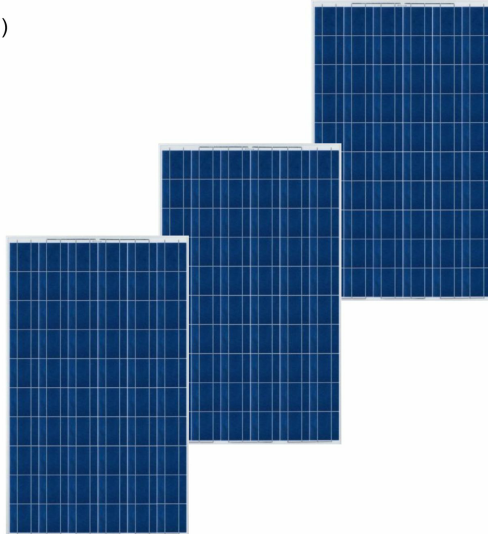


Solar Air Conditioner

Solar Hybrid

Connect Up To Three Panels (Max 700W)
 Runs On Solar Power & 220VAC Power
11,000 BTU Cooling/12,000 BTU Heat
 Plug-And-Play Solar Connection
 No Batteries Required



Home

Keep the inside cool all day for next to nothing in energy costs. Preventing daytime heat build-up also cuts evening cooling costs.

Office

Keep the work area comfortable during business hours for pennies per day. Cool or heat up to 750 Sq. Ft. (75m²).

International

Compatible with 50hz and 60hz power, use it anywhere in the world.

Ultra-High SEER Solar Air Conditioner

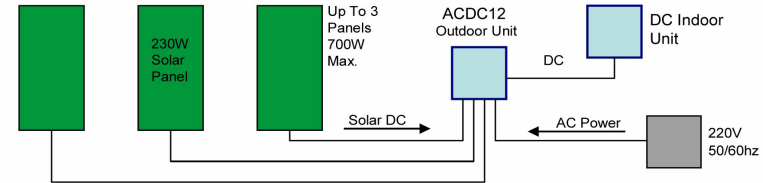
Your air conditioner needs the most power when the sun is shining, a coincidence you can take advantage of with our ACDC12 solar air conditioner. It can keep an indoor area cool during the day for pennies. Literally, pennies, operating above **SEER 35** with only two solar panels connected. Use this system to cool a small area or to augment a larger system.

The unit uses as much solar energy as is available and any shortfall is obtained from utility power with no need for batteries. Even when the sun is not shining at all, this ultra high-efficiency SEER 20 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.

Simple To Install

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

Connects Directly To Solar Panels



Like all DC-Inverter air conditioners, the ACDC12 compressor runs on DC power converted from AC power. But this special solar air conditioner can also accept DC power directly from solar panels, without needing an inverter, controller, or batteries. The solar DC power directly replaces an equivalent amount of AC power from the power company and can cut daytime energy costs for air conditioning or heating by 80% or more.

During the day, the ACDC12 can get most of its power from solar resulting in an efficiency above SEER 35 when using two 230W solar panels. The unit can be connected with up to three 230W panels up to 700 total Watts. The system is designed for hybrid operation with solar providing most of the energy needed during daylight hours. This air conditioner must be connected to a 220VAC power source and is not designed for off-grid operation.

ACDC12 Solar AC Specifications

| | | | |
|--------------------------------------|----------------------|-----------------------------------|---------------------------|
| Power AC | 208/220V, 50/60Hz | Solar Power Input (Max.) | 700W |
| Power DC | 30 VDC | Operating Range (cooling/heating) | 20F-122F/5F-90F |
| Cooling Capacity | 11000 Btu/h | Outdoor Noise Level | 55 db |
| Power Input @ Full Cooling Operation | 920W | Outdoor Fan Motor | Panasonic DC |
| Avg. Power Consumption, Cooling | 705W | Outdoor Fan Input | 35W DC |
| Cooling COP | 3.5 | Outdoor Air Flow | 1295 CFM |
| SEER | 20 / 35 | Outdoor Unit Dimension (W*D*H) | 30" x 11.2" x 23.2" |
| Heating Capacity | 12000 Btu/h | Compressor | BLDC DC Inverter (Rotary) |
| Power Input @ Full Heating Operation | 1025W | Refrigerant | R410A / 46oz. |
| Avg. Power Consumption, Heating | 836 | Line Set | 13.1' Standard |
| Heating COP | 3.5 | Max. Lineset Length /Elevation | 65 ft. / 26 ft. |
| HSPF | 10.1 | Moisture Removal | .25 G/h |
| Indoor Fan Motor | Panasonic DC | Rated Current (RLA) | 5.3A |
| Indoor Fan Input | 20W DC | Locked Rotor Amp (LRA) | 10A |
| Indoor Fan RPM (Hi/Med/Lo) | 1250/900/700 | Refrigerant Oil | VG74 / 17 oz. |
| Indoor Air Flow (Hi/Med/Lo) | 412/295/235 CFM | Design Pressure | 550/340 PSIG |
| Indoor Noise Level (Hi/Med/Lo) | 39/29/26 dB | Liquid side/ Gas side | 1/4" / 1/2" |
| Indoor Unit Dimensions (W*D*H) | 35.5" x 6.5" x 11.2" | DC Connection / Wire | MC4 / AWG 14 |

