

R290 Swimming Pool Heat Pump

Solareast Heat Pump Ltd.

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Exploded Diagram

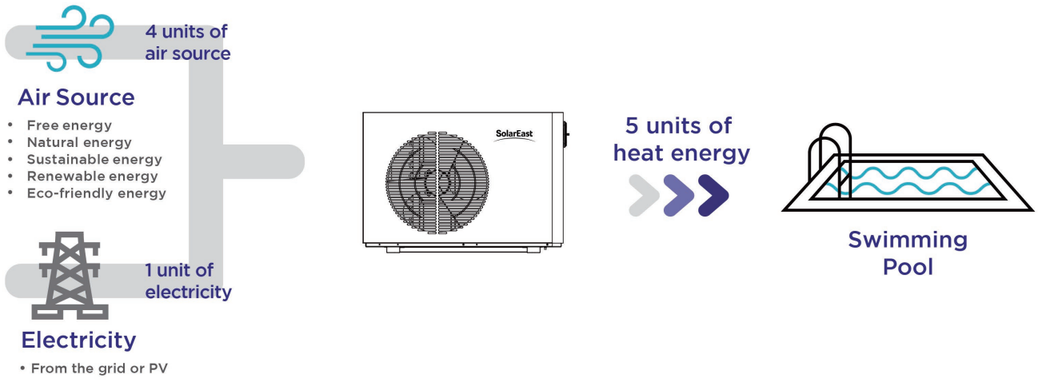


Components

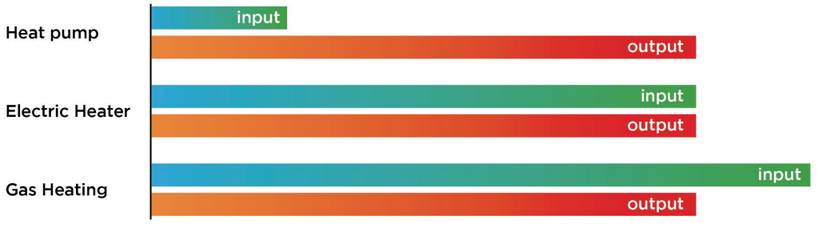
1. Main board
2. Titanium heat exchanger
3. Compressor
4. Evaporator
5. Four way valve
6. Front panel
7. Top cover
8. Right side panel
9. Rear panel
10. Fan
11. Wiring Box
12. Controller

Solareast, Delivering 500% Heating Efficiency!

The Solareast pool heat pump delivers efficiency up to 500%, converting just 1 unit of electricity plus 1 unit of environmental energy into more than 5 units of heat output. This significantly enhances energy efficiency, far surpassing the 100% output of electric resistance heaters and the 70-90% of traditional gas heaters. With exceptional efficiency and low operating costs, Solareast heat pump systems are the ideal economic choice for pool heating, providing both comfort and sustainability in one powerful solution.



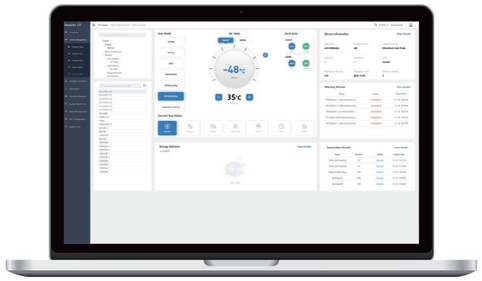
Energy Input and Output Comparison Across Heating Methods*



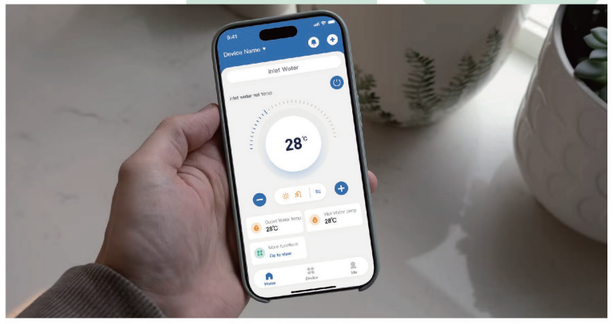
* Heating Capacity at Air 26℃, Humidity 80%, Water 26℃ in, 28℃ out

Efficient IoT Solution

Solareast's IoT platform enables remote monitoring, reduces labour costs, syncs data, and helps dealers quickly identify issues and deliver optimal solutions to users.



