

# SOLAR AIR CONDITIONER

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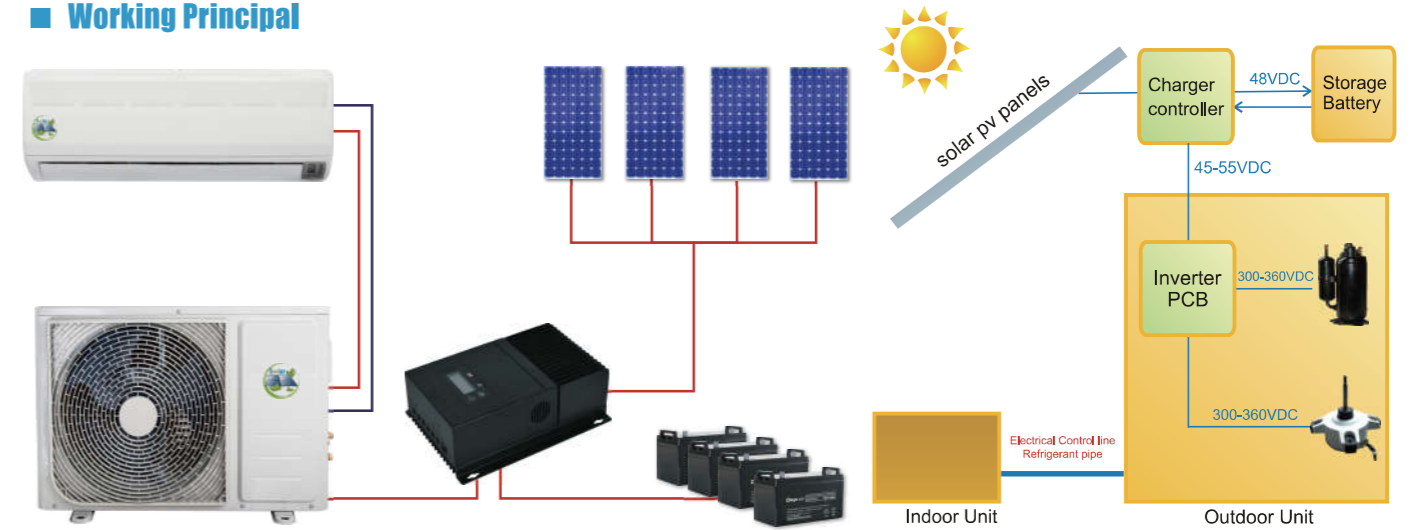
# 100% Solar Powered Air Conditioner

## Off Grid Solar Air Conditioner



### Off Grid Solar Air Conditioner

#### Working Principal



Feature: Off grid, Storage battery & MPPT .

Advantage: No using electricity, Solar energy storage available.

