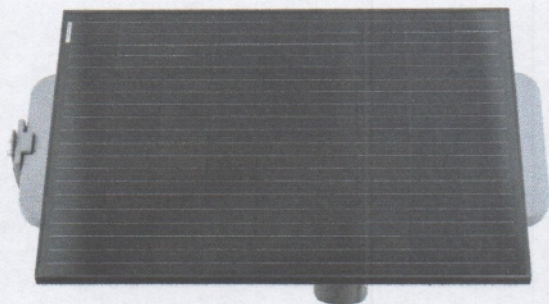


DH-PFM363L-SD1

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
- Non-standard PoE for wireless device through combiner



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.

12.8V DC, non-standard PoE power supply

The wiring is easier with the combination of power supply by 12.8V DC and non-standard PoE.

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.

Power Series | DH-PFM363L-SD1

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	<2.5W
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	N/A
RS-485 to Ethernet	1* RJ-45 (connect to LAN port of the wireless device)
Network	2* RJ-45 (the non-PoE is for the wireless device and the other connects to the camera)
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≥4.5h

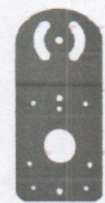
Operating Temperature	Day (charging mode): 0°C~60°C (32°F~140°F) Night (discharging mode): -20°C~60°C (-4°F~140°F)
Operating Humidity	Less than 95% RH
Storage Temperature	0°C~+40°C (32°F~104°F)
Storage Humidity	Less than 95% RH
Dimensions	1149.5mm×670mm×455.2mm (45.26"×26.38"×17.92")
Net Weight	33kg (72.75lb)
Gross Weight	44.2kg (97.44lb)

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

Ordering Information		
Type	Part Number	Description
Power Series	DH-PFM363L-SD1	Integrated Solar Power System

Accessories

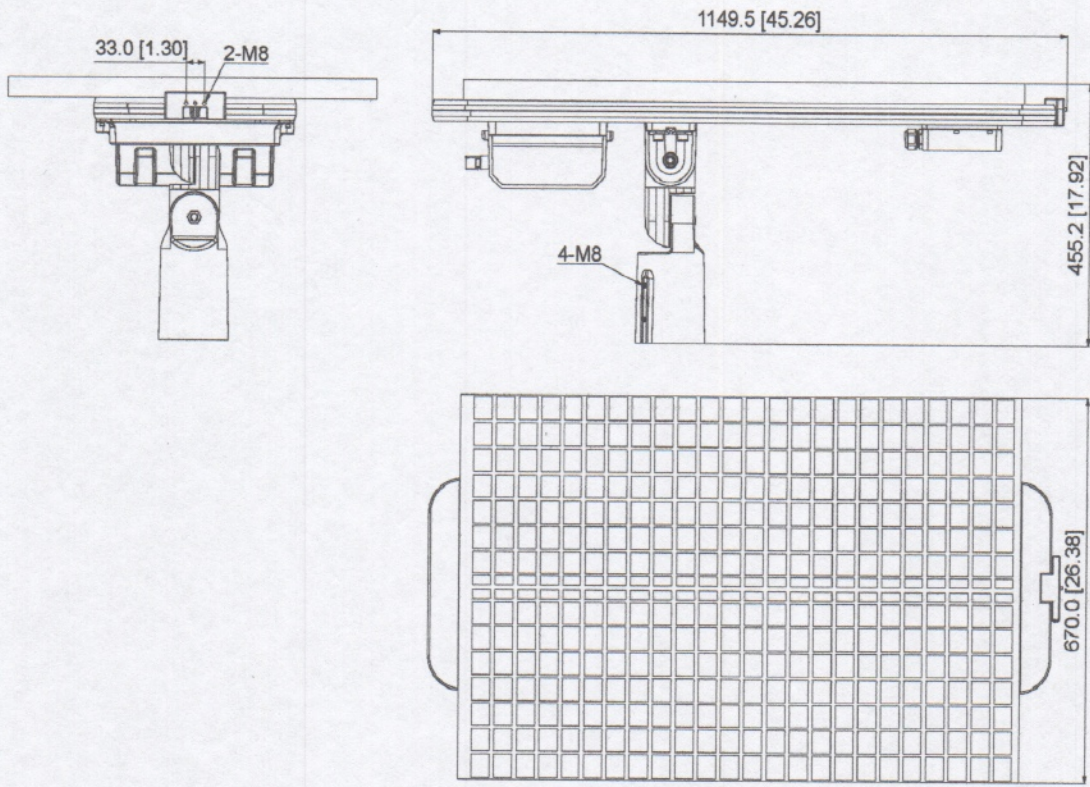
Included



Camera Mountin Plate

Power Series | DH-PFM363L-SD1

Dimensions (mm/inch)