Real Link



The Real Link app enables real-time remote heat pump monitoring, providing key data and control features for optimised performance via a user-friendly smartphone interface.



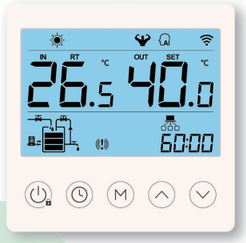
User-friendly Control

A wide range of wire controllers offers intuitive, single-page access to key functions, with clear visuals for quick adjustments and monitoring, ensuring efficient mode selection and system management.









R290
Eco-fiendly Refrigerant

R290 refrigerant is highly eco-friendly with a GWP of only 3, ensuring minimal environmental impact and no ozone depletion, while being exempt from the F-gas quota.

SG
Ready

Equipped with SG Ready technology, these heat pumps enhance grid stability by adjusting power use, promoting efficient electricity consumption, and helping reduce operational costs.

Customizable Appearance and Color

Customize the heat pump's design to harmonize with your pool's aesthetics, offering flexibility in both appearance and color to match any style.

Full Inverter Technology

Advanced full inverter technology adjusts compressor speed to precisely control water temperature, optimizing energy efficiency and reducing power consumption.

Quiet Performance

Operating at a noise level of only **38dB(A)**, the heat pump uses full DC inverter technology to ensure quiet and efficient operation, ideal for noise-sensitive environments.

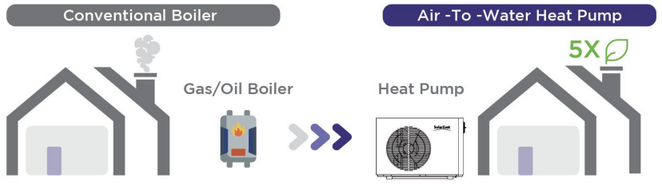
Large Heating Range

Offers a versatile heating capacity range from 7kW to 27kW, accommodating various pool sizes and ensuring optimal heating performance for different needs.

Minimised Carbon Emissions

Swimming Pool Heat Pumps

Swimming pool heat pump technology substantially lowers carbon emissions compared to conventional heating systems. By utilizing renewable energy, each unit achieves near-zero carbon emissions, resulting in the smallest overall carbon footprint among available heating solutions.Carbon emissions can be reduced by as much as 70% compared to gas boiler heating systems, making it an environmentally responsible choice.



Efficiency and reliability

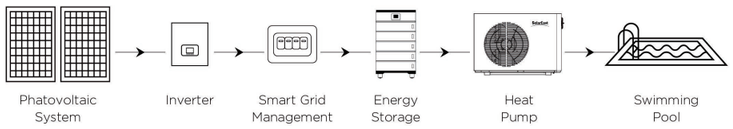
Full DC Inverter Technology

Solareast pool heat pump utilizes full DC inverter technology, allowing precise control over compressor speed for maximum energy efficiency and stable performance. This advanced system adjusts output based on real-time heating demands, ensuring consistent pool temperatures with reduced energy consumption, extended equipment lifespan.



SG Ready Fuction

Solareast R290 pool heat pump features Smart Grid (SG) functionality, enabling real-time power adjustment to match grid demands, which maximizes energy efficiency and reduces costs. This intelligent system supports seamless integration with energy management platforms, ensuring sustainable and economical operation while maintaining optimal pool temperatures.



