

# Solar Air Conditioner

Solar Hybrid Heat Pump  
Model ACDC18C

Connect 4 Or More Panels ( $\geq$  Total 1200W)  
Runs On Solar Power Only or Solar & AC Power  
18,000 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 1000 Sq. Ft. (92m<sup>2</sup>).

## 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

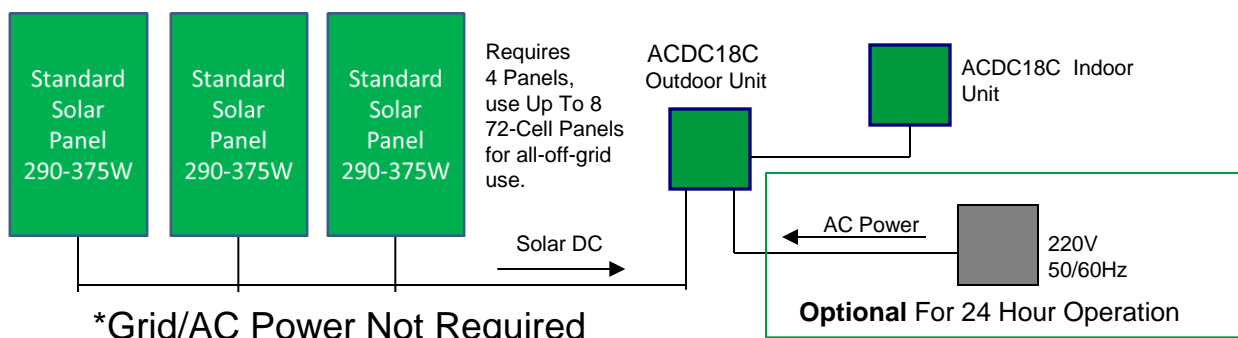
This unit installs exactly like a normal mini-split air conditioner. Standard MC4 cabling can be used to connect the solar panels directly to the AC unit.

## 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 ACDC18C 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 4-5 (up to 8) solar panels (290-375w per panel) 72-cell panels in series. 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 22 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-for energy, the ACDC18C produces an equivalent SEER above **SEER 75**.

## Connects Directly To Solar Panels



No batteries needed. Like all DC-Inverter air conditioners, the ACDC18C 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 ACDC18C can get all or most of its power from 4-5  $\geq 300W$  solar panels. The unit can be connected with up to 8 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 | Power DC, PV, series connection     | 110-300 Vmp                                     |
|------------------------------------|-------------------|-------------------------------------|---|
| *Cooling Capacity (rated/max) BTU  | 17,000 / 18,015   | Solar Power Input                   | $\leq 10a$                                      |
| Power Input @ Max Cooling          | 1360W             | Outdoor Range (cooling/heating)     | 50F-125F / 6F-86F                               |
| Avg. Power Consumption, Cooling    | 819W              | Outdoor Noise Level Max             | 56 dB(a)  |
| Cooling EER / COP at Rated Cooling | 13.25/ 3.88       | Outdoor Fan Motor                   | Variable BLDC                                   |
| SEER / SEER w/ solar calculation   | $>22 / >75$       | Outdoor Air Flow CFM max.           | 1250  |
| *Heating Capacity                  | 18,083 BTU        | Outdoor Unit, weight                | 124 Lbs.  |
| Power Input @ Rated Heating        | 1360W             | Outdoor Unit Dimension (W*H*D)      | 955×700×390 mm                                  |
| Avg. Power Consumption, Heating    | 700W              | Compressor                          | Toshiba/GMCC 2xRotary                           |
| Heating COP                        | 3.89              | Refrigerant g/oz                    | R410A 1600/56.5                                 |
| Max power Input                    | 1900W             | Max. Lineset / Max. Elevation (Ft.) | 50 ft. / 16 ft.                                 |
| Indoor Fan Motor                   | BLDC              | Moisture Removal                    | 1.9 L/h   |
| Indoor Fan Input (Highest speed)   | 40W               | Rated Current (RLA)                 | 7.13A   |
| Indoor Fan RPM (Hi/Med/Lo)         | 1180/1010/850     | Locked Rotor Amp (LRA)              | 1.2a  |
| Indoor Air Flow CFM                | 360/340/295       | Refrigerant Oil                     | VG74 / 480 ml                                   |
| Indoor Noise Level (Hi/Med/Lo)     | 41/38/33 dB(a)    | Design Pressure                     | 550/340 PSIG                                    |
| Indoor Unit Dimensions (W*H*D)mm   | 970×315×242       | Liquid side/ Gas side (Flare)       | $\phi 6.35 \times 0.5 + \phi 15.88 \times 0.75$ |
| Indoor Unit Weight                 | 30 Lbs.           | Certifications                      | ETL / UL, Energy Star                           |

All specifications subject to change without notice. Images for reference only. See website for full details on operation and requirements. \*Off-grid BTU capacity will be reduced when solar power is limited. An AC backup connection is recommended for full & uninterrupted operation. Extra panels, up to eight, should be used for intended off-grid applications.