

DC4812VRF

Solar/DC Air Conditioner

hotspot  energy

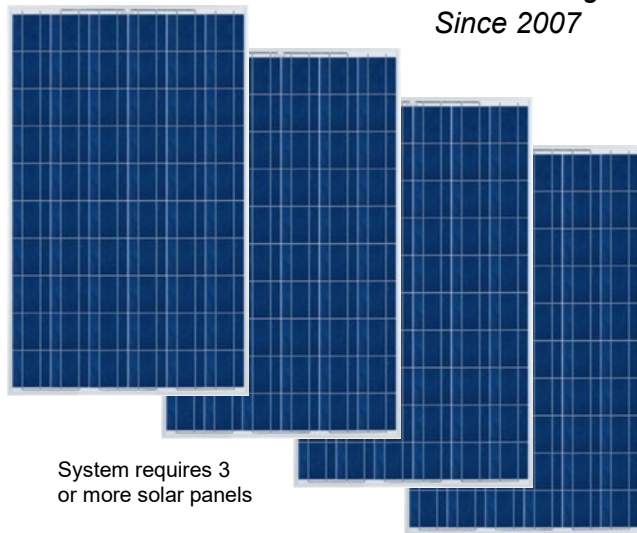
Specialty HVAC
Manufacturing
Since 2007

12,000 BTU 48V DC Heat Pump
VRF Dynamic Capacity Compressor
100% DC - No Inverter



Wall Mount Indoor Unit (IDU)

The DC4812VRF is designed from the ground up to operate on DC power. There is no AC power used inside or needed externally to operate the unit. DC power is connected to the outdoor unit. The indoor unit receives DC power from the outdoor unit.



System requires 3
or more solar panels

- **48v Solar/Battery Power**
- **12,000 BTU Heat Pump**
- **Cool or Heat up to 700 ft²**
- **Variable Capacity**
- **Anti-Corrosion Technology**
- **Eco-Friendly R32a Refrigerant**
- **Washable Filters**
- **Digital Wireless Remote**
- **Quiet Indoor Unit**
(As Low As 26dB)



User Friendly Remote
w/ sleep mode, timer,
& follow-me
(C or F)

Complete Kits Available

48v DC Air Conditioner
4,6,8,10 PV Panels
PV Mounting Hardware
Charge Controller
Deep Cycle Batteries
Refrigerant Line-set

*Customer Supplied Wiring

Typical PV Solar Panels & Batteries Needed for System Operation in Typical Conditions

Hours Per Day Solar Operation	10	15	20	24
PV Solar Panels (450-550w PTC)	4	6	8	10
6v Golf Cart Batteries 225 Ah (50%)	8	8	16	16
12v deep Cycle 130 Ah) (50%)	4	4	8	8

Assumes 5- Hours Per Day Solar Insolation, DC48 Unit Properly Sized For Area To Be Cooled



ODU (Outdoor Unit)

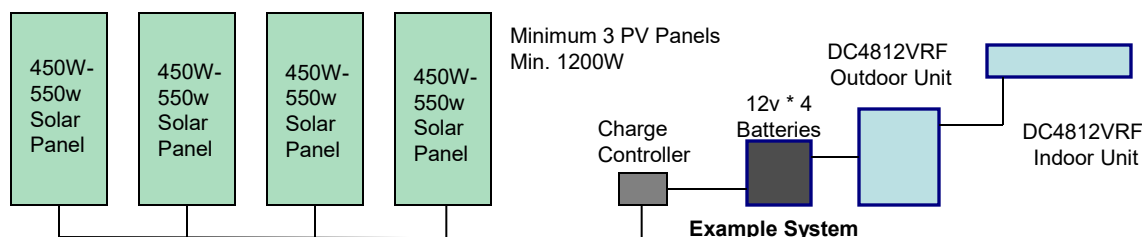
This unit is a CE certified low-voltage DC (<50 VDC) heat pump designed for use with external DC power sources. It carries a CE label indicating conformity with applicable safety standards.

This product is intended primarily for off-grid, temporary, portable, RV, marine, or other applications where the local authorities do not require NRTL-listed equipment. The purchaser is solely responsible for determining whether this product is acceptable under local codes, obtaining any required permits or inspections, and ensuring proper installation by a qualified person. Permanent installation in a building may not be approved. The manufacturer makes no representation that this product complies with U.S. standards for permanently installed HVAC equipment.



Images are representative only

Powered By Batteries & Standard Solar Panels



Using technology similar to SEER 27 air conditioners, the DC2418VRF compressor runs on DC power at various frequencies and refrigerant flow depending on cooling load. The all-DC solar air conditioner uses DC power directly without needing an inverter or other AC power source. Due to solar voltage fluctuations the unit cannot connect directly to solar panels and must have a stable source of power such as batteries.

Depending on conditions, the entry-level setup can operate up to 10 hours per day using 4 x standard solar panels (450-550w). A configuration of 6 of panels can provide up to 15 hours of daily operation, with 8 panels yielding up to 20 hours. A 10-panel configuration can handle up to 24 hours per day operation. The heat pump, solar, batteries, and charge controller must be sized appropriately. See our website for calculation information at www.hotspotenergy.com/DC-air-conditioner/ or call us for pre-sales technical support.

DC4812VRF DC Solar AC Specifications

Power DC	48 VDC	DC Power Input (Max.)	1500 W
Power DC Range	46-58 VDC	Low Voltage Disconnect	46V
Cooling Capacity	12000(2700-13300)	Operating Range (cooling/heating)	20F-123F/5F-90F
Power Input, Cooling	940(145-1250)	Outdoor Noise Level	52 db
Normal Power Consumption, Cooling	< 300w – 930w	Outdoor Fan Motor	BLDC
Cooling COP /EER	3.73/12.77	Outdoor Fan Input	35W DC
Cooling *SEER	23.88	Outdoor Air Flow	1177 CFM
Heating Capacity	13300(3070-15000)	Compressor	BLDC Rotary
Power Input, Heating	1050(150-1400)	Refrigerant/Charge	R32 / 780
Normal Power Consumption, Heating	<300w – 975w	Pre-charged For Line Set L	23 Ft.
Heating COP	3.71	Max. Lineset Length /Elevation	56 ft. / 26 ft.
HSPF2*	9.5	Moisture Removal	.25 G/h
Indoor Fan Motor	BLDC	Digital Display	F or C
Indoor Fan Input, Max	35W DC	Refrigerant Oil	POE
Indoor Fan RPM (Hi/Med/Lo)	1250/900/700	Design Pressure	650/430 PSI
Indoor Air Flow (Hi/Med/Lo)	382/276/217 CFM	Liquid side/ Gas side	1/4" / 3/8"
Indoor Noise Level (Hi/Med/Lo)	42/29/26 dB	Outdoor Unit Dimensions (W*D*H)	31.6"*22.2"*12.7"
Indoor Unit Dimensions (W*D*H)	33.1" x 8.1" x 11.6"	*SEER & HSPF2 out of scope for AHRI 210-240, calculated equivalent	