Solareast Heat Pump Ltd.

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SolarEast



INVER-TOP
Swimming Pool Heat Pump



SOLAREAST HEAT PUMPS

INNOVATION

FEATURES 6main

R32 REFRIGERANT

R32 offers ~10% higher efficiency and 68% lower GWP than R410A, combining strong performance with environmental responsibility.

7-35kW HEATING CAPACITY RANGE

With a heating output from 7kW to 35kW, this series covers various pool sizes, from small private spas to large residential pools.

WIFI CONTROL

Built-in WiFi connectivity allows remote monitoring and control via mobile app, offering convenience and intelligent temperature management.



VERTICAL AIR DISCHARGE

Engineered with top air outlet design, the unit ensures unobstructed airflow and space-saving installation, especially suitable for narrow outdoor areas.

QUIET PERFORMANCE

Optimized acoustic design minimizes operational noise, 39dB(A), allowing for a more pleasant and undisturbed poolside environment.

FULL DC TECHNOLOGY

Full Inverter

Equipped with full DC inverter compressor and fan motor, the system ensures high efficiency and precise performance under all conditions.

SOLAREAST HEAT PUMPS

This pool heat pump features a **vertical air discharge** design for flexible installation in compact spaces. With **full inverter technology**, it delivers energy-efficient and ultra-quiet performance. The system uses **R32 refrigerant** to reduce environmental impact while ensuring reliable heating. For end users, the **Real Link app** enables intuitive remote control and real-time status monitoring. Meanwhile, the **efficient IoT solution** provides centralized fleet management and diagnostics for installers and service teams. Combined with a **user-friendly control panel**, it offers a truly intelligent and convenient heating experience.

Mitsubishi Compressor

Full DC Fan Motor

DC fan with adjustable speed ensures stable airflow, lower noise, and energy-saving air circulation.

Evaporator

Fin-type evaporator maximizes heat absorption from ambient air, boosting overall heating efficiency.

Titanium Heat Exchanger

Corrosion-resistant titanium ensures long-lasting, safe heat transfer in chlorine and saltwater pools.



Smart Digital Controller

Offers user-friendly interface for temperature adjustment, operation modes, and real-time monitoring.

Electronic Control Module

Coordinates system logic, ensures protection functions, and supports intelligent, reliable operation.

4-Way Reversing Valve

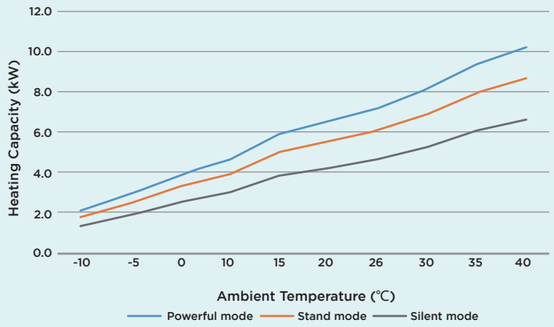
Switches heating and defrosting modes automatically, ensuring stable operation in all seasons.

Electronic Expansion Valve (EEV)

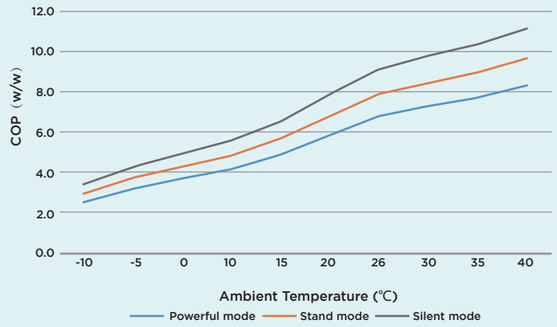
Precisely regulates refrigerant flow, optimizing performance across varying temperature and load conditions.

Operating performances

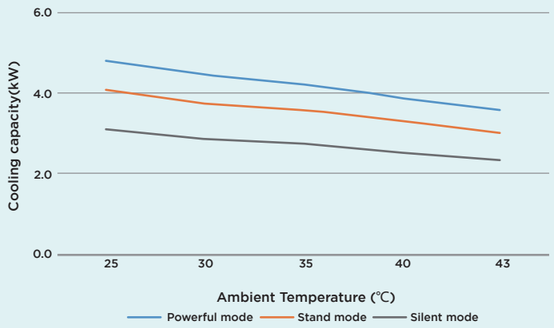
Heating performance curve



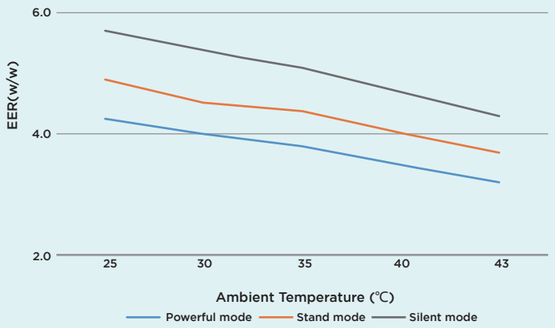
Heating COP curve



Cooling performance curve



Cooling EER curve



* Model BYC-007TV1 performance curve.

