



Solar Power Kits

- 30 Years' Experience in Security Industry
- Various Solutions for Your Different Scenarios

Product Introduction

This product is a professional solar intelligent power supply system, consisting of three main parts: solar panels, lithium batteries, and installation brackets. It provides a stable and reliable power supply for devices that do not require connection to the electrical grid. It is widely used in urban construction, road monitoring, rural revitalization, environmental management, smart agriculture, water conservancy monitoring, forest fire prevention, and other scenarios.



50Ah@DC12.8V 120W

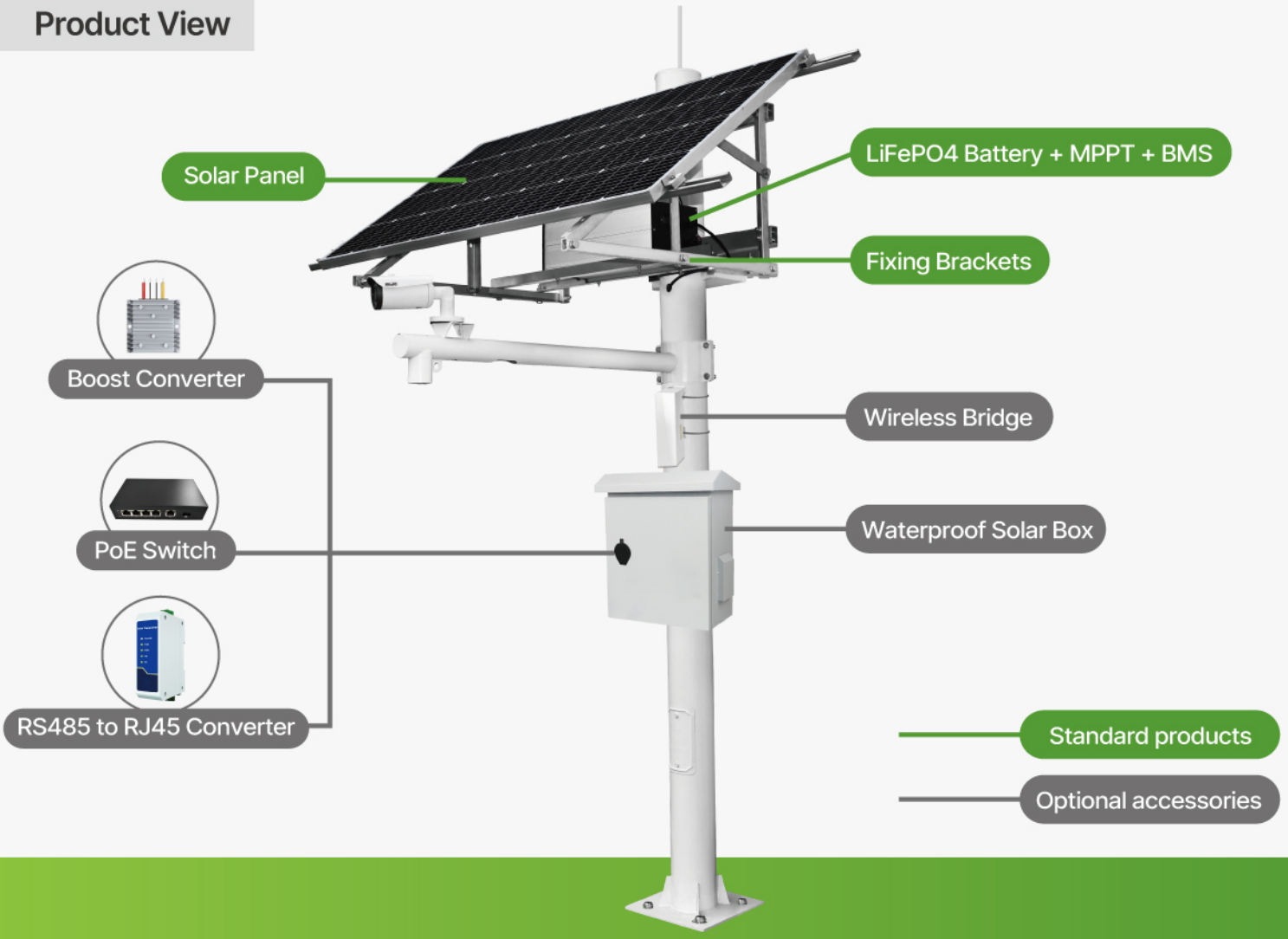


100Ah@DC12.8V 200W



200Ah@DC12.8V 200W*2

Product View



Self-developed Battery Status Monitoring Software



Remote battery status monitoring:
Data transmitted to control center
via RS485

Third-party integration:
Supports battery data integration
with the 3rd party platforms

Product Introduction

- High-efficiency monocrystalline silicon solar panels achieve more efficient photovoltaic conversion.
- High-performance lithium iron phosphate battery cells support over 4000 deep cycles, with a lifespan of over 5 years, and can operate normally in environments ranging from -20°C to 55°C .
- Built-in high-performance MPPT controller improves efficiency by over 25% under the same illumination conditions.
- Comes with heating function, supports heating activation during charging below 0°C , ensuring battery protection in low-temperature charging environments.
- Equipped with dedicated client software to monitor product data information.
- Built-in display screen for clear monitoring of charging power, temperature, battery capacity, etc. It also supports RS485 communication for software-based information retrieval.
- Bracket made of galvanized steel for stable structure and strong wind resistance.



