

DH-PFM363L-D1

Integrated Solar Power System



- Integrated die casting casing
- Aluminum alloy frame
- Monocrystalline solar panel
- Lithium battery pack
- Remote monitoring with App
- Maximum Power Point Tracking (MPPT) charging controller
- RS-485 communication function
- Electronic protection



System Overview

The integrated solar power system consists of solar panels, lithium battery, maximum power point tracking (MPPT) charging controller, and mounting brackets. It provides stable power supply for devices such as IP cameras with high conversion charging controller. Compared with conventional solar power systems, it is compact, portable, and easy to install, disassemble and maintain.

Functions

Integrated die casting casing

Compact structure integrated with solar panel, lithium battery pack and charging controller to improve the appearance, installation, and maintenance of the system.

Monocrystalline solar panel

Adopt monocrystalline solar panel to greatly improve light absorbance efficiency and power generation performance with dusky light.

Lithium battery

Iron phosphate lithium battery has smaller size and longer cycle life compared with conventional lithium battery.

Remote monitoring with App

With Dahua cameras, you can real-time remotely monitor the system operation status and receive alarm prompts for low battery.

Maximum Power Point Tracking charging controller (MPPT)

MPPT controller helps significantly improve the energy utilization efficiency of the system, and raise the charging efficiency by 10%–30% compared with conventional PWM controller.

RS-485 port

RS-485 port and standard Modbus protocol can satisfy communication requirements in various scenarios.

Electronic protection

Comprehensive electronic protection: Current limiting, short circuit, and reverse current protection of solar panel; reverse connection, overvoltage, over-discharge, and over-temperature protection of lithium battery; overload and short circuit protection of load.

Technical Specification

System

Output Voltage	12.8V DC (11.1V DC to 14.6V DC)
Output Current	1.5A
Standard Backup Time (20°C)	Backup time(h)=576Wh/total load power consumption (W) For example, the total load power consumption is 6W, then backup time: 576Wh/6W=96h
Idling Power Consumption	<0.5W

Solar Panel

Type	Monocrystalline silicon
Maximum Power	120W
Solar Cell Efficiency	21%
Maximum Mechanical Load	5400Pa

Battery

Type	Lithium iron phosphate battery
Rated Capacity (20°C, 5hr)	576Wh (12.8V/45Ah)
Low Temperature Discharge (-20°C, 5hr)	≥80% of rated capacity
High Temperature Discharge (60°C, 5hr)	≥90% of rated capacity
Maximum Charging Voltage	14.6V DC
Maximum Charging Current	10A

Protection

Over-discharge Protection Voltage	11.1V DC
Low Temperature Charge	≤-10°C (14°F)
Low Temperature Discharge	≤-20°C (-4°F)
Others	Over-temperature and overvoltage protection of battery; overload and short circuit protection of load.

Port

Power Output	Φ5.5mm×Φ2.1mm×12mm (Φ0.22"×Φ0.08"×0.47")
RS-485	1
RS-485 to Ethernet	N/A
Network	N/A

General

Casing Material	Aluminum
IP Rating	IP66
Installation	Pole-mount, suitable for Φ76~96mm (Φ3.0"~Φ3.78") pole
Adjustable Angle Range	Pan: 0°~360° Tilt: -75°~80°
Operating Altitude	<3000m
Applicable Area	Daily solar radiation≥3.5h

Operating Temperature	Day (charging mode): 0°C~60°C (32°F~140°F) Night (discharging mode): -20°C~60°C (-4°F~140°F)
Operating Humidity	Less than 95% RH
Storage Temperature	0°C~+40°C (32°F~104°F)
Storage Humidity	Less than 95% RH
Dimensions	1149.5mm×670mm×455.2mm (45.26"×26.38"×17.92")
Net Weight	32.5kg (71.65lb)
Gross Weight	44kg (97lb)

Certification

Certification	CE: EN61000-6-2, EN61000-6-4 FCC: FCC Part 15 Subpart B
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Ordering Information

Type	Part Number	Description
Power Series	DH-PFM363L-D1	Integrated Solar Power System

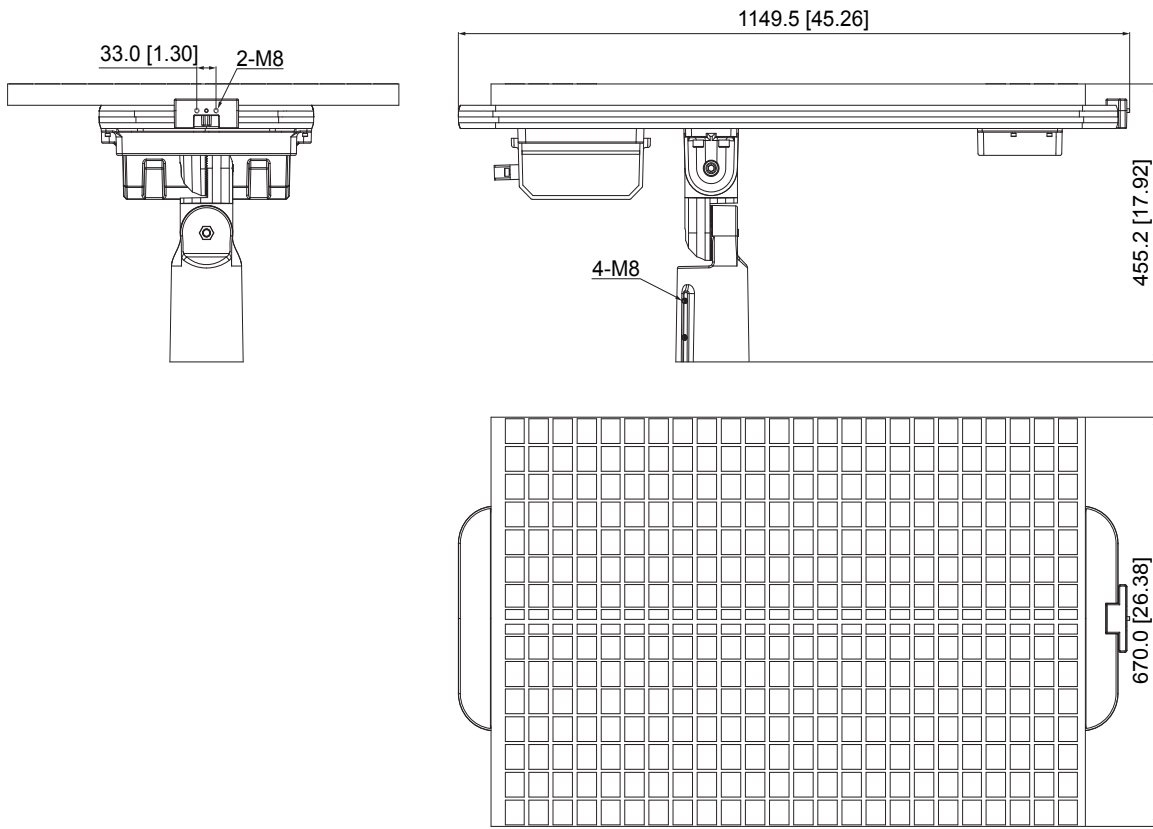
Accessories

Included



Camera Mountin Plate

Dimensions (mm/inch)



Application

