Photovoltaic (PV) for Power Systems

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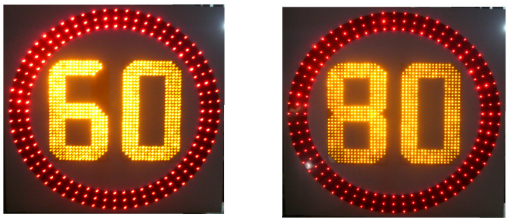
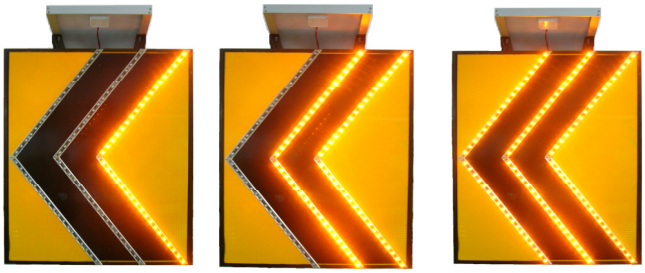
Photovoltaic (PV) for Power Systems

Solar Powered Road Safety Products

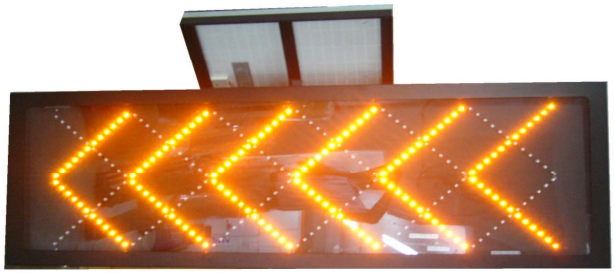


Solar Powered Speed Limit

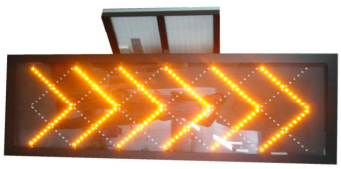


Solar Powered Chevron

Solar Powered
Warning Light



S.L.A Battery



Solar Powered Moving Arrow LED

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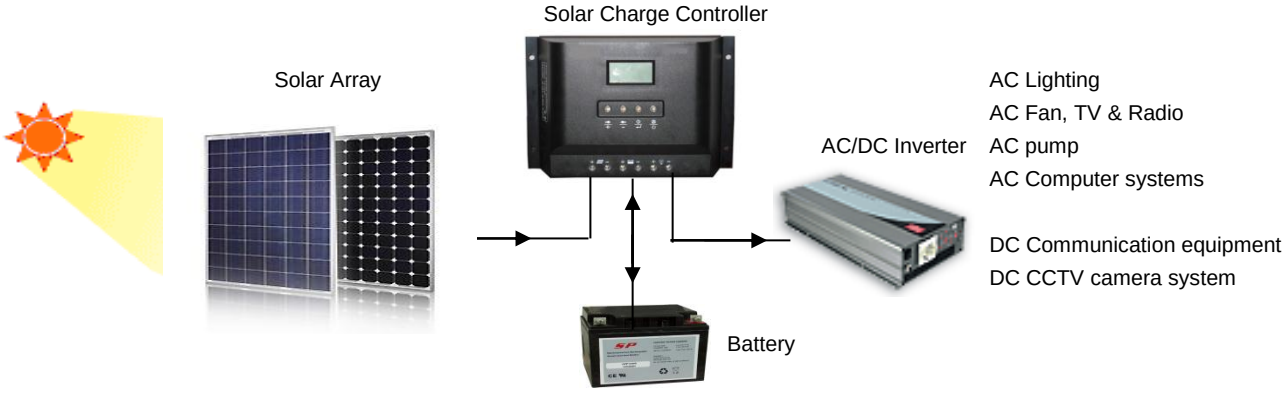
Solar Home Power System

