

Hebron Ventures Inc. & Hebron Ventures North America



Product – Panels and Appliances



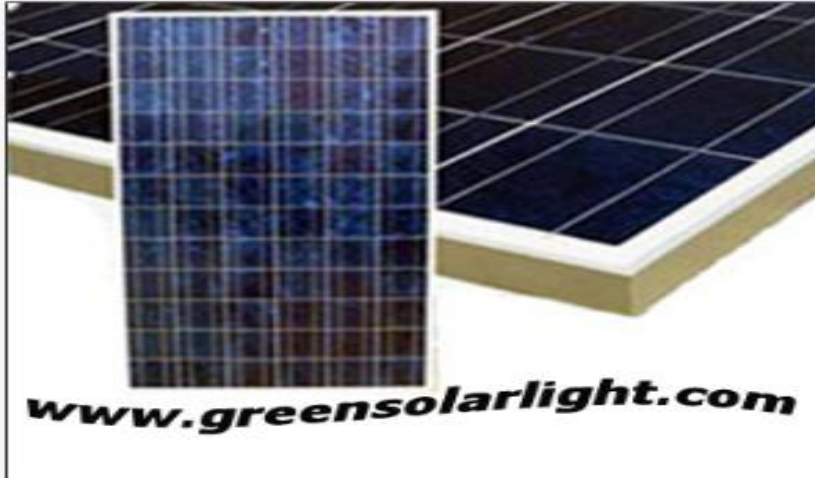
Brief Profile

Hebron Ventures is a North American business with hubs in the United States & Canada. Hebron Ventures imports products from Far East & South East Asian countries.

We would like to introduce one of our main products – Solar Panels & Appliances.

Green Solar Light

Solar PV Modules, Solar Cell, Solar Panels with CE/TUV/IEC, Solar PV Power Systems, Solar Lighting System



PV Panels

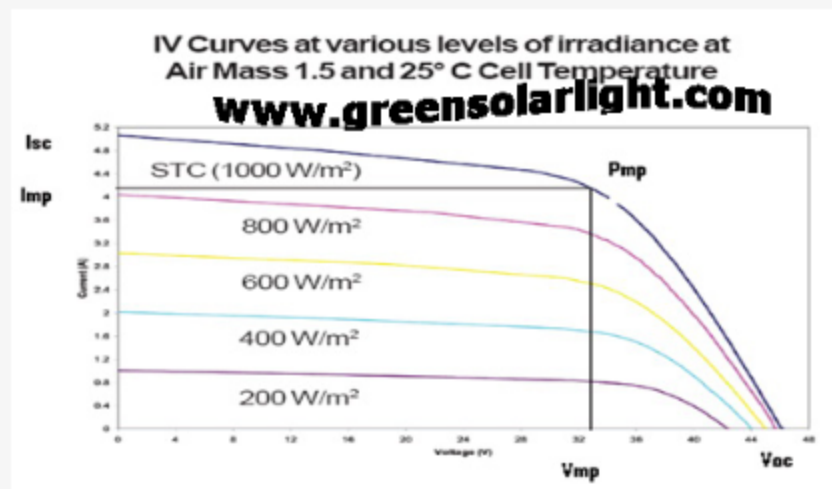
PV Panels are built from PV Modules connected either in series and/or in parallel. A PV Module is built up of "cells" which is the base building block of the system. PV (Photo Voltaic) cells are semiconductor devices that directly convert sunlight to DC electricity. They do not consume any fuel other than sunlight to generate power and typically have a life span of at least 25 years. Most cells produce approximately one-half of a volt. A typical module will have 36 cells in series which gives it an operating voltage of 18Volts and a nominal voltage of 12 volts. The current output of the module is determined by the amount of surface area of the module. The PV cells are encapsulated in the module frame to protect them from the elements. Modules are typically flat and rectangular and produce between 5 and 500 watts of power.

There are essentially 3 different types of PV Panels, Crystalline Silicon, Amorphous Silicon and other Thin Film technology PV Panels. Crystalline Silicon panels are the oldest, most reliable and highly efficient PV panels in the market today.

Crystalline Panels can be further divided into Mono-Crystalline and Poly-Crystalline panels. Mono-Crystalline or Single-Crystalline PV panels are the oldest commercially available PV panels and have proven to be durable and efficient-up to 14%. Multi-Crystalline cells are slightly less efficient when compared to Mono-Crystalline cells but are less expensive as well. The most common manufacturing approach is to process discrete cells on wafers sawed from silicon ingots. Ingots can be either single-crystal or multi-crystalline.

Another interesting option available now is called BIPV or Building integrated Photo Voltaics. They are aesthetically pleasing as well as perform a "building" function in addition to generating electricity. A BIPV roof replaces the need for a traditional roof thereby adding to the financial savings of a renewable energy system.

The most common and basic descriptor of a PV Module performance is the current-voltage (I-V) curve. An example of an IV curve is shown below:



PV Device performance is given by the following parameters:

- Open Circuit Voltage: V_{oc}
- Maximum power Voltage: V_{mp}
- Short Circuit current: I_{sc}
- Maximum Power Current: I_{mp}
- Maximum Power: P_{mp}

Here is a sample of specification data available for commercial modules:

STC: irradiance level 1000W/m², spectrum AM 1.5 and cell temperature 25°C

	Shell PowerMax™	Ultra165-P	Ultra 175-P
Rated power	P_r	165W	175W
Peak power	P_{mpp}^*	165W	175W
Module efficiency	η	12.5%	13.3%
Maximum system voltage	V_{sys}	600V (UL); 715V (TUV)	600V (UL); 715V (TUV)
Peak power voltage	V_{mpp}	35.0V	35.4V
Peak power current	I_{mpp}	4.72A	4.95A
Open circuit voltage	V_{oc}	44.5V	44.6V
Short circuit current	I_{sc}	5.40A	5.43A
Series fuse rating	I_{fuse}	20A	20A
Minimum peak power	$P_{mpp\ min}$	156.75W	166.25W
Tolerance on peak power	%	+/- 5	+/- 5

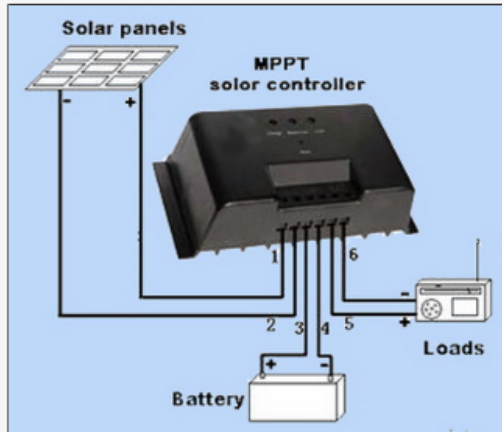
*The abbreviation 'mpp' stands for Maximum Power Point

Typical data at Nominal Operating Cell Temperature (NOCT) conditions

NOCT: irradiance level 800W/m², spectrum AM 1.5, wind velocity 1m/s, T_{amb} 20°C

Temperature	T_{noct}	45.5°C	45.5°C
Peak power	P_{mpp}	120W	125W
Peak power voltage	V_{mpp}	29.8V	29.8V
Open circuit voltage	V_{oc}	30.8V	30.8V
Short circuit current	I_{sc}	4.35A	4.37A

PV Controllers, Solar Controllers, Solar Regulators



PV Controller, Charge Controllers

There are 2 primary functions of a charge controller:

1. Prevent excessive battery charging or overcharging the battery
2. Prevent the battery from over discharging

A charge controller can also provide load control functions if DC loads are connected to it. A charge controller senses the battery voltage and when the batteries are fully charged the charge controller will stop the current flowing from the PV array into the battery bank. When the batteries are being discharged to a low level a charge controller will shut off the current flowing from the batteries to the load. For more information on availability and pricing visit my partners Charge Controllers section.

