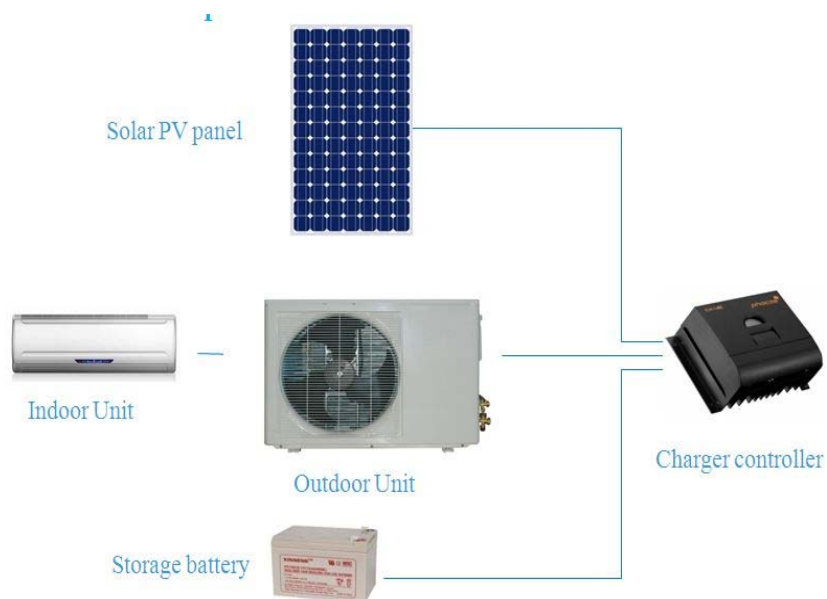


100% Solar DC Inverter Air Conditoner



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The main components



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High-quality components, Durable security, effectively improve the efficiency

Leading international new refrigerant R410A

New refrigerant 410A has stabilization, innocuity and more efficient characteristic, due to not including chlorine element, will not destroy the ozonosphere. In addition, use new refrigerant will take advantage on air conditioners performance.



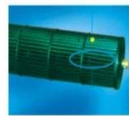
Well-known brands DC permanent magnet synchronous compressor

The use of permanent magnet rotor produce the magnetic field without the power turn on, it can save the energy, make the whole system more efficient, and would be more steady while working



Large diameter tubular blade, Reduce operating noise

Adopt large diameter equidistant tubular blades, the blade shape mute settings, not only a amount of wind, but also efficiently reduce operation noise.



Panasonic DC remarkable motor

Keep the system stable and powerful but quiet with long used life span



High efficiency heat exchanger

Adopting multi-fold heat-exchanger about 20%-40% more exchange area than the general one which to improve the high energy efficient ratio of performance, meanwhile, equipped with inner-groove copper tube and hydrophilic aluminum foil to achieve the high performance of cooling and heating.



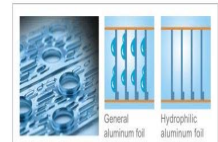
High-grade inner-groove copper pipe

Adopting the high-grade inner-groove copper pipe to improve the heating and anti-defrosting efficiency of the heat-exchanger.



Inner-groove copper pipe

Compared with general aluminum foil, hydrophilic aluminum foil does not frost up like other conventional type A/C units, this also means that corrosion will no longer be a factor.



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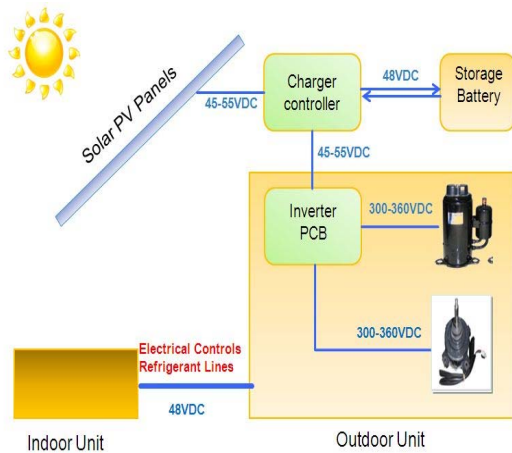
6)78\$less DC motor



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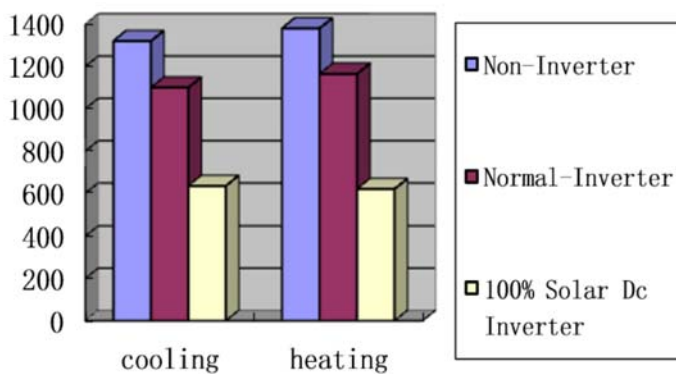
How it works



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Green Energy(12000BTU)



Great efficiency improvement for **EER** and **COP** when using solar panels.

Meanwhile, the AC can reach **A++** when only the commercial power is supplied.