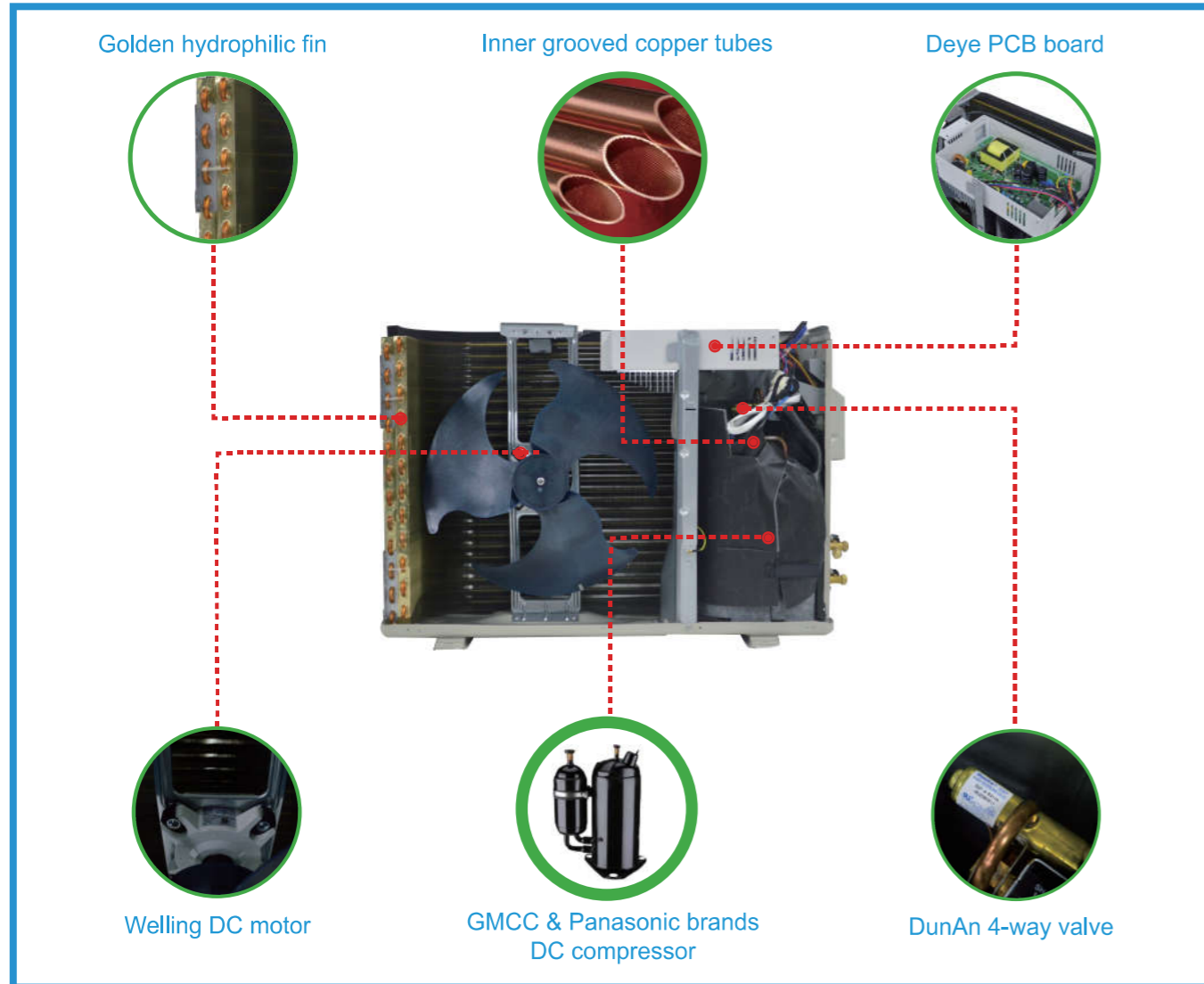
Benefit: No bill for electricity, and apply to area without electricity, No matter day time or night time, with sunshine or without sunshine, can use AC freely.

#### Applicable Places



## ■ Technical Features

- 1: Direct DC 48V power supply, no extra conversion device.
- 2: Easy installation, very similar to the traditional air conditioner.
- 3: Not limited by power supply and climate, apply for any place use. (Suitable for T3 tropical area)
- 4: Full 3D Control, adopting well-known DC compressor, DC indoor & outdoor fan motor.



