Off Grid Solar Air Conditioner

Full DC Inverter

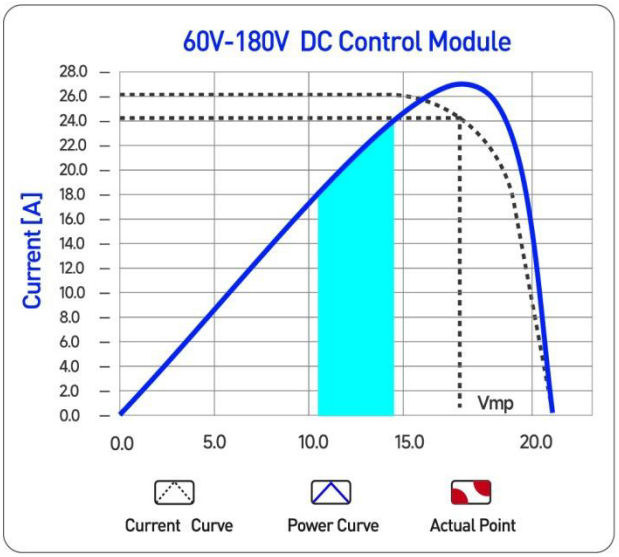
Multiple Power Sources
Used Together or Separate

100% Energy Saving

Solar DC technology

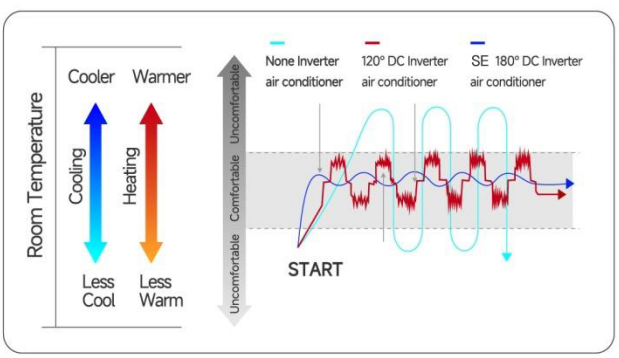
Built In Dual Power Control Module

- Intelligent control for detection and adjustment
- Efficiency:99.9%
- DC to DC 0 convert lose
- 10+ years life design



SVPWM technology

- 180° sine wave controller technology
- Compressor ran below 0.1Hz
- Operate during 50% voltage drop



Solar DC advantage

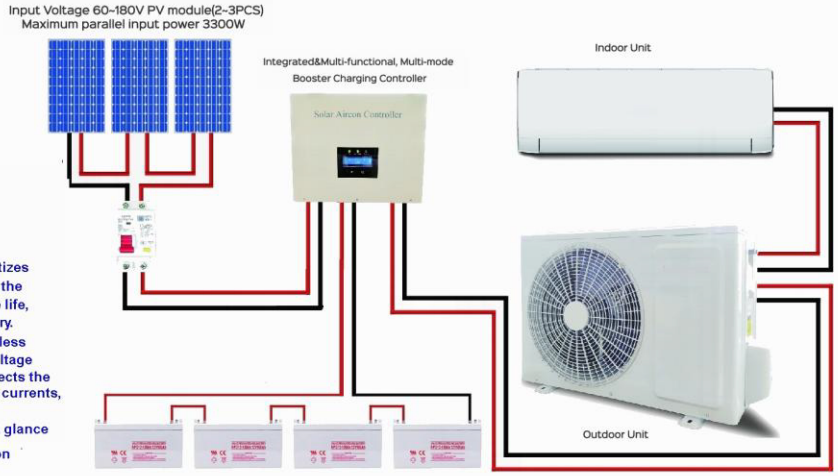
ITEM	COL Off Grid Solar Air Conditioner	Normal 48V Air Conditioner
PV Input Voltage	60~180V	60~160V
Power Module Output	Dual Core Dual Channel	Single Channel
Charge Management Output	PV Priority(reduce charging and discharging times)	Use Battery Power(increase charging and discharging times)
Battery Life Span	Longer	Shorter
Air Conditioner Input Voltage	Auto Adjustable	48V, Not Adjustable
Emergency Backup City Power Input	Y	N
Soft power start	Y	N
Average Energy saving	65-100%	20~85%