There are four different types of charge controllers, based on the controller algorithm implemented:

- Shunt controls
- Single stage controls
- Multi stage controls
- Pulse width modulation

Shunt controllers are designed for very small systems. They prevent overcharging by bypassing the batteries when they are fully charged into a power transistor. This acts like a resistor and converts the excess power into heat. Shunt controllers have heat sinks with fins that help to dissipate the heat. These controllers also have a blocking diode to prevent current from draining back from the batteries through the solar array at night.

Single stage controllers: Single stage controllers prevent battery overcharging by switching the current off when the battery voltage reaches a pre-set value called the charge termination set point (CTSP). The array and the battery are reconnected when the battery reaches a lower present called the charge resumption set point (CRSP). Single stage controllers use a sensor to break the circuit and prevent reverse current flow at night.

Multi-stage controllers: These devices automatically establish different charging currents depending on the battery's state of charge. The full array current is allowed to flow when the battery is at a low state of charge. As the battery bank approaches full charge, the controller dissipates some of the array power so that less current flows in the batteries.

The "trickle" charge tapers off as the battery bank approaches a fully charged state. This increases battery life. These controllers also generally have a relay type switch that prevents reverse leakage at night.

Pulse width Modulation controllers: These controllers provide a 'topping off' charge by rapidly switching the current on-and-off when the battery voltage reaches a fully charged state.

The controllers also provide over discharge protection by turning off DC loads (if present) when the batteries reach a preset voltage called the low voltage disconnect (LVD).

Another important feature to look for in Charge controllers is the "Maximum Peak Power Tracking" option. This allows the charge controllers to maximize Power output of the PV array by ensuring that it operates at its Peak power point.

Charge controllers that have the "Equalization" capability should be preferred if you have a flooded lead-acid battery pack (see section of batteries for more details). Equalization allows the controller to optimize the performance of flooded lead-acid batteries.

Solar Charge Controllers 10-20Amp:





Solar Charge Controllers 24-45Amp:



An example of manufacturer specifications (Outback MX60) is shown below:

SPECIFICATIONS	MX60
Output Current Rating	60 amps DC Maximum at 12, 24 or 48 VDC
Nominal Battery Voltage	12, 24, 32, 36, 48, 54 or 60 VDC (programmable)
PV Open Circuit Voltage	125 VDC Maximum
Standby Power Consumption	Less than 1 watt typical
Charging Regulation Methods	Five Stage: Bulk, Absorption, Float, Stent, Equalization
Voltage Regulation Setpoints	13 - 80 VDC www.greensolarlight.com
Equalization Voltage	Adjustable 1.0 to 5.0 VDC above Bulk Setpoint
Temperature Compensation	Programmable slope -2.0mV/°C/Cell to -5.0mV/°C/Cell
Voltage Step-Down Capability	Can charge a 12 or 24 VDC battery from a 18V nominal PV array
Power Conversion Efficiency	99.1% @ 40 amps Output 97.3% @ 60 amps Output
Digital Display	4 line 80 character backlit LCD Display
Remote Interface	RJ 45 Modular Connector CAT 5 Cable 8 wire
Operating Temperature Range	-40 to 60°C Power derated above 25°C
Environmental Rating	Indoor Type 1
Conduit Knockouts	Two 3/4 - 1" on the back; One 1" - 1 1/2" on each side; Two 1" - 1 1/2" on the bottom
Warranty	Two years parts and labor Optional Extended Warranty

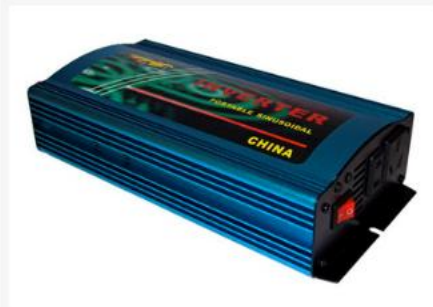
Solar Inverters, Solar Converters, Solar PV Inverters, Solar Power Systems, Solar Lighting Systems



PV Inverters

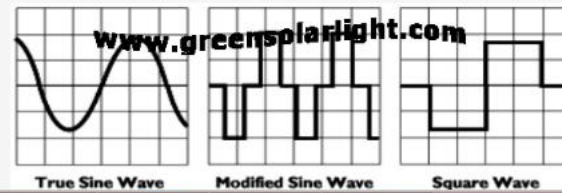
An Inverter is used to change Direct Current (DC) from the PV modules or battery banks to Alternating Current (AC) which is the form most modern appliances need to operate.

Inverters are classified as either Stand-Alone inverters which are used in Stand Alone systems independent of the utility grids, Utility interactive or Grid Interactive inverters used for Grid Interactive PV Systems which operate in conjunction with the utility mains synchronizing the output phase, frequency and voltage with the utility or Bi-Modal inverters that can act as both stand alone or grid interactive.



Another classification for inverters is the type of waveform they product. The three most common waveforms include the following:

- Square Wave (Basic and least efficient)
- Modified Sine Wave (Better than Square Wave)
- Sine Wave (Best possible)



Typical Inverter Specifications are listed below:

Specifications www.greensolarlight.com

Inverter Technology	Real sine-wave, current source, high frequency PWM
AC Voltage	213-262 (240 V AC)
AC Frequency	59.3 - 60.5 (60 Hz) (50 Hz also available)
DC Input Voltage	250 - 600 V DC
Peak Power Tracking Voltage	234 - 480 V DC
PV Start Voltage	300 V DC
Minimum DC Input Voltage	233 - 256 V DC
	dependent on available line voltage
Maximum Array Input Power	2600W (240V AC)(DC@STC)
Maximum AC Power Output	2100W (240V AC)
Current THD	< 4%
Power Factor	Unity
Peak Inverter Efficiency	94.8%
CEC Weighted Efficiency	93.0%
Cooling	*Convection cooling (no fan)
Maximum AC Output Current	12A
Maximum DC Input Current	12A

Solar Battery, Solar GEL Batteries, Solar AGM Batteries, Solar Cell Battery



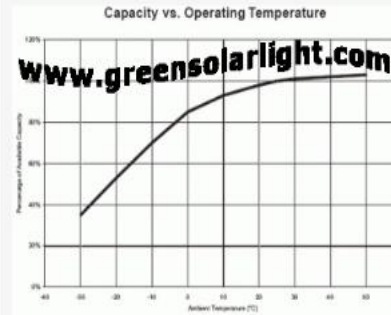
Solar Batteries, Solar GEL Battery, Solar AGM Battery

Products Characteristics

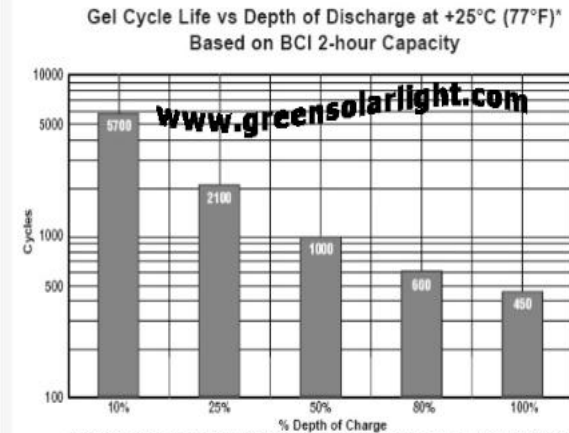
1. High capacity, bear deep discharge.
2. More circle times, longer life-span.
3. Low self-discharge, longer storage.
4. Better discharge performance in low temperature.
5. Less acid mist, able to use indoor.
6. Bear vibration, reliable and safety.
7. Easy to maintain, no adding acid.
8. Complete in specifications according to the requirements of customers.

