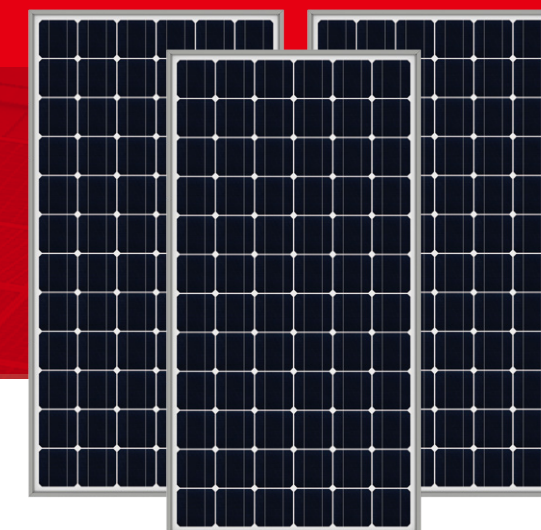


**Product Parameters** ➤

***Demesilo***

# Solar Air Conditioner Solar Freezer

Your Energy, Our Innovation.



[www.demesilo.com](http://www.demesilo.com)

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VERSION:20241206

**Solar Solutions Supplier**

## WE ARE THE EXPERTS

We are the solar air conditioner solution provider, not only sell the solar air conditioner but also provide professional solar solutions to our clients. Our target is to let the people all around the world enjoy the environment protection energy saving solar air conditioner.

### ★ EXPERIENCE

20 years in HVAC field and 8 years in Solar Air Conditioner

### ★ SERVICE

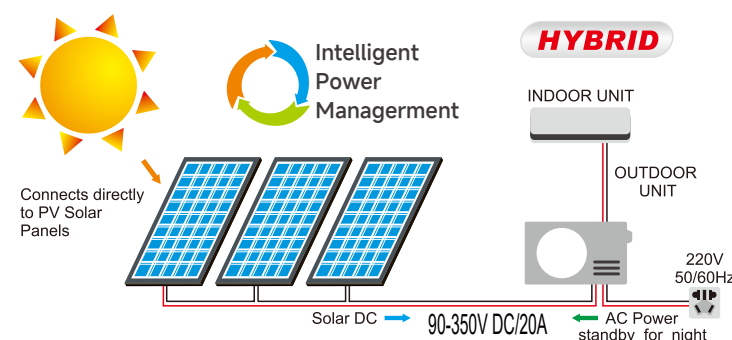
Provide not only the high-quality products but also the full solar solutions.

### ★ PROFESSIONAL

Leave the green energy saving solution to professional people please, we can provide you time & money-saving, and safety service.



## SYSTEM DIAGRAM



The ACDC Hybrid Solar Air Conditioner is different as the regular DC inverter air conditioners. During the day, it runs directly on DC power from solar panels. With the intelligent Power Management technology, this system can directly utilize the DC power from the solar panels, no longer need an inverter controller or battery. During the sunshine day, when the solar power generated is bigger than the air conditioner power consumption, the ACDC hybrid solar air conditioner can get most power from the solar panels, the efficiency high up to SEER36 rating. The unit can be connected with up to 310V/10A solar DC power. This system is designed for hybrid operation by utilizing the solar providing all the power required during sunshine hours. This system primarily uses solar power, and mixes it with normal 220V~240V AC power if needed.

