



## Air To Water Heat Pump



### Technical Data Specification :

Model No.		AW-21	AW-43	AW-55	AW-68	AW-80	AW-90	AW-105	AW-120	AW-190	AW-220
Heating Capacity	kW	21	43	55	68	80	90	105	120	190	220
Power Input	kW	4,9	9,9	12,6	15,2	18,0	20,4	23,6	27,1	44,4	51,6
Max Power Input	kW	6,9	13,2	16,8	20,7	24,2	27,4	32,0	36,5	66	78
Max Current	A	12,3	23,5	31,5	38,9	45,1	51,2	59,2	68,1	110	125
Rated Hot Water	L/h	450	900	1200	1500	1800	2000	2350	2600	4000	4650
Water Flow Volume	m³/h	4	8	10	12	14	16		18	33	36
Dimensions (L*W*H)	mm	765×691×1055	1416×752×1055	995×990×1785	1252×1076×1865	2148×1076×2176				2248×2148×2176	
Net Weight	kg	160	259	305	450	600	650	680	800	1600	1600
Water connection	inch	1	1,25	1,5		2				2,5	
Water Pressure Drop	kPa	50		55							
Working Temperature Range	℃	-15~43							-25~43		
Noise	dB	≤60	≤65			≤70				≤76	
Power Supply	V/Ph/Hz	380/3/50									
Refrigerant		R410a									
Compressor		Scroll									
Compressor Brand		High Quality Copeland Compressor									
Expansion Valve		Electronic									
Air Flow Direction		Vertical									

Note :

Heating Capacity at Air 20°C/15°C, Water Temperature from 15°C to 55°C

HiCOP reserves the right to discontinue, or change at any time, specification or designs without notices and without incurring obligations.

### Centralized Control

HiCOP AW Series come equipped with centralized control that make temperature adjustment and failure review easier.

By incorporating the master-slave control into the design, the whole units can work together with higher efficiency without interfered by any failure of the slave unit during operation.

### High Efficiency

With COP of 4.5 at working condition of 24°C /19°C (DB/WB), HiCOP AW Series has high efficiency for either pool cooling or heating.

### High efficient Heat Exchanger

Compared with normal heat exchangers, HiCOP AW Series heat exchanger enlarges the heat exchanging surface that increases efficiency by providing an sufficient action area.

### High Quality Compressor

Compressor with precise energy stage setting ensures that the working unit to achieve the desired energy saving effect.

### Variable Speed Fan

The working units can adjust the fan speed at any time to reduce the input power, meanwhile, reduce noise to achieve energy saving and silent running.

### Electric Expansion Valve

The units automatically adjust the refrigerant flow rate, ensuring that the units operate with high efficiency in all weather conditions.

### Gold Fin Evaporator

Gold Fin technology helps to protect the condenser coils from external damage due to the accumulation of water, acids, and other technology improves the overall life of the heatpump.

### Working Principle



### Features

- ✓ Adopt R410A refrigerant, scroll compressor environmental friendly.
- ✓ Higher water temperature output up to 60°C.
- ✓ Adopt tube in shell heat ex-changer and circulating.
- ✓ Heating method, has higher COP.
- ✓ Defrost automatically, intelligent and fast.
- ✓ High pressure protection function.
- ✓ Full automatically operation.
- ✓ Low operation ambient temperature -15°C / -25°C
- ✓ The system can be used for cooling, but it is not the main function.

### High Quality Component







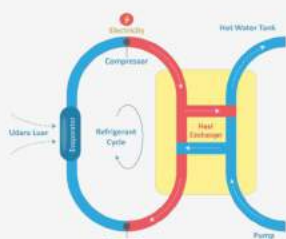
## Air To Water Titanium Heat Pump

### Overview

HiCOP AWT Series ensure constant and reliable water temperature for heating on every commercial occasions, such as hotel, school, apartment etc. it can save energy up to 80% compared with traditional gas boiler or electric water heater.



