



HEAT PUMP BROCHURE

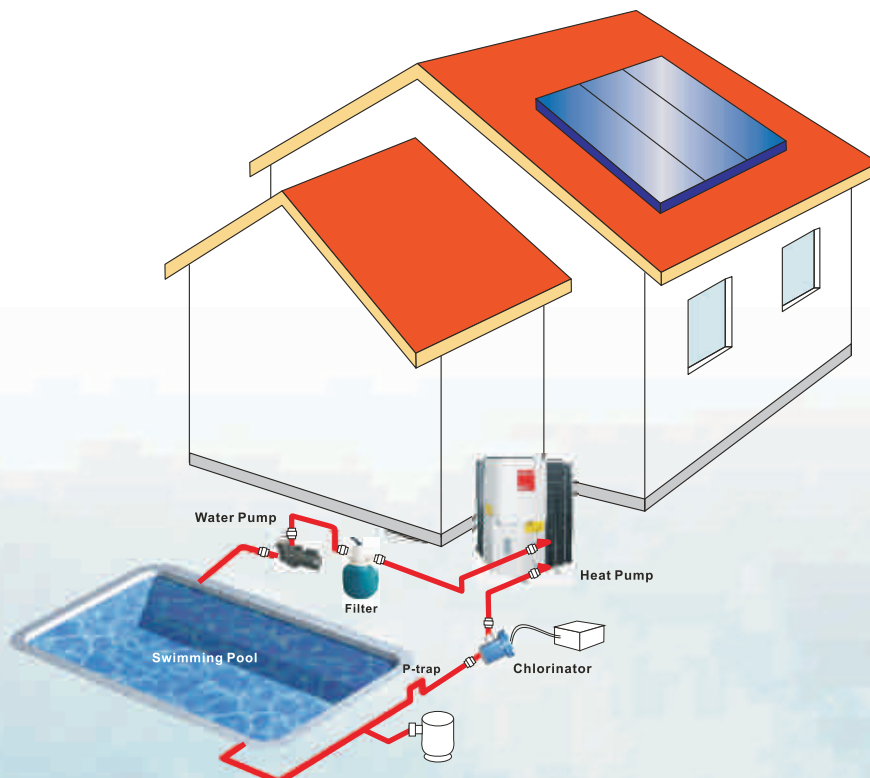
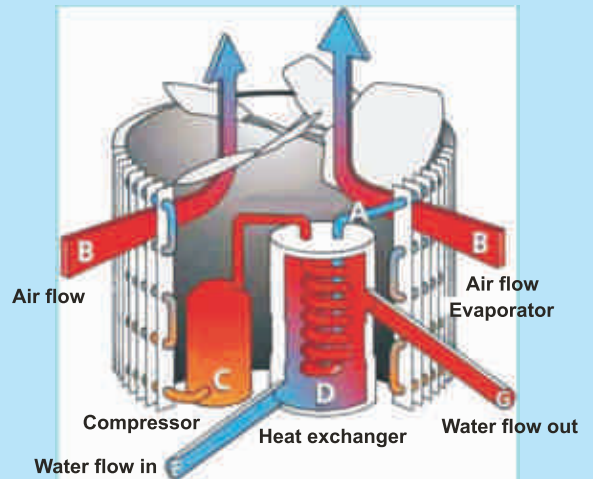
FROM DESIGN TO DELIVERY UNDER ONE ROOF

INSTALLATION SKETCH MAP

Swimming pool heat pump is a specially designed machine which extracts and magnifies low grade heat from air and delivers this upgraded combination to a swimming pool.

Working Principle The mission of swimming pool heat pump is to absorb the heat from natural air and then put it into pool water, or transit the energy of pool water to air; That is the way it heats up or cools down the pool water.

Driven by electricity, the compressor compresses the freon into gas with high temperature and high pressure; then the gas goes into the condenser (tube and fins heat exchanger), becoming liquid with low temperature and low pressure by heat exchange with outdoor air; Through expansion valve, the liquid refrigerant goes into the evaporator accordingly and the pool water is cooled down. The reverse comes true when heating.



Swimming Pool & Spa Heating Solution



Aquanomics series commercial pool heat pump provides maximum energy efficiency & reliability. Working efficiently, its units absorb another 6x of free heat from the ambient environment & transfer it to the pool water, which makes the heating process & cost-saving, specially designed for maintaining a constant temperature of pools 40m³ to 500m³, such as pools in hotels, public parks, schools, sports centers, gyms and so on.

Features

- Operating Air Temperature (°C): -7~43
- Heat Exchanger: Spiral Titanium Tube in PVC
- Casing: Metal
- Power Supply: 380-400V/3PH/50Hz
- Operating Water Temperature (°C) Heating: 9~43
- Operating Water Temperature (°C) Cooling: 9~35

Note: The specifications are subject to change without prior notice for product improvement. For final parameters, please refer to the nameplate on the machine.

