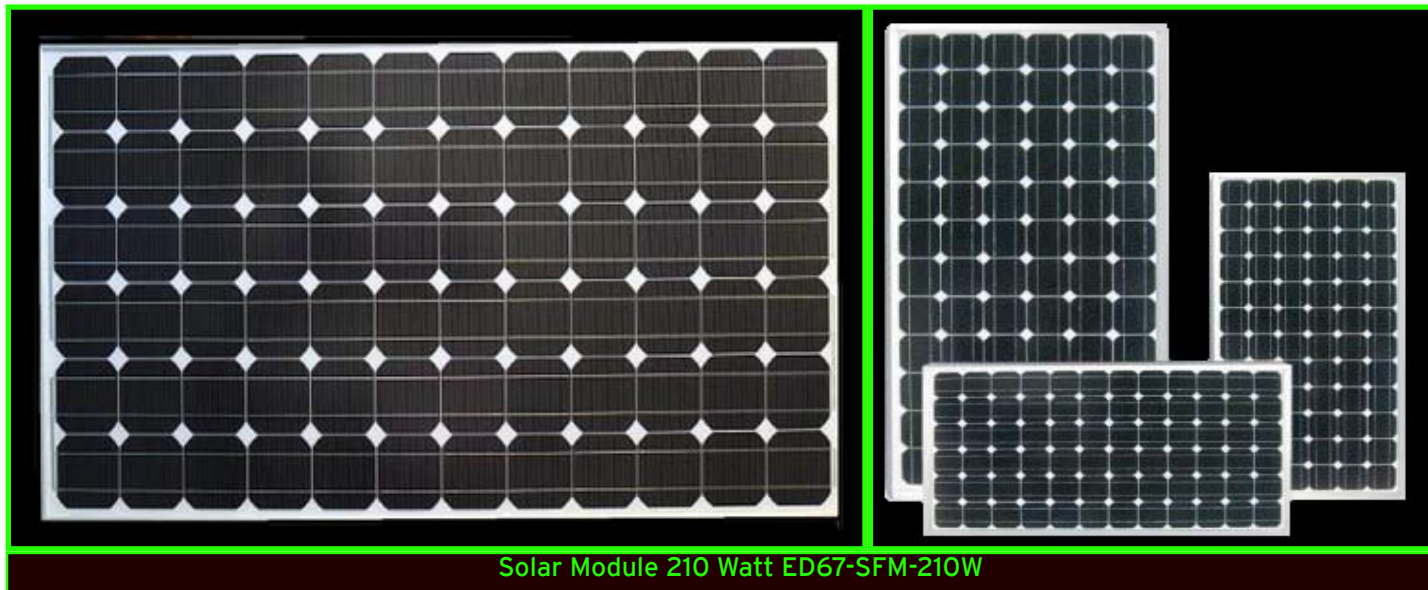
1. High luminousness low iron hardened glass;
2. Anti-ageing EVA and excellent anti-climate back sheet;
3. Anodized excellent aluminum alloy frame;
4. High conversion efficiency, long life, convenient installation, wind protection, hail-stone protection;
5. High quality product warranty for 25 years.

Application

1. Large on/off - grid solar power station
2. Commercial/industrial building roof-top systems
3. Residential roof-top systems
4. Rural electrification
5. Other industrial and commercial applications

Installation

1. Install the PV modules facing South (in Northern hemisphere), or North (in Southern hemisphere).
2. PV modules connected in series should be installed at same orientation and angle. Different orientation or angle may cause loss of power output due to difference of amount of sunlight exposed to the modules.



Solar Module 210 Watt ED67-SFM-210W

Product explanation

Specification

Cell size: 156mm x 156mm
No. of cells and connections: 54 series (6 x 9)
Unit weight: 18kg
Module size: 1476x991x50 (mm)
Carton size: 1541x1061x125(mm)/2pcs
Produced in accordance with ISO, IEC, CE and TUV etc.

Electrical Characteristics

Nominal peak power (Wp): 210Wp
Nominal voltage (Vmp): 27V
Nominal current (Imp): 7.78A
Open circuit voltage (Voc): 34V
Short circuit current (Isc): 8.1A
Solar cell efficiency: 16.0%
Maximum system Voltage: 1000V DC
Series fuse rating: 10A

Physical Characteristics

Operating temperature: -40C to +85C
Storage temperature: -40C to +85C
Pressure bearing: +2400Pa
Wind bearing: +5400Pa
Hail impact test 225g steel ball drops from height of 1m

Temperature Coefficients

Noct: 45C +2C
Temperature coefficient of ISC: +0.05%/C
Temperature coefficient of VOC: +0.05%/C
Temperature coefficient of PM: +0.05%/C
Power output Tolerance: +3%

Product Description

SFM-170 solar module is connected in series by 72 pieces of 125mmx125mm crystalline silicon cells. The product performance is produced according to ISO, IEC, CE and TUV etc. international standard. It can also be tailored to special requirements of customer.