Typical Battery specifications are given below:

Specifications	
Voltage	12 volts nominal (8GGC2 is 6 volts)
Plate alloy	Lead calcium
Element, post	Threaded stud or "flag" terminal, forged bushing
Container/cover	Polypropylene
Charge voltage	Cycle 2.30 to 2.35; Float 2.25 to 2.30 per cell
Electrolyte	Sulfuric acid thixotropic gel
Vent	Self sealing



Capacity vs. Operating Temperatures: Above are the changes in capacity for wider ambient temperature range, giving the available capacity, as a percentage of the rated capacity, at different ambient temperatures. The curves show the behavior of the battery after a number of cycles.



Cycle Chart applies to types with similar design characteristics, ex., U1, 22NF, 24, 27, 31.

The solar battery excels in cycling applications.
*Dependent upon proper charging and ambient temperatures.

- Solar Hi-POWER Street LE...
- Solar LED Bulb,Solar LED...
- Solar Energy Saving Ligh...



(1 / 1 current 3 total 3)

1. OUR mini fluorescent lamps 2U/3U,CFL

Fit most luminaries, such as low-profile wall and ceiling luminaries, floor-standing lights and desktop lights. Suitable for all rooms, especially where continuous economical lighting is needed.

Product Feature

- Pre-heat Circuit Installed
- Low temperature and low voltage start
- Polarity Protection
- Rated Voltage: 12V (10.5V-15V) or 24V (18V-28V)
- Rated Wattage: 3W, 5W, 7W, 9W, 11W and 13W (+5%/-10%)
- IC circuit board for 3W, 5W, 7W, 9W, 11W and 13W
- Color Temperature: 2700K, 6400K
- Wave Profile: SINE
- Operation Temperature: -10Cent~50Cent
- Lamp Base: E26, E27, B22, E14, etc
- Life Time: 6000 hours

Product Application

- Solar power, wind power DC lighting
- Miner' lamp(safety lamp), telephone booth lamp
- Boat lighting, car, bus, mobile machinery shop, dock illumination
- Village, mountain, island, camping, resort direct current lighting
- Rechargeable battery illumination
- DC generator illumination
- Home illumination, solar street lighting
- Emergency illumination

2. LEDs (Light Emitting Diodes)

LEDs have been used for several decades in the electronics industry and offer superior performance compares to other bulbs. The solid state construction of LEDs withstands shock,vibration, frequent switching and environmental extremes without compromising their long life, typically 100,000 hours or more. LEDs deliver 100% of their energy as light whereas incandescent bulbs waste 90% and more of their energy in light blocked by the lens or filter.

Our LED lamps are rugged, durable, daylight visible and their 100,000-hour life span far exceeds that of current incandescent technology.LED light bulbs give off directional light, so the light goes where you aim it. LED bulbs are closer to the color of daylight which new studies suggest is good for staying alert. Our LED light bulbs can be used to replace your standard fluorescent or halogen light bulbs. The bright, white LED light produced by our LED Light Bulbs works specially well for task lighting and reading light. LEDs not only produce light more efficiently, they also have a tiny mirror that reflects light in one direction. A more directed light means less wasted light.

The best way to start using our long life LED light bulbs is to try one first. Swap out a regular bulb on your porch, in a ceiling fan, task or accent light, or maybe replace a bulb that you leave on at night. To get familiar with LED light bulbs, we recommend you experiment with different lighting combinations and see how their reduced light output works for you. Our LED bulbs have Edison style bases and will fit your existing lamps and fixtures.

With LED light bulbs and just a bit of planning you can create a more interesting lighting environment while cutting down on your electric bill.

3. Our High-Power Street LED,Hi-Power LEDs

Products Features:

- Tremendous Energy Saving, Green and Environmental Protection
- Universal Input Voltage-. No Pollution to Power Network ??
- Work under Low-voltage and Low-Heat, Safe and Reliable
- Perfect Combination With solar Energy. High Luminous Efficiency
- NEW Photometric Design(rectangular beam focusing lens). Unique Integrated Lens and Lampshade Design.
- Creative Design of the Radiator and Lamp holder Integration.
- Unique Thermal slide-shell design, disassembled with simple and convenient combination.
- Ethereal appearance
- Intelligent current control, achieve the precision constant current.
- No Adverse Glare. No light Pollution. No High-voltage, No Dust Adsorption.
- No High-temperature, No Aging Yellow Lampshade.
- Widest Working Voltage. Start Without Delay.
- No Strobe Flashing. Impact Resistance, Shock-proof, Without Ultraviolet(UV) and Infrared(IR) Radiation.
- High Color Index, Nice Coloration. Multiple Color Temperature Options

Portable Solar PV Systems, Smart Solar Portable Lighting Kits, Solar Power Suitcase



The Solar Home Lighting system is a fixed installation designed for domestic application.

The system comprises of Solar PV Module (Solar Cells), charge controller, battery and lighting system (lamps & fans).

Here three main solar power systems we can design and supply:

1. Portable Solar Lighting Kits

Mostly equipped with panels below 100W and can be portable, very convenient and handy for camping, outdoor activities.

For Example: Our CST-SHS-1.5W with 1.5w-2w solar panel.



Solar module: Poly-crystal silicon solar panel 1.5W

Light source: 4pcs*4 super elevation brightness white LED

Battery storage: 1500mah *3 Ni-Mh rechargeable battery

Controller: min computer control

Working time: 10 hours (with full charge)

Workable temperature: -20-70 Cent

With 3M wire.

Functions:

1. Lighting with 4pcs LED Lamps;
2. Battery chargers for Batteries;
3. Cellphone Charger.

Each unit includes the following parts

1. Solar panel with wire and plug 1 set
2. Rechargeable battery box 1 pc
3. LED lamp 4 pcs
4. Socket with wire and plug 4pcs
5. Wall Mounting Bracket 4pcs
6. Pointed Stake 1 pc
7. Joint connector 1 pc
8. Dry Wall Anchors and screws 10 sets



2. Portable Solar Power Suitcases

For Example: Our SS-18W



SOLAR PANEL:

18W poly-crystalline silicon (tempered glass encapsulated)

BATTERY:

12V/17Ah sealed maintenance-free lead-acid battery

Input:

Two separate charging outlets for sunlight or regular 110V/220V AC

Output:

One DC 6V outlet & one DC 12V outlets ,two 220v 50HZ AC outlets

Inverter:300w

Controller:5AH/12V

Box size: 45cm*33cm*15CM

Applications:

Can use for bulb, LEDS, fluorescent light, TV, fan, camp lantern, for driving electric screw driver, electric drill and soldering iron, can charge for cell phone.