## ■ Off Grid Technical Data Parameters

Model			KFR-26GW/BPDC48V-TWA1	KFR-35GW/BPDC48V-TWA1	KFR-50GW/BPDC48V-TWA1	KFR-70GW/BPDC48V-TWA1
Power supply	(DC)	V	48-60	48-60	48-60	48-60
Cooling	Rated Capacity	W	2600(1000-3500)	3500(1000-4100)	5275(1200-5600)	7000(2500-7800)
		Btu/h	9000(3400-12000)	12000(3400-14000)	18000 (4100-19000)	24000 (8500-26600)
	Power Input	W	640(200-990)	850(190-1250)	1600(185-2000)	2100(450-3300)
Heating	Rated Capacity	W	3800(800-4000)	4300(1000-4500)	6200(1200-6800)	7800(2000-8800)
		Btu/h	13000(2700-13400)	14600(3400-15300)	21000 (4100-23000)	26600 (10200-30000)
	Power Input	W	1040(160-1310)	1100(150-1700)	1745(220-2500)	2300(390-3500)
Indoor air flow (Turbo/Hi/Mi/Lo)		m3/h	580/520/440/370	650/620/500/400	1020 /1000/ 800/700	1200 /1150/850/740
Indoor noise level (Turbo/Hi/Mi/Lo)		dB(A)	41/39/35/27	42.5/42/37/29	46/46/42/35	50/50/45/39
Indoor unit	Dimension(W*D*H)	mm	823*300*244	823*300*244	1150*300*260	1150*300*260
	Packing (W*D*H)	mm	890*360*300	890*360*300	1230*360*320	1230*360*320
	Net/Gross weight	Kg	10/12	10/12	14/18	15/18.5
Outdoor unit	Dimension(W*D*H)	mm	800*325*550	800*325*550	800*325*550	912*375*712
	Packing (W*D*H)	mm	900*400*610	900*400*610	900*400*610	1040*465*768
	Net/Gross weight	Kg	30/34	32.5/36.5	37.5/42	54.5/61
Refrigerant type			R410A	R410A	R410A	R410A
Operation temperature		℃	16-32			
Ambient temp (cooling/heating)		℃	16-55/-20-31			
Application area		m2	8-15	15-20	20-30	32-42
Loading capacity(20GP/40HQ)		set	80/210	80/210	70/180	50/125

■ Off grid - Battery and solar panel quantity

Cooling capacity: 9000 BTU		
Working Time	The components	Quantity (PC)
8 hours	solar panel(265/275W)	4
	Storage battery (12V 150Ah)	4
	48V Controller(45A)	1
Working Time	The components	Quantity (PC)
12 hours	solar panel(265/275W)	6
	Storage battery (12V 200Ah)	4
	48V Controller(45A)	1
Working Time	The components	Quantity (PC)
16 hours	solar panel(265/275W)	8
	Storage battery (12V 150Ah)	8
	48V Controller(45A)	1
Working Time	The components	Quantity (PC)
20 hours	solar panel(265/275W)	10
	Storage battery (12V 200Ah)	8
	48V Controller(60A)	1

Cooling capacity: 12000 BTU		
Working Time	The components	Quantity (PC)
8 hours	solar panel(265/275W)	6
	Storage battery (12V 200Ah)	4
	48V Controller(45A)	1
Working Time	The components	Quantity (PC)
12 hours	solar panel(265/275W)	8
	Storage battery (12V 150Ah)	8
	48V Controller(45A)	1
Working Time	The components	Quantity (PC)
16 hours	solar panel(265/275W)	10
	Storage battery (12V 200Ah)	8
	48V Controller(60A)	1
Working Time	The components	Quantity (PC)
20 hours	solar panel(265/275W)	12
	Storage battery (12V 250Ah)	8
	48V Controller(75A)	1

■ Off grid - Battery and solar panel quantity

Cooling capacity: 18000 BTU		
Working Time	The components	Quantity (PC)
8 hours	solar panel(265/275W)	9
	Storage battery (12V 150A h)	8
	48V Controller(60A)	1
Working Time	The components	Quantity (PC)
12 hours	solar panel(265/275W)	14
	Storage battery (12V 250A h)	8
	48V Controller(75A)	1
Working Time	The components	Quantity (PC)
16 hours	solar panel(265/275W)	18
	Storage battery (12V 250A h)	12
	48V Controller(95A)	1
Working Time	The components	Quantity (PC)
20 hours	solar panel(265/275W)	21
	Storage battery (12V 200A h)	16
	48V Controller(60A)	2

