CCTV SOLAR POWER SUPPLY SYSTEM

CCTV Solar Power Supply System

Model CS12060 (120W60AH12.8V)

CS12060 I 120W60Ah 768Wh Solar Power System

The CS12060 120W Solar Power System is equipped with a 60Ah (768Wh) $LiFePO_4$ battery, providing reliable and stable off-grid power for small outdoor applications.

Designed with a compact structure for easy installation, it is ideal for powering CCTV cameras, 4G routers, and remote monitoring devices. Built for durability and long-term performance, the system ensures continuous and uninterrupted power supply in areas without grid access.

Perfect for residential, garden, and small-scale surveillance or monitoring applications.

Features

- Solar-Powered & Plug-and-Play – No external power required; install anywhere with stable, reliable output.
- Durable & Safe Design – Anti-microcrack, low internal loss, high safety, and low-temperature performance.
- Flexible & Easy Installation – U-shaped clamps; compatible with various poles; no drilling required.
- Remote Monitoring Support – RS485 communication for easy system management.
- Smart Energy Management – Automatically optimizes power generation and storage for maximum efficiency.
- IP65 Battery Protection – Fully weatherproof for outdoor installation.
- High-Quality Materials – Corrosion-resistant frame, stainless steel screws, and waterproof connection cables.
- Anti-Vibration Structure – Reduces impact on optical instruments and video image quality in pole/tower setups.

Specification

MAXSOL South Africa

CS12060 (60Ah12.8V 768Wh)

Solar System

Batteries	Class A LiFePO4 batteries 60Ah12.8V 768Wh
Solar Controller	MPPT 12V Controller
Solar Panel	1pcs* 120W Mono Solar Panel
DC Output	3pcs* DC12V Output

Solar Panel Spec

STC peak power	120W (single piece)
Module packaging	Tempered glass/EVA/cell/EVA backplane
Solar silicon crystal	Mono-crystalline silicon
Crystalline silicon characteristics	High efficiency of strong light conversion
Cell size and quantity	210*70/36
Maximum output power	120W
Maximum operating voltage	20.52V
Maximum operating current	6.18A
Open circuit voltage	24.9V
Short circuit current	6.5A
Tolerance	3%
Maximum system open circuit voltage	1000V
Solar Panel Dimensions	910mm*670mm*30mm
Operating temperature range	-40~85℃
Relative humidity	<90%
Frame thickness	0.88MM
Frame	Anodized aluminum alloy

Battery Spec

Solution	MPPT (input maximum power tracking algorithm), constant voltage output
Battery capacity	12.8V/60AH (768WH)
Charging indication	LED status indicator
Input interface	Photovoltaic aviation plug
Output interface	DC5.5mm diameter standard male plug, 3-way output
Output voltage	12V±50mV
Output current	≤3A±50mA (total of three outputs)
Discharge utilization	≤90%

Operating temperature	Charging: 0~60℃; Discharging: -10~55℃ (accuracy: ±1℃)
Over-current protection	>4A (over-current protection for more than 3 seconds, green light flashes)
Overcharge and over-discharge protection	Over-discharge protection: <10V; Over-charge protection: >14.6V (accuracy: ±0.1V)
Output short circuit protection	Green light flashes, green light stays on after short circuit is removed
RS-485 communication	Output power, voltage, current and other information according to customer needs
Storage temperature	-20~35℃
Battery case Dimensions	IP65; 650mm*98mm*82mm
Product capacity	20%-30%
Battery material	Lithium iron phosphate/LifePO4 battery

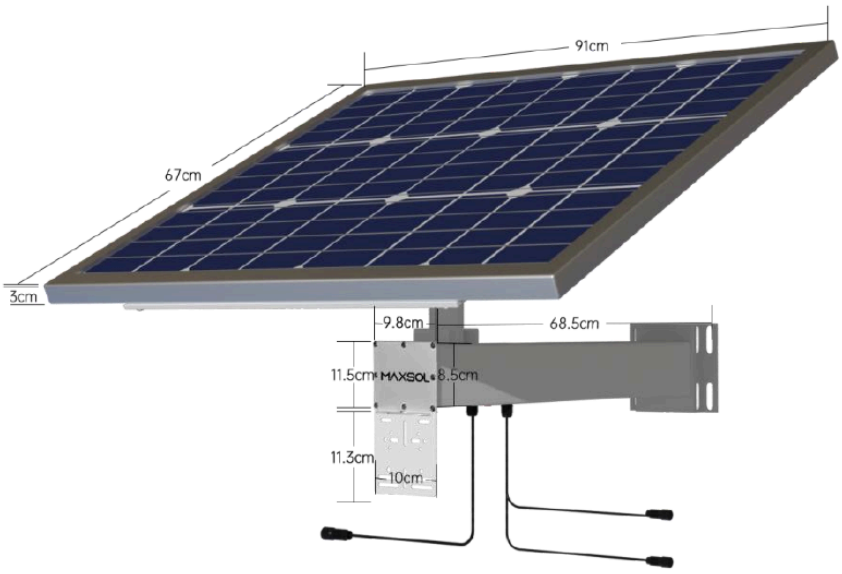
Battery Life

Shelf Life (Power Off State)	Up to 2 years (No output after shutdown; self-discharge rate approx. 3%–5% per month under normal conditions)
Standby Time (No Load, Powered On)	Approx. 25 days (At normal temperature conditions)
Operating Time (With Load)	Actual operating time depends on the connected load, battery capacity and operating conditions. For reference, the system runtime can be estimated by dividing the usable battery capacity (Wh) by the total load power (W), assuming no solar charging.
Recharge Time (0–100%)	Approx. 2–3 days under standard sunlight conditions (4–5 peak sun hours per day, normal temperature). Actual charging time may vary depending on sunlight intensity, system efficiency and power consumption.

All-in-One Package

Size	920*730*225MM
Weight (Include bracket and accessories)	19.95KG
Content	1* Solar Panel I 1* Battery case(Inside with battery) with DC output connectors I 1* Bracket for Solar panel &Battery case I 1* U Shape mount for Pole installation I 1* Screws pack I 1* QIG
Certificate	CE, MSDS, UN38.3, DGM, Sea Transportation Certificate

Dimension



Widely Used Applications

The Solar Power Supply system is widely used in various outdoor surveillance and communication applications, including:

- CCTV surveillance systems
- Solar-powered security and monitoring systems
- 4G/5G wireless routers and communication devices
- Remote and off-grid monitoring stations
- Road and traffic surveillance projects
- Construction site security systems
- Farms, plantations, and agricultural monitoring
- Industrial and perimeter security applications
- Smart city and infrastructure projects

Contact us

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