Features and Advantages

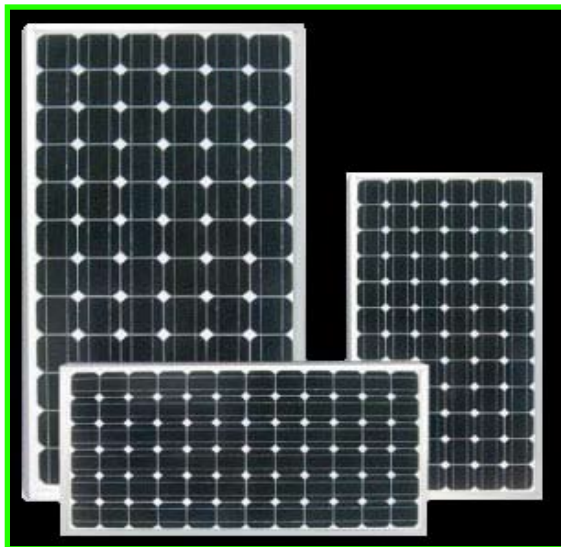
1. High luminousness low iron hardened glass;
2. Anti-ageing EVA and excellent anti-climate back sheet;
3. Anodized excellent aluminum alloy frame;
4. High conversion efficiency, long life, convenient installation, wind protection, hail-stone protection;
5. High quality product warranty for 25 years.

Application

1. Large on/off - grid solar power station
2. Commercial/industrial building roof-top systems
3. Residential roof-top systems
4. Rural electrification
5. Other industrial and commercial applications

Installation

1. Install the PV modules facing South (in Northern hemisphere), or North (in Southern hemisphere).
2. PV modules connected in series should be installed at same orientation and angle. Different orientation or angle may cause loss of power output due to difference of amount of sunlight exposed to the modules.



100W Solar Home Power Station

Product No:ED67-HPS-100W

Product Model:ED67-HPS-20-100W

Specification Solar Module ED67-100W-6P36

Battery Capacity 12V120Ah

Intelligent Controller 10A/12V

Output Power 240W (AC)

Inverter 24Vdc/300W/220Vac

Lamp-Source 0.35KWH/day, varied in different seasons and areas.

Description

This DIY solar panel kit is the starting point for achieving power self sufficiency in a home, business, holiday cottage or anywhere that may be subject to power cuts and to insulate the user from future energy price increases.

The kit contains all the necessary parts to be producing your own power within a few hours from new. The solar panel must be located outside and is supplied with a robust aluminium stand that allows firm location either in the garden or on a flat roof (the stand supports the solar panel at the optimum angle of 70 degree's). The supplied cable then runs from the solar panel and connects directly into the waterproof battery box, which contains a high performance 85Ah battery and a charge controller.

The battery output cable then needs to enter the building and is then connected to the supplied power inverter. The inverter has a UK 3-pin socket on the other where a multi gang extension cable (not supplied) can be attached to run your electrical appliances. The kit will power most household electrical devices such as the following: CD player, TV, video, DVD, satellite box, gaming stations, lap top computer, desk top computer, printer, fax, mobile phone charger, desk lamp, table lamp, toaster, coffee maker, food mixer, power tool charger, pond pump/fountain, electric lawnmower, garden lights etc etc.

Portable solar power system Available from 20w - 100w

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100W Portable Solar Power Station

Product No:ED67-PSPS-100W

Product Model:ED67-PSPSS-20-100W

Portable solar power system, consisted by solar module, maintenance-free lead-acid battery, intelligent controller, inverter, bracket, battery box etc, with the advantage of safety, environment protection, energy-saving and easy to using, our system can mainly generate electricity for home, mine, remote electric-lack districts, outdoor camping etc., You only need to invest one time, and benefit for a long-term

Specification Solar Module ED67-100W-6P36

Battery Capacity 12V120Ah

Intelligent Controller 10A/12V

Output Power 240W (AC)

Inverter 24Vdc/300W/220Vac

Lamp-Source 0.35KWH/day, varied in different seasons and areas.

