

**FREE COOLING  
IN THE SUN**



**SOLAR AC DC**  
JUST COMMON SENSE



# Solar Air Conditioner

## OFF GRID DC48V



**100%**  
100% Off Grid




**Battery**  
Battery Powered





**Max SEER35**  
DC-driven




**Wide Operating  
Temperature**  
Temperature Range  
between -10°C to +52° C

 Purpose built DC solar air conditioner built from the ground up 100% DC.

 STC's are claimable on solar panels installed for the unit – essentially covering the cost of the panels.

 Uses a non-flammable refrigerant compared with widely used flammable gases.

 Brushless DC motors in both indoor and outdoor units ensure extremely quiet operating levels.

 Using solar power for one of our highest energy consuming appliances. Just common sense!



**ECOLOGICAL AND ECONOMICAL = JUST COMMON SENSE**

# Air Conditioner

## OFF GRID DC48V

### APPLICATION

Solar ACDC's Off Grid DC48V solar air conditioner is ideal for places with no power or power stability issues, particularly for remote telecom stations, container houses, motor homes, remote locations, load shedding places, boating and island locations. As the latest advancement of our DC technology, this DC48V solar air conditioner can use 100% solar power.

### YOUR BENEFITS

- High-SEER Brushless inverter DC permanent magnet compressors
- 100% 48Volt DC
- Fast Cooling around 30s / Powerful heating within 1 minute
- Wide operating temperature range: -10°C to +52°C
- Anti-Corrosion Technology giving greater corrosion resistance for both outdoor and indoor unit
- Eco-Friendly R410a Refrigerant
- Low energy consumption
- Quiet Indoor and Outdoor Unit (As Low As 26dB)
- 100% Off Grid

### TECHNICAL SPECIFICATION

Type	DC48V	
Part Number	DC4812	DC4818
Nom.Solar Input Voltage (V DC)	46 ~ 58	46 ~ 58
Capacity Cooling (Btu/h)	12,000	17,300
Capacity Heating (Btu/h)	13,300	18,000
Power Input Cooling (W)	980	1450
Power Input Heating(W)	1130	1400
EER Without Solar Input (BTU/W)	12.25	11.8
COP Without Solar Input (BTU/W)	11.75	12.8
Net Weight Indoor/Outdoor (Kg)	9/32	15/36
Net Size Indoor (mm)	840*205*295	1080*330*237
Net Size Outdoor (mm)	802*564*323	802*564*323

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## SYSTEM COMPONENTS

### DC Powered Indoor unit

One reason that a DC Air Conditioner makes the best use of solar power is because there is no loss associated with converting from solar panels into AC power to run a standard air conditioner



### DC Powered Outdoor unit

Using standard solar panels which produce native DC power, the 48V DC air conditioner avoids the inefficient addition of an "inverter" that converts solar DC current into AC current.

### DC Brushless fan motor

We use 48V DC brushless fan motors for both indoor and outdoor units. DC brushless fan motors can greatly reduce energy consumption, and run with very low noise. Plus, the use of a brushless permanent magnet motor driver provides a variable frequency drive that allows the system to dynamically adjust its capacity based on conditions.



### Solar Panels

We suggest you connect 4 to 10 - 300W solar panels to drive each solar air conditioner. Both mono-crystalline and polycrystalline solar panels can be accepted.

### MPPT Solar charge controller

A Solar charge controller protects the whole system and provides a stable power supply.

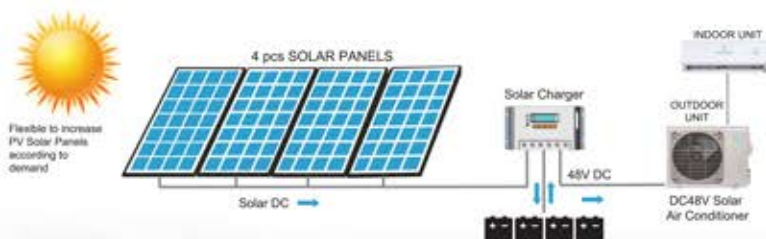


### Battery

Batteries are the energy bank that stores energy. Depending on the system selected and the hours of battery operation you require, you can select the AH of your batteries or contact us to help determine the size required.

## SYSTEM DIAGRAM

Depending on conditions, the entry level set up can operate up to 10 hours per day using 4-6 330w panels. A configuration of 6-8 panels can provide up to 15 hours of daily operation, with 8-12 panels yielding up to 20-24 hours. The batteries and charge controller must be sized appropriately.



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