



Solar Air Conditioner 48V DC powered 100%

Main features:

Off-grid mode

- * 100% driven by solar energy, 100% energy saving
- * 48V DC power drive, no inverter required, no AC power required.
- * Deep cycle batteries as energy bank for overnight operation, over 8 hours' back up time.
- * DC inverter permanent magnet compressors
- * DC brushless indoor and outdoor fan motors
- * Lowest energy consumption, lowest noise level
- * Lowest energy loss, SEER >19
- * R134a CFC free refrigerant, Eco-friendly
- * Short investment recovery period (1-3 years)
- * CE approved

* Solar-mains power hybrid mode optional.

when the energy in batteries is not enough to drive solar air conditioner (voltage < 45V), You can use a power adapter to drive solar air conditioner. The power adapter can transfer 220V/110V AC power to 48V DC for solar air conditioner using. Under hybrid mode, You can run 24Hr. per day without too much investment in solar panels and batteries. In

addition, you can use the power adapter as a batteries charger.



Power Adapter



Installation site of Solar Air Conditioner



Hot sale Areas:

- * Area with abundant sunshine (South Europe, Africa, Middle-east, South Asia, Latin America;
- * Small islands (Caribbean area etc)
- * Faraway area without AC power supply (telecom station in mountains, refuge shelters, tour leisure camp tents, temporary building etc)
- * Marine use (yacht, vessel etc)
- * Area with expensive electricity power supply or often power failures
- * Anywhere with 48V DC supply



Solar Air Conditioner Indoor (Panel F)

Capacity	12,000BTU	15,000BTU
Cooling Only	HSAC-12C/C	HSAC-15C/C
Cooling & Heating	HSAC-12H/C	HSAC-15H/C

Meaning of each letter in model:

- H - Harvest; SAC - Solar Air Conditioner
- 12 -12,000btu; 15 -15,000btu
- C - Cooling only; H - cooling and heating
- A - refrigerant R410a; B - refrigerant R22; C - refrigerant R13



Solar Air Conditioner Outdoor



How does the solar air conditioner work?

PV Solar panels produce electricity. Electricity to be saved in batteries as energy bank;
Batteries drive air conditioner to run for cooling and heating.
Solar controller protect the whole system and provide stable power supply

Which kind of fan motor you use?

We use 48V DC brushless fan motors for both indoor and outdoor units of our solar air conditioners.
DC brushless fan motors can greatly reduce energy consumption, and run with super low noise.

How many watt solar panel we need to drive Harvest solar air conditioner?

We suggest you to connect 4 pcs 280W-300W or 8 pcs 90W-130W solar panels to drive each solar air conditioner.

Both mono-crystalline and poly-crystalline solar panels can be accept

Do you need inverter to make DC power to AC?

Inverter is NOT required for our solar air conditioners,
because our solar air conditioners were 100% driven by 48V DC power

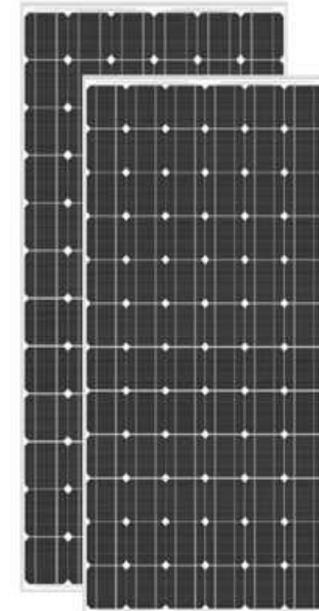
What is the function of batteries?

Which kind of batteries and capacity recommended for your solar air conditioners?

Battery is the energy bank to reserve electricity energy.
We recommend you 4 x 12V deep cycle 3K solar batteries for each solar system.

Deep Cycle Solar Battery

Air Conditioners	12,000BTU	15,000BTU
Batteries	4 X 12V 100AH/150AH	4 X 12V 150AH/200AH



Main Control Board



Fan Motor Controller



Tongsuksiri Automation and Service.Co., Ltd.

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Q: Can I buy solar air conditioner only from you, and buy other accessories from other supplier?

All accessories we recommended are approved by us. But you can buy solar panels, deep cycle JEL batteries, solar controllers, batteries chargers and power adapter from other supplier.

Q: What will happen when batteries is not enough to drive air conditioner?

When the voltage of batteries is lower than 45V, solar air conditioner will be shut off automatically. After energy inside batteries is enough, solar air conditioner will re-start automatically.

Q: What functions else included?

"Auto re-start" function: All previous setting (mode, temp. fan speed etc) will be reserved after each power off.

"Timer": help you to set auto ON/OFF time. Real 24Hr. setting make it easy to set auto ON/OFF time of operation.

"self-diagnosis": The display of our solar air conditioner will show error codes when there is any faults with the system operation. By given error codes, you can be easy to find a solution.

Q: What is the voltage range for solar air conditioners?

The rated voltage range is 45V to 55V.

<http://www.adamoxford.co.uk/tag/computer-aid/>



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Specification Sheet of 48V DC Powered Solar Air Conditioner

Items			HSAC-12C/C	HSAC-12H/C	HSAC-15C/C	HSAC-15H/C
Performance						
Power Supply			DC 48V (44V-54V)	DC 48V (44V-54V)	DC 48V (44V-54V)	DC 48V (44V-54V)
Capacity	Cooling	Btu/h	12,000	12,000	15,000	15,000
	Heating		/	12,500	/	15,500
Max. Noise	Indoor	dB(A)	≤40	≤40	≤42	≤42
	Outdoor		≤50	≤50	≤52	≤52
Charged Refrigerant		g	R134a / 900g	R134a / 900g	R134a / 920g	R134a / 920g
Air Circulation		m ³ /h	450	450	550	550
Suitable Area		m ²	10~15	10~15	12~22	12~22
EER		Btu/h/w	21.43	21.43	19.48	19.48
Power Consumption						
Power Input	Cooling	W	560	560	770	770
	Heating	W	/	600	/	800
Rated Current	Cooling	A	11.5	11.5	15.7	15.7
	Heating	A	/	12.1	/	16.3
Dimension						
Indoor Unit	Net	mm	795*285*215	795*285*215	795*285*215	795*285*215
	Package	mm	905*370*283	905*370*283	905*370*283	905*370*283
Outdoor Unit	Net	mm	820*320*540	820*320*540	820*320*540	820*320*540
	Package	mm	880*360*590	880*360*590	880*360*590	880*360*590
Weight						
Indoor Unit	Net/Gross	kg	10/12	10/12	10/12	10/12
Outdoor Unit	Net/Gross	kg	35/38	35/38	35/38	35/38
Connection Copper Tube						
Liquid/Gas Tube Diameter		mm	6.35/9.52	6.35/9.52	6.35/9.52	6.35/9.52