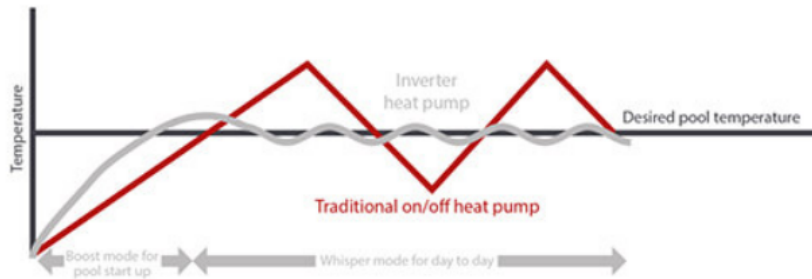


**AQUA FLOW**  
**Commercial Inverter Type Swimming Pool Heat Pump**  
Inverter Vertical 44kw to 330kw  
WIFI Control

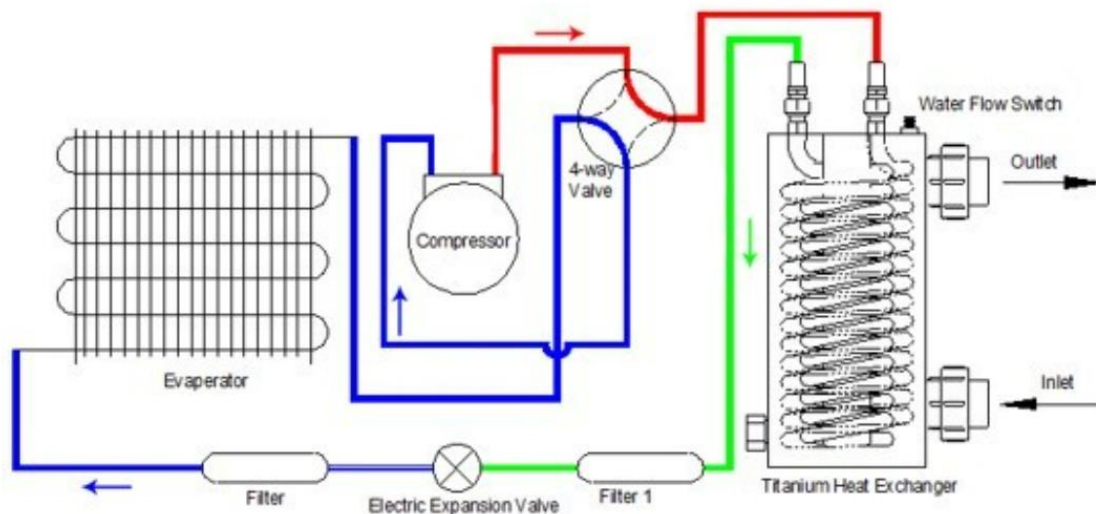


## How do inverter heat pumps work?

Applying inverter technology in outdoor swimming pool heat pumps is relatively new. The technology makes it possible to run the fan and the compressor within the heat pump at variable speeds. Therefore, the inverter heat pump is capable of adjusting output to match the actual demand from the pool very accurately.



Upon reaching the temperature you have set for the pool, the inverter heat pump will reduce the output to somewhere between 25% and 50% of the maximum power. At that output, the heat pump is capable of achieving a COP of just over 13, i.e. it can deliver 13kW of heat to the pool for every kW of electricity used.



1. The inverter pool heat pump pulls in cool water from the pool water pump.
2. The water circulates through the Titanium Heat Exchanger.
3. The sensor on the Titanium Heat Exchanger tests the water temperature.
4. The inverter controller automatically adjusts the operation capacity.
5. The fan in the pool heat pump draws in the outside air and directs it over the evaporator.
6. Liquid refrigerant within the evaporator coil absorbs the heat from the outside air and becomes a gas.
7. The warm gas refrigerant passes through the compressor and got heated to a high temperature.
8. The hot gas passes through the condenser (Titanium Heat Exchanger) in the coil and transfers the heat to the cooler water.
9. The heated water then returns to the pool.
10. The hot gas refrigerant cools and reverts to liquid form and back to the evaporator.
11. The whole process starts over again and continues till the water got heated to the goal temperature.