T E C H N I C A L D A T A

Model	BYC-007TJ1	BYC-010TJ1	BYC-013TJ1	BYC-016TJ1	BYC-020TJ1	BYC-027TJ1
* Heating Capacity at Air 26℃, Humidity 80%, Water 26℃ in, 28℃ out						
Heating Capacity (kW)	7.3 ~ 2.8	9.7 ~ 3.7	12.5 ~ 4.7	15.9 ~ 6	20 ~ 7.6	26.8 ~ 10.2
Power Input (kW)	1.12 ~ 0.26	1.47 ~ 0.35	1.88 ~ 0.45	2.41 ~ 0.57	3.02 ~ 0.72	4.06 ~ 0.97
Current Input (A)	5.1 ~ 1.2	6.7 ~ 1.6	8.6 ~ 2	11 ~ 2.6	13.8 ~ 3.3	18.5 ~ 4.4
COP	10.6 ~ 6.6	10.5 ~ 6.6	10.6 ~ 6.6	10.6 ~ 6.6	10.6 ~ 6.6	10.6 ~ 6.6
* Heating Capacity at Air 15℃, Humidity 70%, Water 26℃ in, 28℃ out						
Heating Capacity (kW)	5.6 ~ 2.1	7.2 ~ 2.7	9.2 ~ 3.5	12 ~ 4.5	15 ~ 5.6	19.7 ~ 7.3
Power Input (kW)	1.15 ~ 0.29	1.54 ~ 0.4	1.95 ~ 0.51	2.52 ~ 0.62	3.18 ~ 0.83	4.17 ~ 1.08
Current Input (A)	5.4 ~ 1.3	7 ~ 1.8	8.9 ~ 2.3	11.6 ~ 2.8	14.5 ~ 3.8	18.9 ~ 4.9
COP	7.2 ~ 4.9	7.6 ~ 4.9	7.6 ~ 5	7.2 ~ 4.8	7.6 ~ 5	7.6 ~ 5
* Cooling Capacity at Air 35℃, Water 29℃ in, 27℃ out						
Cooling Capacity (kW)	4.3 ~ 2.4	5.4 ~ 2.9	6.9 ~ 3.7	8.9 ~ 4.8	11.1 ~ 6	14.6 ~ 7.9
Power Input (kW)	0.85 ~ 0.35	1.08 ~ 0.44	1.38 ~ 0.56	1.79 ~ 0.74	2.23 ~ 0.9	2.94 ~ 1.19
Current Input (A)	4 ~ 1.7	4.9 ~ 2	6.3 ~ 2.5	8.1 ~ 3.4	10.1 ~ 4.1	13.4 ~ 5.4
EER	6.9 ~ 5.1	6.6 ~ 5	6.7 ~ 5	6.9 ~ 5	6.7 ~ 5	6.7 ~ 4.9
Power supply	220 ~ 240V/50（60）Hz					
Max power input (kW)	1.76	2.30	2.85	3.3	4.99	5.96
Rated power (kW)	1.15	1.54	1.95	2.52	3.18	4.17
Rated current (A)	5.2	7	8.9	11.7	14.5	19
Fuse or circuit breaker (A)	10	15	15	20	25	30
Water flow (m^3/h)	2.5	3.5	4.5	5.5	6.5	9
Refrigerant	R290					
Heat Exchanger	Titanium					
Air Flow Direction	Horizonta					
Automatic defrosting	by 4 way valve					
Heating temperatuer range（℃）	8 ~ 40					
Cooling temperatuer range（℃）	8 ~ 28					
Operating range（℃）	-15 ~ 45					
Min pressure/max pressure（Mpa）	0.15/3					
Water proof level	IPX4					
Net Dimensions（mm)(L * W * H)	914*394*640	914*394*640	1074*429*733	1074*429*733	1205*480*800	1205*480*800
Package Dimensions（mm)(L * W * H)	973*455*654	973*455*654	1136*496*755	1136*496*755	1280*540*830	1280*540*830
Net Weight (kg)	54	57	68	72	85	90
Gross Weight (kg)	64	67	78	82	95	100

* Please refer to the nameplate for product upgrades or changes in specifications without prior notice.