

HS4-A-O PV Smart Optimizer



Product Model

DC Output

Function

Detection Precision

General Parameter

Product specification

Certificate	CE 🔊	
lifetime	25 years	
warranty period	10years	
Model	HS4-A-O	
Power	600W	
PV Smart Optimizer & shutdown		
Basic Information		

HS4-A-O

HS4-A-M PV smart gateway



Basic Information intelligent gateway Communication protocol Zigbee Model HS4-A-M warranty period 3years lifetime 10 years Certificate



EN 62368, EN 300328, EN301489-1, EN301489-17, EN62311, EN55032, EN55035, EN61000-3-2, EN61000-3-3

Product specification

Efficiency	
	Euro-area efficiency
	North American efficiency
	Efficiency in China
DC Input	Maximum input power
	maximum input voltage
	Maximum input current
	MPPT voltage range
	Starting voltage
	Output power

	1104 / 10	I TOQUEL MOUEL	
Maximum efficiency	≥99.5%		
Euro-area efficiency	≥99.0%	communication	
North American efficiency	≥99.1%		
Efficiency in China	≥99.1%	Communicate with	
Maximum input power	600W	the quick break bu	
maximum input voltage	70 V		
Maximum input current	15 A	Communicate w the cloud	
MPPT voltage range	10~70 V		
Starting voltage	15 V		
Output power	0~600W	Extended comm	
Output voltage	0~70 V	interface	
Maximum output current	18 A		
Bypass cut-off function	Yes	Interaction	
Automatic shutdown function	Yes		
Manual shutdown function	Yes		
Dc overvoltage protection	Yes		
Dc overload protection	Yes	General Parameter	
Polarity reverse protection	Yes		
Short-circuit protection	Yes		
Wireless data acquisition	Yes		
Voltage	0.01 V	Cartificata	
Circuit	0.01 A	Certificate	
Size	95mm*129mm*56mm	HS4-A-O and	
Weight	≤1000 g	Web: https://s APP:google pl	
Level of protection	IP68	7 1 .goog.o p.	
System voltage	1100 V		
Data reporting cycle	1 minute		
Wireless distance	≤100m indoor ≤30m outdoor		
Dc input/output terminals	MC4		
Input DC line length	≥0.12m		
Output DC line length	≥1.3m		
Operating temperature	-45°C~85°C		
Storage temperature	-40°C~70°C		
Operating humidity	0%~100%		
Working altitude	2000 m		
Power supply mode	DC power supply		

10s

Product Model		HS4-A-M	
	Communication protocol	Zigbee	
communication	Wireless distance	100m outdoor 30m indoor	
	Maximum number of connected 30		
Communicate with the quick break button	Control mode	Ю	
Communicate with the cloud	Wired Internet access	RJ 45×1 100Mbps	
	Wireless Internet access	Wifi 802.11b/g/n 2.4G	
	Number of antennas	2	
	Sample interval	1 minute	
Extended commun interface	ication _{RS485}	COM×1, 9600bps, ModBus-RTU	
Interaction	Reset button	Self-reset button*1	
	pilot lamp	LED pilot lamp*2	
	APP	Monitoring APP	
General Parameter	Operating temperature	-20℃~55℃	
	Size	181mm*163mm*51mm (L*W*H)	
	Weight	≤200g	
	Way to install	Wall mounting	
	Level of protection	IP65	
	Power supply mode	DC 12V power supply	
Certificate		CE ROSH	

HS4-A-M work together /solar-eu.solarpilot.com/ play or apple store /solarpiot

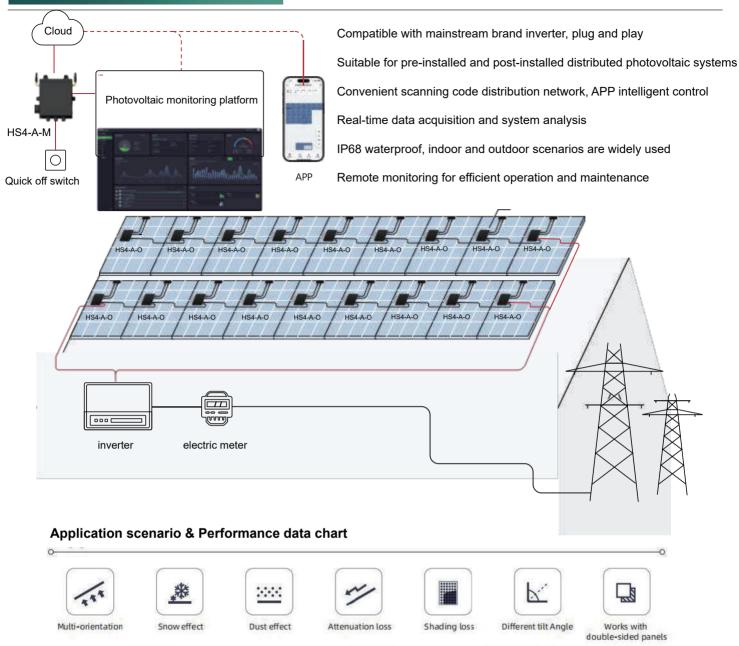
Turn-off time

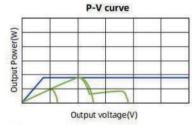
Way to install

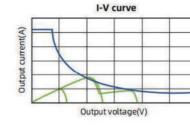
Fixed bracket/fixed PV panel frame

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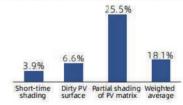
SMART PV











