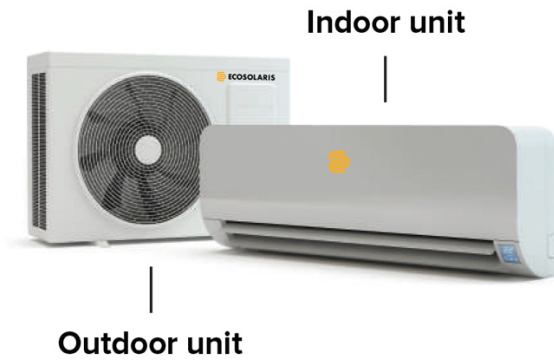




Products brochure
ECOSOLARIS SOLAR AIR CONDITIONER

 **ECOSOLARIS**

**Solar air conditioner, the sustainable
solution heating and cooling !**



Solar panels
Sold separately.



48V / 100Ah Battery
Sold separately.

Mobile Application



Solar Powered



Heating and Cooling



Hybrid Application



Remote Control



Off-Grid Application



Canadian Design

Solar A/C that stand out.



Hybrid vs. Off-Grid

Two solar A/C variants are available: the hybrid and the off-grid air conditioner.

Hybrid Application

The hybrid A/C operates mainly on solar energy and is powered by the public electricity network when needed. Typically, the energy produced by the solar panels is used during sunny periods and the energy from the public electricity network is used to make up the shortfall during non-sunny periods.

Their conditioner does not require a grid connection to operate: the unit will automatically adjust its speed and heating or cooling capacity to the available solar power. However, a connection to the grid will be necessary if the unit needs to operate even when there is no sunlight.

Off Grid Application

A DC booster can be installed on the outdoor unit of the A/C to make it off-grid. This booster makes it work with batteries at all times. Knowing that it works only with solar energy, it allows its user to realize more energy and monetary savings.

The A/C can be powered by any 48V battery bank (lead-acid, AGM, Gel or lithium), which allows it to be installed in any solar energy system.

Remote Control

The solar air conditioner is Wi-Fi: it can be controlled remotely via the Ecosolaris app (available free on iOS and Android). The app allows you to adjust the temperature, fan speed and program the unit. Optimizing your energy consumption has never been easier !

Low Carbon Footprint

The solar A/C is an eco-responsible heating and cooling solution because it uses free energy during sunny periods and limits the energy needed to heat/cool the premises during non-sunny periods by pre-heating/pre-cooling the ambient air.

Moreover, in the case where the local public grid electricity is produced in a nonrenewable way, the solar air conditioner makes even more sense.

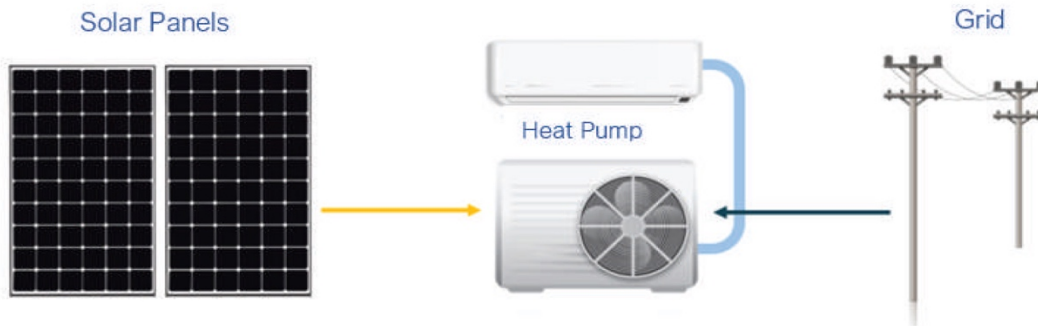
Specifications Sheet.

