

Free Cooling In The Sun



AUS Design

SUPEREN

Solar Air Conditioner

OFF GRID DC48V



100%
100% Off Grid



Battery
Battery Powered

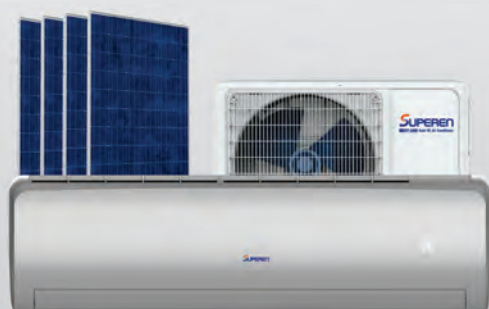


Max SEER35
PV fit & DC-driven



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 eco-friendly R410a refrigerant gas – non-flammable! Compared with widely used flammable R32 gas.
- ✓ 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!



Superen Australia



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Application

Superen'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 PVFit 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 Specifications

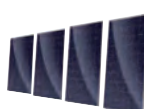
Type	DC48V
Part Number	DC4812VRFS
Norm.Solar Input Voltage (V DC)	42 ~ 60
Capacity Cooling (Btu/h)	12,000/3.5kw
Capacity Heating (Btu/h)	12,000
Power Input Cooling (W)	250~900
Power Input Heating(W)	315~900
SEER Without Solar Input (W/W)	22
HSPF Without Solar Input (W/W)	11
Net Weight Indoor/Outdoor (Kg)	11/47
Net Size Indoor (mm)	850/300/180
Net Size Outdoor (mm)	800/545/315

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 DC power from solar panels into AC power to run a standard air conditioner



Solar Panels

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



100% 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.



MPPT Solar charge controller

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



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.



Battery

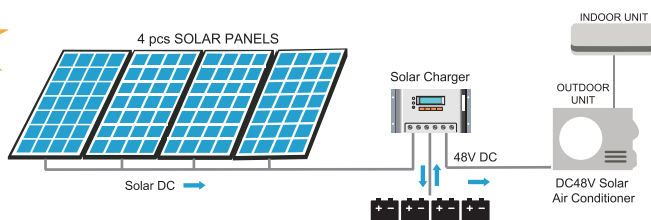
Batteries are the energy bank that stores energy. Depending on the system selected and the hours of battery operation you require, you can select the AH of your batteries or contact us to help determine the size required.

System Diagram

Depending on conditions, the entry level set up can operate up to 10 hours per day using 4-6pcs 310w panels. A configuration of 6-8 pcs 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.



Flexible to increase PV Solar Panels according to demand



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