

# Solar Heat Pump Pool Heater

# **ACDC HYBRID**



A purpose built DC hybrid solar heat pump pool heater built from the ground up 100% DC - No electronic inverter.



They can operate independent of the AC Grid (Off Grid) turning itself on when there is sufficient solar power and back off when there is no longer enough power from the sun. No solar grid connection for installation, no utility company authority required.



Plug and play installation - solar panels connect directly to MC4 solar terminals.



STC's are claimable on solar panels installed on a unit essentially covering the cost of the panels.



Uses eco-friendly R32 refrigerant helping to save the planet.



Brushless DC motor ensures extremely quiet operating levels.



Can be set to limit the AC power input if power consumption is a concern due to maximum power demand or simply to minimize the power consumption for economic savings.



Using solar power for one of our highest energy consuming appliances. Just common sense!





100% Eco during the day time Grid AC Power Limiter





Savings

No Inverter, Battery, or Charge controller





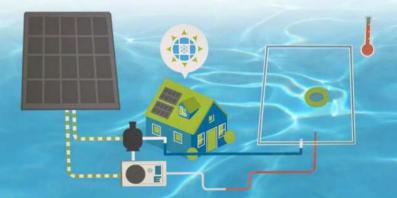




**Auto Balance** 



Hybrid AC/DC Inverter Solar Heat Pump Pool Heater











## Solar Swimming Pool Heat Pump

## ACDC HYBRID

### APPLICATION

The Solar ACDC hybrid solar heat pump pool heater requires no batteries or grid. Simply connect solar panels. Idealy operated by leaving on to auto start in the mornings along with a DC pump, They will heat or cool the water and turn off in the evening. The thermal load will remain in the pool. Depending on the temperature and if there is a cover or not it will loose some temp during the night and then put it back in the next day. Having a pool heater that can heat the pool all year round at no cost is an enormous cost saver and increases the time you can use the pool. If you choose to use it with grid power you have the option available. The WIFI functionality allows full control, daily and weekly timers, complete visibility with AC and DC consumption and the history of all power consumption.



#### **YOUR BENEFITS**

- Efficient brushless DC permanent magnet variable frequency twin rotary compressors.
- Can run directly on 100% solar power during the daytime.
- Eco-Friendly R32 Refrigerant.
- AC Limiter will limit the AC consumption to 100w when DC power is available and slightly more when there is no DC.
  - Wide ambient operating temperature range: -15° C to +58° C.
- Quiet operation

- anti-Corrosion Technology for the body and a titanium heat exchange
- Mc4 Solar connector terminals Easy plug and play connection and maintenance.
- Low energy consumption.

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TECHNICAL SPECIF	FICATION	HYBRID	AC/DC W	IFI
Item	Unit	10KW	13KW	15KW
Rated Grid Power (AC)		208-240V 50/60Hz	208-240V 50/60Hz	208-240V 50/60H
Solar Panel Power (DC)		80-380V	80-380V	80-380V
Heating Capacity (27/24.3°C)	kw	2.1-10.2	2.3-13.6	2.4-15.5
Heating Power Input	kw	0.14-1.57	0.15-2.09	0.15-2.58
COP		15.5-6.5	15.8-6.5	16.0-6.0
Heating Capacity (15/12°C)	kw	1.6-7.3	1.8-9.5	1.9-11.7
Heating Power Input	kw	0.21-1.52	0.24-1.98	0.25-2.44
COP		7.7-4.8	7.5-4.8	7.6-4.8
Max Power Consumption	kw	1.92	2.49	2.7
Max Current (AC)	Α	8.4	10.9	11.8
Max Current (DC)	Α	12	12.0	12.0
Water Proof Level		IPX4	IPX4	IPX4
Water Heat Exchanger		Titanium	Titanium	Titanium
Air Heat Exchanger		Finned tube	Finned tube	Finned tube
Water Flow Volume	m³/h	3.2	4.0	4.6
Noise (1m)	dB(A)	39-51	42-53	43-54
Unit Net Dimensions (L/W/H)	mm	995×432×633	995×432×633	995×432×633
Unit Ship Dimensions (L/W/H)	mm	1063×475×695	1063×475×695	1063×475×695
Net Weight & Shipping Weight	kg	45 & 50	48 & 53	50 & 55

Heating: Outdoor air temp: 27/24.3°C, Inlet water temp: 26°C Outdoor air temp: 15/12°C, Inlet water temp: 26°C

Operating range: Ambient temperature: -15~58°C

Inlet Water temperature: 10~35°C

#### SYSTEM COMPONENTS

A smart LCD touch controller with easy to control functions. Can connect and be controlled by WIFI.



## **ACDC Hybrid Heat Pump**

During the day they run solely or primarily on solar power and only use small amounts of power from the utility company as needed if connected to 240v AC. When it comes to night time, they will automatically mix power and eventually switch to 240V AC power.

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#### DC Brushless fan motor

DC brushless fan motors are used for both indoor and outdoor units. Energy consumption is greatly reduced and run with very low noise. The use of a brushless permanent magnet motor driver provides a variable frequency drive that allows the system to dynamically adjust its capacity based on conditions.



#### Solar Panels

Any solar panels can be connected to our Hybrid solar air conditioners. They are simply connected in series with a maximum of 380VOC. Todays improved solar technology provides stable, efficient and reliable power without any maintenance required.









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