Off-Grid Solar Power Systems

Have a cabin or residential home in a remote location where electrical power is unavailable? Our off-grid solar power systems that can provide power for your remote structure. These systems utilize solar panels, a charger controller, battery, and wiring cables. Additionally included for multi-panel system kits the necessary solar panel mounting hardware, array combiners, and array-to-combiner wiring cables. AC upgrades are also available by adding a DC-to-AC electric power inverter.

Portable solar power system Available from 20w - 100w

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Solar Outdoor Sign Lighting Kit

Typical Example: Other sign kits made to your requirements

Description The Solar Outdoor Sign Lighting Kit uses a high performance solar panel to generate energy during daylight hours which provides power to a sealed solar battery protected in a wall mounted water resistant battery box. From the battery box a cable leads to the 500mm LED strip (containing 30 high power, white LEDs), which can be mounted above, underneath or on the side of a sign using the supplied cowling. This light is bright enough to illuminate any sign up to 600mm wide x 1000mm deep and can operate for up to 8 hours per day, even in the British winter.

The light operating time is controlled by a digital timer housed in the battery box, so the user determines when the light begins and ceases.

This simple but effective system comes ready to operate "out of the box", supplied with a wall / pole mount bracket system to ensure secure fitment of the solar panel (note a pole is not included in the kit but any standard 48 - 60mm diameter scaffold pole is acceptable). The LED strip is also supplied with simple nylon mounts and the all weather battery box is supplied with wall a mounting bracket.

All cabling, connections, fuses and instruction manual are supplied.

Technical Details

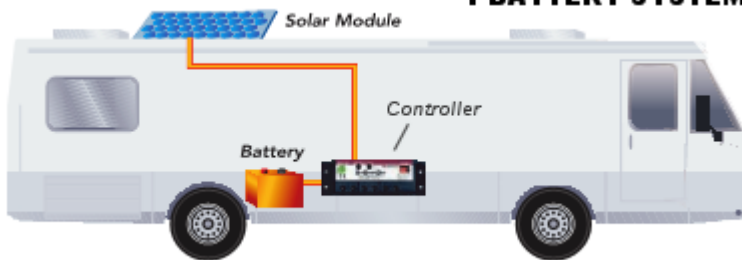
- 1 x STP028 - 28wp solar panel
- 1 x FKA10 - Solar Panel Pole / Wall Mount System
- 1 x BB0002 - All Weather Battery Box with Wall Mount Bracket
- 1 x 12Ah Sealed Solar Battery
- 1 x STS01204 - 4Ah Charge Controller
- 1 x 60007 - Digital, 12v timer
- 1 x LED500 - 500mm LED Strip
- 1 x LED Strip Cowling
- 1 x 5m solar pv cable 1 x Ring terminal / fuses pack 1 x Fitting and operating instructions

Light up your RV Caravan shed, greenhouse, boat house or garage

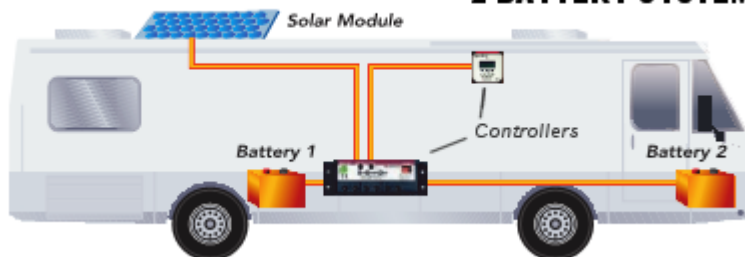


Have a cabin or residential home in a remote location where electrical power is unavailable? Our off-grid solar power systems that can provide power for your remote structure. These systems utilize solar panels, a charger controller, battery, and wiring cables. Additionally included for multi-panel system kits the necessary solar panel mounting hardware, array combiners, and array-to-combiner wiring cables. AC upgrades are also available by adding a DC-to-AC electric power inverter

1 BATTERY SYSTEM



2 BATTERY SYSTEM



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Capable of Powering
1 x 30Watt
Or 3 x 10watt



Solar power flood light kit 30 Watt

75WP Solar power ad light system

Specification and our Solution:

Power requirements: daily electricity load <360WP;
Design reference for the daily solar radiation: 6KWh/m²;
Configuration and quotation as follows:

- 1: solar battery components: 75Wp;
- 2: solar panel bracket: 4 \times 4CM galvanized angle;
- 3: Battery: 12V 60AH solar energy battery
- 4: Controller: 12V 10A 1;
- 5: battery rack: steel galvanized spray;
- 6: light source: LED floodlight, power 12V 30W;
- 7: rainy days: the load of work 8-12 hours a day, 2 consecutive rainy days;
- 8; Cable: 2.5mm² \times 1 solar dedicated cable;