SOLAR PV PANEL SPECIFICATION

-230/235/240/245/250/255P Poly-crystalline PV Module

Features

- High conversion efficiency through advanced manufacturing technology
- Excellent performance under weak light conditions (mornings, evenings and cloudy days)
- Withstand snow loads up to 5400 Pa and wind loads up to 2400 Pa under extreme temperature
- 10 years product warranty and 25 years performance warranty ensure reliability of modules
- Easy installation

Certificates

- Manufactured according to International Management System Standard
Quality Management system: ISO9001
Environmental Management System: ISO14001
Occupational Health and Safety Management System: OHSAS18001
- Certified and approved by CE, TUV, IFC 61715, IFC 61730, MCS, CFC and PV CYCLE

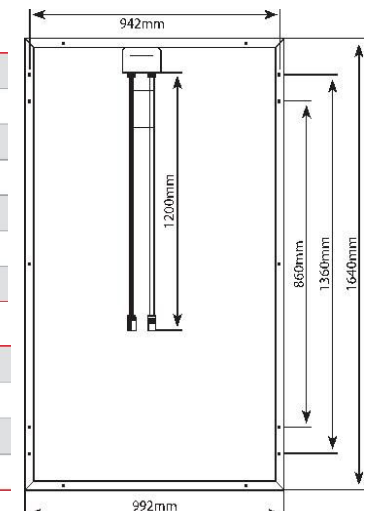


Electrical Characteristics under STC*

| Module Type | 230 | 235 | 240 | 245 | 250 | 255 |
|--|------|------|------|------|------|------|
| Maximum Power P _{max} (Wp) | 230 | 235 | 240 | 245 | 250 | 255 |
| Voltage at Maximum Power V _{mp} (V) | 29.2 | 29.3 | 29.4 | 29.7 | 30.1 | 30.4 |
| Current at Maximum Power I _{mp} (A) | 7.88 | 8.02 | 8.17 | 8.25 | 8.32 | 8.39 |
| Open Circuit Voltage Voc (V) | 37.1 | 37.2 | 37.3 | 37.4 | 37.5 | 37.6 |
| Short Circuit Current I _{sc} (A) | 8.32 | 8.38 | 8.52 | 8.67 | 8.73 | 8.79 |
| Module Efficiency η _m (%) | 14.1 | 14.4 | 14.8 | 15.1 | 15.4 | 15.7 |
| Power tolerance (%) | 0/+3 | 0/+3 | 0/-3 | 0/+3 | 0/+3 | 0/+3 |

Mechanical Characteristics

| | | |
|-----------------|--|-----------------------|
| Cell Type | Poly-crystalline | 156x156-mm (6 inches) |
| Number of Cells | 60 (5x12) | |
| Dimension | 1640x992x40 mm (64.57x39.06x1.57 inches) | |
| Weight | 20.0 kg | |
| Front Glass | Low-iron Tempered Glass | |
| Encapsulant | EVA | |
| Frame | Anodized Aluminium Alloy | |



Temperature Characteristics

| | |
|---|----------|
| NOCT* | 45±2°C |
| Temperature Coefficient of P _{max} (%) | 0.47/°C |
| Temperature Coefficient of Voc (%) | -0.33/°C |
| Temperature Coefficient of I _{sc} (%) | 0.055/°C |

Maximum System Ratings

| | |
|----------------------------|---------------|
| Operating Temperature | 40°C to 180°C |
| Maximum System Voltage | 1000V DC |
| Maximum Series Fuse Rating | 10A |

Warranty

| |
|---------------------------------------|
| 10 years product warranty |
| 10 years warranty on 90% power output |
| 25 years warranty on 80% power output |