### GREEN REFRIGERANT R410A

With stable, non-poisonous, superior performances and nonfluorine property, the refrigerant R410A makes no damage to the ozone layer and thus it is more environmentally-friendly.



### PATENTED 100% TITANIUM HEAT EXCHANGER

The double titanium coil heat exchanger that has independent invention patent can ensure the unit high heat exchange efficiency and prevent corrosion, thus its working life is longer.



Low noise level, high efficiency, stable performance

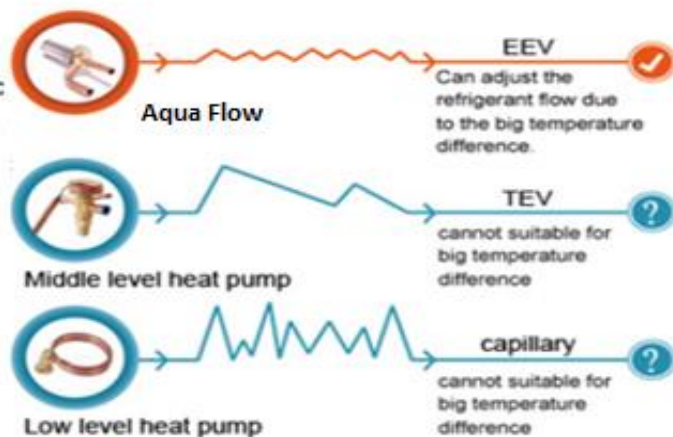


High efficiency for the heat/cool system, anti corrosion design, longer lifetime

## EEV

Through intelligent control of refrigerant flow, the use of an electronic expansion valve (EEV) has a number of advantages for the system.

The EEV increases the heating output and the COP  
 The EEV improves the overall operational reliability  
 The EEV extends the lifespan of the compressor  
 The EEV makes it easier to service the system



- **BOOSTER Function**

20% higher heating performance than its labeled capacity

One button for fast heating

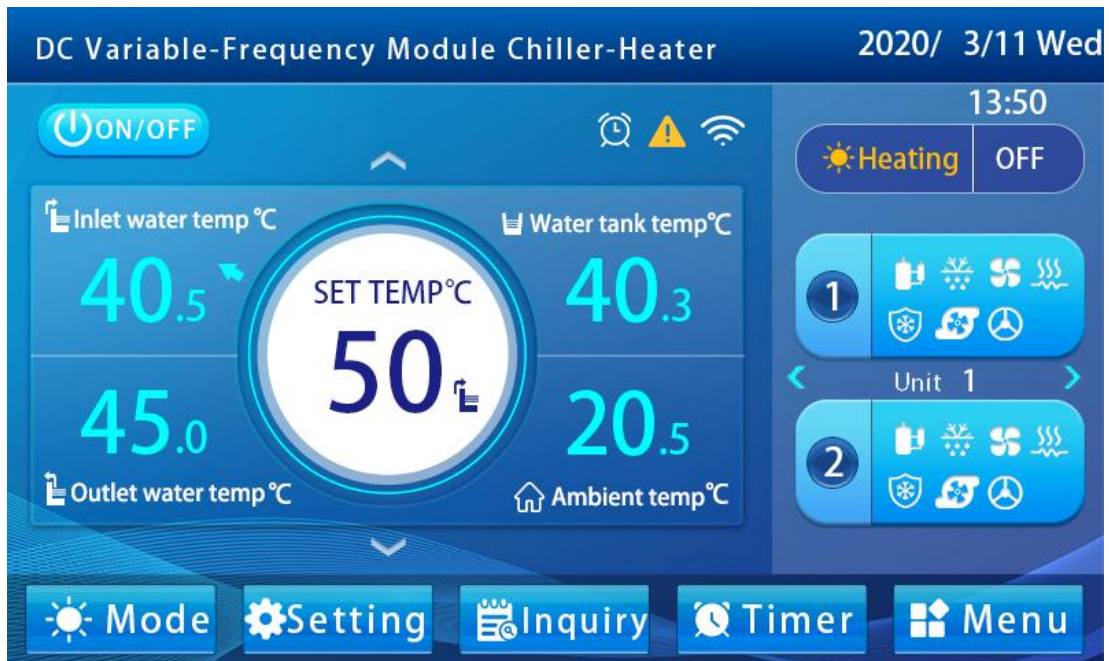
- **HALF Running Cost**

COP up to 15.8, AVERAGE COP is 10.6 (Air 26 °C /Water 26 °C /Humidity 80%)

