SOLAR AIR CONDITIONER VS. NORMAL AIR CONDITIONER



SOLAR AIR CONDITIONER

Enjoy Air Conditioning Without Spending Money

All solar power is used if the sunlight is sufficient.There is no need to pay for mains power.

The More You Use, The More You Save

With a one time investment, a solar air conditioner system can be used stably and reliably for more over than 10 years

Powerful Performance and Energy-Efficiency

Our full DC frequency conversion technology makes the power of the air conditioner only 100W under low frequency operation, equivalent to the power consumption of a refrigerator

Guaranteed Voltage Safety

Off-Grid DC48V drives the Solar Air Conditioner directly, safe and harmless

NORMAL AIR CONDITIONER

High Electricity Bill For Air Conditioner Operation

The air conditioner is a high-input home application. It needs high electricity bill for to use the cooling.

The More You Use, The More You Pay

The unit price is high for daytime use of air conditioning for peak electricity.

Insufficient Power And Low Energy Efficiency

Buying a normal air condition is high input power, but the cooling capacity is less. Purchasing a high-efficiency airconditioner is very expensive.

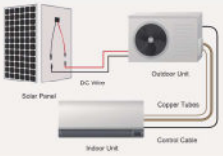
High Voltage, Electric Shock Risk

Electric leakage may occur when parts are damaged or components are aged, which is easy to cause personal injury.

FOUR MODES

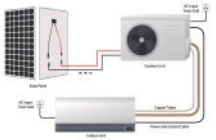
A PURE PHOTOVOLTAIC DRIVE

The system operates with a pure photovoltaic drive, providing off-grid,100% green energy



B AC/DC HYBRID

Hybrid Power with the priority of Solar energy. Main power is used as asupplement. Solar energy is used in the daytime, and the main power is usedat night.



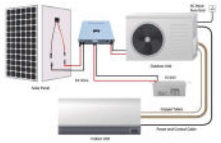
C OFF-GRID DC48V/24V

Off-Grid,100% Green Energy Electric power is during the day and used at night.



D 3IN1 MULTI-FUNCTION

The 3-in-1 multi-function system delivers maximum power savings with all-day air conditioning



THREE SCENARIOS

SHORT OR UNSTABLEPOWER SUPPLY

Island, Desert, etc



1



2

HIGH ELECTRICITY CHARGE

Supermaket, Hotel, Hospital, Breeding, and Animal husbandry, etc

NECESSARY REQUIREMENTS OFAIR-COND IN THE DAY TIME

Office, School, Factory, Telecom, etc

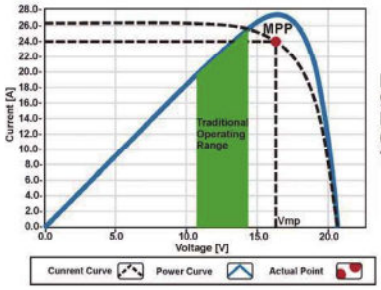


3

THE ADVANTAGES OF OUR PRODUCTS

Core Technologies





MPPT efficiency:
99.9%
DC to DC
O convert lose
10+ years life design

80V-380V Mppt

DC Control, Excellent Performance, More Energy-Saving

DC 80V-380V MPPT

Excellent User Experience

We provide a complete solution, including design and material supply, eliminating the need to purchase auxiliary accessories locally. Installation is supported with detailed video guidance.

They were designed for an ultra-wide operating temperature range of -15°C to 58 °C.

The App allows you to control the air conditioner, optimize electricity usage, and remotely turn it on or adjust settings anytime, ensuring the comfort of a fantastic home.



Reliable Product Quality

Constructed with high-strength galvanized material and treated with a strict anti-corrosi on process, it offers a longer service life than ordinary air conditioners, even in seaside installations.



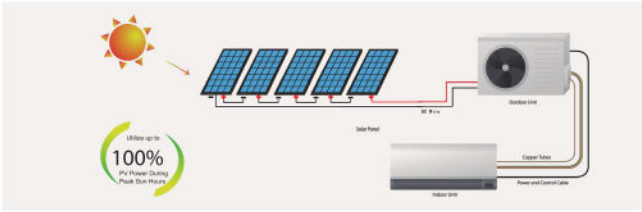




PURE SOLAR-DRIVEN AIR CONDITIONER



WORKING PRINCIPLE



FEATURES

100% solar-powered, the air conditioner provides cooling and heating without relying on AC power, ensuring maximum energy savings.