Technical Information & Dimensions

Model	AQ-CHP-050	AQ-CHP-100	AQ-CHP-150	AQ-CHP-200	AQ-CHP-250	AQ-CHP-260	AQ-CHP-300
Advised Pool Volume (m ³)	40~85	80~170	120~250	150~300	210~400	210~400	260~500
Performance Condition: Air: 27°C, Humidity: 80%							
Heating Capacity (kW)	26	51.5	75	100	125	130	145
Heating Capacity (BTU)	88400	175100	255000	340000	425000	442000	493000
Consumed Power (kW)	4.2	8.4	12.1	16.8	20.9	21.7	23.8
COP	6.2	6.1	6.2	6	6	6	6.1
Performance Condition: Air: 15°C, Water:26°C, Humidity: 70%							
Heating Capacity (KW)	18.3	39.8	53.5	77.5	93.3	97	105.8
Heating Capacity (BTU)	62220	135320	181900	263500	317220	329800	359720
Consumed Power (kW)	3.9	8.4	11.3	16.7	19.85	20.62	22.8
COP	4.7	4.7	4.7	4.6	4.7	4.7	4.6
Performance Condition: Air: 35°C, Water:28°C, Humidity: 80%							
Cooling Capacity (kW)	16.5	33.4	48.5	65.1	81.1	84.3	94.6
Sound Pressure at 1m dB(A)	56	58	60	62	64	64	66
Sound pressure at 10m db(A)	44	46	48	50	52	52	54
Water Connection (mm)	G1-1/2" (PVC female thread)	G2" (PVC female thread)	G2" (PVC female thread)	DN110 (PVC Flange)	DN110 (PVC Flange)	DN110 (PVC Flange)	DN110 (PVC Flange)
Rated Input Current at Air 15°C (A)	6.05	13.02	17.52	25.89	30.78	31.97	35.35
Advised Water Flux (m ³ /h)	11.2	22.1	32.3	43	53.8	55.9	62.4
Water Pressure Drop (max) kPa	50	50	50	45	45	45	50
Product Size (mm)	740X805X1165	1500x750x1075	1530x790x1100	1705x1005x1230	2005x1050x1400	2005x1050x1400	2005x1050x1400
Loading Quantity (20GP/40GP/40HQ)	14/28/56	6/14/28	6/14/28	6/12/12	5/10/10	5/10/10	5/10/10
Refrigerant Charge Quantity (g)	2500	5400	7000	10000	10400	10400	13000
Compressor	Gree			Copeland			

Swimming Pool & Spa Heating Solution



Model No.	AQ-CHP-400
Power Supply (V/ Ph/ Hz)	380/ 3/ 50
Performance Condition: Air: 27°C, Water: 29°C	
Heating Capacity (kW)	210
Heating Input Power (kW)	38.9
Running Current (A)	66.5x3
COP	5.4
Performance Condition: Air: 35°C, Water: 27°C	
Cooling Capacity (kW)	140
Heating Input Power (kW)	48.5
EER	2.9
Heating setting range ^o (C)	15~40
Cooling setting range ^o (C)	12~30
Applicable Ambient Temperature ^o (C)	36
Noise dB(A)	78
Compressor	Sanyo
CompressorQuantity	4*Scroll
EEV	Saginomiya/ Sanhua
Heat Exchanger	Titanium
Water Connection (mm)	120
Water Flow Volume (m ³ /h)	60 - 90

Swimming Pool & Spa Heating Solution

3 Times Energy Saving

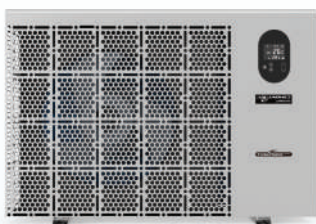
Eco friendly

3 Intelligent Modes

Next-Gen Technology

4 Season Pool Fun

15 Times Quieter



Aquanomics Pool Inverter technology intelligently optimizes the heating method. It is 10 times quieter than Standard Inverter Heatpumps with COP 50~70% higher than Standard Inverter HPs by 100% speed giving you an extra 20% capacity for quicker heating, still higher COP than others. It has an integrated Control System with an intelligent touch controller with free built-in WiFi and 4-season function.

Features

- Operating Temperature (°C): -15~43
- Heat Exchanger: Spiral Titanium Tube in PVC
- Casing: Aluminium-Alloy
- Power Supply: 230V/1 PH/50Hz or 400V/3 PH/50 Hz (for last 2 models)
- Water Pipe In-Out Size (mm): 50