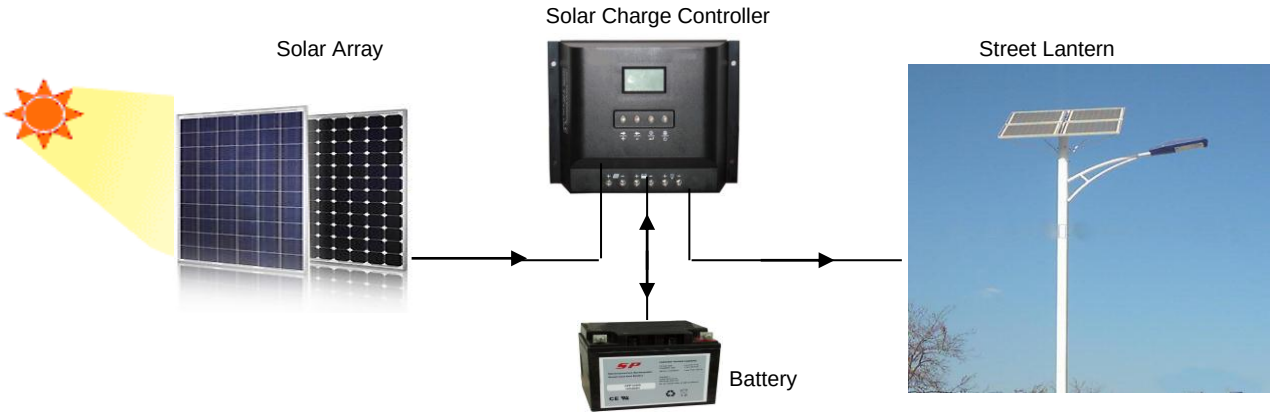
This system is suitable for residential applications such as home appliances, lighting, computer, and water pump. Solar home power system is generally designed and sized for DC or AC electrical appliances. This module is connected it to solar charge controller, inverter and battery. The generated DC power is stored in the battery and converted to AC power for supplying to AC loads.



Stand-alone Solar Power System

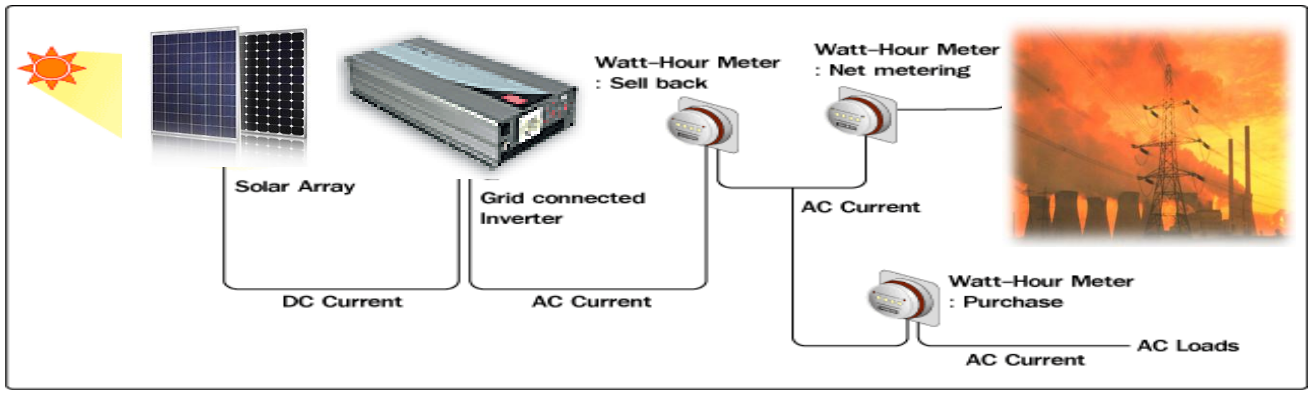
The Stand-alone Solar Power System operates independent of the electric utility grid and most often used in remote areas where the utility grid is not available or where the connection fees of the grid are higher than the cost of an alternative energy system. The generated DC power is stored in battery and power the DC loads whenever required.

Stand-alone Solar Power System is suitable for remote or rural area applications.



Solar Grid Connected Power System

This System is connected to utility grid and feeds power back into the grid. The system consists of PV panels connected to the grid via inverter. The power produced by the PV system can either feed the loads or be fed back into the grid when the when the PV system output is greater than the load demand. When the PV system is less than the load demand at night the energy will be taken utility grid.



Solar (Photo Voltaics) PV Modules

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Solar (Photo Voltaics) PV Modules

Mono / Multi Crystalline Silicon (MCS)

Solar Modules (Photovoltaics)

☼ Made of super efficient solar cells and conforming to international quality standards, performance and reliability is never compromised for severe weather condition.

☼ The string is laminted between sheets of Ethyl Vinyl Acetate (EVA) encapsulation and framed with a corrosion-resistant heavy duty anodized aluminium frame.

☼ Our solar panels are fully tested and suitable for use as stand alone system.

