CCTV SOLAR POWER SUPPLY SYSTEM

CCTV Solar Power Supply System

Model CS400150

CS400150 I 400W150Ah 1920Wh Solar Power System

The CS400150 400W Solar Power System is equipped with a 150Ah (1920Wh) 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 400W/150Ah 1920Wh Solution
- Battery: 150Ah 12.8V LiFePO4 battery, 1920Wh
- DC output: 4 × DC11–14V 15A (max); 4 × DC12V 5A (max)
- Solar panel: 400W monocrystalline silicon solar power
- 30A MPPT solar controller
- IP65 outdoor cabinet, 500 × 400 × 200 mm

Specification

CS400150 (150Ah12.8V 1920Wh)

Model

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Solar System

Batteries	Class A LiFePO4 batteries 150Ah12.8V 1920Wh
Solar Controller	30A MPPT 12V Controller
Solar Panel	2pcs* 200W Mono Solar Panel
DC Output	4pcs* DC11~14V 15A (Max); 4pcs* DC12V5A (Max)

Solar Panel Spec

STC peak power	200W *2PCS
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 of Solar Panel (V)	22.0V
Short circuit current - ISC (A)	11.62A
Module dimensions (L×W×H)	1480*670*30mm
Module weight (KG)	11 Kg*2PCS
Frame material and dimensions (mm)	Anodized aluminum alloy 1.2mm
Module packaging	Tempered glass/EVA/cell/EVA backsheet

Solar Controller Spec

Max Charging Current	30A
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	390/780W

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	30A
Max tracking efficiency	>99.9%
Max charge conversion	98.0%
Dimensions(mm)	182*187.5*64
Weight	1.3kg
Self consumption	≤8mA(12V)

Battery Spec

Battery Capacity	12.8V/150AH (1920WH) LiFePO4 battery
Rated Capacity	150Ah
Rated Voltage	12.8V
Maximum Charging Voltage	14.6 ± 0.2V
Discharge Cut-off Voltage	10 ± 0.2V
Standard Charging Current	15A
Standard Discharging Current	15A
Maximum Continuous Charging Current	30A
Maximum Continuous Discharging Current	30A
Maximum Peak Discharging Current	90A
Cycle Life	>2000 cycles
Weight	≤ 12kg
Operating Temperature	Charging: 0℃ ~ 55℃; Discharging: -10℃ ~ 60℃

Battery Protective Board

Output Voltage	8.4V–14.6V
Operating Current	≤30A
Operating Temperature	Operating Range: -20℃–65℃; 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	75–90A
Short Circuit Protection Delay	100~600μs
Short Circuit Current	300A±50A
Short Circuit Recovery Condition	Disconnect the load

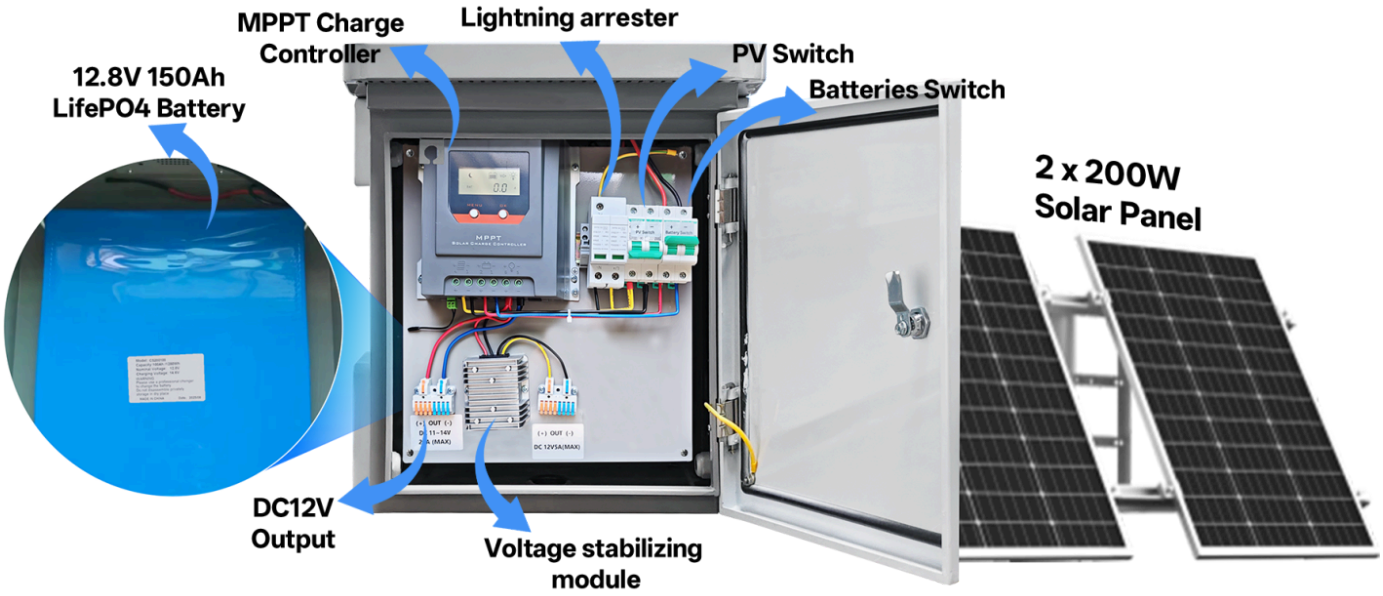
Outdoor Cabinet Spec (IB542)

Dimensions (length x width x height)	500*400*200mm
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 Size: 460*250*535MM; 29.5KG 200W Solar Panel Size: 1520*710*65MM; 11.00KG Solar Bracket(SPB300): 600*500*300MM; 13.00KG
Weight (Include bracket and accessories)	78KG
Content	2* Solar Panel 1* Cabinet(Inside with battery) with DC output connectors 2* Solar Panel Bracket 3 * Pole mount kit 1* Screws pack 1* QIG
Certificate	CE, MSDS, UN38.3, DGM, Sea Transportation Certificate

Dimension



Original figure label

- 12.8V150Ah LifePO4 Battery
- MPPT Charge Controller
- Lightning arrester
- PV Switch
- Batteries Switch
- 2 x 200W Solar Panel
- DC12V Output
- Voltage stabilizing module

CS400150

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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