Capable of Powering
1 x 50Watt
Or 5 x 10watt



Solar power flood light kit 50 Watt

125WP Solar power ad light system

Specification and our Solution:

Power requirements: daily electricity load <1000WP;
Design reference for the daily solar radiation: 6KWh/m²;
Configuration and quotation as follows:

- 1: solar battery components: 125Wp;
- 2: solar panel bracket: 4 \times 4CM galvanized angle;
- 3: Battery: 12V 100AH solar energy battery 2;
- 4: Controller: 24V 10A 1;
- 5: battery rack: steel galvanized spray;
- 6: light source: LED floodlight, power 12V 50W;
- 7: rainy days: the load of work 8-12 hours a day, 2 consecutive rainy days;
- 8; Cable: 2.5mm² \times 1 solar dedicated cable;





Capable of Powering
1 x 50Watt
Or 10 x 10watt



Solar power flood light kit 100 Watt

250WP Solar power ad light system (that is every day consumption of 1 kWh of electrical system);

Specification and our Solution:

Power requirements: daily electricity load <1000WP;
Design reference for the daily solar radiation: 6KWh/m²;
Configuration and quotation as follows:

- 1: solar battery components: 250Wp;
- 2: solar panel bracket: 4 \times 4CM galvanized angle;
- 3: Battery: 12V 100AH solar energy battery 2;
- 4: Controller: 24V 15A 1;
- 5: battery rack: steel galvanized spray;
- 6: light source: LED floodlight, power 24V 100W;
- 7: rainy days: the load of work 8-12 hours a day, 2 consecutive rainy days;
- 8; Cable: 2.5mm² \times 1 solar dedicated cable;



Getting the best out of your solar products

With the right product and a little planning, solar can and does work year round in the UK. Naturally what you can expect in terms of performance in the winter, is not going to be what you might get at the height of summer but it can still do a solid job for you.

A poorly positioned panel is often the crucial difference between satisfaction and disappointment when it comes to the performance of your product.

Put simply: The fewer obstructions between the sun and your solar panel the better your unit will perform.

Your solar panel should be:



South facing or as near as possible



Outside of any glass windows and wiped clean from time to time

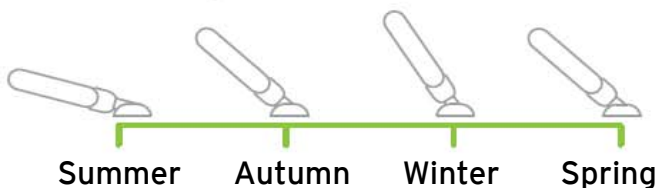


Free from any shadows; particularly important between 10am - 2pm

Correctly angled toward the sun for the time of year



South →



For any further advice please contact us

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The Conservation of Fossil Fuels

The conservation of fossil fuels is a simple, but very important benefit that results from the use of photovoltaic (PV) solar power. As more and more businesses, homeowners and governments move to renewable energies such as solar, we conserve fossil fuels and other natural resources that are quickly diminishing. With the expansion of our global economy and rapid growth in highly populated countries, the demand for energy is increasing at an unprecedented rate. Conserving natural resources has never been more important.



Reduction of Air Pollution

The use of PV solar systems decreases the amount of local air pollution. Around the world, a decrease in the amount of kerosene used for lighting results in a corresponding reduction in the amount of local pollution produced. Globally, rural electrification using PV solar also decreases the amount of electricity needed from small diesel generators.

There are major environmental impacts attributed to electricity generation from non-renewable fuels. Emissions of atmospheric pollutants (particulates, Sulfur Dioxide (SO_x), Nitrogen Oxide (NO_x), Carbon Dioxide (CO₂), and others) have a serious impact on public health, our water and crops. Additionally, these pollutants negatively impact many delicate ecosystems including forests, fisheries and wetlands.

Offsetting Greenhouse Gases

Photovoltaic systems produce electric power with no CO₂ emissions. Carbon emission offset is calculated at approximately 6 tons of CO₂ over twenty years of use for one PV system.

Conserving Energy

Solar electricity for the Third World is an effective energy conservation program because it conserves costly conventional power for urban areas, town market centers, and industrial and commercial uses, leaving decentralized PV-generated power to provide the lighting and basic electrical needs of the majority of the developing world's rural populations.