Technical Information & Dimensions

Model	AQ-IHP-9	AQ-IHP-11	AQ-IHP-14	AQ-IHP-18	AQ-IHP-22	AQ-IHP-24	AQ-IHP-27	AQ-IHP-27T	AQ-IHP-28	AQ-IHP-35
Advised Pool Volume (m³)	20~40	25~50	30~60	40~75	55~100	60~120	70~130	65~120	70~130	90~160
Performance Condition: Air: 26°C, Water: 26°C, Humidity: 80%										
Heating Capacity (kW) in Smart Mode	8.8	11.3	14	18	22	23.8	27.5	27.5	27.6	35
Heating Capacity (kW) in Turbo Mode	10.5	13.5	17	21.5	26	28	34.8	32	32.5	40
COP in Smart Mode	8	8.5	7.7	7.5	8	7.5	7.8	7.6	7.5	7.5
COP	15.6~7.3	15.5~7.5	16.0~6.6	15.5~6.5	16.5~7.0	6.0~15.0	6.46~15.62	16.3~6.5	6.5~15.6	16.3~6.6
COP at 50% Capacity	11.8	12	11.5	11.5	11.6	11	11.5	11.5	11.5	11.4
Performance Condition: Air: 15°C, Water: 26°C, Humidity: 70%										
Heating Capacity (kW) in Smart Mode	6.3	7.5	9.5	12	15	18.5	19.6	18.5	21.6	24.5
Heating Capacity (kW) in Turbo Mode	7.5	9	11.5	14.5	18	21.8	24	22	25.5	28.5
COP in Smart Mode	5.4	5.5	5.2	5.2	5.6	5.3	5.6	5.5	5.3	5.3
COP	7.1~4.9	7.0~5.0	7.5~4.5	8.0~4.7	8.0~5.1	4.8~7.0	6.84~4.68	8.0~5.0	5.2~8.0	8.1~4.8
COP at 50% Capacity	6.7	6.7	6.8	7	7	6.5	5.6	7	6.8	6.9
Performance Condition: Air: 35°C, Water: 28°C, Humidity: 80%										
Cooling Capacity (kW)	4.5	5.8	6.7	8.2	12	13.8	14	14	20.7	16.5
Sound Pressure at 1m dB(A)	38.5~45.5	38.6~46.9	42.0~47.7	42.9~50.8	40.8~51.2	45~56	46~62	43.3~51.9	43.0~54.0	42.5~51.7
Sound Pressure of 50% capacity at 1m dB(A)	39.5	41.3	43.7	44.5	44.4	48	47.4	46.4	47	43.8
Sound Pressure at 10m dB(A)	18.5~25.5	18.5~26.9	22.0~27.7	22.9~30.8	20.8~31.2	26~34	23.3~31.9	23.3~31.9	24.0~32.0	22.5~31.7
Rated Input Power at Air 15°C (kW)	0.18~1.53	0.22~1.8	0.26~2.56	0.31~3.08	0.38~3.53	0.37~4.75	7	0.46~4.4	0.43~5.42	0.60~5.94
Rated Input Current at Air 15°C (A)	0.78~6.65	0.96~7.82	1.14~11.3	1.35~13.4	1.65~15.3	2.8~20.8	13.2	0.66~6.35	7.5~1.1	0.82~8.57
Advised Water Flux (m³/h)	2-4	3-4	4-6	6.5-8.5	8-10	10-14	14	10-12	10-12	12-18
Net Dimension (mm)	799*432*650	893*432*650	939*432*650	995*432*750	1125*429*952	1156*430*905	907*842*1052	1074*539*947	916*904*922	1260*539*947
Quantity per 20'FT/40'HQ	90/195	78/180	78/168	50/162	42/92	42/90	36/80	36/80	n/a	34/72

Inverter Heat Pump

Heat pump is the most cost effective method available for heating pools and spas. It proved to be up to 400% more efficient than gas heater. and. nearly 600% more effective than electric heater. Below features shows why Aquanomics heat pump is of the highest quality and efficiency and why Its design can provide years of trouble-free operation.

High efficiency.

New double coil Titanium exchanger with Aquanomics patent. extends the exchanging route. ensure the best efficiency. Titanium gas coil, best corrosion-proof to pool water. no influence to water quality. ensure longest operation life. Highly efficient compressors all are from world wide famous companies. Carefully considered system design with carefully testing during developing, ensure the lowest operation consumption.

Intelligent controller.

Electronic Digital Controller, maintains water temperature within 1°C of set point. Controller also permits user to predefine different Pool and Spa water temperature set points. LCD and LED controller for option. Offer more choices. The controller could be equipped either on the unit, or on the wall as wire controller.

Corrosion-Proof Cabinet

Galvanize steel case with powder coating. while chassis treated with epoxy plus powder coating. ensure high corrosion-proof ability. Stainless steel case for option.

Heat and cool capacity

Heating and cooling are both available. Automatically switch to cooling or heating mode according to your water temperature set. Keep a stable and comfortable pool.

Safe operation

Products have all requested certifications such as CE, UL. etc.

System protection with high/low gas pressure protection. overload protection. flow switch. phase order protection, voltage protection, over heated protection. etc. Automatic defrosting program, considers the real frost condition, extends the swimming season longer than any other heat pump.

Environment friendly.

Environment friendly refrigerant R407c and R410a are available for all models.

High quality components according to ROHS directive. produce little pollution to environment.

Easy installation and manipulation

Monolog design and compact piping system makes it easy to transport. install and maintain. KISS (Keep It Stupid Simple) control panel design, easy manipulation.



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