



SAMYOU | VINO



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SOLAR AIR CONDITIONER

One-Stop Solution For HVAC Industry

Solar AC: Leading the Low-Carbon Trend

Driven by global Carbon Peak and Neutrality policies, solar AC uses clean energy to cut electricity consumption, aligns with low-carbon lifestyles, and shows broad prospects and strong market demand with policy support.

Solar Air Conditioner

Intelligent Green Energy All-Weather Comfort



Core Features



Smart Power Distribution Management

Optimises energy use between solar power and the grid.



Stable All-Weather 24/7 Operation

Effectively handles sudden sunlight fluctuations caused by passing clouds, ensuring the air conditioner runs smoothly at all times.



Fast Cooling/Heating

Rapid cooling and heating with in 60s.



Low Noise

Ensures quiet operation for enhanced indoor comfort.



APP Control

The unit can be controlled by APP remotely, user can adjust setting freely.



Multiple Protection Design

With a separate leakage protection module for photovoltaic panels.



Lowest Investment

Direct-drive solar-powered system
No expensive inverter needed
Full air conditioner operation with just 2 solar panels



Superior Inverter Drive Technology

SVPWM enables quieter low-frequency operation.

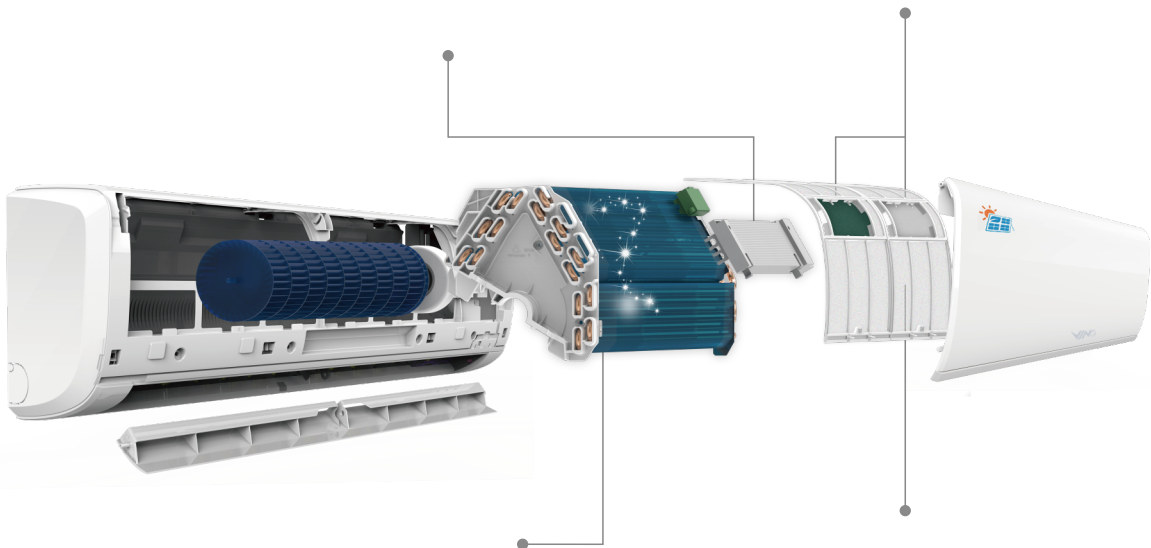
Features

·IFD Module (Optional)

The IFD (Intense Field Dielectric) module is efficient solution for wiping off small dust particles in the air. The dust collector can be easily removed for washing and reusing.

·Alternative Filters

Photocatalytic filter/ Catechin filter/ Activated carbon filter/ Silver ion filter/ HCHO purification filter/- Multi-functional filter.



· Cold Plasma Generator (Optional)

The cold plasma generator can effectively eliminate the bacteria and odor in the air.
1. The H₂O molecules are ionized
2. Neutral reaction between the positive ions and negative ions can eliminate bacteria and odor molecules.

·High Density Anti-Mildew Filter

Authenticated by Canton Microbiology Detection Center, the mildew-proof level of this filter can effectively control the growth of common mildew and fungus.

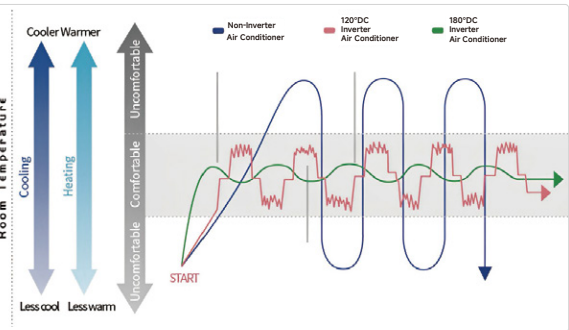
Precise Temperature Control

With inverter technology and control system, the unit is able to adjust temperature smoothly, controlling temperature precisely by +1°C.