When photovoltaic power is insufficient to run the air conditioner at total capacity, the compressor frequency will be automatically adjusted to maintain cooling operation.

In off-grid mode, the solar air conditioner requires no electricity bill, making it an economical and energy-saving option.

The built-in MPPT optimizes and tracks the maximum photovoltaic power.

CONFIGURATION TABLE

MODEL	SOLAR PANEL	Quantity
9000BTU	550W	3(3-4pcs)
12000BTU	550W	4(3-5pcs)
18000BTU	550W	5(4-6pcs)
24000BTU	550W	7(6-8pcs)
30000BTU	550W	7(6-8pcs)

TECHNICAL PARAMETERS

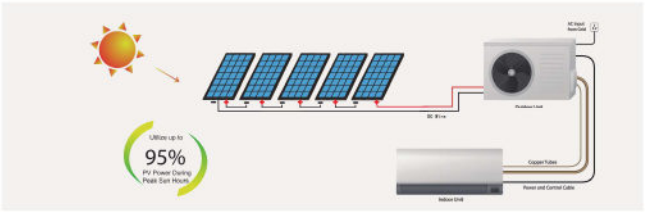
Model	Unit		KFR-26GW/PDCB3	KFR-35GW/PDCB3	KFR-50GW/PDCB3	KFR-70GW/PDCB3
Climate Type	Tropical</= 56℃		apply	apply	apply	apply
Application area		m2	10/15	15-25	20-35	30-45
Power Supply	AC Power	Ph-V-Hz				
	DC Power	V	80-380V	80-380V	80-380V	80-380V
	Solar Power Current	A	</=12	</=12	</=12	</=12
Adviced Solar Panel		Pcs	(3-4)×550w	(3-5)×550w	(4-6)×550w	(6-8)×550w
Rated Cooling	Capacity	W	2640	3520	5050	7050
		BTU	9000(2300～11200)	12000(2300～13200)	18000(6500~19200)	24000(6500~25200)
	Power input	W	712(260～1000)	1000(260～1550)	1650(560~1900)	1860(680～2600)
Rated Heating	Capacity	W	2650	3550	5120	7120
		BTU	9000	12000	18000	24000
	Power input	W	705(260～1200)	960(260～1550)	1350(400～1900)	2050(680～2600)
EER (W/W)/ (BTU/W)		/	3.71/12.64	3.52/12.0	3.1/11.0	3.79/12.9
COP (W/W)/ (BTU/W)		/	3.76/12.76	3.70/12.5	3.79/13.33	3.47/11.70
Dehumidification capacity		L/h	1.0	1.3	1.9	2.3
Compressor	Model	/	KSK103D33UEZ3	KSK103D33UEZ3	KSN140D21UFZ	KTM240D43UMT
	Type	/	Rotary	Rotary	Rotary	Rotary
	Brand	/	GMCC	GMCC	GMCC	GMCC
Indoor fan motor	Model		ZKFP-13-8-115	ZKFP-13-8-115	ZKFP-30-8-125	ZKFP-58-8-5
	Speed (Hi/Mi/Lo)	r/min	1130/1060/900	1130/1060/900	1200/1100/900	1350/1200/900
Indoor air flow (Hi/Mi/Lo)		m3/h	650/595/536	650/595/536	1200/970/630	1300/1150/650
Indoor noise level		dB(A)	≤41	≤43	≤49	≤50
Indoor unit	Dimension(W×H×D)	mm	900×290×195	900×290×195	1080×327×227	1080×327×227
	Packing (W×H×D)	mm	971×364×281	971×364×281	1150×405×310	1150×405×310
	Net weight/Gross weight	Kg	9.5/12.5	10/13	13/16	13/16
Outdoor fan motor	Model	/	ZKFP-20-10-7	ZKFP-20-10-7	ZKFN-56-8-1	ZKFN-80-8-3
Outdoor noise level		dB(A)	≤50	≤50	≤57	≤59
Outdoor unit	Dimension(W×H×D)	mm	780×255×540	780×255×540	820×300×600	900×360×640
	Packing (W×H×D)	mm	885×355×615	885×355×615	925×410×650	1045×455×700
	Net/Gross weight	Kg	28.5/32	29/32.5	37/41	48/53
Refrigerant type		/	R32	R32	R32	R32
Refrigerant Charged		g	1100	1100	1250	1400
Max Design pressure		MPa	4.30/1.15	4.30/1.15	4.30/1.15	4.30/1.15
Refrigerant copper pipe	Gas side/Liquid side	mm	9.52 / 6.35	9.52 / 6.35	12.70 / 6.35	15.88 / 6.35
Drain pipe size (Ø × Length)		mm	16.9×2000	16.9×2000	16.9×2000	16.9×2000
Refrigerant conenction copper pipe length		m	3	3	3.5	4
Connection wire length		m	4	4	4.5	5
Container Loading 20GP/40GP/40HQ		Sets	104/228/261	104/228/261	81/166/193	60/132/155