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STC	TN250W-01
Optimum operation Voltage(Vmp)	30.6V
Optimum operation Current(Imp)	8.3A
Open Circuit Voltage(Voc)	37.4V
Short Circuit Current(Isc)	8.17A
Maximum Power at STC(Pmax)	250W
operation Module Temperature	-40℃—+85℃
Maximum System Voltage	1000V DC
Maximum Series Fuse Rating	20A
Power Tolerance	0/+5W

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Hours Per Day Solar Operation		8 hours	12 hours	18 hours	24 hours
PV Solar Panels	250W	4pcs	6pcs	8pcs	10pcs
Batteries	150AH	4	□	8	
	200AH		4	□	8

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CX48 V series (20 - 40 A)

Solar Charge Controller with LC Display



- LCD - Charge and discharge status display
- Audible alert before load disconnect
- Load status indicator
- 5 load disconnect algorithms
- Four-stage PWM charging (series type)
- Integrated temperature compensation
- Full electronic protection

The CX48 Series offers outstanding features for its class. Along with a PWM charge controller with integrated temperature compensation, the CX controller comes equipped with an extensive range of control, programming and safety functions. The battery charge status is continuously displayed via a bar graph, including the input and

output current of the battery as well as the load status (e.g. overloading, load short circuiting). The deep discharge protection mode has 5 settings: two fixed voltages, two charging states or adaptive (for battery protection). An audible alarm and a programmable nightlight function are standard on all CX controllers.

Type	CX48 20	CX48 40
System voltage	24/48 V auto recognition	
Max. charge/load current	20 A	40 A
Float charge	27.4/54.8 V (25 °C)	
Main charge	28.8/57.6 V (25 °C), 30 min. (daily)	
Boost charge	28.8/57.6 V (25 °C), 2 h	
	Activation: battery voltage < 24.6/49.2 V	
Equalization	29.6/59.2 V (25 °C), 2 h	
	Activation: battery voltage < 24.2/48.4 V	
Deep discharge protection:		
State of charge dependent	A: 22.8 - 23.8 V / 45.6 - 47.6 V B: 22.0 - 23.5 V / 44.0 - 47.0 V	
Voltage dependent	A: 22.0/44 V B: 23/46 V	
Adaptive	22.0 - 24.4 V / 44.0 - 48.8 V	
Reconnect level	25.6/51.2 V	
Overvoltage protection	31.0/62.0 V	
Undervoltage protection	21.0/42 V	
Max. panel voltage	50 V in 24 V system	
(Overvoltage protection by varistor)	95 V in 48 V system	
Max. PV Voc	90 V	
Temperature compensation	-50 mV/K at 24 V	
(Charge voltage)	-100 mV/K at 48 V	
Self consumption	< 10 mA	
Grounding	Positive grounding	
Ambient temperature	-20 to +50 °C	
Max. height	4,000 m above sea level	
Battery type	Lead acid GEL, AGM, flooded	
Wire cross section	≤ 16 mm ²	
Weight	348 g	365 g
Dimensions (W x H x D)	110 x 92 x 58 mm	
Type of protection	IP22	

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Photovoltaic module description

- 1: Polycrystalline, monocrystalline photovoltaic cell panels all can be
- 2: Photovoltaic cell panels and photovoltaic air conditioner matching selection (see matching table)
- 3: According to the parameters of the actual selection of photovoltaic cell panels, by series-parallel connection, photovoltaic air conditioner's voltage range DC45.6V-56V

Product features of WRControl-2KW series

- 1: The controller adopts the dedicated DSP control chip from USA TI company as the core control device, 36 bit digital signal processor as the control CPU, apply PWM modulation strategy with fuzzy control, the maximum power point tracking technology after optimization can guarantee the high efficiency output of equipment, and the MPPT tracking efficiency can reach 99%.
- 2: The acquisition of drive and all kinds of signal completely adopts photoelectric or electromagnetic isolation, reliable and avoid the system erroneous trigger, greatly reduced the effect of electromagnetic interference on the system, and enhance the stability and reliability of the whole machine.
- 3: Friendly human-machine operation interface, multi-language display menu, contains comprehensive and abundant display parameters and control function, the graphical interface specially through man-machine engineering design, convenient for the users to grasp of the overall information system timely.
- 4: The controller has high efficiency AC/DC control module, which can use AC grid to supply electricity to load and charge the batteries if the photovoltaic is insufficient. Achieved the automatic switching between PV and electricity, and ensure that the air conditioner operate normally even if the sunlight is insufficient.
- 5: With WIFI wireless communication function, and can monitor operation status of the unit.

100% solar DC air conditioner

- The new generation 100% solar DC air conditioner adopt the perfect inverter controller technology, convert the 48VDC from solar PV panels directly to DC 300-360V voltage which required by compressor and motor, reduced intermediate links, while also reducing energy losses.
- The indoor motor, compressor, outdoor motor in the new generation 100% solar air conditioner system all adopt brushless DC motor, it greatly improved the stability and efficiency of system.

Independent charging module / three sections charging curve

- 1: The charging mode of controller adopt three sections advanced charging mode: Constant-current constant-voltage float charge three stage, intelligent judgment mode, which can ensure the the batteries are fully charged.
- 2: Separate the charge and discharge of controller, to avoid the battery under working state of keep charging and discharging, and affect the service life of battery.
- 3: Users can freely choose to use the battery module.



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