A universal solar power system for family, office, camping events, as well as field works

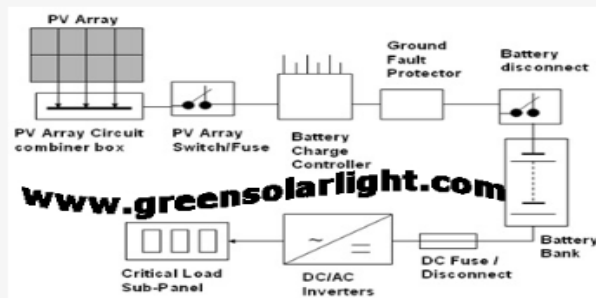
An alternative power solution for areas short of public utility

3. Stand-alone System for home use

A stand alone system is ideal for locations that are not connected to the grid or are located a few miles away from any power lines such as a remote cabin in the woods or remote villages in Africa and Asia.

PV systems are the most cost effective way to electrify remote locations that do not have access to the grid and are at least a couple of miles away from any power line.

A block diagram of a stand alone system design is shown below:



The main components of a Grid Interactive system are: **PV Arrays, Battery Charge Controller, Battery Bank, Inverter.** Other components include Fuses and Switches, Ground Fault protector devices, wiring, combiner boxes sometimes also referred to BOS (Balance of Systems).

The only difference between a Grid-Interactive system and a Stand Alone system is that a stand alone system does not depend on nor is connected to the grid/main power lines. All the design principles and formulae discussed for a Grid-Interactive system apply to stand alone systems except that the Inverter used in a stand alone system does not need to have the Islanding capability.

Refer to the section on Grid Interactive system to design the components of the stand alone system as shown in the picture above. Nevertheless it is important to have a fresh mind set when designing a stand alone system as there is no backup of power from the grid and it might be beneficial to select an Inverter that allows for charging the battery bank using a diesel/gas powered generator.



Solar Street Lights, Solar Street Lighting Systems, Solar Garden Lights, Solar Road Lamps



Solar Street Lighting System

Solar powered street lights are a very good example on what can be done with solar energy. Solar street lights present the perfect and cost-effective solution for residential streets, parking lots, security, roadways, parking lots and other general area lighting applications.

Solar street lights can be economically viable and efficient in a number of applications, mostly in areas where the cost of providing electricity is expensive or problematic.

A Standard Solar Lighting System includes:

1. Solar Panel
2. Solar Battery
3. Solar Controller Regulator
4. Lighting Sources
5. Fixture
6. Fitting and Mounting
7. Cables etc.

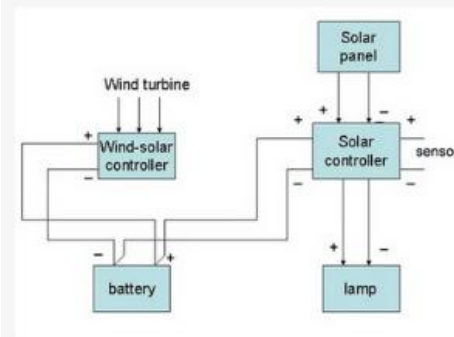
LEDs (Light Emitting Diodes) also known as SSL (solid-state lighting) have a good color rendition. A cluster of extra or ultra bright LEDs forms the lamp. LEDs consume a fraction of the energy of comparable lighting and have a very long life span. Solar LED street lights are an emerging and promising application for LED technology.

CF (Compact Fluorescent) lamps produce a white light and are used in places where color rendering is desired.

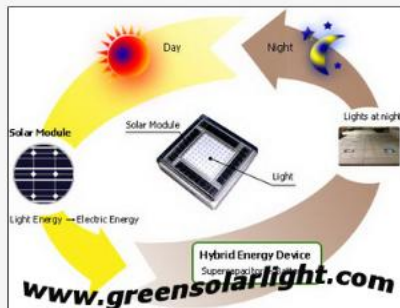
HID (High Intensity Discharge) lamps, mainly LPS and MH:

- LPS (Low Pressure Sodium) lamps generate a monochromatic yellow-orange light and are used when color rendering is not an issue. They have a lifespan of up to 18,000 hours
- MH (Metal Halide) lamps produce a clean white light and are perfect for applications where color rendering is essential

Can also be solar-wind street lights as per request!



Solar Road Lights, Solar Road Studs, Solar Road Marker, Solar Sign Lights



Solar Road Stud (SRS), Solar Brick Light, Solar Underground Light

Features:

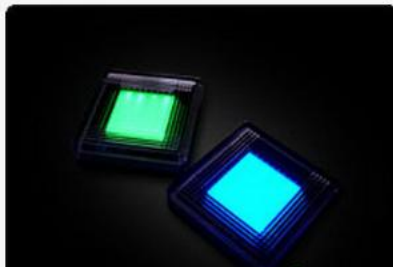
1. Solar powered, environmental friendly.
2. Custom Led color illumination upgrades available Red, Green, Blue, Yellow and White.
2. One sided or Dual Sided illumination.
3. LED light steady-on or Flashing mode.
4. Simple installation.
5. Cost effective.



Solar Brick Light : SBLZ-01



Operating: Up to 30-40 hours successively working in overcast and rainy day after the battery fully charge
 Power: 0.4w
 Charge: 170-190mA
 Battery: Ni-Mh rechargeable battery
 Lighting source: Super bright LED
 Colors of lighting source: yellow/red/blue/green/white
 LED quantity: 4 pieces
 Current of lighting source: 25-30mA/hour
 View distance: Over 100-200meters
 Temperature range: -20-60
 Material of body : Polycarbonate
 Size(mm): 145*145*40
 Carton Size(mm) : 460*325*250
 QTY/CTN : 30pcs
 G.W/N.W : 19.6/18.1 kg



Flash rate: 2 times/second
 Operating: 7-10 days successively working in overcast and rainy day after the battery fully charge
 Battery: Ni-Mh rechargeable battery
 Lighting source: Super bright LED
 Colors of lighting source: yellow/red/green/white
 LED quantity: 1 piece
 Current of lighting source: Flash electricity
 View distance: Over 500m
 Temperature range: -20-60
 Material of body : Polycarbonate
 Size(mm): 50*35
 Carton Size(mm) : 450*290*205mm
 QTY/CTN : 120pcs
 G.W/N.W : 14.8/13.3 kg

Solar Road Stud : SRSZ-04



Flash rate: 100-120 times/minute
 Operating: Up to 15 days successively working in overcast and rainy day after the battery fully charge
 Solar Power: 0.3w
 Charge: 110-120mA
 Battery: Ni-Mh rechargeable
 Lighting source: Super bright LED
 Colors lighting source: yellow/red
 LED quantity: 4 pieces(2*2)
 Current of lighting source: 8-12mA/hour
 View distance: Over600m
 Temperature range: -20C-60C
 Material of body : Aluminum alloy and Polycarbonate
 Size(mm): 140X130X28

Solar Road Stud: SRSZ-010



Flash rate: 110-120 times/minute
 Operating: Up to 15 days successively working in overcast and rainy day after the battery fully charge
 Solar Power: 0.3w
 Charge: 110-120mA
 Battery: Ni-Mh rechargeable battery
 Lighting source: Super bright LED
 Colors lighting source: yellow/red
 LED quantity: 4 pieces(2*2)
 Current of lighting source: 8-12mA/hour
 View distance: Over 1km
 Temperature range: -20C-60C
 Material of body : Polycarbonate
 Size(mm): 118X115X25
 Carton Size(mm): 632X465X325



