



# Hybrid Solar Air Conditioner



Reduces Power Consumption !  
Saves minimum 40% Electricity !

## WORKING PRINCIPLE:

The Solar Panel will collect and store the heat, the light & the radiant energy in the environment and provide the Compressor with the heat-carrying refrigerant and assist in the process of cooling and heating. Moreover, the energy absorbed in the day time can be stored in the heat absorbing device, ensuring the Air Conditioner to work normally all day. Other procedures would be done by the Compressor same as in Normal Air Conditioners. The Solar Energy Air Conditioners make use of the principle of light-sense point aroused and disperse photosynthetic and the reverse of chemistry energy. They fully adjust to absorb and store the solar energy by the binary mixture refrigerant of the solar collector layer. The function of the Solar Panel is heating the already conditioned air. The Compressor capacity is not reduced. The Solar Panel assists the Compressor to cool, resulting in the consumption of less energy.

## UNIQUE FEATURES:

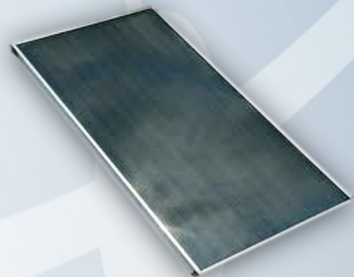
- The installation is not limited to the locations. It can be installed in any location, as the Solar Panel is not large. Furthermore, it does not require facing the sun.
- The performance of the Air Conditioner will not be affected by the weather, no matter in the cloudy, rainy day or in the sunny day, or in the evening, the effect would be the same. It absorbs the heat and the radiation. Both the electricity and the energy absorbed in the daytime stored in the heat absorbing device ensure the Air Conditioner to work normally. Moreover, the energy absorbed from the environment can be consumed and renewed continuously and would save 50% of the power consumption.
- It can perform normally between the Temperatures  $-25^{\circ}$  Celsius and  $54^{\circ}$  Celsius. If the Temperature is over  $50^{\circ}$  Celsius, the Compressor will keep itself in a state of rest for the protection. When the Temperature returns to normal ( $-25^{\circ}$  Celsius to  $50^{\circ}$  Celsius) it will continue to work automatically.



Indoor Unit



Outdoor Unit



Solar Collector

## Frequently Asked Questions (FAQs)

### 1. What are Solar Energy and the Hybrid Solar Air Conditioner?

Solar is the Latin Word for Sun, which is a powerful energy source, limitless, ubiquitous and clean. The source of the Solar Energy is the natural light energy, heat energy and the radiant energy in the environment, absorbed by the Solar Panel. The Hybrid Solar Air Conditioner uses solar energy with electrical energy as the auxiliary power. The solar energy and the electricity work together in the ratio of 50%. The Hybrid Solar Air Conditioner cannot work using 100% solar energy or 100% electricity alone.

### 2. How does "WATTSUN" Hybrid Solar Air Conditioner save the Power, save the Money and save the Environment?

This Hybrid Solar Air Conditioner absorbs solar energy to heat the inside medium by using the vacuum solar collectors. The heated medium, driven by a Pump goes to the Compressor of the Air Conditioner, which consumes most of the electricity. The heated medium would release the Compressor to save the electricity. It saves money since it uses only 60%-70% of the electricity and the investment will be returned through the cost cut down from the Power Bill. Therefore, you do not actually pay for the Air Conditioner, as the money initially paid will come back to you. Lastly, it saves the environment by minimizing energy consumption, thus lowering the carbon footprint and preventing global warming.

### 3. Can "WATTSUN" Hybrid Solar Air Conditioner work in the bad weather?

The Customers can feel ease about the performance of this Air Conditioner as it works normally in all climatic conditions. The Solar Panel collects and stores the heat, light & radiant energy from the environment. Solar energy can be collected no matter in the day time or night, no matter in the rainy days or sunny days. When there is no sunshine, the Solar Panel could collect the light energy and the heat energy, even in continuous rainy days or cold days with very low temperature. The Solar Energy would never be exhausted.

### 4. What are the temperature limits for "WATTSUN" Hybrid Solar Air Conditioner to work normally?

As long as the temperature is not higher than 54° Celsius and is not lower than -25° Celsius, it will work normally, no matter in high or low humidity, the performance will not be affected.

## Technical Specifications

Model			KFR\YD\YE -35GW	KFR\YF\YG 50GW	KFR-70GW	KFR-90GW	KFR-100GW
Cooling Capacity		BTU/h	12000	18000	24000	32000	36000
Heating Capacity		BTU/h	12580	18300	24100	32000	36000
Suitable Temp			-7℃~43℃	-7℃~43℃	-7℃~43℃	-7℃~43℃	-7℃~43℃
Rome air circulation		m3/h	550	800	960	1300	1550
Rated Input		w	877	1232	1724	2002	2464
Rated Current		A	3.99	5.6	7.84	9.1	11.2
Dehumidification		l/h	1.6	2.8	3.0	4.0	5.0
EER			3.78	3.82	3.86	3.88	3.88
Noise Indoor		dB(A)	36	43	43	43	43
Noise Outdoor		dB(A)	52	54	55	56	57
Refrigerant Change		kg	1.00	1.3	1.8	2.3	2.6
Net Weight	Indoor	kg	10	13	15	18	20
	Outdoor	kg	36	50	51.5	62	85
	Solar panel	kg	9	9	18	18	18
Dimension Net	Indoor	mm	890×300×185	990×320×200	1085×330×225	1200×340×200	
	Outdoor	mm	870×310×540	870×360×690	870×360×690	1010×410×850	
	Solar panel	mm	70×610×750	70×610×750	70×800×1000	70×800×1000	
Dimension Carton	Indoor	mm	990×375×245	1080×370×265	1180×370×300	1235×380×230	
	Outdoor	mm	900×360×600	945×410×750	945×410×750	1050×460×900	
	Solar panel	mm	130×670×810	130×670×810	130×860×1060	130×860×1060	
Gas pipe connections		dia/mm	12.7	12.7	15.8	15.8	
Liquid pipe connections		dia/mm	6.35	6.35	9.52	9.52	

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