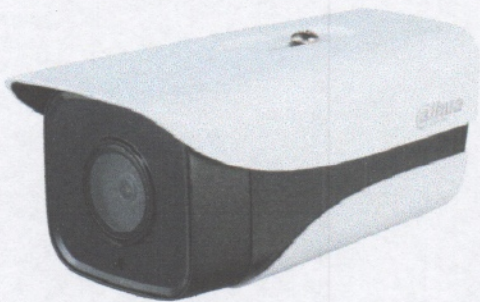


Application



DH-IPC-HFW4230M-4G-AS-I2

2MP 4G IR Bullet Network Camera



- 1/2.9" 2Megapixel progressive CMOS
- H.265&H.264 dual-stream encoding
- 25/30fps@2M(1920×1080)
- Day/Night(ICR), 3DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) &DMSS
- Micro SD card slot, up to 256GB
- 3.6mm,6mm fixed lens
- Max. IR LEDs Length 40m
- 4G supported
- IP67



System Overview

The 4G supported IR bullet camera delivers 2MP resolution with a 3.6mm or 6mm fixed lens. The camera can be connected to mobile internet as long as you have a SIM card, provides an excellent choice for a variety of small to mid-size applications such as off-grid system, farms, forest, border, etc.

Functions

4G

The camera can be connected to Mobile Internet as long as you have a SIM card, then you can place it anywhere and no need to worry about the wiring hassles.

Intelligent Video analysis (IVS)

Dahua camera is equipped with a built-in intelligent analytic algorithm based on video, which can realize intelligent functions like Tripwire and Intrusion, to quickly and accurately respond to monitoring events in specific area, It can enhance monitoring efficiency. In addition, the camera supports intelligent tamper detection, which is to generate warning message via detecting dramatic scene change and to guarantee effective video surveillance.

Smart IR Technology

With IR illumination, detailed images can be captured in low light or total darkness. The camera's Smart IR technology adjusts the intensity of camera's infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera's integrated infrared illumination provides high performance in extreme low-light environments up to 40m (131.2ft).

Protection (IP67, wide voltage)

The camera allows for $\pm 25\%$ input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 2KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67), the camera is the choice for installation in even the most unforgiving environments.

Environmental

Dahua cameras operate in extreme temperature environments, rated for use in temperatures from -30°C to $+60^{\circ}\text{C}$ (-22°F to $+140^{\circ}\text{F}$) with 95% humidity.

Smart Codec (H.265+ & H.264+)

Smart Codec is the optimized implementation of standard video compression (H.265 & H.264) that uses a scene-adaptive encoding strategy, dynamic GOP, dynamic ROI, flexible multi-frame reference structure and intelligent noise reduction to deliver high-quality video without straining the network. Smart Codec technology reduces bit rate and storage requirements by up to 70% when compared to the standard video compression.