## SYSTEM COMPONENT

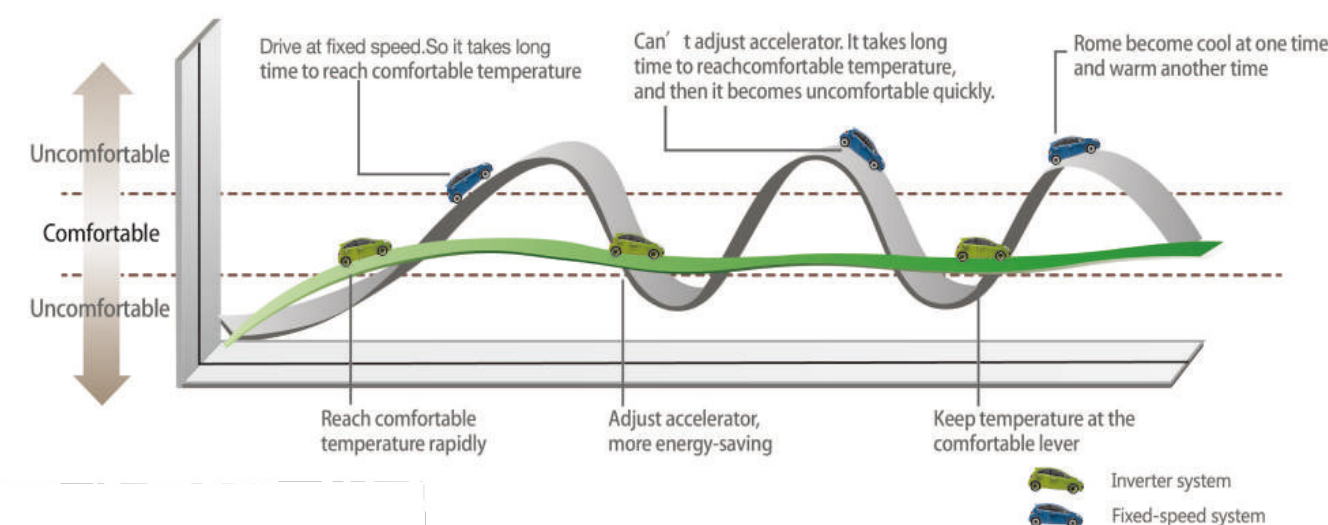


Indoor & Outdoor unit both adopting DC brushless fan motor and DC permanent magnet rare earth compressor, greatly reduce the energy loss, ensured low noise. Moreover, the DC brushless fan motor can adjust the frequency and cool/heat power accordingly.

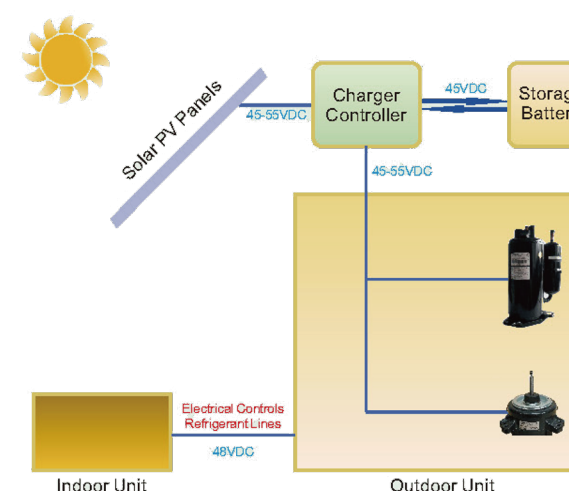
- 1: The DC motor allows fine rotation control, which reduces energy consumption.
- 2: The DC motor also provides improvements in operational efficiency of up to 35% compared to an AC motor.

## OUTSTANDING FEATURE

Our ACDC Hybrid Solar Air Conditioner system is designed to use solar: When the grid voltage low to 165V, our system can still work well. Besides the compressor and control circuit, all the main components are DC powered, like high efficient DC fan motor, compressor and electronic expansion valve. There are several sensors in the system detect the circuit, control the refrigerant flow volume through the electronic expansion valve, thus achieve perfect combination of intelligent refrigerant flow and inverter technology, raise or lower the air conditioner's cooling/heating capacity according to the actual conditions. The inverter controller manages compressor running speed, refrigerant flow volume and fan speed etc., these all can be managed through the several sensors detect the circuit, and adjust automatically according to the actual conditions. When the room temperature is approached to the setting temperature, the system will automatically lower its capacity and power consumption, so the inverter Variable Refrigerant Flow (VRF) technology itself can save 40%~50% compared to the regular air conditioner.



## HOW IT WORKS



- In Sunshine day, the solar panel produce the DC48V power to charge the battery to store the power, at the same time provide the power to DC48V compressor and fan motor, then it will cooling or heating the room.
- 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.



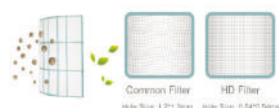
## FEATURES



Advanced variable angle air flow design, increased air flow volume and distribution, more comfortable. The long distance air distribution design can cool/heat the room quickly!



High strength zinc coated material, strictly anticorrosion process treatment. Even installed at seaside places, still has longer life time than the regular air conditioner.



Multi-layer air filter, good for your health.



The ACDC Hybrid Solar Air Conditioner installation is very simple and convenient, similar like the regular air conditioner, connect with the solar panels after installed,



Press the "ECO" on the remote controller, the air conditioner instantly enters into ECO energy saving mode without fussy setting and operate.