TECHNICAL DATA

Model No.	BYC-007TV1	BYC-010TV1	BYC-013TV1	BYC-017TV1	BYC-021TV1	BYC-030TV1	BYC-035TV1	BYC-030TV3	BYC-035TV3
* Heating Capacity at Air 26℃, Humidity 80%, Water 26℃ in, 28℃ out									
Heating Capacity (kBTU/h)	24.57~5.80	31.39 ~ 7.85	42.65 ~ 10.24	56.29 ~ 12.97	71.65 ~ 16.38	95.54 ~ 23.20	119.42 ~ 30.02	95.54 ~ 23.20	119.42 ~ 30.02
Heating Capacity (kW)	7.2~1.7	9.2~2.3	12.5~3.0	16.5~3.8	21~4.8	28~6.8	35~8.8	28~6.8	35~8.8
Power Input(kBTU/h)	3.62~0.38	4.61 ~ 0.51	6.28 ~ 0.65	8.29 ~ 0.82	10.54 ~ 1.024	14.06 ~ 1.47	17.57 ~ 1.91	13.55 ~ 1.47	17.57 ~ 1.91
Power Input (kW)	1.06~0.11	1.35~0.15	1.84~0.19	2.43~0.24	3.09~0.30	4.12~0.43	5.15~0.56	3.97~0.43	5.15~0.56
COP	15.8~6.8	15.8~6.8	16~6.8	15.8~6.8	15.8~6.8	15.8~6.8	15.8~6.8	15.8~6.8	15.8~6.8
* Heating Capacity at Air 15℃, Humidity 70%, Water 26℃ in, 28℃ out									
Heating Capacity (kBTU/h)	20.13~4.78	25.25 ~ 6.48	32.41 ~ 7.85	44.70 ~ 10.24	56.30 ~ 12.97	78.48 ~ 18.77	87.00 ~ 21.83	78.48 ~ 18.77	87.00 ~ 21.83
Heating Capacity (kW)	5.9~1.4	7.4~1.9	9.5~2.3	13.1~3	16.5~3.8	23~5.5	25.5~6.4	23~5.5	25.5~6.4
Power Input(kBTU/h)	4.09~0.61	5.15 ~ 0.85	6.48 ~ 1.02	9.11 ~ 1.33	11.50 ~ 1.71	16.03 ~ 2.45	17.74 ~ 2.86	16.03 ~ 2.45	17.74 ~ 2.86
Power Input (kW)	1.2~0.18	1.51~0.25	1.9~0.30	2.67~0.39	3.37~0.5	4.7~0.72	5.2~0.84	4.7~0.72	5.2~0.84
COP	7.6~4.9	7.6~4.9	7.6~5	7.6~4.9	7.6~4.9	7.6~4.9	7.6~4.9	7.6~4.9	7.6~4.9
* Cooling Capacity at Air 35℃, Water 29℃ in, 27℃ out									
Cooling Capacity (kBTU/h)	14.334~3.41	18.08 ~ 4.43	24.57 ~ 5.80	32.07 ~ 7.17	39.58 ~ 9.21	50.83 ~ 12.96	65.85 ~ 16.71	50.83 ~ 12.96	65.85 ~ 16.71
Cooling Capacity (kW)	4.2~1.0	5.3~1.3	7.2~1.7	9.4~2.1	11.6~2.7	14.9~3.8	19.3~4.9	14.9~3.8	19.3~4.9
Cooling Capacity (kBTU/h)	3.79~0.51	4.78 ~ 0.65	6.45 ~ 0.85	8.43 ~ 1.06	10.41 ~ 1.36	13.37 ~ 1.94	17.33 ~ 2.49	13.37 ~ 1.94	17.33 ~ 2.49
Power Input (kW)	1.11~0.15	1.4~0.19	1.89~0.25	2.47~0.31	3.05~0.4	3.92~0.57	5.08~0.73	3.92~0.57	5.08~0.73
EER	6.6~3.8	6.7~3.8	6.7~3.8	6.7~3.8	6.7~3.8	6.7~3.8	6.7~3.8	6.7~3.8	6.7~3.8
* General data									
Power supply	220~240V/1/50Hz							380~415V/3/50Hz	
Max Power Input (kBTU/h)	4.94	5.97	7.33	8.53	10.91	15.18	16.24	21.93	23.64
Max Power Input (kW)	1.45	1.75	2.2	2.5	3.2	4.45	4.76	6.43	6.93
Max Current (A)	7.1	8.3	10.2	11.9	14.7	20.4	30	7.9	11.3
Water Flow Volume (m3/h)	2.5	3.5	4.5	5.5	6.5	9	12	9	12
Refrigerant	R32								
Heat Exchanger	Titanium								
Air Flow Direction	Vertical								
Kind of defrost	by 4 way valve								
Working temp. range (℃)	-15~43								
Casing Material	ABS								
Water Proof Level	IPX4								
Noise level 1m dB(A)	39~49	40~52	42~53	43~55	45~56	47~58	49~59	47~58	49~59
Noise level 10m dB(A)	20~29	20~32	22~33	23~35	25~36	27~38	29~39	27~38	29~39
Net Weight (kg)	44	46	55	57	61	86	92	86	92
Gross Weight (kg)	55	57	68	70	72	96	104	96	104
Net Dimensions (mm)	530*530*640	530*530*640	650*650*770	650*650*770	650*650*770	715*715*955	715*715*955	715*715*955	715*715*955
Package Dimensions (mm)	560*600*780	560*600*780	680*720*910	680*720*910	680*720*910	765*785*1080	765*785*1080	765*785*1080	765*785*1080

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