Flash rate: 100-110times/minute
 Operating: Up to 8-10 days successively working in
 Solar Power: 0.2w
 Charge: 80-90MA
 Lighting source: Super bright LED 4 pieces
 Temperature range: -20C-60C
 Material of body: Polycarbonate

Solar Underground Light : SULZ-09



Operating: Up to 20-30 hours successively working after the battery fully charge
 Power: 0.2W
 Charge: 90mA
 voltage: 1.2V
 LED quantity: 2 pieces
 Size(mm): Dia90X65mm
 Landfill Size: 62X55mm
 Carton Size: 770X300X295mm
 QTY/CTN : 48pcs
 G.W: 15.8/13.7 kg



Solar Underground Light : SULZ-12



Operating: Up to 72 hours successively working after the battery fully charge
 Power: 0.2W
 Charge: 100mA
 voltage: 1.2V
 LED quantity: 2-3 pieces
 Size(mm): Dia120X65mm
 Carton Size: 635x260x220mm/30pcs
 G.w: 14/11.4 kg

Solar Garden Lights, Solar Lawn Lights, Solar Road Lamps, Solar Street Lights



S0220D

4 kinds of solar powered garden lights:

Enhance your garden, your pathway, or even around your patio without raising your electricity bill. Solar Ground Stake Lights can be placed almost anywhere with adequate sunlight without the hassle of wires.

Patented Solar Garden Light, Made of High Quality Stainless Steel, with Rechargeable Ni Cd Battery
Model Number: S0220D



S0220D

Patent NO.: ZL 200430069802.5
Elegant solar powered post light with clear window
Special light reflector inside gives attractive light evenly
High quality stainless steel construction



S0429D

Solar Panel on the top for sun absorption.
Quality stainless steel construction
One white LED
Easy to install
Automatically turns on at dusk

Suitable for ground decoration and illumination in gardens, squares, yards, pathway and parks

One Ni-CD (or Ni-MH) AA rechargeable battery inside
Over six hours working time if battery is fully charged

Patented Solar Garden Light, Available in Various Colors
Model Number: P0210D



P0210D

Solar powered shell light gives an ambient colored glow at night
High quality, weather resistant plastic construction.
Automatically turns on at dusk
Quality solar cell from Germany
1 Ni-CD (or Ni-MH) AA rechargeable battery inside



Inside Solar Panel
Easy installation
No maintenance
Environment friendly
Handmade bamboo construction
Used for ground decoration and illumination in gardens, yards and pathways.

Battery: 1 Ni-CD (or Ni-MH) AA 600mh 1.2V rechargeable battery
Hours of Operation: over 6 Hours
Led/Color: 1/amber
Dimension: 92*820mm
N.W./pc: 0.301KGS
Qty./Color Box: 12 pcs
Color box: 420*320*500mm
Qty./Outer carton: 12pcs
Outer Carton: 420*320*500mm
N.W.: 3.6KGS
G.W.: 4.8KGS
Qty./20': 2520pcs
Qty./40': 5376pcs



Solar String Lights(MSL01-01),Solar Fairy Lights,Solar Christmas Light



Solar-Powered String Lights,Solar Powered Tube Lights,Solar LED Dragonfly Lights

Since they aren't tethered to an outlet, these brighter-than-ever solar-powered string lights can be used virtually anywhere. Use them in your yard all year-round to light up a favorite tree, outline an arbor, or wrap a porch railing. Each string has 102 super-bright LED bulbs with built-in diffusers that last indefinitely. Day/night sensor turns them on automatically. Lights run 8 hours on a full charge. 36' L.

"Go-anywhere" lights need no outlet

Brighter than ever

Year-round lighting for trees, arbors, railings

102 super-bright LED bulbs per string

Approx. 8 hours running time on a full charge

Solar Spotlights,Solar LED Spotlights,Solar LED Home Lighting Systems



Solar LED Spot Lights,Solar LED Home Lighting Systems(with lead-acid Battery,Solar Panel 5W Optional)

Solar Spotlights, Solar LED Spotlights, Solar LED Home Lighting Systems



Solar LED Spot Lights, Solar LED Home Lighting Systems (with NI-CD, NI-MH Battery, Solar Panel 1.5W-2.5W Optional)

Home lighting systems are powered by solar energy using solar cells that convert solar energy (sunlight) directly to electricity. The electricity is stored in batteries and used for the purpose of lighting whenever required.

These systems are useful in non-electrified rural areas and as reliable emergency lighting systems for important domestic, commercial and industrial applications.

SOLAR Spot Sensor Light Item No. : P0813N



Perfect for walkways, driveways, garages, and sheds. Automatically turns on when motion is detected at night. No wiring required!

FEATURES:

- Weatherproof design solar panel.
- Reliable PIR sensor.

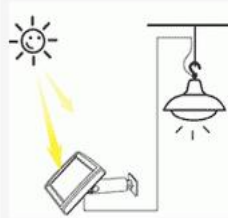
P8001D



A good illumination solution for home in remote areas and no electricity areas or outdoor using.

This unique solar LED system offers you such a good, economical choice for home lighting solution.

This mini LED system is quite cost saving compared with normal solar off-grid power system...



Solar Spotlight Set, Model Number: GLIT-2W-A/B/C/D Series



Solar Shed Light, Available with Five White LEDs, Model Number: P0807N



Quick and easy to install, simple plug and play

An ideal lighting solution for not only sheds but playhouses, tents, outhouses, boats
Its small and compact design makes it perfect for travel

Five super bright white LEDs

Separate solar collection panel with 3m cable connected to the light
2 Ni-CD (or Ni-MH) AA rechargeable batteries inside

Add a light to your shed, barn or anywhere else without an electrical outlet! No wiring required!

It brings you such a convenient solution!



FEATURES:

Weatherproof design solar panel

Easy installation

Built-in rechargeable battery

3m cable and all mounting hardware

Super bright LED

Ideal for illuminating shed, gazebo, garage, barn or greenhouse, even there is no power.

SPECIFICATIONS:

Battery: 3 Ni-CD (or Ni-MH) AA 600mh 1.2V rechargeable batteries

Hours of Operation: 2~3 Hours

Led/Color: 5/white

Solar Candle Lights Patented, Two Models Available.

A Solar Candle Light, to never forget and to decorate.

It is a memorial light or a solar eternal light, but apart from remembering our loved ones; solar powered candles will definitely give a special touch to your deck, patio, garden, windows, or even to your dining table.

Whichever the way you choose to use it, you can expect a beautiful effect.

Solar candle lights look like real candles, without their drawback.

They will stay lit in windy or rainy nights and most importantly, the fact that they don't generate any flame makes them very safe.

Last but not least, if like me you hate removing melted wax on furniture and clothes, a solar candle light is perfect.

Solar candles are designed to realistically reproduce the flickering flame of a real candle.

Some even imitate the shape of a candle and are made of real wax... without the melting issue!



Solar Camping

Lanterns, S...



(1 / 1 current 1 total 1)

HERE you will find a total portable solar lantern, solar flashlights world.