Auto restart memory function, when the grid power comes back after power cut, the air conditioner can automatically restart and run under previously setting mode.



Outdoor main board reverse installation design, better anti-fungus, better duct and wind prevention, especially suitable for GCC countries.



Intelligent design Mobile APP control, terminal centralized control, uniform management, more energy saving and convenient.



Super wide operating temp. range:  $-10^{\circ}\text{C} \sim 52^{\circ}\text{C}$



Solar panel connection on outdoor unit: Easy installation and maintenance, Plug & Run

## FEATURES

The Hybrid ACDC Solar Air Conditioner does not require any battery, and just need a few solar panels to deliver huge saving. During the sunshine day, when air conditioner is needed at the most, you can operate this unit up to 100% by solar panels. When night comes, you continue to save > SEER 21 rating on this unit.



High efficiency brushless inverter permanent-magnet compressor



0.1Hz low frequency running, low power consumption



R410a environment protection refrigerant



Indoor unit noise level low to 26 dB



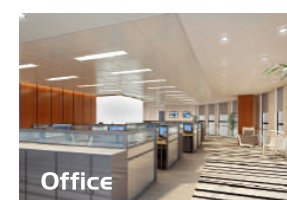
30s fast cooling/ 1 min powerful heating



Built-in MPPT, maximum utilizes the solar power during the day

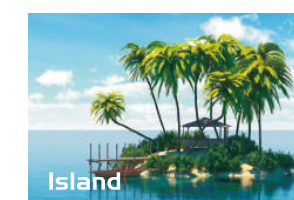
## APPLICATION SCENARIOS

### On grid (ACDC)



The places where air conditioner needed mostly during the day

### Off grid (DC48v)



The places where there is no 220v-240v AC grid power available

### On/off grid



The places where often grid power cut

### On grid (ACDC) Light commercial and Central systems



Provide full solutions for different requirements

Hybrid Solar  
Air Conditioners



PRODUCTS FEATURES

- 1. High efficiently,30-70% energy saving ,comfortable and money saving, the SEER exceed to 6.5, all of the solar air conditioner is A++ or A+++.
- 2. Durable and long-lived, smooth running. Low-loaded operation of the compressor to extend its duration.
- 3.Healthy and comfortable, constant temperature and keeping air conditioner disease away.
- 4. Super luxurious appearance decorates your home. Indoor panel adopts aluminum alloy and wire drawing metal color board to make your house more sparkling.
- 5. Automatic open and close dust proof air outlet.
- 6, Easy installation, same as the traditional air conditioner,
- 7. With strong adapt ability, our hybrid solar air conditioner can run at super low and high temperature from -7 to 53 ℃.
- 8. Exceeding the national standards and applicable to all kinds of environment.

Wall Mounted Type Hybrid Solar Air Conditioner

Parameters

Model No.			TKF(R)-26GWA	TKF(R)-32GWA	TKF(R)-35GWA	TKF(R)-52GWA	TKF(R)-60GWA	TKF(R)-72GWA	TKF(R)-100GWA
POWER			1HP	1.25HP	1.5HP	2HP	2.5HP	3HP	4HP
			0.75TON	0.9TON	1TON	1.5TON	1.8TON	2TON	3TON
Power Supply:220-240VAC, 1PH, 50/60Hz									
Performance									
Capacity	Cooling	Btu/h	9000	11500	12000	18000	20000	24000	36000
		W	2600	3200	3500	5200	6000	7200	10000
	Heating	Btu/h	10000	12000	13000	20000	22000	27000	40000
		W	2900	3500	3800	6000	6600	7900	11000
Noise	Indoor	dB(A)	≤40	≤42	≤42	≤44	≤46	≤50	≤52
	Outdoor	dB(A)	≤50	≤52	≤52	≤54	≤56	≤58	≤60
Air Circulation		m³/h	500	520	550	800	850	1150	1350
Suitable Area		m²	11~17	13~21	15~23	26~36	25~42	30~48	40~60
EER		W/W	3.84	3.72	3.89	3.83	3.88	3.82	3.82
		Btu/h/w	12.42	12.69	13.27	13.07	13.24	13.03	13.03
Power Consumption									
Power Input	Cooling	W	650~770	780~940	800~1025	1100~1300	1350~1560	1700~1900	2400~2640
	Heating	W	650~780	780~950	800~1050	1150~1350	1350~1590	1700~1950	2470~2650
Rated Current	Cooling	A	3.00~3.60	3.55~4.27	3.70~4.80	6.30~7.30	6.30~7.30	8.00~8.90	10.91~11.95
	Heating	A	3.00~3.65	3.55~4.31	3.70~4.90	6.30~7.50	6.30~7.50	8.00~8.90	11.23~12.05