MODEL	12 000 BTU	18 000 BTU
GENERAL SPECIFICATIONS		
Type of A/C	← Mini Split →	
Power Rating	12 000 BTU	18 000 BTU
AC Nominal Voltage	← 208V-240V →	
Frequency	← 50 / 60 Hz (Single Phase) →	
Refrigerant	← R410 →	
Energy Efficiency Ratio (EER)	← 4.35 W/W →	
Seasonal Energy Efficiency Ratio (SEER)	23.40	21.70
Coefficient of Performance (COP)	← 16.56 →	
ELECTRICAL INPUT (HEAT AND COOLING)		
DC Input Voltage Range	← 100V to 380V →	
DC Input Current Range	← 1A to 12A →	
*Off-Grid Module for Off-Grid Application	← 6.1 W/W →	
Suggested Solar Power	900W to 1200W	1200W to 1500W
Suggested Storage	← 5kWh and more →	
HEATING		
Minimum Electrical Power to Supply	180W	220W
Maximum Electrical Power to Supply	1500W	1760W
Maximum Heating Power	4300W (14 600 BTU/h)	5800W (19 600 BTU/h)
Rated Power	905W	1320W
Rated Current	4.3A	6.7A
COOLING		
Minimum Electrical Power to Supply	380W	450W
Maximum Electrical Power to Supply	1400W	2100W
Maximum Cooling Power	3960W (13 500 BTU/h)	5450W (18 600 BTU/h)
Rated Power	860W	1340W
Rated Current	4.6A	7.0A
TEMPERATURE		
Operating Temperature (Heating)	-15°C à 32°C (5°F à 90°F)	-15°C à 32°C (5°F à 90°F)
Operating Temperature (Cooling)	-7°C à 50°C (20°F à 122°F)	-7°C à 50°C (20°F à 122°F)
Programmable Temperature Range	16°C à 32°C (61°F à 90°F)	16°C à 32°C (61°F à 90°F)

Specifications Sheet (continuation).

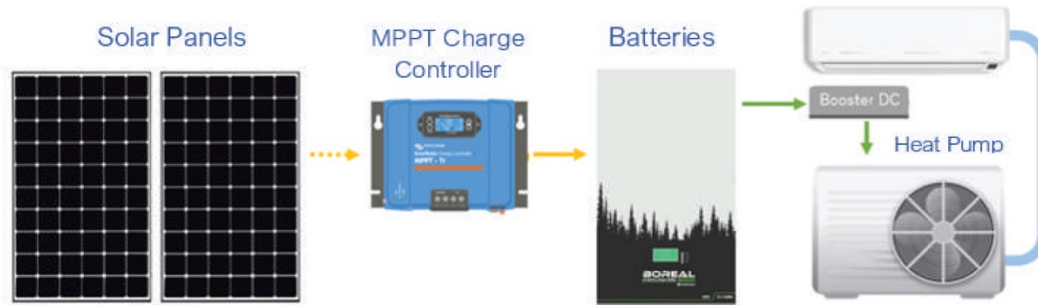
MODEL	12 000 BTU	18 000 BTU
OUTDOOR UNIT		
Compressor	HIGHLY	HIGHLY
Compressor Power	828W	980W
Maximum Noise Level	52 dB(A)	54 dB(A)
Fan Speed	880 RPM	850 RPM
Air Flow Rate	1800 m ³ /h	2800 m ³ /h
Dimensions	31.3 x 21.8 x 12.8 in / 79.7 x 55.6 x 33.6 cm	34.4 x 22 x 14.4 in / 87.4 x 55.9 x 36.8 cm
Weight	60 lb (27 kg)	68 lb (31 kg)
INDOOR UNIT		
Fan	← Xflow →	
Fan Power	18W	40W
Fan Speed (TE/E/M/F)	1 350/1 200/900/900 rpm (Heating) 1 350/11 200/800/650 rpm (Cooling)	1 350/1 200/900/900 rpm (Heating) 1 350/11 200/800/650 rpm (Cooling)
Air Flow Rate (TE/E//M/F)	710 m ³ /h	980 m ³ /h
Maximum Noise Level	55 dB(A)	58 dB(A)
Dimensions	35.3 x 11.8 x 8 in / 89.5 x 30 x 20.5 cm	3c.3 x 12,20 x c,4 in / 100 x 31 x 24 cm
Weight	24 lb (11 kg)	29 lb (13 kg)
GARANTIES		
Unit	← 1 year →	
Compressor	← 3 years →	

Hybrid Application.



The hybrid installation requires only solar panels and a public electrical grid. The solar panels power the A/C during sunny periods and the grid fills in the gaps when needed. Between 1200 W and 2695 W of solar panels are required on the DC input side. The connection of the solar panels can be in series, parallel or hybrid (series + parallel). On the AC side of the unit, the 220Vac public electricity network must be connected.

Off-Grid Application.



Off-grid installation requires the installation of more solar equipment. Solar panels charge a battery bank through a charge controller. The battery bank feeds the DC Booster which feeds the A/C. The quantity of solar panels to be installed is not limited by the input voltage accepted by the air conditioner, but by that of the charge controller. The more powerful the charge controller is, the greater the quantity of solar panels that can be installed. However, a minimum power of 1200Wp is recommended.

The A/C can be powered by any type of battery (lead-acid, AGM, Gel or lithium), as long as the battery bank voltage is 48VDC. However, lithium batteries are the best option because their voltage is more stable and they can be discharged to 100%, which offers more energy for the same volume of batteries. The installation of the DC Booster is imperative for the unit to work since it converts the 48Vdc of the batteries into 22V-335Vdc8.