Note: 1.The above data is for reference only, please refer to the product nameplate; 2.The Company reserves the right to interpret the above data.

ACDC HYBRID SOLAR AIR CONDITIONER



WORKING PRINCIPLE



FEATURES

ACDC Hybrid Solar Air Conditioner with AC/DC dual power supply.

The complete DC control system achieves a maximum energy efficiency of SEER36, compared to the SEER17 of typical variable frequency air conditioners.

The system uses an MPPT solar power selection control scheme, achieving an energy-saving efficiency of 95% or higher.

Solar energy and grid power work together, prioritizing solar energy and ensuring an uninterrupted power supply.

The wide voltage design allows for flexible combinations of solar panels, making it suitable for various site conditions.
They were designed to withstand various climatic conditions.

CONFIGURATION TABLE

MODEL	SOLAR PANEL	Quantity
9000BTU	550W	2(2-3pcs)
12000BTU	550W	3(3-4pcs)
18000BTU	550W	4(4-5pcs)
24000BTU	550W	6(5-7pcs)
30000BTU	550W	7(6-8pcs)

TECHNICAL PARAMETERS

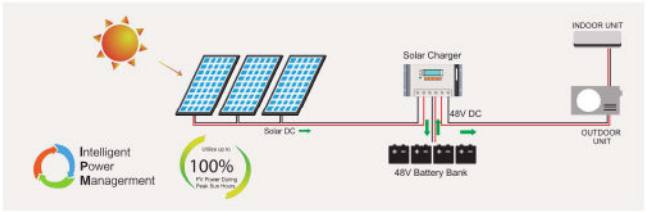
Model	Unit		KFR-26GW/ACDCB3	KFR-35GW/ACDCB3	KFR-50GW/ACDCB3	KFR-70GW/ACDCB3
Climate Type	Tropical</= 56℃		apply	apply	apply	apply
Application area		m2	10/15	15-25	20-35	30-45
Power Supply	AC Power	Ph-V-Hz				
	DC Power	V	80-380V	80-380V	80-380V	80-380V
	Solar Power Current	A	</=12	</=12	</=12	</=12
Adviced Solar Panel		Pcs	(2-3)*550w	(3-4)*550w	(4-5)*550w	(5-7)*550w
Rated Cooling	Capacity	W	2640	3520	5050	7050
		BTU	9000(2300～11200)	12000(2300～13200)	18000(6500~19200)	24000(6500~25200)
	Power input	W	712(260～1000)	1000(260～1550)	1650(560~1900)	1860(680～2600)
Rated Heating	Capacity	W	2650	3550	5120	7120
		BTU	9000	12000	18000	24000
	Power input	W	705(260～1200)	960(260～1550)	1350(400～1900)	2050(680～2600)
EER (W/W)/ (BTU/W)		/	3.71/12.64	3.52/12.0	3.1/11.0	3.79/12.9
COP (W/W)/ (BTU/W)		/	3.76/12.76	3.70/12.5	3.79/13.33	3.47/11.70
Dehumidification capacity		L/h	1.0	1.3	1.9	2.3
Compressor	Model	/	KSK103D33UEZ3	KSK103D33UEZ3	KSN140D21UFZ	KTM240D43UMT
	Type	/	Rotary	Rotary	Rotary	Rotary
	Brand	/	GMCC	GMCC	GMCC	GMCC
Indoor fan motor	Model		ZKFP-13-8-115	ZKFP-13-8-115	ZKFP-30-8-125	ZKFP-58-8-5
	Speed (Hi/Mi/Lo)	r/min	1130/1060/900	1130/1060/900	1200/1100/900	1350/1200/900
Indoor air flow (Hi/Mi/Lo)		m3/h	650/595/536	650/595/536	1200/970/630	1300/1150/650
Indoor noise level		dB(A)	≤41	≤43	≤49	≤50
Indoor unit	Dimension(W×H×D)	mm	900×290×195	900×290×195	1080×327×227	1080×327×227
	Packing (W×H×D)	mm	971×364×281	971×364×281	1150×405×310	1150×405×310
	Net weight/Gross weight	Kg	9.5/12.5	10/13	13/16	13/16
Outdoor fan motor	Model	/	ZKFP-20-10-7	ZKFP-20-10-7	ZKFN-56-8-1	ZKFN-80-8-3
Outdoor noise level		dB(A)	≤50	≤50	≤57	≤59
Outdoor unit	Dimension(W×H×D)	mm	780×255×540	780×255×540	820×300×600	900×360×640
	Packing (W×H×D)	mm	885×355×615	885×355×615	925×410×650	1045×455×700
	Net/Gross weight	Kg	28.5/32	29/32.5	37/41	48/53
Refrigerant type		/	R32	R32	R32	R32
Refrigerant Charged		g	1100	1100	1250	1400
Max Design pressure		MPa	4.30/1.15	4.30/1.15	4.30/1.15	4.30/1.15
Refrigerant copper pipe	Gas side/Liquid side	mm	9.52 / 6.35	9.52 / 6.35	12.70 / 6.35	15.88 / 6.35
Drain pipe size (Ø × Length)		mm	16.9*2000	16.9*2000	16.9*2000	16.9*2000
		m	3	3	3.5	4
Connection wire length		m	4	4	4.5	5
Container Loading 20GP/40GP/40HQ		Sets	104/228/261	104/228/261	81/166/193	60/132/155