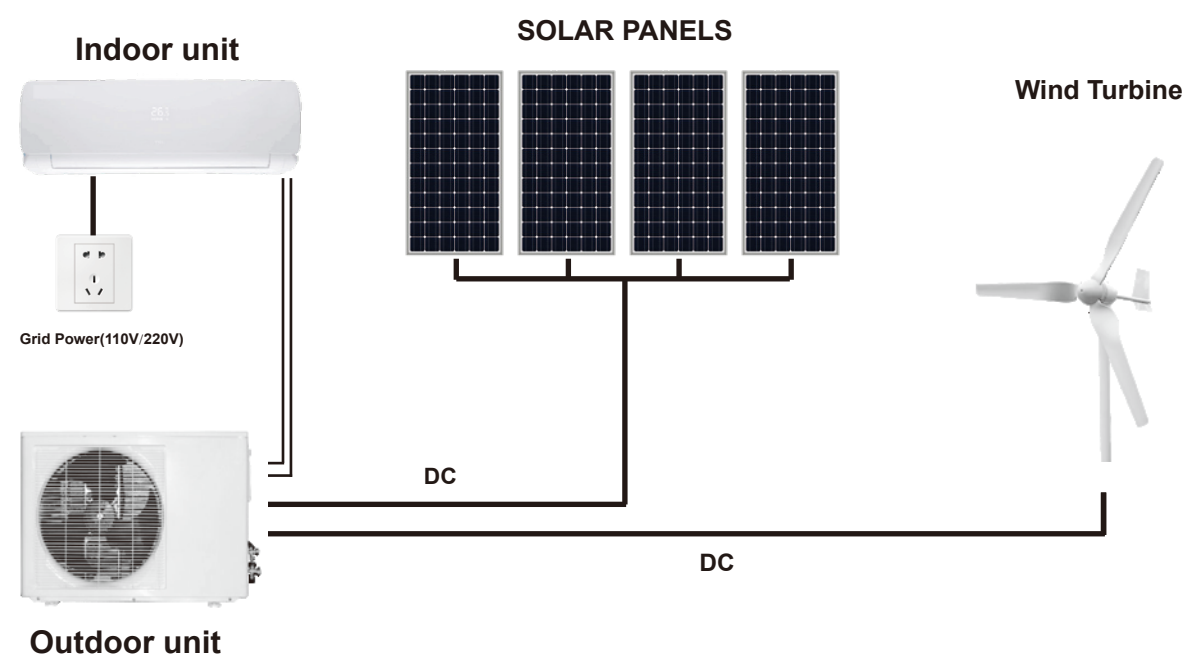
Cassette Type Hybrid Solar Air Conditioner

Parameters

Model No.			TKF(R)-60QW	TKF(R)-72QW	TKF(R)-100QW	TKF(R)-120QW	TKF(R)-140QW
Power Supply:220-240VAC, 1PH, 50/60Hz							
Performance							
Capacity	Cooling	Btu/h	20000	24000	36000	41000	48000
		W	6000	7200	10000	12000	14000
	Heating	Btu/h	22000+1700	27000+1700	40000+1700	46000+1700	55000+1700
		W	6600+500	7900+500	12000+500	14000+500	16000+500
Noise	Indoor	dB(A)	≤45	≤49	≤49	≤50	≤50
	Outdoor	dB(A)	≤56	≤58	≤58	≤60	≤60
Air Circulation		m³/h	800	1250	1700	1800	1900
Suitable Area		m²	25~42	30~48	42~67	50~80	58~93
EER		W/W	3.88	3.82	3.87	3.96	3.87
		Btu/h/w	13.24	13.03	13.2	13.51	13.2
Power Consumption							
Power Input	Cooling	W	1350~1560	1700~1900	2400~2640	2900~3150	3500~3740
	Heating	W	1350~1590+500	1700~1950+500	2470~2650+500	2900~3180+500	3500~3760+500
Rated Current	Cooling	A	6.14~7.09	7.73~8.64	10.91~11.95	13.18~14.32	15.91~17
	Heating	A	6.14~7.23+2.2	7.73~8.66+2.2	11.23~12.05+2.2	13.18~14.45+2.2	15.91~17.09+22
Vacuum Tube	Diameter×Length×Pcs		47mm×620mm×11	47mm×620mm×11	47mm×620mm×11	47mm×1200mm×13	47mm×1200mm×13