Cooling capacity: 24000 BTU		
Working Time	The components	Quantity (PC)
8 hours	solar panel(265/275W)	12
	Storage battery (12V 200A h)	8
	48V Controller(60A)	1
Working Time	The components	Quantity (PC)
12 hours	solar panel(265/275W)	18
	Storage battery (12V 200A h)	12
	48V Controller(95A)	1
Working Time	The components	Quantity (PC)
16 hours	solar panel(265/275W)	24
	Storage battery (12V 150A h)	24
	48V Controller(60A)	2
Working Time	The components	Quantity (PC)
20 hours	solar panel(265/275W)	30
	Storage battery (12V 250A h)	16
	48V Controller(75A)	2

# On Grid Hybrid Solar Air Conditioner

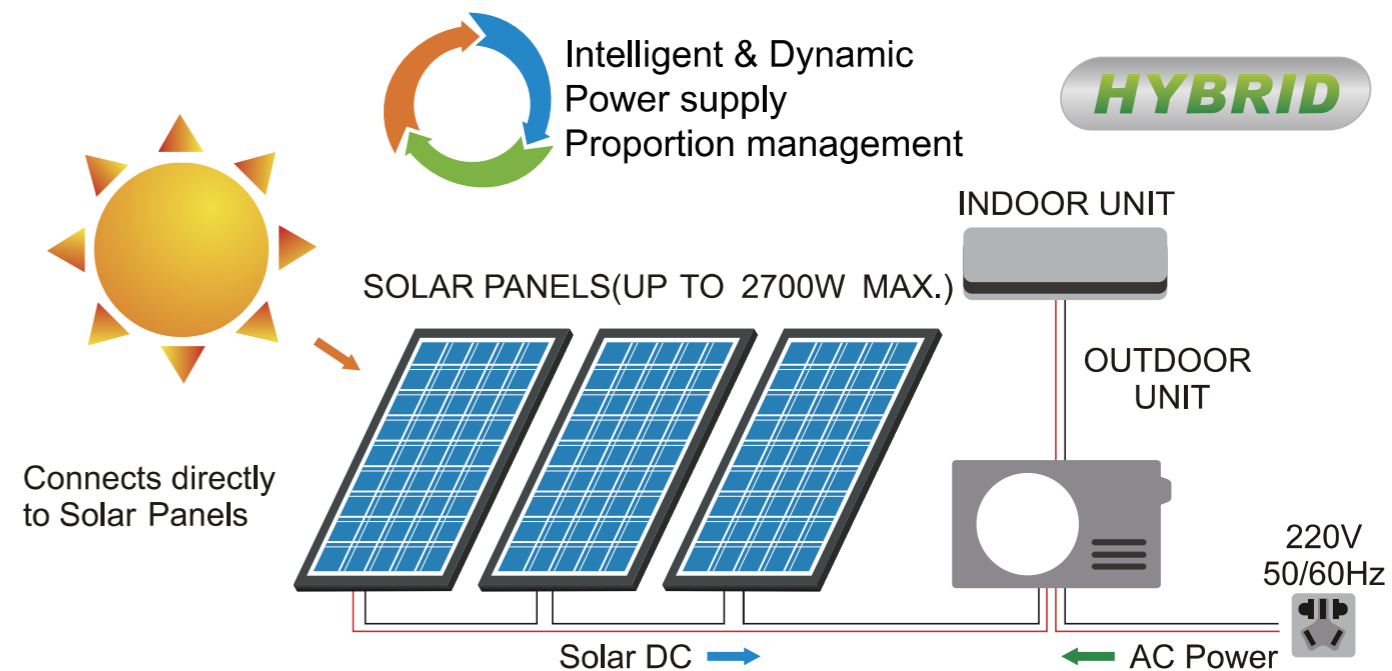
AC / DC  
Dual Power  
Supply



CB CE



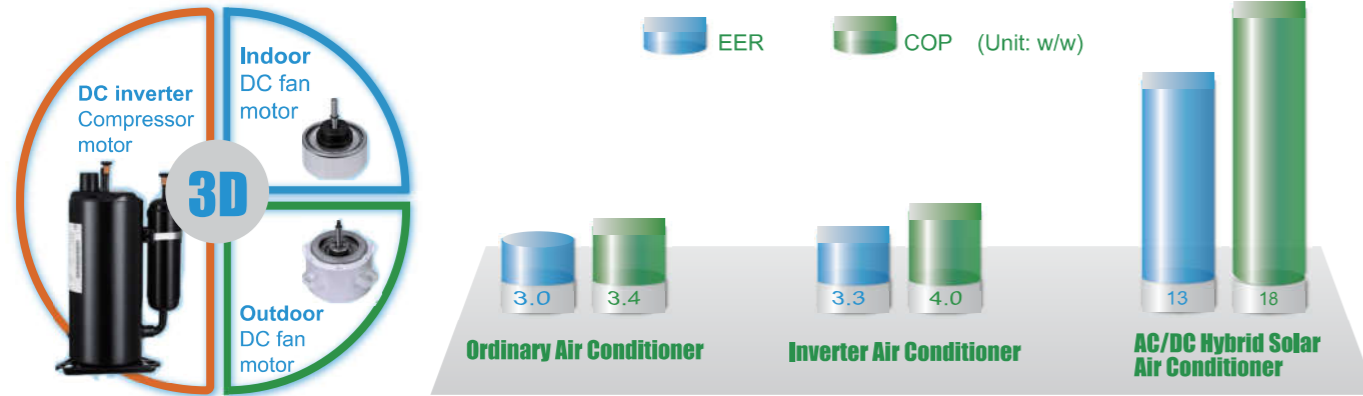
## On Grid Hybrid Solar Air Conditioner (AC/DC)



### Hybrid System F A B:

- ✓ Feature: Double power.
- ✓ Advantage: Saving electricity, max 95% and average 70%, easy installation.
- ✓ Benefit: Reduce electricity cost, and the same installation with usual AC.
  