1. SOLAR Camping Lanterns, Solar LED Lanterns, Solar Portable Lamps

All Kinds of Solar Camping Lanterns:

Solar camping lantern is easy to use, carry, and recharge. The small, lightweight lantern and solar panel provide bright light for up to 6 hours (when fully charged).

Solar power; environmental friendly, alternative application;

Zero cost of operation; No batteries, power outlet, kerosene or propane;

Safe for user (no fuel to carry or store; no risk of fire); Can use in enclosed areas (tent, home, or RV);

Compact and lightweight, easy, convenient to use, No maintenance.

Shorter charge time, longer run time.

2. Solar Powered LED Flashlights, Solar Torches, Portable Solar Lighting Cup, Solar and Dynamo Multi-functional Flashlights

Kunyang – Solar products

Solar Lantern KY-SL7012



Model	KY-SL7012
Material	Aluminum+PC
Solar Panel	0.7W
Lighting Source	4 pcs LED, 2W
Battery	Sealed lead acid rechargeable 4V/3.5AH
Charging time	Charged by AC:7-8 hours, by solar: 12 hours
Working time	1 st setting 8–10hours, 2 nd setting 15-20hours

Solar Window
Lights,Sola...



(1 / 1 current 1 total 1)

Solar Window Light,Solar Suck Lights,Solar Wall Lights SWL-01

Solar Window Light,Powered by SOLAR!Stick to Anywhere you want!

Stick it to the inside of any window with good sun access and it will charge enough for up to eight hours of light in only 3-4 hours (depending on the sun).

Put one near any door, stairs, your electric panel, in any bathroom or hallway,anywhere there's a nearby clear glass window to stick it to. Get several and keep your camper, trailer or cabin well lit with absolutely no energy draw!

You can even attach one to a window for charging during the day, then move it to where ever you need it at night.

It is great for all kinds of applications, including boating and marine, RVs and camping and for travel.

Model: SWL01

Lighting Duration:5-30Hours

Material: PC

Solar battery panel: 0.5w/4v mono-crystalline solar panel

Battery:2pcs 900MAH 1.2V Ni-MH rechargeable battery

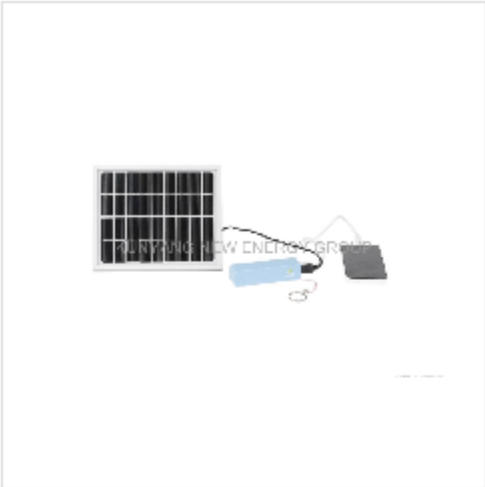
Light Source:Super Flux LED 6pcs,angle 120 degree,mcd:3500-4000MCD

With 3-position switch,switch right:1 super flux LED light up; switch center:super flux LED off.;

Switch left:6 super flux LEDs light up

CE & ROHS Certificated

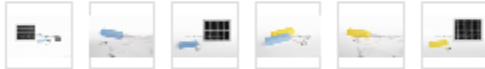
solar mobile power bank KY-SC1012D



[solar mobile power bank KY-SC1012C](#)



[solar mobile power bank KY-SC1012B](#)



Product Description

Material: ABS+PC

Surface treatment: Grind arenaceous processing

Capacity (mAh): 3000mAh

Battery: 18650, 3.7V

Input: 5V/1A

Output: 5V/1A

Size: 25.4*25.4*92mm

Wight: 75.5g

Color: various colors

Special Feature:

Protections for over-charge, over-discharge & short circuit

Be dormant to prevent power loss in non-working state.

solar mobile power bank KY-SC1011D



[solar mobile power bank KY-SC1011C](#)



[solar mobile power bank KY-SC1011B](#)

Product Description

Material: Alloy

Surface treatment: surface oxidation treatment

Capacity (mAh): 3000mAh

Battery: 18650, 3.7V

Input: 5V/1A

Output: 5V/1A

Size: 22*21*93mm

Wight: 76g

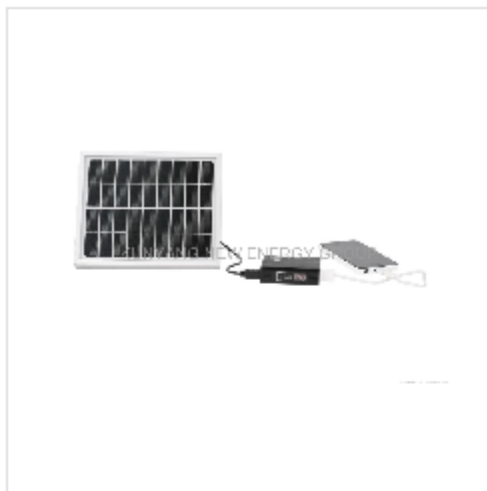
Color: white, black

Special Feature:

Protections for over-charge, over-discharge & short circuit

Be dormant to prevent power loss in non-working state.

solar mobile power bank KY-SC1010D



[solar mobile power bank KY-SC1010C](#)



[solar mobile power bank KY-SC1010B](#)



Product Description

Material: Alloy

Surface treatment: wiredrawing processing

Capacity (mAh): 8000mAh

Battery: 18650, 3.7V

Input: 5V/1A

Output: 5V/1A

Size: 71*55*21.5 mm

Wight: 132g

Color: black, silver, blue

Special Feature:

Protections for over-charge ,over-discharge & short circuit

LED display power left

Torch function

Be dormant to prevent power loss in non-working state.

solar mobile power bank KY-SC1008D



[solar mobile power bank KY-SC1008C](#)



[solar mobile power KY-SC1008B](#)

Product Description

Material: ABS+PC

Surface treatment: paint surface

Capacity (mAh): 12000mAh

Battery: 18651, 3.7V

Input: 5V/1A

Output: 5V/2.1A

Size: 130*100*33mm

Wight: 237.6g

Color: white, black

Special Feature:

Protections for over-charge, over-discharge & short circuit

LED display power left

SOS distress function

Torch function

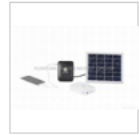
Be dormant to prevent power loss in non-working state.



