CCTV SOLAR POWER SUPPLY SYSTEM

# CCTV Solar Power Supply System

**Model** CS200100



CS200100 I 200W100Ah 1280Wh Solar Power System

The CS200100 200W Solar Power System is equipped with a 100Ah (1280Wh) LiFePO4 battery and an integrated IP65-rated outdoor enclosure, providing reliable and stable off-grid power for outdoor surveillance and remote monitoring applications.

The weatherproof distribution box houses the MPPT solar charge controller and LiFePO4 battery system, ensuring safe operation and efficient solar charging.

## Features

- CCTV Solar Power Supply 200W/100Ah 1280Wh Solution
- Battery: 100Ah 12.8V LiFePO4 battery, 1280Wh
- DC output: 4 × DC11–14V 15A (max); 4 × DC12V 5A (max)
- Solar panel: 200W monocrystalline silicon solar power
- 20A MPPT solar controller
- IP65 outdoor cabinet, 500.0 X 450.0 X 271.0mm

# Specification

CS200100 (100Ah12.8V 1280Wh)

## Model

| | |
|---|---|
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## Solar System

| | |
|---|---|
| Batteries | Class A LiFePO4 batteries 100Ah12.8V 1280Wh |
| Solar Controller | 20A MPPT 12V Controller |
| Solar Panel | 1pcs* 200W Mono Solar Panel |
| DC Output | 4pcs* DC11~14V 15A (Max); 4pcs* DC12V5A (Max) |

## Solar Panel Spec

| | |
|---|---|
| STC peak power | 200W (single piece) |
| Material | High-efficiency mono-crystalline silicon cell, high-strength aluminum alloy frame |
| Panel materials | Super white toughened glass |
| Life | 25years |
| Maximum power (Pm) | 200W |
| Photoelectric Conversion Efficiency (%) | ≥20.4% |
| Voltage at Pmax(Vmp) | 18V |
| Current at Pmax(Imp) | 10.96A |
| Open circuit voltage - VOC (V) | 22.0V |
| Short circuit current - ISC (A) | 11.62A |
| Module dimensions (L×W×H) | 1480*670*30mm |
| Module weight (KG) | 11 Kg |
| Frame material and dimensions (mm) | Anodized aluminum alloy 1.2mm |
| Module packaging | Tempered glass/EVA/cell/EVA backsheet |

## Solar Controller Spec

| | |
|---|---|
| Max Charging Current | 20A |
| System Voltage | 12V/24V automatically detect |
| Low Voltage Disconnect (LVD) | 10.8~11.8V/21.6~23.6V, SOC1~5(default: 11.2/22.4V) |
| Low Voltage Reconnect (LVR) | 11.4~12.8V/22.8~25.6V (default: 12.0/24.0V) |
| Overcharge Protect | 15.8/31.3V |
| Max volt on PV terminal | 55V@-20℃;50V@25℃ |
| Max PV input power | 260/520W |
| Day/Night threshold | 3.0~20.0V (default: 8.0/16.0V) |

| | |
|---|---|
| Day/Night delay time | 0~30min (default: 0min) |
| MPPT tracking range | (Battery Voltage + 2.0V) ~Voc*0.9 *2 |
| Output Current | 20A |
| Max tracking efficiency | >99.9% |
| Max charge conversion | 98.0% |
| Dimensions(mm) | 182*187.5*58 |
| Weight | 1kg |
| Self consumption | ≤8mA(12V) |

## Battery Spec

| | |
|---|---|
| Battery Capacity | 12.8V/100AH (1280WH) LiFePO4 battery |
| Rated Capacity | 100Ah |
| Rated Voltage | 12.8V |
| Maximum Charging Voltage | 14.6 ± 0.2V |
| Discharge Cut-off Voltage | 10 ± 0.2V |
| Standard Charging Current | 10A |
| Standard Discharging Current | 10A |
| Maximum Continuous Charging Current | 20A |
| Maximum Continuous Discharging Current | 20A |
| Maximum Peak Discharging Current | 60A |
| Cycle Life | >2000 cycles |
| Weight | ≤ 9.125kg |
| Operating Temperature | Charging: 0℃ ~ 55℃; Discharging: -10℃ ~ 60℃ |

## Battery Protective Board

| | |
|---|---|
| Output Voltage | 8.4V-14.6V |
| Operating Current | ≤20A |
| Operating Temperature | Operating Range: -20℃-65℃;<br>Over-temperature Recovery Temp: 48℃ |
| Operating State Self-Consumption | ≤50 μA |
| Overcharge Protection Voltage | 3.65V±0.05V |
| Overcharge Recovery Voltage | 3.55V±0.10V |
| Overvoltage Protection Delay | 0.5-1.5s |
| Overcharge Protection Current | 25-35A |
| Overcurrent Protection Delay | 0.5-1.5s |
| Over-discharge Protection Voltage | 2.1V±0.100V |
| Over-discharge Recovery Voltage | 2.4V±0.100V |

| | |
|---|---|
| Over-discharge Protection Delay | 0.5–1.5s |
| Over-discharge Protection Current | 45–60A |
| Short Circuit Protection Delay | 100~600μs |
| Short Circuit Current | 200A±50A |
| Short Circuit Recovery Condition | Disconnect the load |