Note: 1.The above data is for reference only, please refer to the product nameplate; 2.The Company reserves the right to interpret the above data.

OFF-GRID (DC24/48V) SOLAR AIR CONDITIONER



WORKING PRINCIPLE



FEATURES

The DC 24V/48V compressor, fan motor, and axial flow motor are fully DC, ensuring high efficiency with no conversion process.

Easy to install, just like a standard household air conditioner.

It can be used in all environmental conditions without being affected by power supply or climate.

DC low-voltage operation ensures safety and reliability.

CONFIGURATION TABLE

MODEL	SOLAR PANEL	BATTERY	MPPT
7000BTU	550W*2	150AH*2	24V 50A
9000BTU	550W*3	100AH*4	48V 40A
12000BTU	550W*4	150AH*4	48V 50A
18000BTU	500W*6	200AH*4	48V 60A

TECHNICAL PARAMETERS

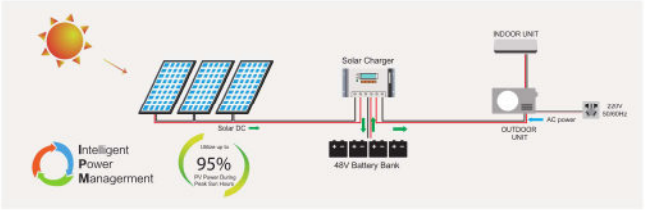
Model	Unit		KF-20GW/DC24VB1	KFR-26GW/DC48VB2	KFR-35GW/DC48VB2	KFR-50GW/DC48VB2	KFR-70GW/DC48VB2
Application area		m2	5-10	10-15	15-25	20-35	30-45
Power supply	Battery	DC	DC21~29V	DC48V(46~58V)	DC48V(46~58V)	DC48V(46~58V)	DC48V(46~58V)
Rated Cooling	Capacity	W	950~2100	2800(1000-3400)	3510(1000-3700)	5070(1200-5250)	6450(2500-7000)
		BTU	7000	9000(3400-11600)	12000(3400-12600)	17300(4100-18000)	22000(8500-23900)
	Power input	W	235~810	680(180-1060)	980(200-1200)	1450(220-1780)	1840(450-2230)
Rated Heating	Capacity	W	/	2900(800-3050)	3900(1000-4100)	5250(1200-5500)	7000(2000-7350)
		BTU	/	9900(2700-10400)	13300(3400-14000)	18000(4100-18700)	24000(10200-25000)
	Power input	W	/	830(160-950)	1130(180-1280)	1400(220-1830)	2050(390-2350)
EER (W/W)/ (BTU/W)		/	3.57/11.57	3.90/13.20	3.60/12.25	3.50/11.8	3.50/11.85
COP (W/W)/ (BTU/W)		/	/	3.50/11.90	3.45/11.75	3.75/12.80	3.40/11.70
Dehumidification capacity		L/h	1.0	1.0	1.3	1.7	2.5
Compressor	Model	/	JSN140D17TBZ	ASK89D53UEZ	ASN98D22UFZ	WHP05600	5RD198
	Type	/	Rotary	Rotary	Rotary	Rotary	Rotary
	Brand	/	GMCC	GMCC	GMCC	HIGHLY	Panasonic
Indoor fan motor	Model	/	DC24V	BLDC 15W	BLDC 15W	BLDC 45W	BLDC 45W
	Speed(Turbo/Hi/Mi/Lo)	r/min	1000/890/760	1200/1100/1000/850	1300/1200/1100/950	1050/950/850/750	1350/1250/1150/1000