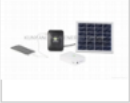
[solar mobile power bank KY-SC1007D](#)



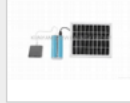
[solar mobile power bank KY-SC1007C](#)



[solar mobile power bank KY-SC1007B](#)



[solar mobile power bank KY-SC1007A](#)



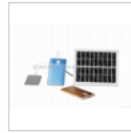
[solar mobile power bank KY-SC1005D](#)



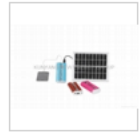
[solar mobile power bank KY-SC1005B](#)



[solar mobile power bank KY-SC1005B](#)



[solar mobile power bank KY-SC1004](#)



[solar mobile power bank KY-SC1005A](#)



[solar mobile power bank KY-SC1003](#)

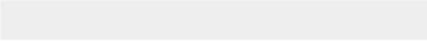
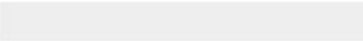
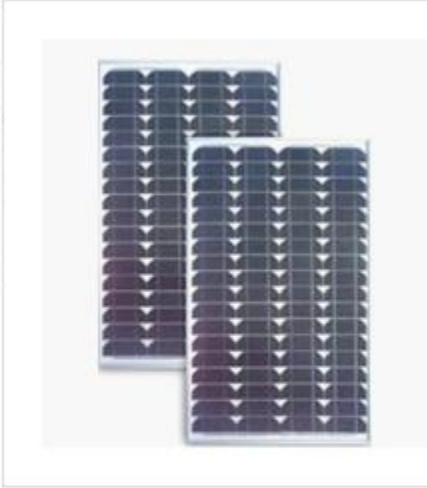
Solar Panel KY-SP2W



polycrystalline



solar panels



Product Description

Product Description

polycrystalline: 260W

Monocrystalline 125*82.5mm
Maximum power at STC (Pm): 80Wp

Peak Power	2W
Maximum Power Voltage(Vmp)	8.748V
Maximum Power Currmt(Imp)	0.228A
Open Circuit Voltage(Voc)	10.85V
Short Circuit Current(Isc)	0.244A
Maximum system voltage	715V

At STC(Standard Test Conditions):AM1000W/m²25°c



[solar panel](#)



[solar panel](#)

Product Description

16 sets of 150 Wp photovoltaic systems for traffic current capacity monitoring system.

Product Image



Product Description

25KWP photovoltaic system for mobile communication station

Product Image



Product Description

6 sets of 1.2KWP photovoltaic systems for daily consumption of local frontier defence police station

Product Image



Product Description

30 KWP Wind-PV hybrid energy system for satellite monitor system and daily consumption of local military unit.

Product Image



Solar Power System (pure sine wave) KY-SPS100W-S808



Product Description

Main Specification

1. Solar: 80W18V
2. Battery: 12V65AH
3. Controller: 12V12A
4. Inverter: 300W(pure sine -wave)
5. Cable for solar: 3M
6. Chargers for mobile phone
7. Lamp: 1W LED*2pcs, 3W LED*2pcs, 5W LED*2pcs
8. Charge current with normal power: 7A (if need UPS function, please connect to the main power in series)
9. Output voltage: 220V/12V/8.4V/5V/3.3V
10. Battery capacity testing
11. Total weight: 44.27KG

Remarks:

1. The battery can be extended to: 130AH
2. The solar panel can be extended to: 150W



[Solar Power System \(pure sine wave\) KY-SPS80W-S807](#)



[Solar Power System KY-SPS100W-S08](#)



[Solar Power System KY-SPS80W-S07](#)



[Solar Power System KY-SPS40W-S05](#)

Product Description

Model	KY-SPS5W-F901
Solar Power	Polycrystalline/Monocrystalline 3W/9V
Battery	Lead-acid Maintenance-free Rechargeable 4AH/6V
Charge Controller	6V/3A
Control Box	Steel box of zinc-plated and lacquer-coated
Charging time in full	About 8-9 hours in the good sunshine
Working time	
1pc 3W LED Lamp	18 hours
Charge Mobile Phone	14 pcs all together (USB port)
Charge MP3	28 pcs all together

Product Image

[Mini Solar Power Generator KY-SPS5W-F902](#)



[Mini Solar Power Generator KY-SPS5W-S01](#)



[Mini Solar Power Generator KY-SPS5W-S01A](#)



[Mini Solar Power Generator KY-SPS5W-S01B](#)

Controller and Inverter Box KY-PSW-S611



Total

Product Description

1. AC & DC controller and inverter box
2. Can support 2700W/18V Solar Panel
3. Can support 2250AH/12V battery
4. Charge Controller: 12V/150A
5. Pure Sine Wave Inverter power: 2000W
6. Output: AC: 110V/120V/220V/240V
DC: 8.4V/5V/3.3V/12V/24V

Controller and Inverter Box KY-PSW-S609



Total :

Product Description

1. AC & DC controller and inverter box
2. Can support 1800W/18V Solar Panel
3. Can support 1500AH/12V battery
4. Charge Controller: 12V/100A
5. Pure Sine Wave Inverter power: 1500W
6. Output: AC: 110V/120V/220V/240V
DC: 8.4V/5V/3.3V/12V/24V

Controller and Inverter Box KY-PSW-S605



Total

Product Description

1. AC & DC controller and inverter box
2. Can support 360W/18V Solar Panel
3. Can support 300AH/12V battery
4. Charge Controller: 12V/20A
5. Pure Sine Wave Inverter power: 500W
6. Output: AC: 110V/120V/220V/240V
DC: 8.4V/5V/3.3V/12V/24V



[Solar Fan KY-SF380T](#)



[Solar Fan KY-SF390RD](#)



[Solar Fan KY-SF3916](#)



[Solar Fan KY-SF832](#)



[Solar Fan KY-SF818](#)



[Solar Fan KY-SF325](#)



[Solar Fan KY-SF1012](#)



[Solar Fan KY-SF812](#)



[Solar Garden Light](#)



[Solar Garden Light](#)



[Solar Garden Light](#)



[Solar Garden Light](#)



[Solar Garden Light](#)



[Solar Garden Light](#)



[Solar LED Light](#)



[Solar LED Light](#)

Aluminum Solar Lawn Light KY-L405-12



Product Description

- 1、 Solar Panel : 2W Mono/Poly
- 2、 Battery : 6V/4.5AH
- 3、 Lighting source: LED 0.5W*6PCS
- 4、 Working hours : ≥ 30 hours after full charge
- 5、 Product size: $\phi 27.8$ *H:80cm



[Solar Pillar Light](#)



[Solar Pillar Light](#)



[Solar Pillar Light](#)



[Solar Pillar Light](#)



[Solar Pillar Light](#)



[Solar Pillar Light](#)



[Solar Bug Killer Light](#)



[Solar Bug Killer Light](#)

solar flashlight



Model	KY-ST7022
Material	ABS
Solar Panel	1.5W
Lighting Source	1 pc LED 3W
Battery	4V/3.0 AH Lead Acid
Charging time	charged by solar: 20 hours, By AC: 12 hours
Working time	6 hours
Packing	
Size of Inner Carton	170×φ95mm/pc
N.W	1.4kg
Size of Master Carton	515×292×292 mm/18pcs



[solar headlamp](#)



[solar headlamp](#)



Product Description

Battery: Rechargeable, power saving.

Light: High end touch regulation LED, white light & 7-color light.

Lampshade: High end frosted to soften the light.

Switch: Touch induction dimmer.

Operation: Touching over 1 second to adjust the brightness.

Product size: 200*78*360mm.

Master carton size: 41.5*41.5*74.5cm.

Fit for: creative gift.