Usage Scenario



Household rooftop photovoltaic power station

Photovoltaic carport power station

Industrial and commercial park building rooftop photovoltaic power station

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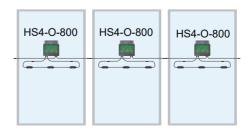
HS4-O-800 PV Optimizer

Features&Benefits:

- 3% ~ 25% optimization, retrieve power generation loss; ٠
- Δ < 10[°]C Anti-Hotspot, more safe and durable; ٠
- Applies to all types of modules, Optimization +Voltage Limiting +Anti-Hotspot; ٠
- Based on power optimization chip, eliminate panel or cell level mismatch; ٠
- Solve the current mismatch issues caused by shading gradients, aging variations, temperature gradients, soiling gradients, etc;
- Optimize power generation, lower LCOE, improve solar system reliability, extend the service life of module;
- CE Certification;

CHARACTERISTIC PARAMETERS		
Product Model	HS4-O-800	
input	Maximum Input Power	800W
	Operating voltage range	14~65V
	MPPT Voltage Range	14~65V
	Maximum input Current	17A
	Over-temperature Protection	160 ℃
	Peak Conversion Efficiency	99.2%
Conversion Efficiency	Power Consumption @26V	0.8W
	Power Consumption @36V	1.3W
	Power Consumption @46V	1.8W
	Dimensions(L*W*H)	107*105*22mm
Specifications	Weight	505g
	Cable	4.0mm ²
	Connector	MC4 or compatible MC4
	Operating Temperature Range	-40°C~+85°C
	Protection Degree	IP68
Design Standard	Designed Life	25 Years
	Quality Commitment	10 Years
Functiom	Standard Features	Optimization Anti-Hotspot

Module Assembly Diagram





HS4-A-F PV Shutdown Specifications

Ratings:

- ♦ Maximum DC Voltage: 10~80V
- ♦ Rated DC Current: 16A
- \diamond Maximum System Voltage: 1500VDC
- \Diamond Protection Degree: IP68
- \diamond Ambient Temperature : -40°C~ +65°C

Approvals/Standards:

- ⇔ce
- ◇NEC 2020 690.12
- ⇔SunSpec

Features&Benefits:

- $\diamond\,$ Low internal resistance MOSFET switch, low temperature rise, no arc pulling and no sputtering;
- ♦ PLC communication technology, no peripheral signal cable;
- $\diamond\,$ MINI type shell design, frame snap-on insertion, easy installation;
- ♦ Reverse polarity protection, compatible with short circuit, reverse irrigation design, high reliability;
- ♦ A low-cost, cost-effective, 25-year life design.
- ♦ HS4-A-F and HCPT2 work together

CHARACTERISTIC PARAMETERS		
Product Model	HS4-A-F	
Mode of communication	PLC	
Maximum input current	20A	
Maximum input voltage	80V	
Maximum power	750W	
Maximum system voltage	1500V (Optional)	
Rated power	600W	
Rated current	16A	
Start-up voltage	12V	
Degree of protection	IP68	
Operating temperature	-40°C ~65℃	
Connector	MC4 or compatible MC4	
Size(L×W×H mm)	106*105*22	
Execution standards	NEC 2017/2020 690.12	



Manually turn off the transmitter power and inverter switch.



Firefighter can work now, no life risk put out fire using water.



Fire put out,house is safe now.



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HCPT2 Control Box

Noted: After receiving the PACK, please check whether the internal wiring and accessories of the control box are well fixed and intact.



The upper end of the breaker/ 100-240V AC power supply

12V/AC-DC switch

Communication interface (for two DCON-S connecting)

DCON-S power supply interface

Heartbeat switch (ignorable)

Magnetic ring interface

HS4-A-F and HCPT2 work togethe

Installation Process

Install the four-corner fasteners on the back of the control box and secure it to the wall or bracket.

Thread the magnetic ring cable through the hole and connect it to the DCON-S-CORE interface.

Match each magnetic ring with its corresponding strings, pass the negative pole of the inverter DC bus through the ring, and then connect it to the inverter.

Thread the 100-240V AC power supply through the hole and connect it to the upper end of the breaker.

Caution

Please install the micro-controllers first, and then power the c ontrol box;

When the system is running normally, the DCON-S power light and the signal indicator light are always on;

Max. input string of each magnetic ring: 6 strings;

Max. Input current of each magnetic ring: 200A;

The communication distance between the control box and the fart hest micro-controller: <400M;

The strings within the same MPPT of the inverter should be conn ected with the same DCON-S;

Protective measures should be taken during installation before construction.

6 sets of strings/per magnetic ring(About 180 single magnetic rings)