heliodyne
HONG KONG

HELIODYNE OFF GRID DC48V SOLAR AIR CONDITIONER

Applications

Heliodyne Off Grid DC48V solar air conditioner is ideal for places with power shortage conditions, particularly for remote telecomstation, container house, motor homes, remote locations, load shedding places, boatinf and island locations. As the latest advancement of the PVFit technology, this DC48V solar air conditioner will enable using 100% power from solar.

Your benefits

- High-SEER Brushless inverter DC permanent magnet compressors
- All DC = No Inverter
- Fast Cooling around 30s / Powerful heating with 1min Provide comfort in time
- 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
- Solar connector terminal - Easy connection and maintenanceplug and play
- Low energy consumption
- Quiet Indoor Unit (As Low As 26dB)

System Component

100% DC Powered Outdoor 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.

MPPT Solar charge controller

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

DC Powered Indoor unit

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Solar Panel

We suggest you to connect 4 to 10 pcs 260W-320W solar panels to drive each solar air conditioner. Both mono-crystalline and ploy-crystalline solar panels can be accepted.

Battery

Batteries are the energy bank to reserve energy. We recommend you use 4 x 12V deep cycle gel solar batteries Depending on the system selected and the hours of battery operation you require, you can select the AH of your batteries.

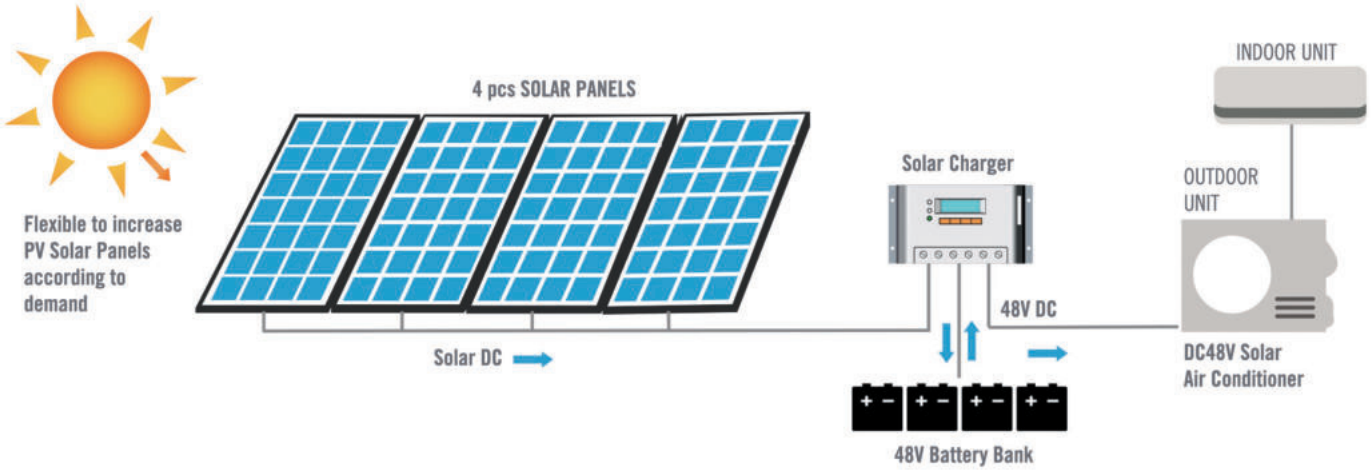
DC Brushless fan motor

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 super low noise. Plus, the use of a brushless permanent magnet motor driver provides a variable frequency drive that allows the system to dyn amically adjust its capacity based on conditions.

EXCELLENCE BY DESIGN™

System Diagram

Depending on conditions, the entry level set up can operate up to 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 pcs panels yielding up to 20~24 hours. The batteries and charge controller must be sized appropriately.



Specification

- 12,000Btu capacity, 100% DC operation
- Wide operating temperatu re range: -10°C to +52°C
- Low energy consumption: SEER 22 (North America)
- Low voltage protection: prevent battery overdischarge
- Designed in accordance with UL and CSA standard
- Approval: ETL, AHRI
- Design life "> 12 Years - Very Long Life" according to normal installation conditions
- Super Cooling performance is ensured by big compressor together with the greatest heat exchange system
- 15m over long distance air flow design

Technical characteristics and data

Type	Part number	Nom. Input voltage V DC	Capacity Cooling Btu/h	Capacity Heating Btu/h	Power input Cooling W	Power Input Heating W	SEER W	HSPF W	Net Weight Indoor/ Outdoor Kg	Net Size Indoor mm	Net Size Outdoor mm
DC48V	DC4812VRFS-US	42~60	12,000	12,000	250~1050	315~1114	22	11	11/47	850/300/180	800/545/315
DC48V	DC4809VRFS-US	42~60	9,000	9,000	225~700	280~735	23	10	9/41	800/300/198	730/545/285

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