- ✓ Feature: Dynamic adjust and solar priority.
- ✓ Advantage: The proportion of solar and electricity is dynamic, when solar down the electricity will up. When no sunshine it will be a full DC inverter by electricity.
- ✓ Benefit: Min 2\*265W solar panels, without solar panels can be used as normal DC inverter.

## Full DC control, superior performance, more cost saving.

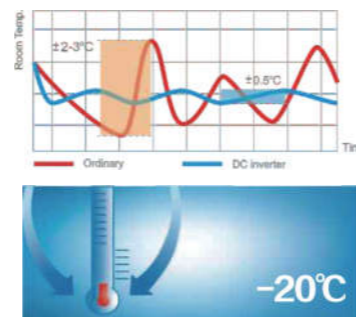


### 1.High-quality components

- R410A** Environment friendly refrigerant R410A
- GMCC** Well-known brand DC compressor
- Deye 德业** PCB control system
- SANHUA** Top brand electronic expansion valve
- Welling** DC remarkable brand indoor & outdoor motor

### 2.Advanced frequency control technology

- 180°sine wave DC inverter technology (Min 1Hz)**
- 150V-260V Wide-range voltage operation**
- Power factor correction technology**
- Precise temperature control with  $\pm 0.5$  °C**
- 20°C low temperature start**
- Double row golden fin(faultless) with hydrophilic and anti-corrosion function**