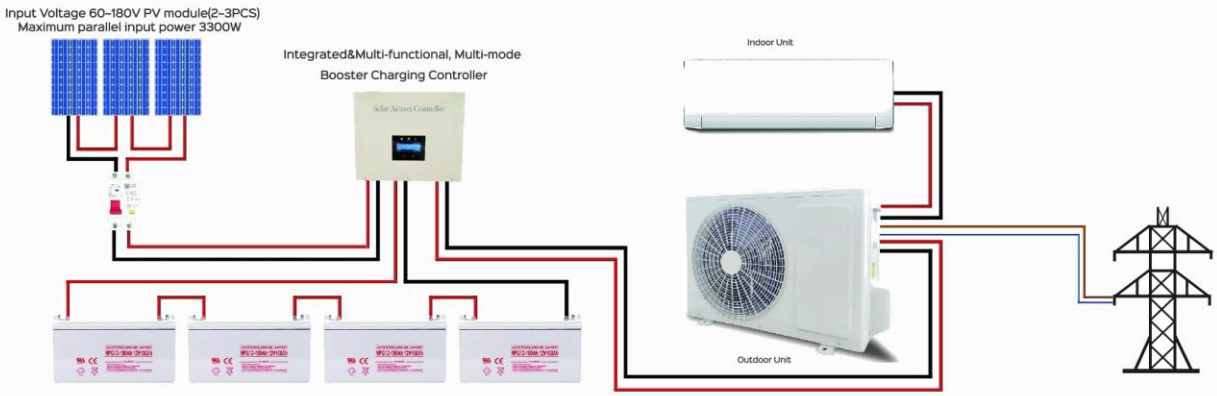
Off Grid Solar PV Air Conditioner Connection Diagram

Integrated dual-source drive charging manager

Five major functional features:

- Suitable for charging and discharging of various types of batteries (conventional lead-acid batteries, lithium iron phosphate batteries)
- Wide voltage design circuit (photovoltaic input vdc60-180V)
- Dual power management control circuit (photovoltaic power generation prioritizes air conditioning use without passing through the battery, effectively reducing the number of battery charge and discharge cycles, extending the battery's service life, and the excess photovoltaic power generation automatically charges the battery. When photovoltaic power generation is insufficient, the battery provides seamless compensation. Meanwhile, the manager also features the function of power voltage boosting, avoiding the input and output of large currents. This effectively protects the battery and air conditioner from unstable factors caused by the impact of large currents, making the operation of the air conditioner safer and more reliable.)
- The super-large display screen makes the machine's operating status clear at a glance
- The multi-channel switch control and protection function makes the installation process safer and more reliable for users





On/Off Grid Type, continuous use solutions without PV&Batteries during rainy days

Key Components

Brushless DC fan motor

Twin Rotary DC Compressor

Smart Indicator
Red: City Power ; Green: PV Power

Dual Power Dual Driver Management Circuit

Core Technology

Dual Power Control Module Design
Priority use PV power in day and use battery at night

Multi-functional Controller
Integrated&Multi-functional, Multi-mode Booster Charging Controller

Max Efficency
DC-driven

Max Utilization of Solar Energy
DC power seamless connection from 1W

Wide Operating Temperature
Temperature Range between -15 to +58°c

Unique Technology
It can work by city power when no PV power no battery, and it can also work by PV, battery and city power at the same time

