



RESIDENTIAL | COMMERCIAL | SWIMMING POOL | INDUSTRIAL

A Green Revolution in Water Heating

- Save 70% of electrical energy, eliminates electric geysers.
- Heat pump generates hot and cold water from atmospheric air and uses little electricity to heat up water
- Centralized water system gives 24/7 hot water whether rain and clouds.



Heat Pump Working Principle

Heat extraction

The fan circulates air through the evaporator air coil that acts as a heat collector. The liquid refrigerant in the evaporator air coil absorbs the available heat from the ambient air.

Heat Intensification

The compressor then receives the warmed refrigerant and intensifies the heat. The intensely hot refrigerant is then pumped into the heat exchanger.

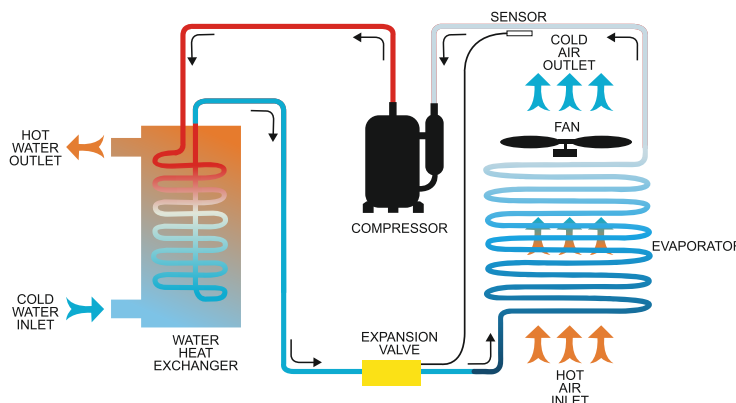
Heat Transfer

The heat from the hot refrigerant flowing inside the heat exchanger is then transferred to the water.

Recycle

The refrigerant restarts the process and flows through the evaporator air coil to collect heat once again.

Heat Pump refrigeration technology to extract heat from the surrounding air and transfers it to the Water.



Why the air source heat pump is most energy saving water heater?

Air source heat pump is not direct heating by the heating element, but with a small amount of electric driving the main unit's compressor to work, The low temperature air is compressed to high temperature air, through the pipeline circulation system to heat the water, the power consumption is only 1/4 of the traditional electric water heater.

A COMPARISON OF A FAMILY (4 PERSONS) HOT WATER CONSUMPTION

A BRAND ELECTRIC WATER HEATER

Water Consumption Per Month	6000L
Water Consumption Per Day	200L
Power Consumption	8kw/hr
Cost of Power	Rs. 8/unit
Cost of Hour	Rs. 64/unit
No. of Hours to heat 200 Ltrs	1.147 HR
COST Per Year	Rs.27000

aiwasun
Air Source Hot & Cold Heat Pump

AIR SOURCE HEAT PUMP

Water Consumption Per Month	6000L
Water Consumption Per Day	200L
Power Consumption	0.8 Kw/hr
Cost of Power	Rs. 8/unit
Cost of Hour	Rs. 7/unit
No. of Hours to heat 200 Ltrs	2.55 HR
COST Per Year	6500
Savings Per year	Rs. 20500

Heat Pump Features

Safety: Complete isolation between water and electricity. No potential electric shock problem. No fuel tubes and storage, No potential danger from oil leakage, fire, explosion etc.

High efficiency: Adopts heat pump principle, which absorbs heat from outdoor air and produces hot water, thermal efficiency up to 450%.

Automatic control: Automatic start-up and shutdown, automatic defrosting without need to attend by special person.

Energy saving: Power consumption comparison under the same condition to heat 1ton from 15 to 55°C.

All weather running: Ambient temp:- 30° to 43° C, not affected by night, overcast sky, rain and snow.

Environment friendly: No discharge of poisonous gas, No pollution to atmosphere and environment.