### 3.User-friendly design, Extreme convenience

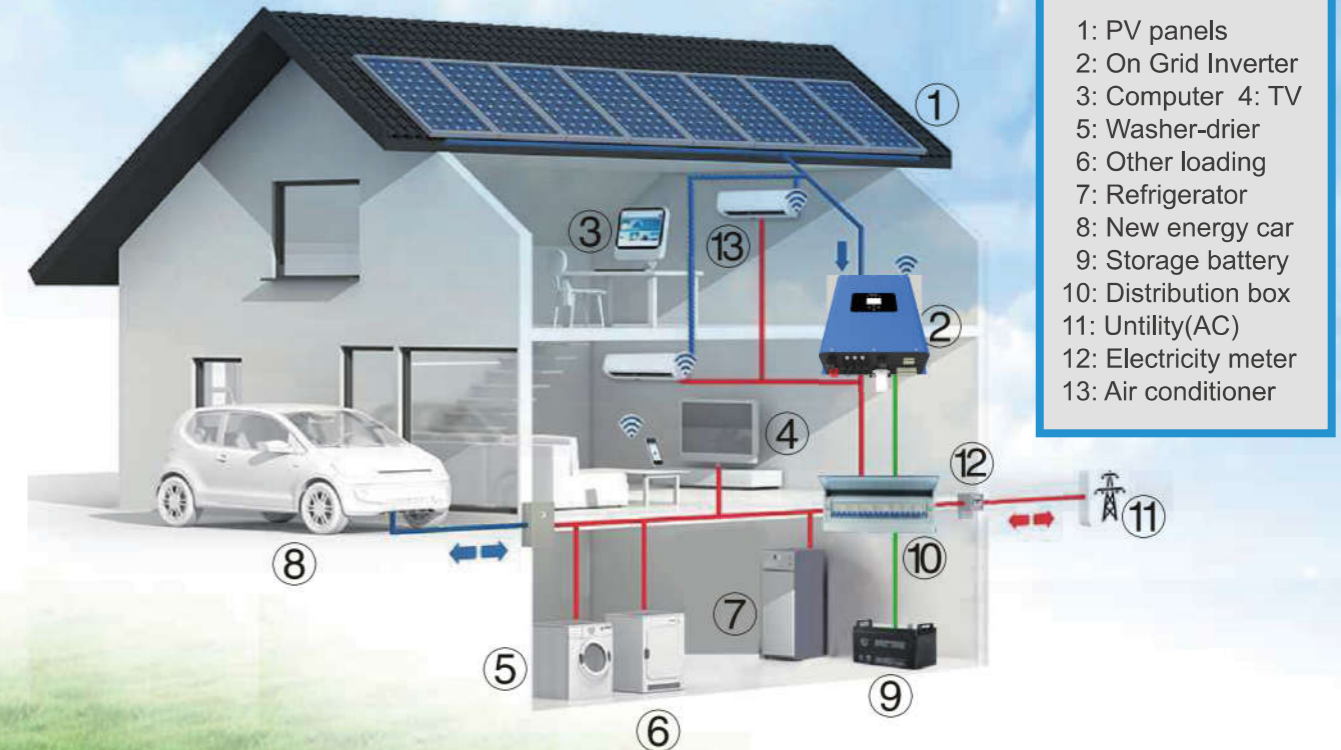
- Human sleep mode, Improving the quality of rest**  
Open the sleep timer operation conditioning system automatically changes the set temperature (rise 0.5°C when cooling, reduce 2°C when heating) per hour to prevent overcool or overheat.
- Intelligent dehumidification, dry and pleasant**  
Chip control dehumidification, Air flow and temperature are automatically controlled, recommended for use in the rainy season.
- Precise timing, Free to set the A/C on and off times**  
By remote control, Set the air conditioning on or off at any moment within 24 hours. Just click timing on-off button, will be able to set the desired open and shut down time.
- Power failure and memory function**  
Even if disconnect the power when the air conditioning is running, will record the operation mode before power failure. Automatically return to the former set mode when the power back.
- Digital E key button, operation more convenient**
  - Normal remote controller has complex operation, but with E control technology, one button to start a number of operations, like automatically cooling, heating, wind direction.
  - Fluorescent keys innovative design, no need to get up at night, particularly suitable for the elderly and children.
  - Choose the optimum temperature of the human physiological curve according to the four seasons temperature change, Accurate calculation of the computer chip, automatically set the operation mode, avoid overheating or overcooling caused by improper setting, healthy and energy-saving.
  - Super Remote Sensing, Long-distance all-round remote control, a wide range of signal, Operation is more casual.



