

# Solar Air Conditioner

Solar Hybrid Heat Pump

Model ACDC24C

Connect 4 Or More Panels ( $\geq$  Total 1800W)

Runs On Solar Power Only, AC Only, or Solar w/ AC Power

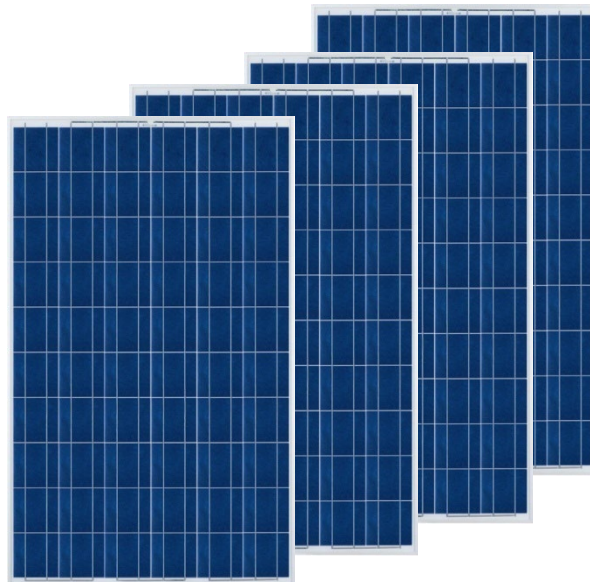
24,000 BTU Cooling & Heating

Plug-And-Play Solar Connection

No Batteries or Grid/AC Required

**The Worlds Original Solar AC Manufacturer**

**Celebrating Over 10 Years of Production**



## Home / Office

Keep the inside cool all day for next to nothing in energy costs. Preventing daytime heat build-up also cuts evening cooling costs. Cool or heat up to a 1500 Sq. Ft. (140m<sup>2</sup>) room..

## International

Compatible with all types of solar panels & 50Hz and 60Hz power, use it anywhere in the world.



Display shows DC/Solar power utilization. Shown in heating mode at setting 90 °F, no AC connected. Display visible only when unit is on.



### Simple To Install

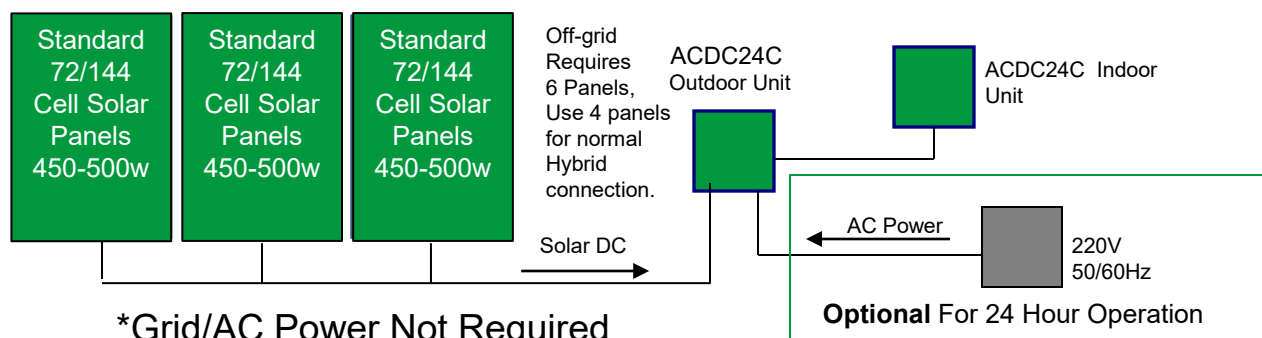
This unit installs exactly like a normal mini-split air conditioner. Standard MC4 cabling are used to connect the solar panels directly to the ACDC24C outdoor unit.

## Ultra-High SEER Solar Air Conditioner

Your air conditioner needs the most power when the sun is shining, a coincidence you can take advantage of with our ACDC24C solar air conditioner. It can keep an indoor area cool during the day for free, or for just pennies, at times when solar power is not sufficient to carry 100% of the load. Use this system to cool a small area or to augment a larger system.