Barn & Farm



Forest



Water Resources



Parking



Project



Traffic



Highway



Transmission



Technical Specification

Technical parameters	SPK-L0512-M1HT	SPK-L1020-M2HT	SPK-L2040-M3HT
Solar Panels			
Silicon	182 mono	182 mono	182 mono
Power	120W	200W	200W*2
Open circuit voltage	24.4V	27.2V	27.2V
Working voltage	20.88V	23.2V	23.2V
Maximum working current	5.75A	8.63A	8.63A
Conversion rate	23%		
Glass parameter	3.2MM		
Working temperature	-40°C ~ 85°C		
Wind load	2400Pa		
Snow load	5400Pa		
Battery			
Battery type	LiFePO4		
Standard capacity	50Ah (0.5C@ RT)	100Ah (0.5C@ RT)	200Ah (0.5C@ RT)
Rated voltage of the battery cell	3.2V		
Series and parallel configuration	4S1P		
Rated voltage	12.8V		
Internal resistance	≤50mΩ		
Charging mode	Constant current/constant voltage		
Charge cutoff voltage	14.8V		
Discharge cutoff voltage	10.2V		
Maximum charging current	8A	20A	30A
Maximum discharge current	8A	10A	10A
Weight	7.8KG	10.9KG	21.3KG
Dimension (L×W×H)	480×180×135mm	500×180×135mm	810×180×135mm
Stored temperature	-20 ~ 55°C		
Working temperature	Charge: 0°C ~ 55°C; Discharge: -20°C ~ 55°C		
Cycle life	> 4000 deep loops		
Communication	RS485		
Heater	≤0°C start heating		

Solar Charge Control			
Type	MPPT		
MPPT tracking rate	99%		
Charge			
Charging mode	Constant current/constant voltage		
Maximum charging current	10A	20A	20A
System voltage	12V	12V	12V
Overvoltage	25V	35V	35V
Dis-Charge			
Maximum discharge current	10A	20A	20A
Over-discharge voltage	10.8V	10.8V	10.8V
Overcharge voltage	14.2V	14.2V	14.2V
Low voltage recovery	12.8V	12.8V	12.8V
Self-consumption			
Hibernation mode	≤200uA	≤200uA	≤200uA
Working mode	≤20mA	≤20mA	≤20mA
Protection types	Overcharge, Overdischarge, Overcurrent, Short Circuit, High-Temperature Charge / Discharge, Low-Temperature Charge / Discharge		
Other parameters			
Environmental Reliability Index	-20°C~55°C Humidity lower than 90%		
Wind resistance rating	Category 12 typhoon		
Mounting method	Hoop		
Dimension and weight of the packaging	Battery: 760×238×210mm; 9.66kg Solar Panel: 970×850×110mm; 8.88kg Bracket: OD ø93×1250mm; 12.16kg	Battery: 760×238×210mm; 12.76kg Solar Panel: 1380×850×110mm; 12.37kg Bracket: OD ø93×1450mm; 13.4kg	Battery: 1070×238×210mm; 24.24kg Solar Panel: 1380×850×160mm; 22.66kg Bracket: OD ø93M×2180mm; 20.8kg

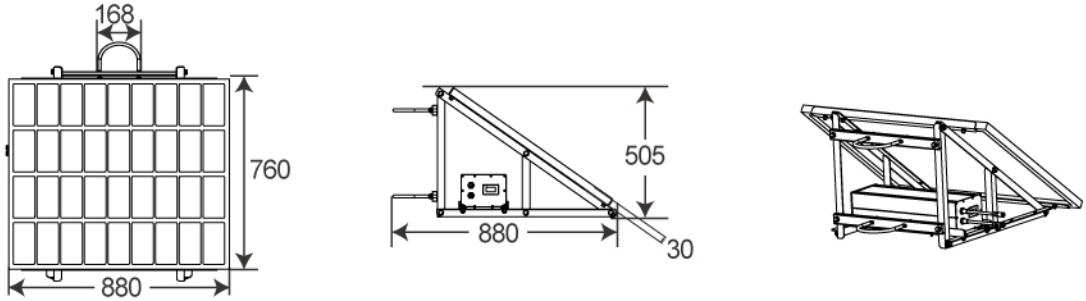
Certifications

RoHS CE FC

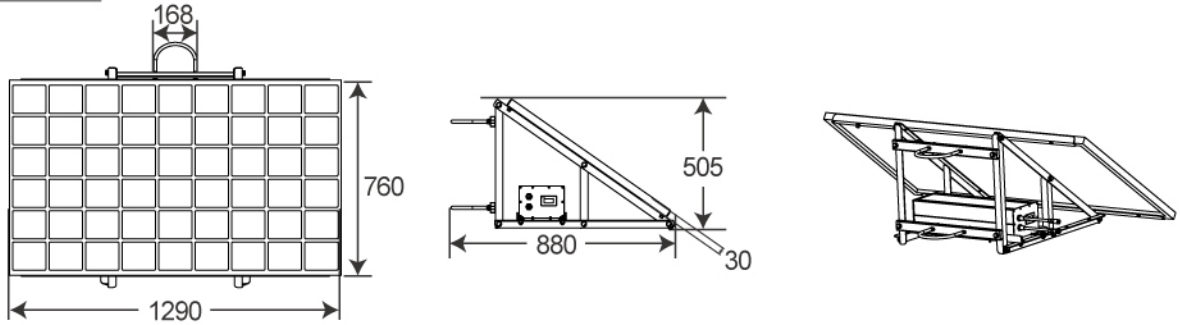


Picture of Dimension (Size: mm)

SPK-L0512-M1HT



SPK-L1020-M2HT



SPK-L2040-M3HT