## ■ On Grid Technical Data Parameters

Model			KFR-26GW/BPACDC-TWA1	KFR-35GW/BPACDC-TWA1	KFR-50GW/BPACDC-TWA1	KFR-70GW/BPACDC-TWA1
Power supply	AC	Ph-V-Hz	1Ph/220-240V/50-60HZ			
	DC	V	50-350V			
Cooling	Rated Capacity	W	2600(1000-3500)	3500(1000-4100)	5275(1200-6000)	7000(2500-8200)
		Btu/h	9000(3400-12000)	12000(3400-14000)	18000 (4100-20400)	24000 (8500-28000)
	Power Input	W	630(200-980)	860(190-1250)	1550(185-2000)	2050(450-3300)
Heating	Rated Capacity	W	3800(800-4000)	4300(1000-4500)	6200(1200-6800)	7800(2000-9000)
		Btu/h	13000(2700-13400)	14600(3400-15300)	21000 (4100-23000)	26600 (10200-30800)
	Power Input	W	1030(160-1300)	1080(150-1700)	1650(220-2500)	2350(390-3500)
Indoor air flow (Turbo/Hi/Mi/Lo)		m3/h	580/520/440/370	650/620/500/400	1020 /1000/ 800/700	1200 /1150/850/740
Indoor noise level (Turbo/Hi/Mi/Lo)		dB(A)	41/39/35/27	42.5/42/37/29	46/46/42/35	50/50/45/39
Indoor unit	Dimension(W*D*H)	mm	823*300*244	823*300*244	1150*300*260	1150*300*260
	Packing (W*D*H)	mm	890*360*300	890*360*300	1230*360*320	1230*360*320
	Net/Gross weight	Kg	10.8/13	10.8/13	14/18	15/18.5
Outdoor unit	Dimension(W*D*H)	mm	800*325*550	800*325*550	800*325*550	912*375*712
	Packing (W*D*H)	mm	900*400*610	900*400*610	900*400*610	1040*465*768
	Net/Gross weight	Kg	30/34	32.5/36.5	35.5/40	51/61
Refrigerant type			R410A	R410A	R410A	R410A
Operation temperature		℃	16-32			
Ambient temp (cooling/heating)		℃	16-55/-20-31			
Application area		m2	8-15	15-20	20-30	32-42
Loading capacity(20GP/40HQ)		set	80/210	80/210	70/180	50/125

## Future On/Off Grid Solar Air Conditioner System (Energy-storage Type)







# Wall Mounted Inverter Solar Air Conditioner

**5** years warranty for DC inverter compressor  
**3** years for whole unit and fan motors

CHINA ENERGY LABEL 中国能效标识

Producer: Ningbo Deye Inverter Technology Co., Ltd.

More efficient



Less efficient

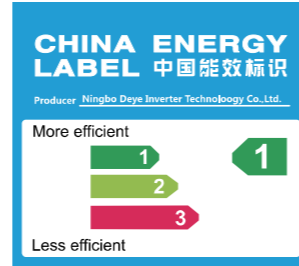
## Energy Efficiency Top Level



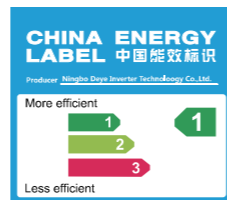
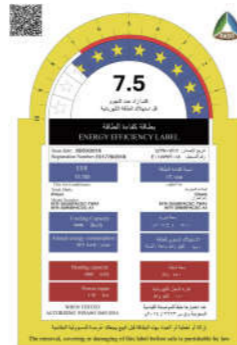
## Wall Mounted Inverter Solar Air Conditioner

5 years warranty for DC inverter compressor

KFR-25GW ( BTU9000 )

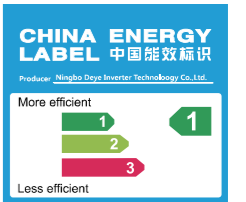
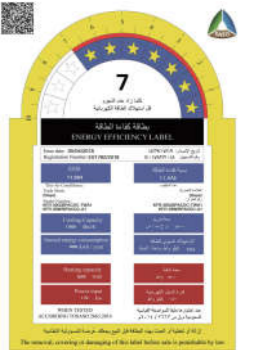