### Working Principle



### Features

- ✓ Adopt R410A refrigerant, scroll compressor environmental friendly.
- ✓ High Quality Titanium Heat Exchanger, More Durable.
- ✓ Higher water temperature output up to 60°C.
- ✓ Adopt tube in shell heat ex-changer and circulating.
- ✓ Heating method, has higher COP.
- ✓ Defrost automatically, intelligent and fast.
- ✓ High pressure protection function.
- ✓ Full automatically operation.
- ✓ Low operation ambient temperature -15°C/-25°C
- ✓ The system can be used for cooling, but it is not the main function.



Titanium PPR Heat Exchanger

No.	Titanium Heat Exchanger	Universal Heat Exchanger
1	The shell material is PPR so it is more durable and resistant to corrosion.	Materials made of iron that will easily corrode.
2	The tube is made of titanium so it is safe from leaks despite poor water quality.	Copper material cannot stand when water is not up to standard so it will leak easily.
3	Safe when cleaning or schaling with chemicals.	Tube layers in the heat exchanger erode when schaling.
4	Low heat loss.	High heat loss so it needs insulation or jacketing.
5	High pressure resistant.	Easy to leak if high pressure.
6	Longer life time.	Shorter life time.

### Technical Data Spesification :

Model No.		AWT-21	AWT-43	AWT-55	AWT-68	AWT-80	AWT-90	AWT-105	AWT-120
Heating Capacity	kW	21	43	55	68	80	90	105	120
Power Input	kW	4,9	9,9	12,6	15,2	18,0	20,4	23,6	27,1
Max Power Input	kW	6,9	13,2	16,8	20,7	24,2	27,4	32,0	36,5
Max Current	A	12,3	23,5	31,5	38,9	45,1	51,2	59,2	68,1
Rated Hot Water	L/h	450	900	1200	1500	1800	2000	2350	2600
Water Flow Volume	m³/h	4	8	10	12	14	16		18
Dimensions (L*W*H)	mm	765×691 ×1055	1416×752 ×1055	995×990 ×1785	1252×1076 ×1865	2148×1076×2176			
Net Weight	kg	160	259	305	450	600	650	680	800
Water connection	inch	1	1,25	1,5		2			
Water Pressure Drop	kPa	50		55					
Working Temperature Range	°C	-15~43							-25~43
Noise	dB	≤60	≤65			≤70			
Power Supply	V/Ph/Hz	380/3/50							
Refrigerant		R410a							
Compressor		Scroll							
Compressor Brand		High Quality Copeland Compressor							
Expansion Valve		Electronic							
Air Flow Direction		Vertical							

Note :

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### High Efficiency

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### High Efficient & Durable Heat Exchanger

Compared with normal heat exchangers, HiCOP AWT Series heat exchanger enlarges the heat exchanging surface that increases efficiency by providing an sufficient action area, titanium heat exchanger makes AWT more durable and longer life time.

### High Quality Compressor

Compressor with precise energy stage setting ensures that the working unit to achieve the desired energy saving effect.

### Variable Speed Fan

The working units can adjust the fan speed at any time to reduce the input power, meanwhile, reduce noise to achieve energy saving and silent running.

### Electric Expansion Valve

The units automatically adjust the refrigerant flow rate, ensuring that the units operate with high efficiency in all weather conditions.

### Gold Fin Evaporator

Gold Fin technology helps to protect the condenser coils from external damage due to the accumulation of water, acids, and other technology improves the overall life of the heatpump.

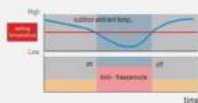


## Air To Water With Pump

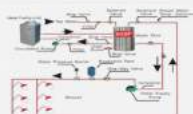
### Overview

HiCOP cycle heating type heat pump hot water heater is the best choice for places where hot water is in demand such as private house, villas, restaurants, hotels, beauty salons, fitness centers, SPA and massage centers, public baths, hospitals, dormitories, factories, aquaculture farms, etc. With outstanding features of high efficient and energy-saving, safe and reliable, environmental-friendly and comfortable, low operation costs, etc, it's a direct replacements for traditional hot water devices like coal, oil and gas boilers.

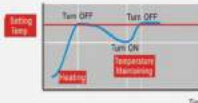
Unit designed with multi-grade antifreeze protection control function. When outdoor ambient temperature is lower than setting function.