Solar Modules (Photovoltaics) Applications:

☼ Highway emergency phones
☼ Highway emergency flashing light
☼ Street, garden, pathway lightings
☼ Remote telecommunications systems
☼ Aviation lights, beacons
☼ Rural electrifications for homes, schools, clinics
☼ Telemeter systems
☼ Battery charging facilities
☼ Grid connected residential systems

Technical specification of Solar Photo Voltaics (PV) Module

Power Output (Watt Peak)	Nominal Voltage (Vn)	Open Circuit voltage (Voc)	Short Circuit Voltage (Isc)	Power (Max) Voltage (Imp)	Power (Max) Current (Imp)	Dimension LXWXH (mm)	Weight (Kg)
8	12	20	0.5	16.5	0.47	350X305X18	1.5
10	12	20	0.7	16.5	0.6	430X300X18	2
20	12	20	1.4	16.5	1.2	550X450X22*	4
30	12	20	2	16.5	1.8	550X450X22*	5
40	12	20	2.82	16.5	2.4	1000X450X34*	6
50	12	20	3.5	16.5	3.0	1200X500X22*	7
60	12	20	4.12	16.5	3.7	1200X500X34*	7.5
80	12	20	5.63	16.5	4.8	1200X530X38*	8
100	12	20	6.9	16.5	6.1	1324X655X34*	15
120	12	20	7.8	16.5	7.3	1300X650X34*	15
150	12	20	9.4	16.5	8.7	1600X950X50*	15
160	12	20	9.8	16.5	9.3	1600X950X50*	15
180	24	43	5.5	35	5.2	1600X950X50*	15
200	24	43	6.1	35	5.6	1600X950X50*	18
220	24	43	6.7	35	6.2	1900X950X50*	20
240	24	43	7.3	35	6.8	1900X950X50*	20
260	24	43	7.9	35	7.3	1900X950X50*	20
280	24	43	8.5	35	7.9	2200X1200X50*	22
300	24	43	9.1	35	8.5	2200X1200X50*	22

* STC of 1000W/m2, 25º C, AM1.5 , due to continous improvement,

* Sunpower Technologies sdn bhd reserves the right to change specifications without prior notice.

Solar Charge Controller

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Solar Charge Controller

Solar Charge Controller

☼ **SUNCON1210** is a high quality and reliability solar charge controller.
The solar charge controller is ideal for rural electrification system. It provides many features and benefits.

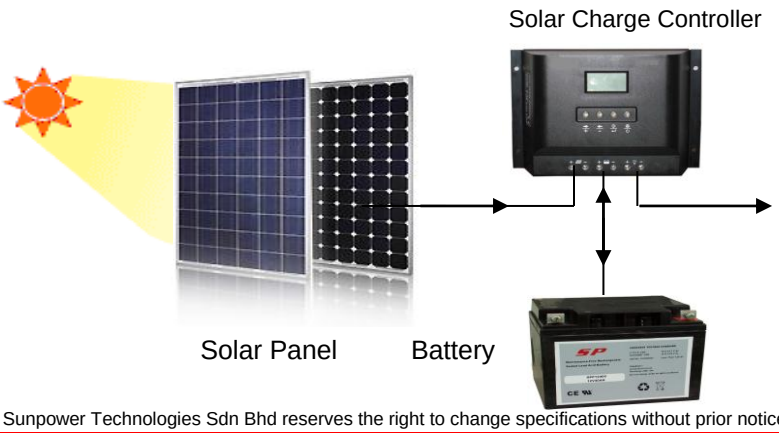
Features and Benefits of Solar Charge Controller

☼ It Control the amount of energy needed by the battery. By this, it prevents the battery from damage due to overcharging.
☼ The low voltage disconnnect will automatically disconnect the battery from the load in the event of low battery voltage and automatically reconnect after the battery is recharged. This prolongs the service of the battery.
☼ Using charge regulation, it maximizes the amount of energy going into the battery.
☼ LEDs display status information with battery level indication for better monitoring of the system by the operator.
☼ Built-in electronic protection-prevents damage due to wiring mistakes during the installation, system short circuit or overload.
☼ The printed circuit boards (PCBs) are protected with moisture-tight coating(APL lacquer), minimizing damage from humidity and nesting insects.
☼ User friendly-fully automatic and requires no adjustment or user selections.

Technical Specifications :

Model	**SUNCON1210**
Rating	12 Volt
Regulation point	14.4 Volt
Low voltage disconnect	11.0 Volt
Low voltage reconnect	13.1 Volt
Type charging	PWM, state of charge (Bulk, PWM, Boost and Float)
Electronic protection	Short circuit and overload
	Reverse polarity-solar, load and battery
	Reverse current at night
	Lightning protection-solar, load and battery
Tropicalization	Circuit board-conformal coated and corrosion protection
LED indications	Green - charging
	Green-Yellow-Red battery levels
	Red - Low voltage warning and disconnect
Self consumption	10mA maximum
Dimension	141X96X34 mm
Terminal	for wire sizes to 6mm2
Weight	350g
Temperature range	-10ºC to +55 ºC
Humidity	100% non-condensing
Case	ABS
Enclosure	IP22

Connection diagram for Solar Charge Controller



To Equipment example:
☼ DC Lighting
☼ DC Fan, TV & Radio
☼ DC / AC Inverter
☼ DC Communication equipment
☼ CCTV & GPS equipment