On-Grid Inverter  
Solar Air Conditioner



PRODUCTS FEATURES

1. Auto-switch between DC solar energy and 220VAC grid power;
2. 100% driven by solar energy during sunshine time;
3. Maximum energy saving:100%;
4. Super Luxurious appearance and LED display;
5. Run smoothly at -10℃ to +55℃;
6. Multi-layer air filters;
7. Low temperature and low current start;
8. Easy use by remote controller.

On-Grid Inverter Solar Air Conditioner

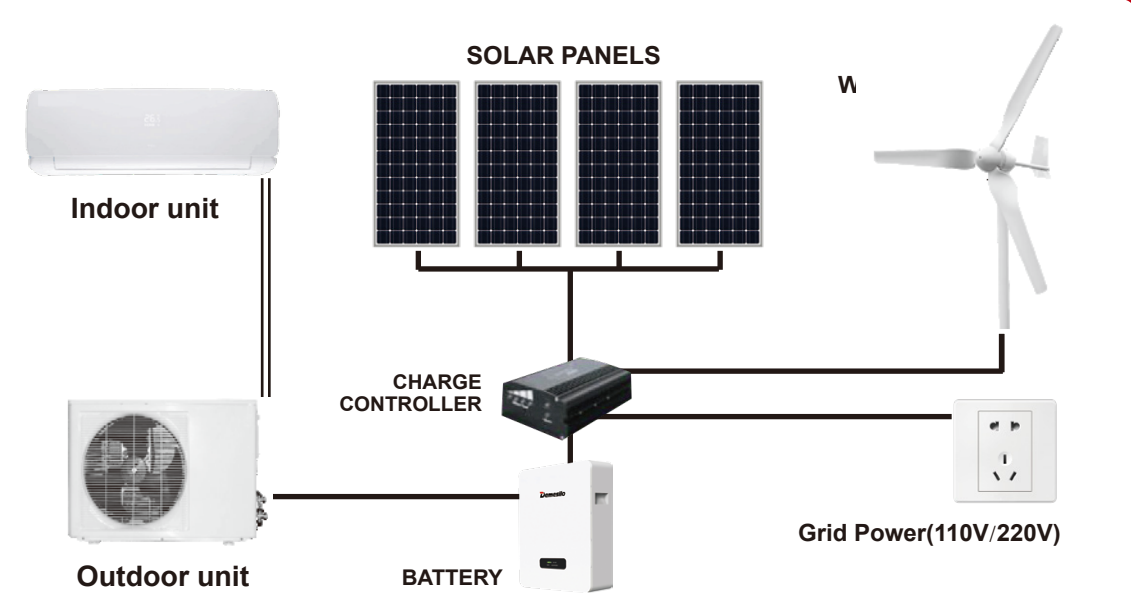
Parameters

Model No.			KF(R)-26GW/OG	KF(R)-35GW/OG	KF(R)-52GW/OG	KF(R)-60GW/OG	KF(R)-72GW/OG
POWER	Ton		0.75ton	1ton	1.5ton	1.8ton	2ton
	HP		1HP	1.5HP	2HP	2.5HP	3HP
Power Supply:208~240V,50/60HZ							
Performance							
Capacity	Cooling	Btu/h	9000	12000	18000	20000	24000
		W	2600	3500	5200	6000	7200
	Heating	Btu/h	10000	13000	20000	22000	27000
		W	2800	3700	5400	6600	7900
Noise	Indoor	dB(A)	≤40	≤42	≤44	≤45	≤46
	Outdoor	dB(A)	≤50	≤52	≤55	≤56	≤58
Air Circulation		m³/h	450	550	750	850	1050
Suitable Area		m²	10~15	12~25	20~35	22~40	25~45
EER		W/W	5.2	4.7	4.5	4.5	4.4
SEER		Btu/h/w	35	34	34	34	33
cop		W/W	5.8	5.2	4.9	4.9	4.8
scop		Btu/h/w	39	37	37	37	36
HSPF		Btu/h/w	12	12	13	14	14
Operating Range		C/F	16C-31C/5F-122F				
Design pressure		PSI	550 / 340				
Refrigerant Oil			VG74				
Refrigerant			R410A				
Compressor			TOSHIBA (ROTAY)				
Liquid side/ Gas side			1/4"/3/8"	1/4" / 1/2"	1/4" / 1/2"	1/4" / 1/2"	1/4" / 1/2"
DC Connection /Wire			MC4/AWG 10/12	MC4/AWG 10/12	MC4/AWG 10/12	MC4/AWG 10/12	MC4/AWG 10/12
Power Consumption							
Rated Power Input		W	450	750	950	1150	1250
Rated Current		A	2.05	3.41	4.32	5.61	5.68
MAX SOLAR PANELS			3x250W/36V	4x250W/36V	4x250W/36V	4x250W/36V	4x300W/36V