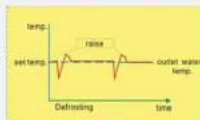
Timing water supply, automatic constants water supply, automatic pressurized water supply.



Automatic heating, automatic temperature maintaining.



The heat pump utilizes smart defrosting technology, reduce the defrosting time and extend the poll heating time.



Automatic record of the working mode before recovery of the recorded working mode after power failure.



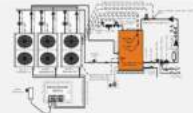
500-step liner electronic expansion valve throttle control wide adjustable refrigerant flow control range.



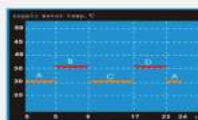
Featured with block up slopes on bottom, the chassis is easier to drain condensate water. Built-in stainless steel heating belt on chassis for condensate anti-freeze protection.



The design is suitable for commercial, industrial, agricultural places with large hot water demands.



The Heat pump units are with Timing ON/OFF function and two sections can be set at the same time.



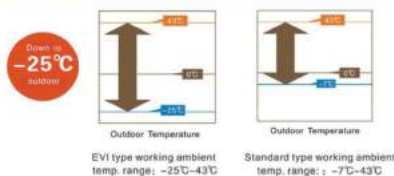
Unit is designed with electronic water flow protection, compress or exhaust temp, protection, compressor high/low pressure protection.



### Wide Working Ambient Temperature Range

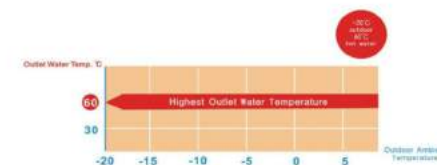
Meet the hot water demand all-year-round in different places.

Lowest working ambient temperature range expanded down to -25°C



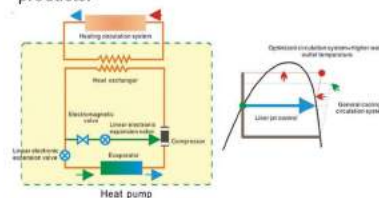
### High Water Outlet Temperature Design

Maximum outlet water temperature can reach 60°C under -20°C outdoor without auxiliary electric heater.



### Superior Heating Performance in Low Temperature

High efficient scroll compressor, 25% larger heat exchange area than ordinary heat pump products.



### Heatpump Model



Model		AWP-10	AWP-21	AWP-25	AWP-30	AWP-35	AWP-42
Heating Capacity	kW	10,5	21	24,5	30	35	42
Input Power	kW	2,80	5,40	6,18	7,24	8,04	9,77
Input Current	A	12,7	8,2	9,4	11	12,2	14,8
Max. Running Current	A	19	11,9	12,6	16,3	18,4	20,6
Rated Output Water	L/h	225	450	525	600	750	900
Water Flow Volume	m³/h	2	3,5	4,3	6	6	7
Noise	dB(A)	52	55	56	58	59	62
Net Weight	kg	80	122	145	260	260	280
Net Dimension	mm	715/750/843	850/810/995	1475/785/1000	1475/785/1360		
Power Supply	V/PH/Hz	220/1/50		380/3/50			
Water Outlet/Water Inlet	inch		1			1-1/2	
Compressor Qty			1			2	
Fan Qty			1			2	
Circulation Pump		Yes					
		WILO PUN-200E		WILO PUN-403EH	WILO PUN-600E		
Pump Power Input	kW	0,192		0,2	0,6	0,6	0,6
Pump Current Input	A	1,4		2,6	4		
Refrigerant Type		R410A					
Compressor		Panasonic Scroll					
Max. Temp. of Water Output	°C	60					
Fan Direction		Vertical					
Heat Exchanger		Tube in Shell Heat Exchanger					
		Gold Fin Heat Exchanger					
Casing		Powder Coating Galvanized Metal Plate					
Air Flow Volume	m3/h	3000	6000	6000	7000	8000	12000
Max. Power Input	kW	4	7	8,3	10	11,2	13,5
Body Material		2.2mm powder cotaed galvanized metal plate					

Note :

Heating Outdoor Air temp : 20°C/15°C, Water tank water temperature from 15°C heating to 55°C.

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