Connect up to six 72/144-cell panels in series, suggested panels  $\geq$  450w. Many other panel configurations are possible, contact us to discuss. The unit can also connect to 220v (208v-240v) AC power for extra power during overcast conditions, transient clouds, or at night. No need for batteries. Even when the sun is not shining at all, with an AC connection this ultra high-efficiency (**SEER 20** without solar) heat pump will keep you comfortable and save you money using far less electricity than a normal AC or heat pump unit of the same capacity. Calculated using only paid energy in hybrid AC-DC operation, the ACDC24C can produce an equivalent SEER above **SEER 60**. Max string voltage 325 VOC rating, max actual string voltage 370v DC. For ACDC24C we suggest PV  $\geq$  450w per panel. Actual string under load voltage must be  $>$ 125v DC to operate on solar.

## Connects Directly To 4-6 Solar Panels



No batteries needed. Like all DC-Inverter air conditioners, the ACDC24C compressor runs on DC power, which may at times be converted from AC power. This special solar air conditioner can accept DC power directly from solar panels, without needing an inverter, charge controller, or batteries. The solar DC power directly replaces AC power from the power company and can cut daytime energy costs for air conditioning or heating by up to 100%. No power is exported and no net metering agreement or special meter is needed. Can be used with all-DC, all-AC, or AC-DC whereby the unit can seamlessly blend both power sources with a bias towards using all available DC (solar) power first.

During the day, the ACDC24C can get all or most of its power from 4-6  $\geq 450W$  solar panels. The unit can be connected with up to 6 panels for running on 100% solar power with no AC connection or when the sun is not at full strength. The system is designed for hybrid operation with solar providing most or all of the energy needed during daylight hours, supplemented by AC power at night or during times of cloud cover. This air conditioner may be connected to a 208-240VAC 50/60Hz power source as desired for night time or cloudy day operation. Ratings per AHRI 210/240.

Power AC	208-240V, 50/60Hz	SEER (AC ) / ACDC Equivalent	20 / 60
*Cooling Capacity (rated/max) BTU	23,000 / 24,000	HSPF (AC) / ACDC	9.5 / 29
Power Input @ Max Cooling	1950W	Power DC, PV, series connection	110-300 Vmp
Avg. Power Consumption, Cooling	1143W	Solar Power Input	$\leq 15a$
Cooling EER / COP at Rated Cooling	19.78/ 5.8	Outdoor Range (cooling/heating)	50F-125F / 5F-86F
SEER / SEER w/ solar calculation	$>21$ / $>65$	LRA / RLA	29 / 5.2
*Heating Capacity	24,000 BTU	Swing (manual)	Up & Down
Power Input @ Rated Heating	2400W	Dehumidification	2.15 L/h
Avg. Power Consumption, Heating	1390W	Outdoor Unit, weight	106 Lbs.
Heating COP (Full Speed)	2.92	Outdoor Unit Dimension (W*H*D)	900×700×350 mm
Max power Input	2400W	Refrigerant g/oz	1.62 kg / 58 Oz.
Indoor Fan Motor	BLDC	Max. Lineset / Max. Elevation (Ft.)	50 ft. / 16 ft.
Indoor Fan Input (Highest speed)	50W	Moisture Removal	2.4 L/h
Indoor Air Flow (CFM)	1300/1090/880	Refrigerant g/oz	1.62 kg./ 58 Oz.
Outdoor Fan Motor	Variable BLDC	Refrigerant Oil	VG74 / 770 ml
Indoor Noise Level (Hi/Med/Lo)	50/42/34 dB(a)	Design Pressure	601/167 PSIG
Indoor Unit Dimensions (W*H*D)mm	1121x329x231	Liquid side/ Gas side (Flare)	$\phi 6.35 \times 0.5 + \phi 15.88 \times 0.75$
Indoor / Outdoor Unit Weight	30 Lbs. /	Certifications	ETL / UL, Energy Star