Indoor air flow(Turbo/Hi/Mi/Lo)		m^3/h	450/365/345	485/435/380/305	540/485/435/350	980/880/740/620	1290/1180/1070/900
Indoor noise level (Turbo)		dB(A)	≤38	≤40	≤42.5	≤46	≤50
Indoor unit	Dimension(W×H×D)	mm	735x199x255	840×205×295	840×205×295	1080×330×237	1080×330×237
	Packing (W×H×D)	mm	820x265x325	920×290×360	920×290×360	1140×300×382	1140×300×382
	Net weight/Gross weight	Kg	7/8.15	9.0/12.5	9.0/12.5	15.0/18.5	15.0/18.5
Outdoor fan motor	Model	/	YMAP020BE01H6	BLDC 40W	BLDC 40W	BLDC 55W	BLDC 75W
Outdoor noise level		dB(A)	≤56	≤51	≤52	≤55	≤58
Outdoor unit	Dimension(W×H×D)	mm	600x232x500	802×564×323	802×564×323	802×564×323	900×700×337
	Packing (W×H×D)	mm	705x320x550	910×622×405	910×622×405	910×622×405	1006×755×418
	Net/Gross weight	Kg	17.45/20.9	28.0/32.0	32.0/36.0	36.0/40.0	51/56
Refrigerant type		/	R134a	R410a	R410a	R410a	R410a
Max Design pressure (Discharge/Suction)		MPa	1.7/0.25	4.3/1.5	4.3/1.5	4.3/1.5	4.3/1.1
Refrigerant piping	Gas side/Liquid side (mm)	mm	9.52/6.35	9.52/6.35	9.52/6.35	12.70/6.35	12.70/6.35
Drain pipe size (Ø * Length)		mm	16.9*2000	16.9*2000	16.9*2000	16.9*2000	16.9*2000
Refrigerant conenction copper pipe length		m	3	3	3	4	4
Connection wiring		m	4	4	4	5	5
Loading QTY 40" HQ/ 20"GP		Sets	319/137	200/85	200/85	160/75	115/50

Note: 1.The above data is for reference only, please refer to the product nameplate; 2.The Company reserves the right to interpret the above data.

3IN1 MULTI-FUNCTION SOLAR AIR CONDITIONER



WORKING PRINCIPLE



FEATURES

When solar power generation exceeds the air conditioners power consumption, the air conditioner operates solely on photovoltaic energy, resulting in 100% energy savings.

When solar power is insufficient, the air conditioner is powered by the battery, ensuring 100% energy savings.

If solar and battery power are insufficient, the air conditioner automatically switches to mains power, ensuring a continuous 24-hour power supply.

During rainy or cloudy weather, the air conditioner can still use mains power when the solar system is not operational.