**Demesilo**

**0.75HP-3HP**

# DC Pure Solar Air Conditioner



## PRODUCTS FEATURES

1. Work voltage from DV42V to DC60V;
2. High-SEER BLDC (Brushless DC) permanent magnet compressor;
3. No Inverter -100% DC operation;
4. Solar powered air conditioning requires no AC power;
5. Compressor provides high efficiency operation and slow start;
6. Overnight operation available;
7. Innovative control logic for energy saving;
8. Runs smoothly at -10 °C to +55 °C ;
9. Works with external standard solar charge controller;
10. Quiet operation.

## DC Pure Solar Air Conditioner

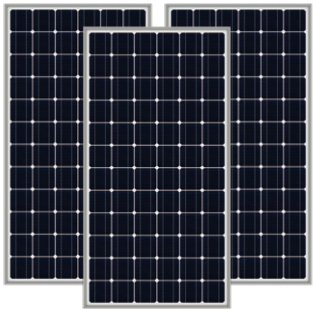
### Parameters

Model No.			KFR-17GW/DC	KFR-26GW/DC	KFR-35GW/DC	KFR-50GW/DC	KFR-60GW/DC	KFR-72GW/DC
POWER			0.75HP	1HP	1.5HP	2HP	2.5HP	3HP
			0.5ton	0.75ton	1ton	1.5ton	1.8ton	2ton
Power Consumption								
Capacity	Cooling	Btu/h	6000	9000	12000	18000	20000	24000
		W	1700	2600	3500	5200	6000	7200
	Heating	Btu/h	7000	10000	13000	20000	24000	27000
		W	1900	2800	3700	6000	7000	7900
Noise	Indoor	dB(A)	≤36	≤40	≤42	≤43	≤45	≤50
	Outdoor	dB(A)	≤48	≤50	≤52	≤54	≤56	≤58
Air Circulation		m³/h	400	450	550	650	850	1050
Suitable Area		m²	6~10	10~15	12~25	20~30	26~42	30~48
EER		W/W	4.52	4.56	4.67	4.73	4.66	4.67
		Btu/h/w	15.88	15.79	16.00	16.36	16.67	16.00
Refrigerant			R-134A	R-134A	R-134A	R-134A	R-134A	R-134A
Work Temp.		℃	-15~60	-15~60	-15~60	-15~60	-15~60	-15~60
Power Consumption								
Power Input		W	350	500	750	1100	1200	1300
Rated Current		A	32.5	19/9.5	16	22	24	30
Input Power		V	DC 12	DC24/48	DC 48	DC 48	DC 48	DC 48

Portable Solar  
Air Conditioner



AIR CONDITIONER



SOLAR PANELS



BATTERY

PRODUCTS FEATURES

- 1. Panasonic DC24V compressor and fan motors
- 2. 100% solar Dc power no need any electricity
- 3. fashionable design with remote control
- 4. ideal for office and home use as an air conditioner, a fan cooler and a dehumidifier
- 5. environmental-friendly refrigerant RI34a
- 6. super large air outlet, strong wind and good performance
- 7. large operation area on top panel, electronic control and remote control available
- 8. Up to 24 hours timer
- 9. low noise and high energy efficiency, EER A Class
- 10. patented design of exhaust hose, easy installation and disassembly
- 11. self-evaporative system, condensate water recycled inside the unit to improve energy efficiency