Technical Specification				
Model	DH-IPC-HFW4230M-4G-AS-I2			
Camera				
Image Sensor	1/2.9" 2Megapixel progressive scan CMOS			
Effective Pixels)	1920(H) x 1080(V)			
RAM/ROM	256MB/32MB			
Scanning System	Progressive			
Minimum Illumination	0.04Lux/F2.0(Color,1/3s,30IRE) 0.22Lux/F2.0(Color,1/30s,30IRE) 0Lux/F2.0(IR on)			
S/N Ratio	More than 56dB			
IR Distance	Distance up tp 40m (131.2ft)			
IR On/Off Control	Auto/ Manual			
IR LEDs	2			
Lens				
Lens Type	Fixed			
Mount Type	M12			
Focal Length	3.6mm (6mm optional)			
Max. Aperture	F2.0			
Angle of View	H: 82.5° (51.5°), V: 44° (29.5°)			
Optical Zoom	N/A			
Focus Control	Fixed			
Close Focus Distance	0.9m(2m) 29.5ft(6.56ft)			
	Lens	Detect	Observe	Recognize
DORI Distance	3.6mm	53m(174ft)	21m(69ft)	10m(33ft)
	6mm	80m(262ft)	32m(105ft)	16m(52ft)
Pan/Tilt/Rotation				
Pan/Tilt/Rotation Range	N/A			
Intelligence				
Event Trigger	Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access,Storage anomaly			
IVS	Tripwire, Intrusion			
Video				
Compression	H.265/H.264H/MJPEG(Sub Stream)			
Smart Codec	Support H.265/H.264			
Streaming Capability	2 Streams			
Resolution	Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access,Storage anomaly			
Frame Rate	Main Stream: 1080P@25fps		Sub Stream: D1@25fps	
Bit Rate Control	CBR/VBR			
Bit Rate	H.264: 32~10240Kbps H.265: 12~6400Kbps			
Day/Night	Auto ICR			
BLC Mode	BLC / HLC / DWDR			
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual			
Gain Control	Auto			
Noise Reduction	3D DNR			
Motion Detection	Off / On (4 Zone, Rectangle)			
Region of Interest	Off / On (4 Zone)			
Electronic Image Stabilization (EIS)	N/A			
Smart IR	Support			
Defog	N/A			
Digital Zoom	N/A			
Flip	0°/90°/180°/270°			
Mirror	Off / On			
Privacy Masking	Off / On (4 Area, Rectangle)			
Audio				
Compression	G.711a/ G.711Mu/ AAC/ G.726			
Network				
Ethernet	RJ-45 (10/100Base-T)			
Mobile Communication	4G			
Operating band	Model 1: TDD-LTE:Band38/39/40/41 FDD-LTE:Band1/3/5/8 WCDMA:Band1/8 TD-SCDMA:Band34/39 EVDO/CDMA1X:BC0 GSM:Band3/8 Model 2: FDD-LTE:Band1/2/3/4/5/7/8/20 UMTS:Band1/2/5/8 GSM:850/900/1800/1900			
Protocol	HTTP;HTTPS;TCP;ARP;RTSP;RTP;RTCP;UDP;SMTP; FTP;DHCP;DNS;DDNS;PPPoE;IPV4/V6;QoS;UPnP; NTP;Bonjour;IEEE 802.1X;Multicast;ICMP;IGMP;TLS			
Interoperability	ONVIF Profile S&G, API			
Streaming Method	Unicast / Multicast			
Max. User Access	10 Users /20 Users			
Edge Storage	NAS Local PC for instant recording Mirco SD card 256GB			
Web Viewer	IE, Chrome, Firefox, Safari			
Management Software	Smart PSS, DSS, DMSS			
Smart Phone	IOS, Android			

Certifications

Certifications	CE-LVD: EN60950-1 CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU FCC: 47 CFR FCC Part 15, Subpart B
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Interface

Audio Interface	1/1 channel In/Out
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Alarm	2 channel In: 500mA 5VDC 2 channel Out: 300mA 12VDC
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Electrical

Power Supply	DC12V±30%
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Power Consumption	3.6W, 9.5W(IR on); 6W(4G on, IR off)
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Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
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Storage Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
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Ingress Protection	IP67
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Vandal Resistance	N/A
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Construction

Casing	Metal+Plastic
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Dimensions	194.4mm×96.6mm×89.5mm (7.65"×3.8"×3.52")
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Net Weight	0.7kg (1.54lb)
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Gross Weight	0.8kg (1.76lb)
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Electrical

Power Supply	DC12V±30%
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Power Consumption	3.6W, 9.5W(IR on); 6W(4G on, IR off)
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Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / Less than 95% RH
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Net Weight	0.7kg (1.54lb)
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Gross Weight	0.8kg (1.76lb)
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Ordering Information

Type	Part Number	Description
2MP camera	DH-IPCHFW4320MP-4G-AS-I2-0360B	2MP 4G IR Bullet Network Camera, PAL
	DH-IPCHFW4320MN-4G-AS-I2-0360B	2MP 4G IR Bullet Network Camera, NTSC
	IPC-HFW4320MP-4G-AS-I2-0360B	2MP 4G IR Bullet Network Camera, PAL
	IPC-HFW4320MN-4G-AS-I2-0360B	2MP 4G IR Bullet Network Camera, NTSC
	DH-IPCHFW4320MP-4G-AS-I2-0600B	2MP 4G IR Bullet Network Camera, PAL
	DH-IPCHFW4320MN-4G-AS-I2-0600B	2MP 4G IR Bullet Network Camera, NTSC
Accessories (optional)	PFB121W	Wall mount bracket
	PFB110W	Ceiling mount bracket

Accessories

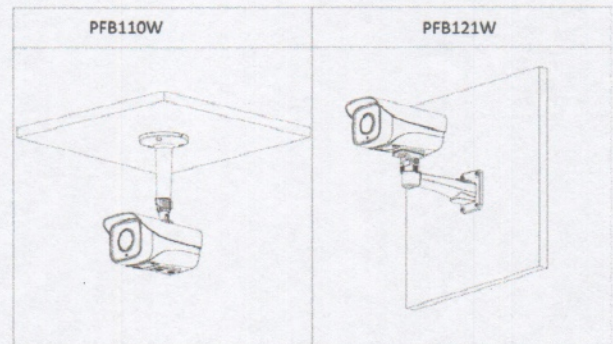
Optional:



PFB110W
Ceiling mount



PFB121W
Wall mount



Dimensions (mm/inch)