Half running cost saving

- **AVERAGE 6 Times Quieter Running**

When maintaining pool temp at AVERAGE 50% capacity, it brings quieter swimming environment with scroll type compressor and unique ventilation system



TOUCH SCREEN WITH MULTI INFORMATION DISPLAY

# COMMERCIAL VERTICAL HEAT PUMP SPECS (R410A)

DC Inverter Swimming Pool Heat Pump Specification										
Model	W44IN	W55IN	W66IN	W83IN	W110IN	W140IN	W170IN	W240IN	W330IN	
Power supply										
3380-415V/50HZ										
Heating (Air26°C, Water26°C, Humidity80%)	Capacity(KW)	44	55	66	83	110	140	170	240	330
	COP	14.18-5.88	14.28-5.92	14.21-5.74	14.30-5.78	14.44-5.74	14.52-5.69	1430-5.62	14.38-5.59	14.25-5.64
	COP at 50% capacity	10.09	10.16	10.45	10.52	10.83	10.57	1024.00	10.06	10.68
Heating (Air20°C, Water26°C, Humidity80%)	capacity(KW)	40	50	60	75	100	125	160	200	300
	COP	8.30-5.05	8.33-5.08	8.35-5.08	8.24-5.02	8.34-5.10	8.29-5.12	8.28-5.10	8.25-5.08	8.24-5.03
	COP at 50% capacity	7.05	7.12	7.12	7.15	7.23	7.21	7.18	7.21	7.15
Heating (Air15°C, Water26°C, Humidity70%)	capacity(KW)	34	42	50	65	85	105	115	175	250
	COP	7.02-4.01	7.05-4.05	7.04-4.02	7.09-4.06	7.05-4.08	7.07-4.11	7.03-4.10	7.09-4.08	7.08-4.10
	COP at 50% capacity	6.08	6.05	6.02	6.08	6.04	6.20	6.10	6.08	6.09
Cooling (Air35°C, Water28°C, Humidity70%)	capacity(KW)	32	40	48	60	80	102	105	165	240
	EER	5.62-3.50	5.68-3.54	5.67-3.54	5.70-3.51	5.66-3.49	5.67-3.51	5.67-3.51	5.69-3.48	5.68-3.48
	EER at 50% capacity	3.43	3.45	3.42	3.47	3.43	3.44	3.44	3.45	3.47
Rated input power at air 20°C(KW)										
4.81-7.92										
Rated input current at air 20°C(A)										
7.69-12.68										
water flow	m3/h									
18-20										
Compressor	HITACHI									
Heat exchanger										
Min pressure/max pressure										
Mpa										
unit net dimensions	mm									
1420x730x1050mm										
net weight	kg									
450										
noise at 1 m	dB(A)									
60-65										
1480x850x1550mm										
1480x850x1550mm										
1480x850x1550mm										
1850x1000x1940mm										
2000x1100x1920mm										
2000x1100x1920mm										
2020x1055x1900mm										
2239x1185x2060mm										
1520										
1987										
65-70										
65-72										
80-85										
120-125										
19.58-30.78										
24.24-39.37										
36.40-59.64										
30.01-47.78										
38.59-62.96										
58.21-95.35										
66-75										
80-85										
15.07-24.41										
24.10-39.04										
60-65										
40-45										
9.10-14.94										
11.99-19.60										
14.55-23.94										
30-35										
7.18-11.81										
11.13-18.88										
25-30										
6.00-9.84										
9.54-15.74										
20-25										

FOR MIDDLE EAST SALES AND SERVICE



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