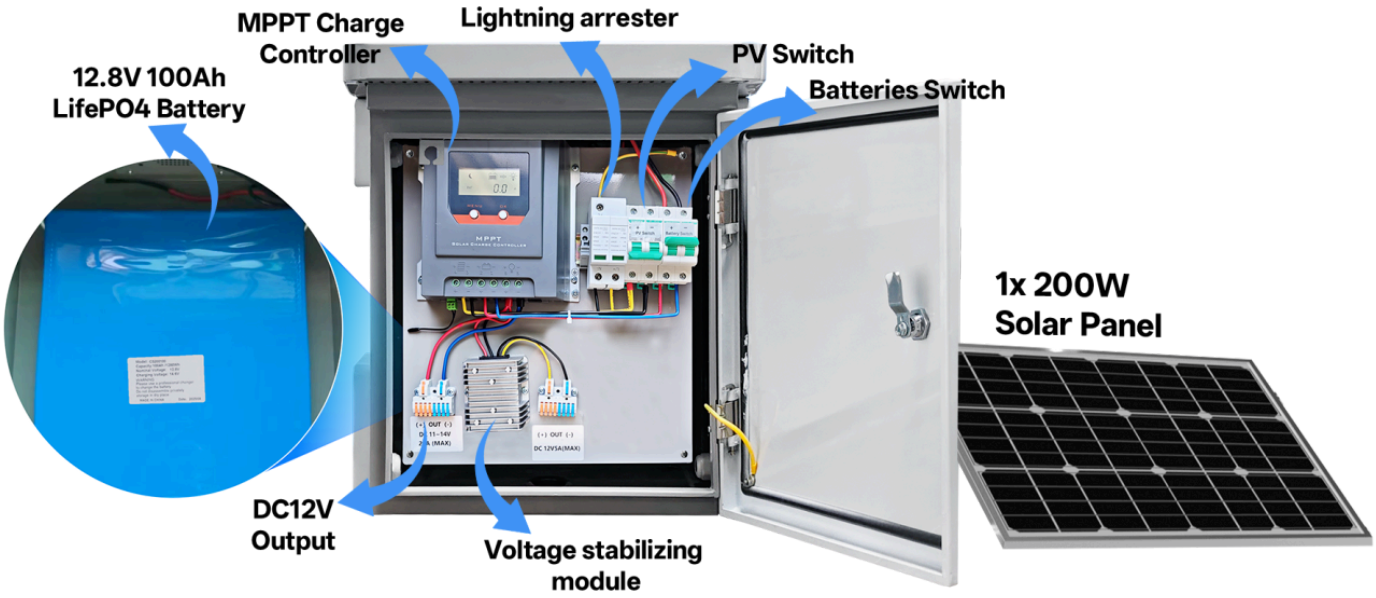
## Outdoor Cabinet Spec (IE543)

| | |
|---|---|
| Dimensions (length x width x height) | 500.0 X 450.0 X 271.0mm |
| Weight (kg) | 11.5 |
| Material | Hot-dip galvanized steel sheet |
| Thickness | 1.2mm |
| IP Level | IP65 |
| Color | White+Gray |
| Surface Treatment | Electrostatic Spraying |
| Door | 1 |
| FAN | (Optional) |
| Waterproof Connector | 4PCS |
| IP Camera/AP/CPE Mounting Plate | 4PCS |
| Key | 1PCS |
| Grounding Connector | 1PCS |

## All-in-One Package

| | |
|---|---|
| Size and Weight | Battery Cabinet Weight (IE543): 25.00KG<br>Solar Panel Size: 1520*710*65MM; 11.00KG<br>Solar Bracket(SPB300): 600*500*300MM; 13.00KG |
| Weight (Include bracket and accessories) | 49KG |
| Content | 1* Solar Panel<br>1* Cabinet(Inside with battery) with DC output connectors<br>1* Solar Panel Bracket<br>3 * Pole mount kit<br>1* Screws pack<br>1* QIG |
| Certificate | CE, MSDS, UN38.3, DGM, Sea Transportation Certificate |

# Dimension




## Original figure label

- 12.8V100Ah LifePO4 Battery
- MPPT Charge Controller
- Lightning arrester
- PV Switch
- Batteries Switch
- 1x 200W Solar Panel
- DC12V Output
- Voltage stabilizing module

CS200100

# 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



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