Superior Inverter Drive Technology

SVPWM ensures quiet, efficient low-frequency operation.

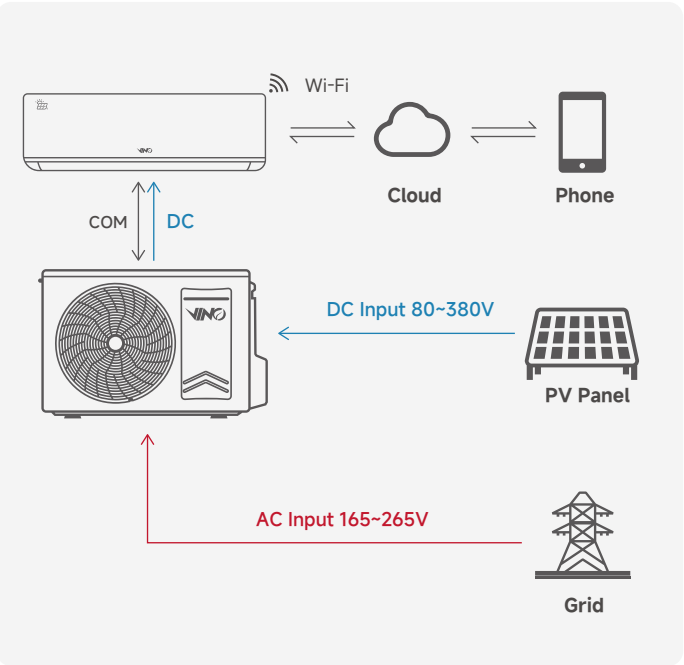


Triple-Power Smart Switching

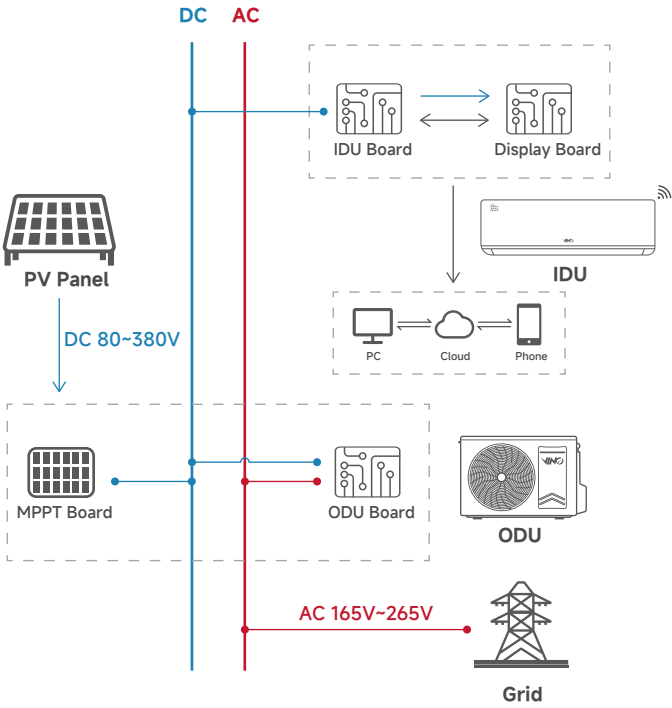
Integrates solar and grid for uninterrupted operation.



Solar Energy Utilisation Solutions



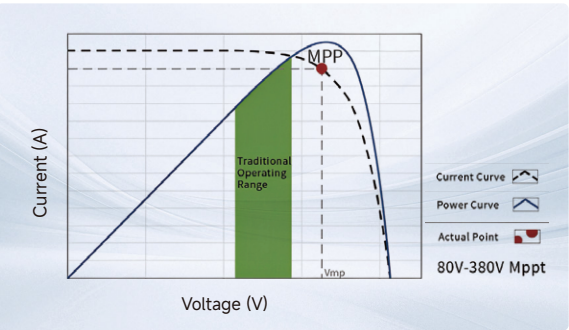
Connection 1



Connection 2

MPPT Tracking Efficiency > 99.9%

Maximizes solar efficiency for ultra-low carbon emissions.



All-Weather Operation & Energy Saving

Runs day and night on natural energy, cutting power costs.



Easy to Install & Reliable After-sales Service

MC4 standard connector, plug and play,easy maintenance, reliable.