CONFIGURATION TABLE

MODEL	SOLAR PANEL	BATTERY	3in1MPPT
9000BTU	550W*2	12V,100AH*4	48V 40A
12000BTU	550W*3	12V,150AH*4	48V 40A
18000BTU	550W*4	12V,200AH*4	48V 50A
24000BTU	550W*6	12V,250AH*4	48V 60A
30000BTU	550W*8	12V,150AH*8	48V 80A

TECHNICAL PARAMETERS

Model	Unit		KFR-26GW/ACDCB3	KFR-35GW/ACDCB3	KFR-50GW/ACDCB3	KFR-70GW/ACDCB3
Climate Type	Tropical</= 56℃		apply	apply	apply	apply
Application area		m2	10/15	15-25	20-35	30-45
Power Supply	AC Power	Ph-V-Hz				
	DC Power	V	80-380V	80-380V	80-380V	80-380V
	Solar Power Current	A	</=12	</=12	</=12	</=12
Adviced Solar Panel		Pcs	(2-3)*550w	(3-4)*550w	(4-5)*550w	(5-7)*550w
Rated Cooling	Capacity	W	2640	3520	5050	7050
		BTU	9000(2300～11200)	12000(2300～13200)	18000(6500~19200)	24000(6500~25200)
	Power input	W	712(260～1000)	1000(260～1550)	1650(560~1900)	1860(680～2600)
Rated Heating	Capacity	W	2650	3550	5120	7120
		BTU	9000	12000	18000	24000
	Power input	W	705(260～1200)	960(260～1550)	1350(400～1900)	2050(680～2600)
EER (W/W)/ (BTU/W)		/	3.71/12.64	3.52/12.0	3.1/11.0	3.79/12.9
COP (W/W)/ (BTU/W)		/	3.76/12.76	3.70/12.5	3.79/13.33	3.47/11.70
Dehumidification capacity		L/h	1.0	1.3	1.9	2.3
Compressor	Model	/	KSK103D33UEZ3	KSK103D33UEZ3	KSN140D21UFZ	KTM240D43UMT
	Type	/	Rotary	Rotary	Rotary	Rotary
	Brand	/	GMCC	GMCC	GMCC	GMCC
Indoor fan motor	Model		ZKFP-13-8-115	ZKFP-13-8-115	ZKFP-30-8-125	ZKFP-58-8-5
	Speed (Hi/Mi/Lo)	r/min	1130/1060/900	1130/1060/900	1200/1100/900	1350/1200/900
Indoor air flow (Hi/Mi/Lo)		m3/h	650/595/536	650/595/536	1200/970/630	1300/1150/650
Indoor noise level		dB(A)	≤41	≤43	≤49	≤50
Indoor unit	Dimension(W×H×D)	mm	900×290×195	900×290×195	1080×327×227	1080×327×227
	Packing (W×H×D)	mm	971×364×281	971×364×281	1150×405×310	1150×405×310
	Net weight/Gross weight	Kg	9.5/12.5	10/13	13/16	13/16
Outdoor fan motor	Model	/	ZKFP-20-10-7	ZKFP-20-10-7	ZKFN-56-8-1	ZKFN-80-8-3
Outdoor noise level		dB(A)	≤50	≤50	≤57	≤59
Outdoor unit	Dimension(W×H×D)	mm	780×255×540	780×255×540	820×300×600	900×360×640
	Packing (W×H×D)	mm	885×355×615	885×355×615	925×410×650	1045×455×700
	Net/Gross weight	Kg	28.5/32	29/32.5	37/41	48/53
Refrigerant type		/	R32	R32	R32	R32
Refrigerant Charged		g	1100	1100	1250	1400
Max Design pressure		MPa	4.30/1.15	4.30/1.15	4.30/1.15	4.30/1.15
Refrigerant copper pipe	Gas side/Liquid side	mm	9.52 / 6.35	9.52 / 6.35	12.70 / 6.35	15.88 / 6.35
Drain pipe size (Ø × Length)		mm	16.9*2000	16.9*2000	16.9*2000	16.9*2000
		m	3	3	3.5	4
Connection wire length		m	4	4	4.5	5
Container Loading 20GP/40GP/40HQ		Sets	104/228/261	104/228/261	81/166/193	60/132/155

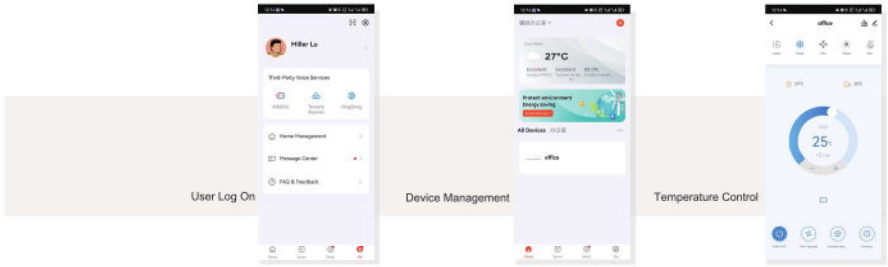
Note: 1.The above data is for reference only, please refer to the product nameplate; 2.The Company reserves the right to interpret the above data.