Easy for installation and maintenance: Just need to connect water pipes.

Easily operated: User-friendly LCD display for easy interaction.

Domestic Split Type Heat Pump

Energy saving, high COP up to 4.0 Malfunction alarm light optional adopt high/low pressure protection, auto defrosting protection, auto-re-start function electrical heating 1-2kw as back up to ensure it works well in low temperature changeable magnesium stick inside water tank for anti-erode protection.



**INTELLIGENT
WIFI CONTROL**



**SUPERIOR
ENERGY SAVING**



**HEALTHY
BATH**



**WIDE RANGE
OF OPERATION
ENVIRONMENT**

Specification

Model Number		AWS 100-X	AWS 140-X	AWS 200-X
Refrigerant		R410A		
Compressor Brand		Panasonic / Rotary		
Outdoor Unit Air Outlet		Side Discharge Air Outlet		
Rated Heat Production Capacity	KW	4.64	6.5	9.28
	BTU/h	15800	22100	31600
Rated Outlet Water Temp.	°C	55		
Max. Outlet Water Temp	°C	60		
Rated Water Heating Capacity	L/h	120	160	230
Rated Input	KW	1.22	1.71	2.45
Rated Working Current	A	5.55	7.77	11
COP	W/W	3.8	3.8	3.8
Power Supply	V/PH/Hz	220~240V/1PH/50HZ		
Compressor QTY	Unit	1		
Fan QTY	Unit	1		
Sound Level	dB(a)	55		
Water Inlet/Outlet Diameter	Inch	G¾		
Water Inlet/Outlet Direction		Builtin Circulation pump		
Outline Dimension	LxWxH(mm)	930x360x560		100x370x630
G.W/N. W	KG	53/50	58/55	74/70