APP Control

Adjust settings remotely for optimal comfort.



Applicable Scenarios

- Built-in MPPT, no extra wiring
- Plug-and-play with MC4 connectors
- No expensive inverter needed Full air conditioner operation with just 2 solar panels
- Wide voltage input, immune to fluctuations



Feature

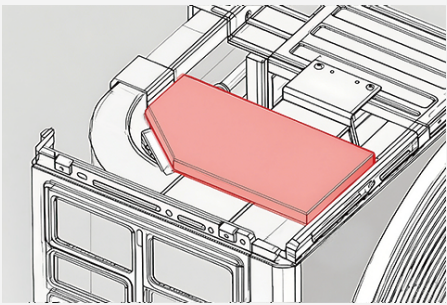
- MPPT Board is assembled in the outdoor unit, saving users' installation space.
- Use high-voltage boosting solutions to improve power efficiency.

Specification

- | | |
|---------------------------------|-------------------------------------|
| • Input Voltage: DC 80V~380V | • Output Power: Max. 3.5KW |
| • Conversion Rate: ≥99.9% | • Control Mode: Booster |
| • Cooling Mode: Air-cooled | • Operation Temp. Range: -7°C~-43°C |
| • Storage Temp. Range: -40~85°C | • Product life: ≥8 years |



MPPT Board



MPPT Box

More Scenarios



Schools And Public Institutions



Factory Workshop



Chain store



Households With Rooftops

This solar air conditioner is designed to be flexible and suitable for a variety of building structures including free-standing roofs and rows of houses. The excellent performance also is equally reliable under extreme environmental conditions.

Economic Benefits

Electricity Savings
1000~3800 kWh per year

Equivalent to Reduce
1~4 ton CO² emission per year

Equivalent to Plant
2~8 trees per year

This system requires no additional inverters for energy-saving and eco-friendly operation. It runs fully on solar power in daylight. With highly efficient PV conversion and DC drive, solar utilization reaches 99.9%. Quickly recovers the higher upfront cost compared to conventional ACs.

Components



Indoor Unit



Outdoor Unit



Remote Control

Function

Cooling & Heating

Turbo

ECO

Sleep Mode

Dehumidication

Anti-mildew Design

Hidden Display

Filter Cleaning Reminder

Low Noise

Child Lock

Low Ambient Heating -20°C

Auto Defrosting

High Ambient Cooling 60°C

Timer

Anti-Corrosion

0.5W Standby

7-Speed Transmission

Stepless Speed

Horizontal Swing

Anti-cold Air Draft

Low Voltage Startup

Self-Diagnosis

WIFI

Cold Plasma

Golden Fins

Healthy Filters

Multiple Protection

- Leakage protection
- Over-voltage protection
- Over-current protection
- Over-temperature protection
- Rain proof



Specifications

Solar Air Conditioner

Items		Unit	Models	
Model		/	12K	18K
		HP	1.5HP	2HP
AC Power Supply		V~	208~240V	208~240V
		Hz	50/60Hz	50/60Hz
DC Power Supply		V--	80~380	80~380
		Hz	≤13	≤13
Cooling Capacity		W	3500	5100
Cooling Power		W	833	1320
Cooling Capacity Range		W	800~4200	900~5600
EER		W/W	4.2	3.79
SEER		/	20	21.7
Heating Capacity		W	3800	5100
Heating Power		W	905	1370
Heating Capacity Range		W	850~4300	900~5600
COP		W/W	4.2	3.72
Air Flow		m³/h	700	900
Refrigerant		/	R32	R32
IDU	Sound Pressure Level(High)	dB	42	44
	W×H×D	mm	850×291×203	972×302×224
	Net Weight	kg	10	13.5
ODU	Sound Pressure Level(High)	dB	55	56
	W×H×D	mm	890×598×372	890×598×372
	Net Weight	kg	34	35

Please purchase solar panels locally by referring to the parameters below.

No.	Items	Specifications (With Grid)
1	Peak Power Watts-PMAX	≥ 500W/pcs
2	Module Efficiency-ηm	≥ 20%
3	Maximum Power Voltage-VMPP	≥ 40V/pcs
4	Maximum Power Current-IMPP	13A~17A
5	Cables	≥ 4.0mm²
6	Connector	MC4 EVO2 / TS4Plus/ TS4*
7	Operational Temperature	-40~65°C

Air-conditioner Type	PV Board Quantity	PV Module Coverage Area
12K	2 or 3pcs	8.4m² / 90ft²
18K	3 or 4pcs	11.2m² / 120ft²