Portable solar air conditioner

Parameters

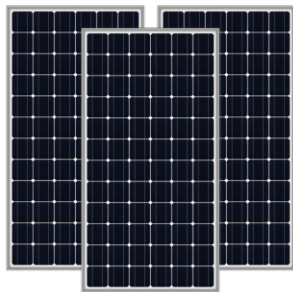
Model No.		TKP-26/DC		TKP-35/DC
Power Supply:24VDC(21V to30V)				
Performance				
Capacity	Cooling	Btu/h	9000	12000
		W	2600	3500
	Heating	Btu/h	10000	13000
		W	2800	3800
Noise		dB(A)	≤44	≤46
Air Circulation		mi/h	400	500
Suitable Area		ml	8-10	10-15
EER		W/W	5.20	5.00
		Bty/h/w	15.79	15.79
Refrigerant			R-134A	R-134A
Compressor		Panasonic DC 24V		
Power Consumption				
Rated Power Input		W	500	700
Rated Current		A	22	30
Input Power range		V	DC 21-30	DC 21-30
Dimension				
Unit	Shipping	mm	350x350x756	350x350x756
	NET	mm	550x398x788	550x398x788
Weight				
Indoor Unit	Net/Gross	kg	18/22	22/26



Window Type  
DC Solar Air Conditioner



AIR CONDITIONER



SOLAR PANELS



BATTERY

PRODUCTS FEATURES

- 1. Soft current start
- 2. 100% solar operation
- 3. Environmental friendly
- 4. Powerful Cooling
- 5. High efficiency
- 6. LED temperture digital display
- 7. Self-diagnose capability, error code showing
- 8. Auto-defrosting,Energy Saving,Quiet operation

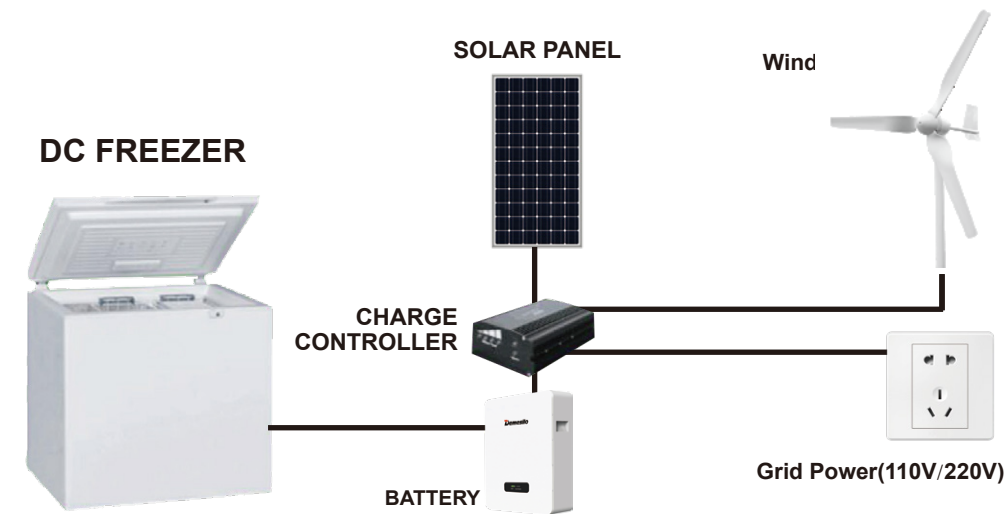
Window Type DC Solar Air Conditioner

Parameters

Model No.		KC(R)-17Y/DC	KC(R)-25Y/DC	KC(R)-35Y/DC	KC(R)-45Y/DC
Remote Control		9000BTU /0.75Ton		12000BTU /1Ton-15000BTU /1.25TON	
BTU		6000BTU	9000BTU	12000BTU	15000BTU
Power Supply		DC12V124V	DC24V148V	DC48V	DC48V
Refrigerant		R134A	R134A	R134A	R134A
Capacity		1700W/6000BTU	2500W/9000BTU	3500W/12000BTU	4000W/14000BTU
Input Power	Cooling	350W	500W	750W	900W
	Heating	300W	470W	730W	880W
Currency (Amp)	Cooling	7.3A	11.1A	15.6A	18.5A
	Heating	6.5A	10.8A	14.8A	18.3A
EER		4.85	4.88	4.79	4.75
Air flow (m³/hour)		350	390	450	520
Noise(dBA)		52-55	52-55	54-58	56-60
Weight (Net/Gross)		30kg/32kg	31kg/33kg	42kg/44kg	45kg/47kg
Product Dimension		450*540*350mm	450*540*350mm	560*650*400mm	560*650*400mm
Package Dimansion		550*620*440mm	550*620*440mm	620 700*445mm	620*715*445mm
Quantity(20ft/40HQ)/pcs		200/500	200/500	110/340	110/340