Commercial Heat Pump

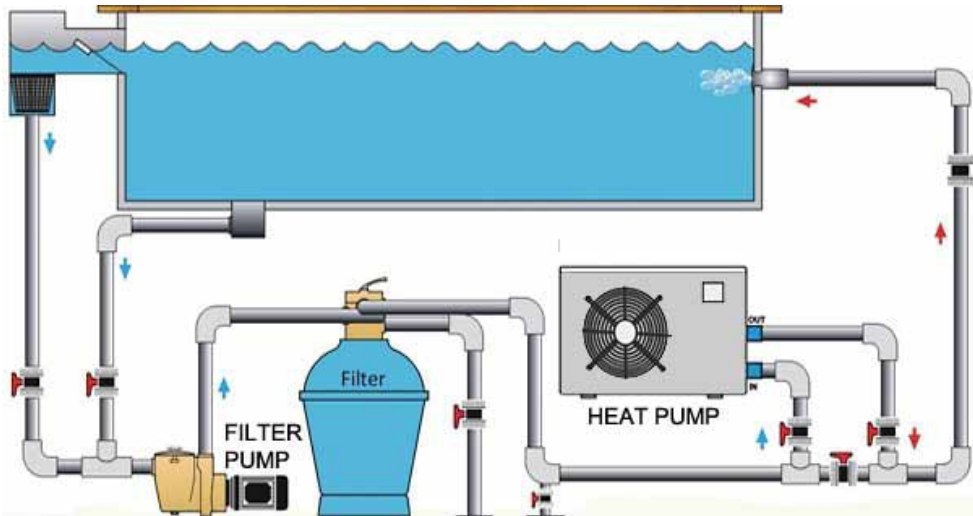


Specification

Model Number		AWS-03G	AWS-05G	AWS-10G	AWS-13S	AWS-15S	AWS-20S	AWS-25S
Refrigerant		R417a						
Compressor Brand		Copeland/scroll						
Outdoor Unit Air Outlet		Top Discharge Air outlet						
Rated Heating Capacity	KW	13	19	39	45	56	70	88
	BTU/h	44200	65000	133400	153000	190000	238000	300300
Rated Outlet Water Temp.	°C	55						
Max. Outlet Water Temp	°C	60						
Rated Water Heating Capacity	L/h	320	470	960	1100	1380	1720	2170
Rated Input	KW	2.82	4.3	8.47	11.84	12.73	18.42	23
Rated Working Current	A	5.03	7.68	15.1	19.5	20	32	41
COP	W/W	4.6	4.42	4.61	3.8	4.4	3.8	3.8
Power Supply	V/PH/Hz	220-240 50Hz 1PH		380V 50Hz 3PH				
Compressor QTY	Unit	1	1	2	2	2	4	4
Fan QTY	Unit	1	1	2	2	2	2	2
Sound Level	dB(a)	65	65	68	68	68	68	68
Water Inlet/Outlet Diameter	Inch	G1"	G1"	G1½"	G1½"	G1½"	G2½"	G2½"
Water Flow Rate	M³/H	2.5	4	7	8.4	15	13.8	17.2
Outline Dimension	LxWxH (mm)	710x700x850	810x8100x1055	1580x910x1100	1510x910x1350	1750x1050x1900	2000x1100x2300	2000x1100x2300
G.W/N.W	KG	115/100	160/130	300/260	400/460	460/510	560/620	560/620

Swimming Pool Heat Pump

- Titanium Heat Exchanger
- Ozone friendly refrigeration
- Smart control program
- Safety flow switch



Specification

Recommend Pool Size @ Initial heating 30-40 Hours @ 10 ^o ΔT	25-30m ³	30-40m ³	40-50m ³	70-90m ³	100-120m ³	150-200m ³	250-300m ³
	AWS-03STi	AWS-04STi	AWS-05STi	AWS-10STi	AWS-13STi	AWS-20STi	AWS-25STi
Output Power (KW)	15.11	18	21	40	52	90	105
Input Power (KW)	2.66	3.21	3.82	7.50	9.80	17.00	20.00
COP	5.66	5.60	5.50	5.30	5.30	5.30	5.30
Current	12.73	15.36	6.81	13.37	17.47	30.30	35.65
Electric Power	380V/50Hz						
Compressor	Panasonic Scroll	Panasonic Scroll	Panasonic Scroll	Panasonic Scroll	Panasonic Scroll	Panasonic Scroll	Panasonic Scroll
Heat Exchanger	Titanium Tube in PVC Shell						
Refrigerant	R410A						
Remote	5meter Signal Wire						
Cabinet	Galvanized steel Sheet and sprayed baking paint						
Water Connection Port (mm)				Exterior 60mm/ Interior 50mm		Exterior 70mm/ Interior 60mm	
Fan Power Input(W)	200	400	400	400	400*2	850	850
Fan Power Output (W)	90	250	250	250	250*2	550	550
Fan (RPM)	850	850	850	850	850	940	940
Noice dB(A)	49	49	58	58	58	65	65
Water Flow Rate (m ³ /h)	8~10	10~12	12~15	20~25	25~30	40~50	50~60
Water Pressure Drop (Kpa)	14	14	15	16	18	30	35
Product Dimension (mm)	710x710x850	810x810x1050	810x810x1050	1580x910x1180	1580x910x1380	2000x1100x2300	2000x1100x2300
Net/ Gross Weight (kgs)	100/115	112/122	147/170	250/280	280/310	620/540	650/570

Aiwasun High Temperature Heat Pump

Max 80°C hot water temperature

- Industrial Heating
- Printing and Dyeing
- Food Industry Hot Water
- Electroplating Treatment



Characteristic



Copeland Scroll compressor



Water temperature up to 80 °C



Multi Protection:
Compressor Current Overhigh protection
High pressure switch Low pressure switch
Water flow protection



User-friendly LCD remote provide quick and easy access to water temperature, timer program and system diagnostics