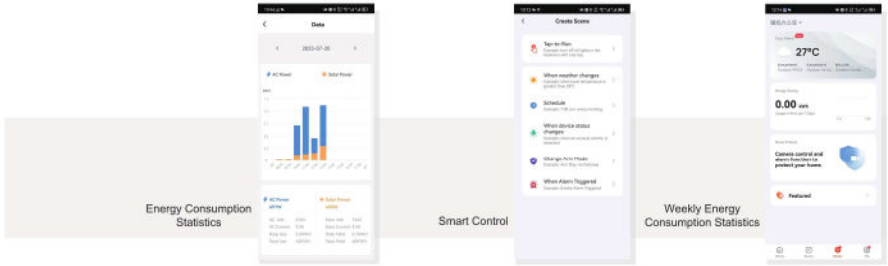
AIR CONDITIONING SOFTWARE INTERFACE

TUYA App

Enjoy Smart Life

The interface display language follows the phone system language and switc hes automatically.





THE STRUCTURAL DESIGN OF SOLAR AIR CONDITIONING

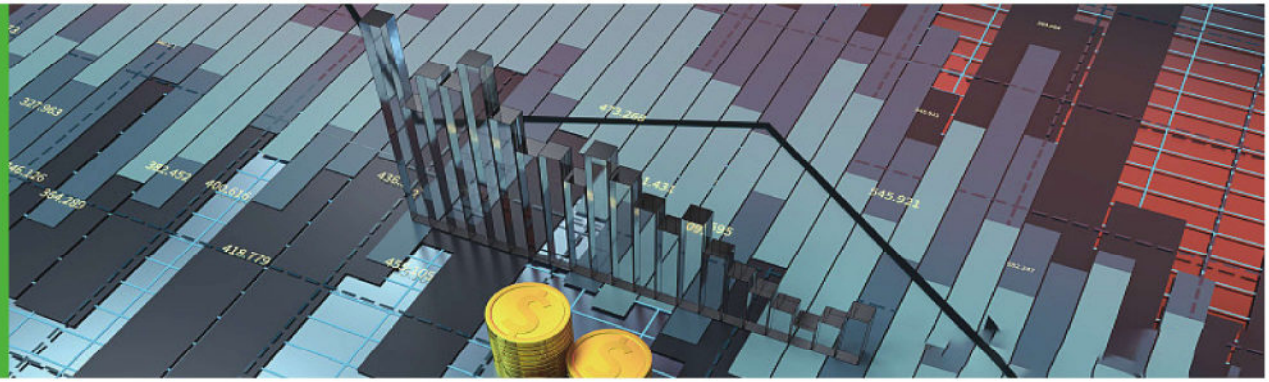
Integrated type			Split type				
Moveable	Window type	Ceiling type	Wall type	Standing type	Air Duct type	Ceiling type	Block Hanging
							

INNOVATIVE PRODUCTS FOR SOLAR AIR CONDITIONING SYSTEMS

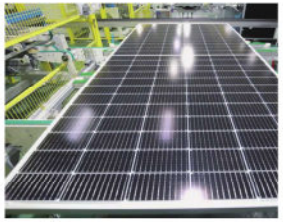
Main Parts				Accessories			
Solar Air Conditioner	Solar Panel	MPPT or PWM	Battery	Solar Panel Bracket	Solar Cable Connector	Breaker	Battery Cable
							

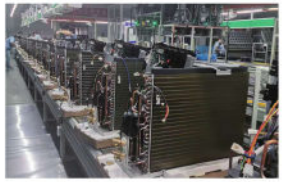
FROM PRODUCTION TO DELIVERY

Production Workshop Pictures | Packaging Pictures | Application Cases

























Environmentally Sustainability Save Electricity

TECHNOLOGY



SOLAR ENERGY AIR CONDITIONER

TEMPERATURE MANAGEMENT & ENERGY SAVING