Technical Specifications

Product parameters

Off Grid Type R32

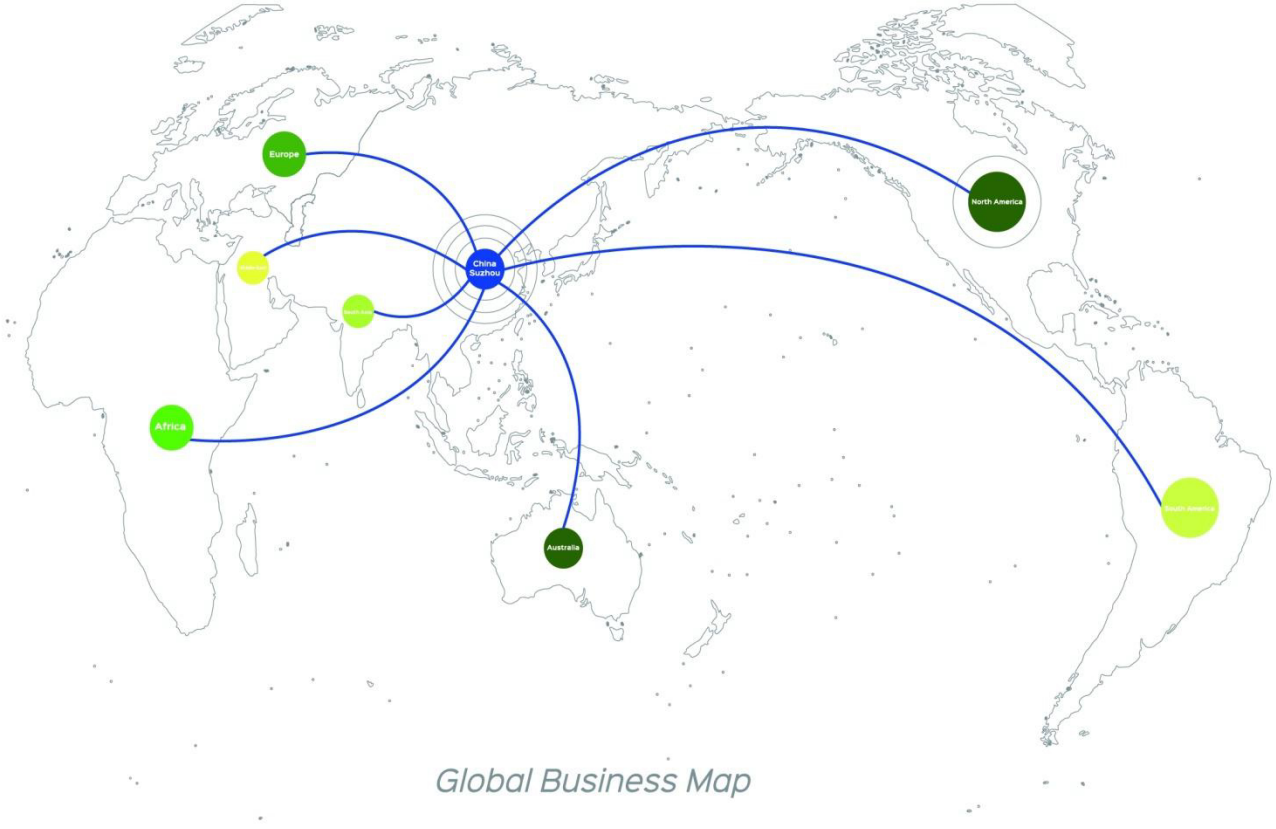
PRODUCT SPECIFICATION SHEET				COL-09GW-VDC-TH	COL-12GW-VDC-TH	COL-18GW-VDC-TH	COL-24GW-VDC-TH
Compatibility Power			PVDC	DC60-180V	DC60-180V	DC60-180V	DC60-180V
			Ph-V-Hz	208-240V/50Hz/60Hz, 110-120/60Hz	208-240V/50Hz/60Hz, 110-120/60Hz	208-240V/50Hz/60Hz	208-240V/50Hz/60Hz
Rated Capacity	Cooling		W	2600(850-3500)	3600(1000-4500)	5200(2000-5500)	7200(2000-7600)
			BTU	9000(2900-12000)	12000(3500-15500)	18000(6900-19000)	24000(6900-26000)
	Heating		W	2850(850-3500)	3960(1000-4500)	5200(2000-5500)	7200(2000-7600)
			BTU	9500(800-12000)	13000(3900-16000)	19800(6900-19500)	24000(6900-27000)
Rated Power Consumption	Cooling		W	690(130-1350)	1030(260-1700)	1520(410-1970)	2100(410-2600)
	Heating		W	670(120-1280)	980(220-1360)	1550(350-1670)	2180(410-2650)
Max. Input Power			W	1450	1870	2860	3800
SEER Cooling			W/W	SEER6.6	SEER6.6	SEER6.6	SEER6.6
SEER Cooling			BTU/h/W	SEER22.52	SEER22.52	SEER22.52	SEER22.52
SCOP Heating			W/W	SCOP4.6	SCOP4.6	SCOP4.0	SCOP4.0
SCOP Heating			BTU/h/W	SCOP15.7	SCOP15.7	SCOP13.6	SCOP13.6
Air Flow Volume			m^3/h	650	650	900	1200
Dimension	Outdoor	Net Dimension (Width长度xDepth宽度xHeight高度)	mm	795×290×555	795×290×555	795×290×555	860×304×733
		Packing Dimension (Width长度xDepth宽度xHeight高度)	mm	910*400*630	910*400*630	910*400*630	1005*450*820
	Indoor	Net Dimension (Width长度xDepth宽度xHeight高度)	mm	895*203*300	895*203*300	1000*240*310	1130*245*320
		Packing Dimension (Width长度xDepth宽度xHeight高度)	mm	965*275*370	965*275*370	1075×310*385	1195*310*390
Indoor unit weight (Net)			Kg	12	12	15	17.5
Outdoor unit weight (Net)			Kg	38	40	43	55
Loading qty (20/40Q/40HQ)				90/176/194	90/176/194	79/160/180	50/105/120
Remark	Parameters are subject to change without prior notice						

Business Layout

50
Product Sales Country

300
Sales Channel Outlets

100000
Serving Global Families



Global Business Map

Innovative Technology, Leading The Future

The Pioneer of the Core Technology of Solar PV Air Conditioner