Specification

Model Number		AWS-03H	AWS-05H	AWS-10H	AWS-15H	AWS-20H	AWS-25H
Water Heating Capacity(KW)		8.5	14	28	42	56	70
Water Cooling Capacity(KW)		6.8	11.2	22.4	33.6	44.8	56
Hot Water Yield L/H(ΔT = 40°C)		180	300	600	900	1200	1500
COP		3.8	3.8	3.8	3.8	3.8	3.8
Rated Input	KW	2.24	3.68	7.37	11.05	14.74	18.42
Max. Input	KW	3.13	5.16	10.32	15.00	20.63	25.79
Rated Input Current	A	10.17	6.98	13.96	20.93	27.91	34.89
Max. Input Current	A	14.23	9.77	19.54	29.31	39.07	48.84
Power Supply	V/PH/Hz	220V/1PH/50HZ					
Working Temperature Available		0°C~+43°C					
Max. Water Outlet Temperature		80°C					
Rated Water Outlet Temperature		65°C					
Condenser		Copper Pipe In Steel Case Heat Exchanger					
Defrosting		Included					
Intelligent Control		5 meters signal wire					
Compressor/Refrigerant		Copeland/Scroll Compressor/R134A					
Compressor QTY	Unit	1	1	2	2	4	4
Fan QTY	Unit	1	1	2	2	2	2
Sound Level	dB(a)	65	65	68	68	68	68
Water Inlet/Outlet Diameter	Inch	G1"	G1"	G1½"	G1½"	G2½"	G2½"
Water Flow Rate	m³/h	2.5	4	7	9.6	13.8	17.2
Outline Dimension	LxWxH(mm)	710×710×850	810×810×1055	1580×910×1380	1750×1050×1900	2000×1100×2100	2000×1100×2100
Packing Dimension	LxWxH(mm)	840×840×1030	890×890×1250	1650×980×1540	1900×1160×2110	2200×1300×2350	2200×1300×2350
Net Weight	KG	105	138	270	460	560	700
Gross Weight	KG	120	160	300	500	620	760

Aiwasun Hot Water Storage Tanks Glass-lined

New Technology - Water storage tanks are adapted to the advanced technology of vitreous enamel inner tank, which fuses to solid steel at about 860°C. The result is a smooth and tough surface that effectively resists the corrosive attacks of hot water chemicals, thus ensuring a long life span of water tank, especially suitable for the areas of hard water.

Insulation protection - CFC free polyurethane foam insulation is injected and surrounds the inner tank, filling the space between the inner tank and outer tank thus providing an exceptionally good heat retention barrier. This helps to reduce the energy cost by minimizing standby heat loss.

Backup Coil - Low density Incoloy 800 immersion type element ensures long lasting performance with choice of various heat input (kw) offering different hot water recovery rates.

Anode Protection - Each tank is provided with a magnesium anode rod to protect it against corrosion, a process well proven in years of application.

Safety Protection - Each tank is provided with a pressure and temperature relief valve (P/T valve). It protects the tank against excessive pressure and temperature by releasing its contents safely to the floor trap via the drain pipe.

Wide Application – Water tank can be working with solar collector, heat pump, gas, etc. like the following drawing:



Specification

Model	200L	300L	500L
Inner tank	Glass lined steel (Thickness: 2.5mm)	Glass lined steel (Thickness: 2.5mm)	Glass lined steel (Thickness: 2.5mm)
Outer tank	Galvanized steel (Color: White)	Galvanized steel (Color: White)	Galvanized steel (Color: White)
Insulation	Polyurethane 45mm	Polyurethane 50mm	Polyurethane 50mm
Inlet/Outlet size	3/4"	3/4" or 1"	3/4" or 1"
Rated working pressure	700 kPa	700 kPa	700 kPa
Backup coil	3.0 kW	3.0 kW	3.0 kW
Thermostat	Included	Included	Included
P/T Valve	Included	Included	Included
Magnesium anode	Included	Included	Included





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