KY-SL0100



KY-SL0103

Solar street lamp (40W)



Product Description

Solar Panel (High-efficiency monocrystalline silicon from USA sunpower)

Pmax: 18V60W

Working life: 25 years

Battery Type: Lithium(12.8V/27AH)

Working life: 5 years

LED Lamp (With human body sensor)

Pmax: 12V 40W

Material: Aluminum

Brand of LED chip: America Bridgelux LED

Lumen: 4000-4400lm

Working life: 50000 hours

Light Angle: 120°

Charging Time: 6 hours (under strong sunlight)

Discharging Time: Full Power >15 hours

Power Saving Mode: >30 hours

Operation Temperature (°C): -30°C~+70°C

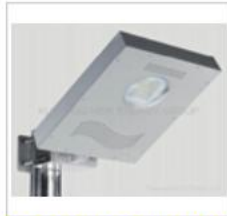
Color Temperature (k): 6000k

Mounting Height (m): 7-8m

Spacing between two lamp (m): 18-20m



[Solar street lamp \(30W\)](#)



[Solar street lamp \(25W\)](#)



[Solar street lamp \(20W\)](#)



[Solar street lamp \(15W\)](#)

Boxin Solar



- › Name : solar energy kit
- › Model : BX-FD009-4
- › Description :

Modle	Solar Panel	Battery	Light Source
BX-FD009-4	4W 11V	4400mAh 7.4V lithium	0.9W LED bulb*4 pcs

- 7.4V 4400mAh Lithium battery
- 4W 11V Solar Panel with 5M cable
- 0.9W LED bulb with 4pcs
- LED bulb: each with 5M cable and switch on cable, IP54.
- LED charging indicator: yes
- Mobile phone charging: USB port 5V 1000mA output, with 5-in-1 USB mobile charging cable (Nokia 6101, Sumsung G600, Micro USB, Mini USB, Iphone 4/4S)
- Overcharge and overdischarge protection: yes
- Rechargeable by AC charger: optional
- Working hours on full battery
 - 5 bulbs-6 hours
 - 4 bulbs-7.5 hours
 - 3 bulbs-10 hours
 - 2 bulbs-15 hours
 - 1 bulb-30 hours
- Full charging time
 - By solar-16 hours (under direct sunshine)
 - By AC charger-about 11 hours



solar energy kit
BX-FD009-4



solar energy kit
BX-FD009-5



solar lantern
BX-H09-3



solar lantern



solar lantern



solar lantern

Solar lantern
BX-R02



CE RoHS

solar reading light
BX-R02

Solar lantern
BX-DP02



CE RoHS

Solar Lamp
DP02

Solar Lantern BX-H05



solar lantern
BX-H05

Solar lantern
BX-H07



CE RoHS

solar lantern
BX-H07

Solar Inflatable Lantern
BX-CQ01



BX-CQ01
BX-CQ01

Mini Solar System
BX-FD009



solar energy kit
BX-FD009



solar energy kit
BX-FD010



solar energy kit
BX-FD011



Solar system
BX-FD1212



Solar system
BX-FD-1224



solar panel
solar panel



solar lantern
BX-H06



Solar lantern
BX-H23



CE RoHS

solar lantern
BX-H23

Solar lantern
BX-FD009-3



CE RoHS

solar energy kit
BX-FD009-3

Solar lantern
BX-S03



CE RoHS

solar torch
BX-S03

Solar lantern
BX-GY02



CE RoHS

Solar motion detection security
light
BX-GY02

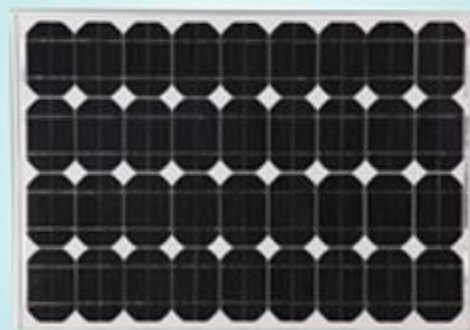
Solar lantern
BX-FD-003



CE RoHS

solar DC system
BX-FD-003

Solar lantern
BX-28A



CE RoHS

solar panel
BX-28A



solar lantern
BX-H09-2



solar lantern
BX-H09-3



solar DC system
BX-FD-004





C



D



BX-L04



BX-L07



BX-L08



BX-L010



BX-L014



BX-L011



BX-L012



BX-L013

Wisdom Solar



CE and Patent Portable Solar Light for Home/Camping, Bright Solar Lighting Kits with LED Lights & USB Charger Home Solar Light (JR-SL988A)



Q Stainless Steel Solar Garden Light/Solar Light for Outdoor Garden Use



Q Expert Manufacturer of Super Bright Solar Street Light, Solar Pathway Light Jr-Nm01



Q CE Approved Super Brightness 84PCS Solar Powered Outdoor Lighting/Outdoor Solar Flood Light /Outdoor LED Flood Light



Q 2014 Die-Cast Alum LED-Solar Garden Light/Solar Light with Solar Panel CE&RoHS



Q 7- 50W LED Flood Light, Solar LED Flood Light, Solar Projection LED Light Lighting Jr-Pb001



Q Emergency Solar Lights, Solar Home Lighting, Portable Camping Lamp (JR-SL988A)

Wisdom solar

CE IP65



Wisdom solar®



Wisdom solar®



Q IP65 High Brightness Hot Selling Solar Garden Light, LED Solar Wall Light with CE

Q Rechargeable Solar Garden Lamp High Illumination Solar Lawn Lamp

Q IP65 Solar LED Garden Light



Q Aluminum Solar Garden Light/Salable Outdoor Solar Lighting/Bright LED Garden Lamp



Q Garden Light Aluminum Grey for France, Solar Garden Light Wholesale China Manufacturer (JR-B006)



Q Hot&Cheap!!! Solar LED Garden Light, Solar Lamp, Solar LED Lamp



Q High Lumen Solar LED Garden Light, Solar Lawn Light (JR-CP80)



Q Die-Casting Aluminum Solar LED Garden Light



Q IP65 Stainless Steel LED Outdoor Solar Garden Light with CE



CE

Hot



Solar LED Garden Light with Cheap Price/Garden Solar Chinese Lantern

CE & Patent Solar Powered Street Light Road Lamp (JR-523)



Q Popular LED Solar Street Light/Power Solar Street Light/Solar Street Light



Solar High-Bright Street Road Light Jr-550X



12W Solar LED Home Lighting Lamp 3 Bulbs Jr-SL988A



Solar Underground Light with CE & IP65



Hot Selling Modern Style High Cost-Effective Solar Garden Light/ Solar LED Lawn Light Supplier



High Quality Solar Powered Street Light with CE Approval





High Quality Solar Powered Street Light with CE Approval



60W 12V LED Solar Power Street Light, Solar Street Lamp, Solar Road Light



Competitive Price Solar Garden Light /Garden Light



Decking Lighting Solar Wall Light & Lamp / Wall Mount Solar Lights with CE&RoHS (JR-2602)



Aluminum Solar Light/LED Floodlight with Integrated Solar Panel



2014 Aluminum CE Solar Wall Light/Wall-Mounted Lamp (JR-B007-1)



Unique Solar Pillar Light / Solar Post Lamp / Fence Lamp (JR-3018 Series)



Aluminum LED Garden Light/Solar Garden Light Chinese Manufacturer



High Lumen Solar LED Garden Light; Solar Lighting for Garden



New Product Solar Ball Lamp; Solar Fencing Wall Light; Solar Post Cap Light



Classical Antique Outdoor Wall Light with Solar Panel, Solar Fence Post Lights for Main Gate



Cheap Price LED Wall Light/Wall Mounted Outdoor Solar Lights/Outdoor Solar Wall Light



Light (JR-B007)



Waterproof Outdoor Light, Solar Lamps for Outdoor Lighting, Photovoltaic LED Lights for Garden Decoration



Low Price Rechargeable CE Approved Solar LED Lamp/Portable Solar LED Lamps/Home Solar LED Lamp/Indoor Solar LED Lamp



2014 New Product CE Certification High Brightness Solar LED Light, LED Solar Light

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