Deep Chest  
DC Solar Freezer



PRODUCTS FEATURES

- 1. DC12V/24V 36V inverter compressor energy saving  
low noise cooling quickly;
- 2. Free of power cost,making contribution to environment,
- 3. It can be used without electricity power,
- 4. Fast freezing and Refrigerant:-22 to +10℃ ,
- 5. DC12V/24V/36V self-adaption

Deep Chest DC Solar Freezer

Parameters

Model No.	BD-115	BD-215	BD-315	BD-455
Power consumption	0.32kwh/day	0.36kwh/day	0.4kwh/day	0.4kwh/day
Input voltage	DC12/24/36V	DC24/36V	DC24/36V	DC24/36V
Refrigerantion	R134A	R134A	R134A	R134A
Freeze capacity	115L	215L	315L	455L
Cooing performance	-22℃	-22℃	-22℃	-22℃
Net size(mm)	580×555×850	906×555×850	1110*643*850	1280*735*850
Gross size(mm)	617×577×882	943×577×882	1147*670*882	1317*757*882
N.W. /G.W(KG)	27/30	42/46	46/52	66/72

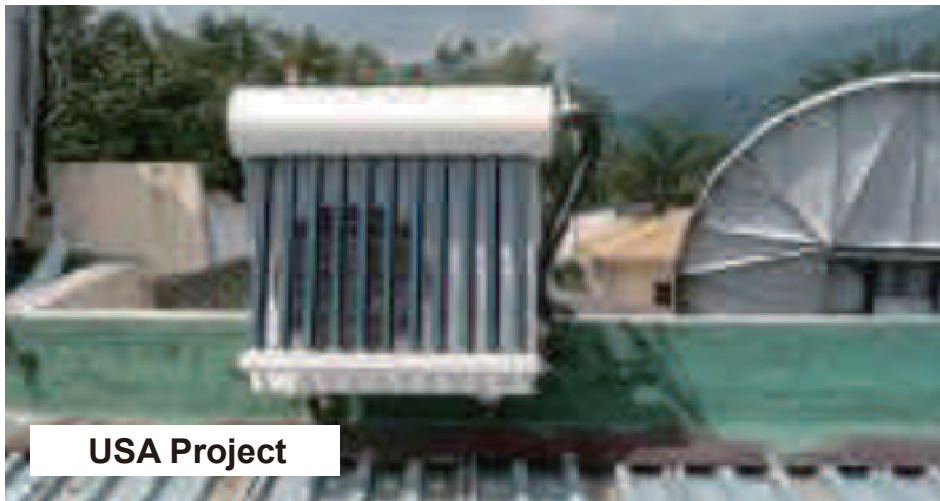
**PROJECT DISPLAY**



**Pakistan Project**



**Dubai Project**



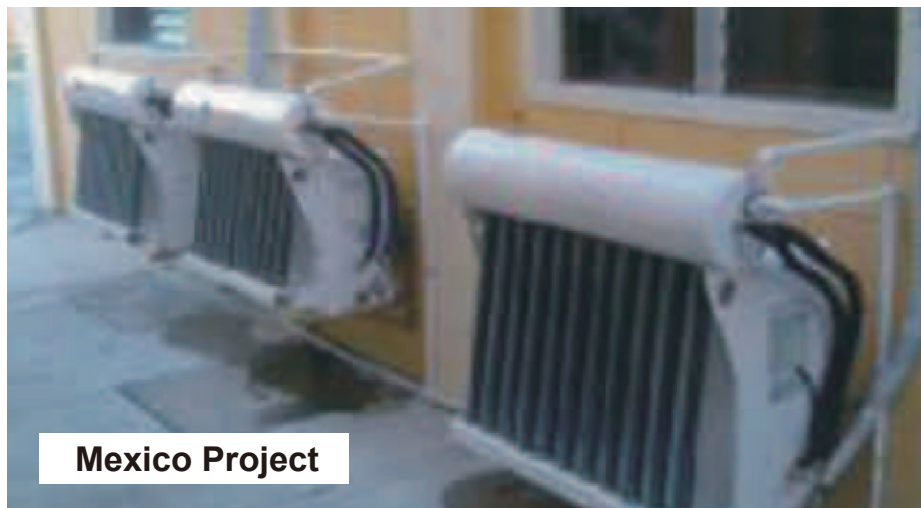
**USA Project**



**Australia Project**



**Egypt Project**



**Mexico Project**