KFR-35GW ( BTU12000 )

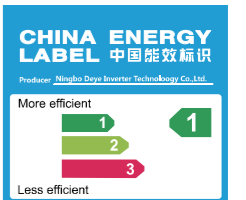
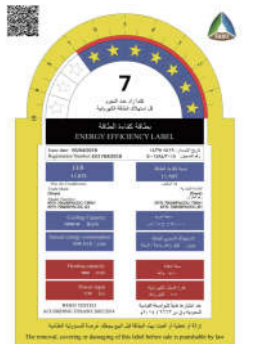


## 5 years warranty for DC inverter compressor

KFR-50GW ( BTU18000 )



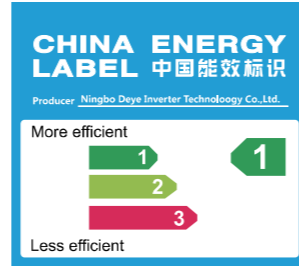
KFR-70GW ( BTU24000 )



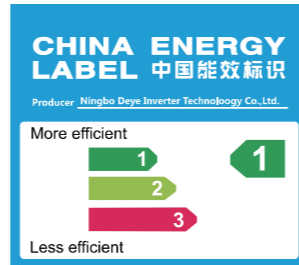


## 5 years warranty for DC inverter compressor

KFR-100GW ( BTU36000 )



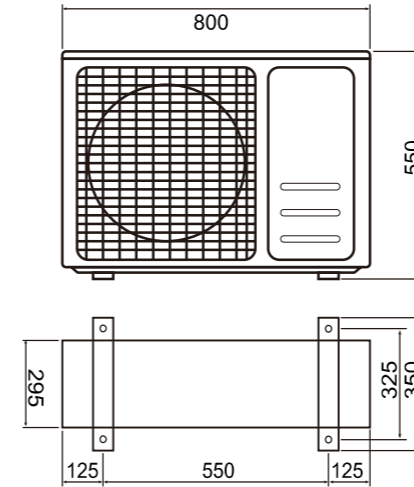
KFR-120GW ( BTU42000 )



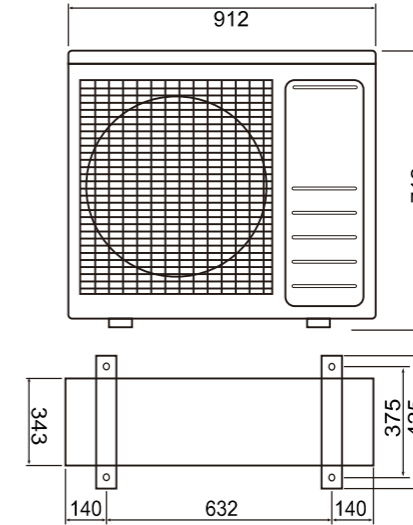
## 5 years warranty for DC inverter compressor

Wall Mounted Inverter & Solar Air Conditioner Installation Specification

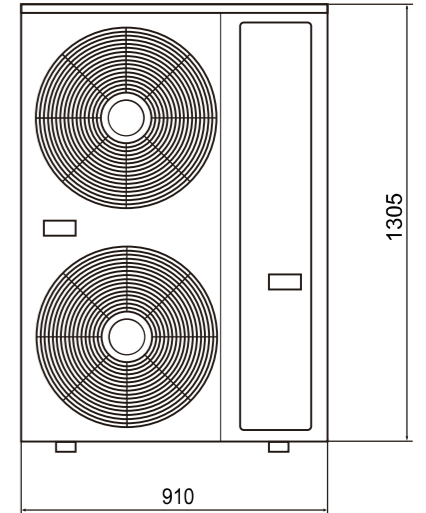
KFR-26GW ( BTU9000 )  
KFR-35GW ( BTU12000 )  
KFR-50GW ( BTU18000 )



KFR-70GW ( BTU24000 )  
KFR-100GW ( BTU36000 )



KFR-120GW ( BTU42000 )



### Accessories

