PAK SOLAR
RENEWABLE ENERGY

SOLAR OUTDOOR LIGHTS MAKE SENSE!

New Generation Solar Street Lights

Every year, the impact of this product usage is equal to

CO_2 EXHAUST CUT	TREES PLANTED	CARS OFF THE ROAD	GASOLINE NOT USED	$ OF ELECTRICITY SAVED
467 Lbs	5	0.3	23 G	$ 49.64

Note: For example, 20W LED Street Lights.

All IN ONE Solar Street Light

AIO-80W

APPLICATION

Configuration

General Proposal

Component Name	Specifications and Remarks	life span	QTY
1. Solar Panel	**80W/18V**, Mono crystalline >18%Efficency.	**>25years**	1 pc
2. LED Lamp	**80W/12V**, Philips lumileds Chip lumen170LM/W,6000K	**>50,000hours**	1 pc
3. Controller & LifePO4 battery	**10A**, Automatic Light and Time Control, 12 hours per night	**5years**	1 pc
	36Ah 12V Lithium, Maintenance free		1 pc

General System Specification

Working Time	11 to 12 hours per night
Sensor Function Model	10% decrease in very hour, 20% running in last hour
Working Condition	-15- 60℃ Working Temperature
Certifications	CE, ISO9001,SGS,ROHS,BV

SPECIFICATIONS

1. LED LAMP

ALL IN ONE MODEL (SMD)

Technical Parameters

Wattage	80 W
Input Voltage	DC 12V
LED Chip	Phillips Lumileds
Lamp Efficiency	170 lm/W
CRI	>80
Life Span	>50, 000 hours
Power Factor	>0.95
Color Temperature	5700k-6200K
IP Rate	IP65
Working Temperature	-15C~ 60C
Working Humidity	10%～90%RH
Lamp Fixture	High-Pressure Die-Casting Aluminum. Corrosion Resis**tant**

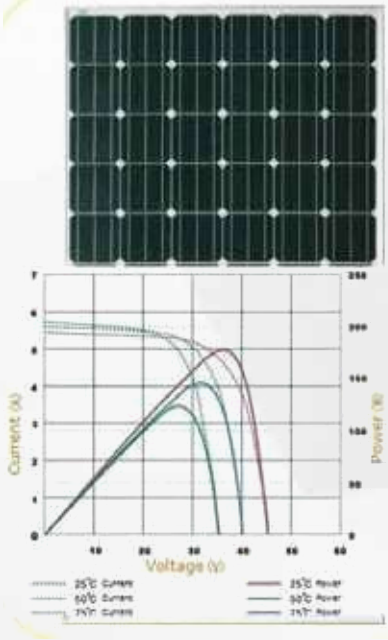
2) Controller

Technical Parameters

Control system	MPPT: MTTP technology is the use of maximum power point tracking technology, can quickly scan the IV curve of the panel, timely access to the maximum power point, tracking efficiency of 99.5%, significantly improve the efficiency of photovoltaic charging, compared to the traditional PWM controller charging efficiency can be increased more than 30%.
Self-consumption	≤0.3w
Max. Charging Current	**10A**
Rayed Load Current	10A
System Voltage	12V
Ambient Temp. Range	95%
IP Rate	-35 °C ~75°C
life Span	**IP67**
Protection Functions	>5 years Short-circuit Protection, Reverse Discharging Protection, Polarity Protection, Lightning Protection, Low Voltage load cut-off protection ,Over-charge Protection
Certifications	CE, RoHS

3. Solar Panel

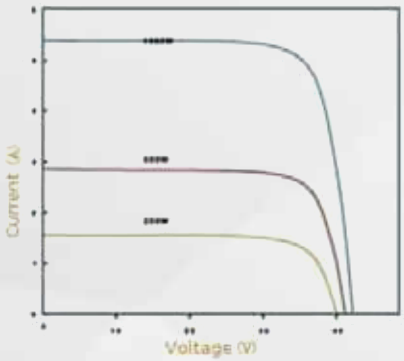
Technical Parameters

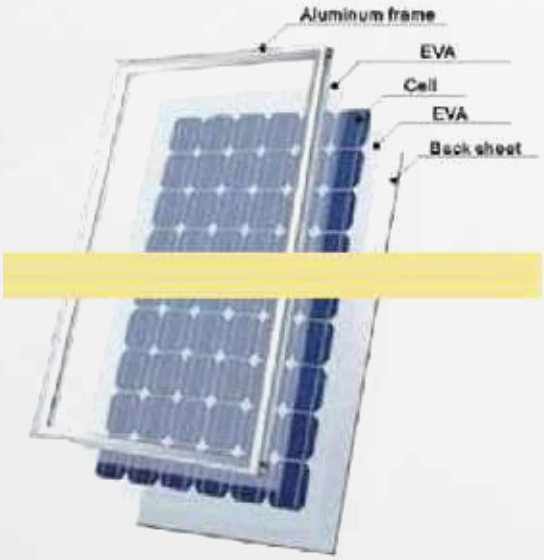


Silicon Type	Mono crystalline
Pmax	**80W**
Tolerance	±3W
Vmp	18.00V
Imp	3.88A
Voc	21.60V
Isc	3.99A
Conversion Efficiency	17.5% ~ 18.5%
Operating Temperature	-40C~85C
Surface Maximum Load	5400Pa
Allowable Hail Load	Ø25mm_23m•s⁻¹
Life Time	More than 25 years
Warranty	Power is more than 90% in 10 years and 80% in 25 years
Certifications	CE, RoHS, IEC61215, SGS

Packaging Data

Dimension 1080*424*43mm





Product Details

4.Lithium Battery

Battery Capacity (C10 hr)	36AH
Rated Working Voltage	11.1 V
Working Temperature	-15C~ 60C
Efficiency	95%

Installation Assistance

Detailed installation manual and installation video will be available after finalizing the order. Besides, we can provide onsite installation training and technical assistance with USER' MANUEL!

Maintenance

Our solar street lights are essentially maintenance free. However, in certain regions with heavy dust, snow or extreme dry weather with little rain, some lever of maintenance is required. ● Every Week: Inspect street lights to ensure all lights are working If there are unlit lights, analyze the cause and conduct repairs. ● Every 2~6 Months: Inspect and clean solar panels which are covered with dust or sand. The best tool - to clean is a brush with a long pole. Cares should be done to avoid damage ● Every 5-10 Years: Replace the solar street light batteries if the voltage drops below normal levels. The battery has an expected life of 5-10 years.

Problems or Trouble Shooting & Solution

Fault Phenomena	Problem Cause	Solution
LED Light Doesn't Light up during night	Surrounding light is brighte Light source is damaged The output circuit is open, short, or grounded	The light source will start automatically after the brightness of surrounding is certain dark Replace it with the same light source Check the output circuit connection

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