

Sustainable Comfort

ATW



Air-source Heat Pump Water Heater

Heating Capacity: 31-250kW



250kW
31kW
Heating Capacity

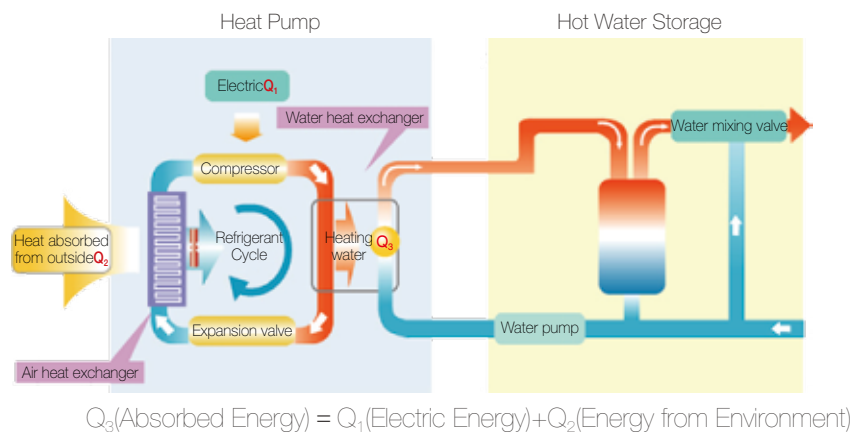
 **CLIMAVENETA**

Air-source Heat Pump Water Heater

Unit Description

The heat pump water heater now is wildly recognized as the best machinery of energy utilization. It's the new generation unit of hot water production after traditional boiler, gas water heater, electric water heater and solar water heater. Under the stress of international energy shortage, the heater pump water heater is outstanding because of its energy saving, environment friendly, safe and comfortable, plug and play and other features which is well approved by the market.

The heat pump water heater is designed based on the principal of Reverse Carnot Cycle that taking use of little electric to transfer the low-grade heat from the air to high-grade heat to hot water. The electric Q_1 absorbed by the unit which can carry 3 times energy ($Q_2=3Q_1$) to produce hot water with 4 times energy ($Q_3=Q_1+Q_2=4Q_1$) without consuming precious primary energy. At the same time, it will not cause any environment question, not affect by environment. So it's wildly recognized as the most advanced device in hot water production.

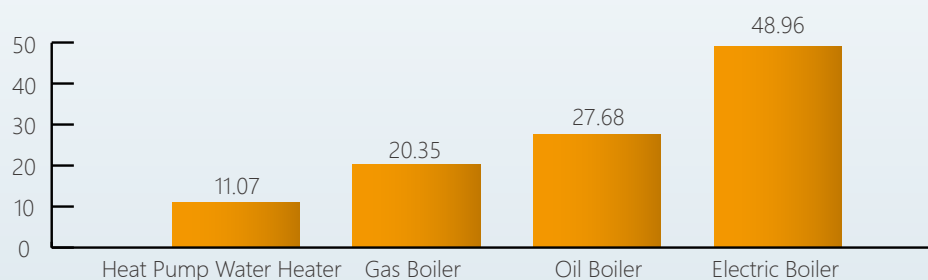


Climaveneta heat pump water heater has been installed in the cold region of Europe for several years. And it's approved by the user there. Thanks to its unique advantage, it offer the user the most comfortable experience.

Super High Efficiency & Energy Saving

The Cost Comparison (Heat Pump VS Traditional Water Heater Device)

Water Heater	Unit of Energy Cost Calculation	Heat from per energy (kCal)	Average Efficiency	Energy consumption of heating 1 ton water (temp. raise 40°C)	Energy Unit (USD)	Cost(USD)
Heat Pump Water Heater	kW·h	860	4.2	11.07	1.00	11.07
Gas Boiler	m ³	8600	0.8	5.81	3.50	20.35
Oil Boiler	kg	10200	0.85	4.61	6.00	27.68
Electric Boiler	kW·h	860	0.95	48.96	1.00	48.96
Solar Energy + Assist Electric Heater	Completely depending on the electric heater in rainy day or low sunlight intensity situation, so at least 1/3 years need to use electric heater					



Features and Benefits

The Heat Pump Water Heater can be selected for many application, especially for hotels, hospitals, schools, clubs, Spa centers, beauty salons, swimming pools and so on.

Operation Cost Saving

Obviously operation cost saving thanks to its low cost during water heating and high efficiency.

High Temperature Hot Water

Maximum 58°C hot water from the water heater.

Operation Range

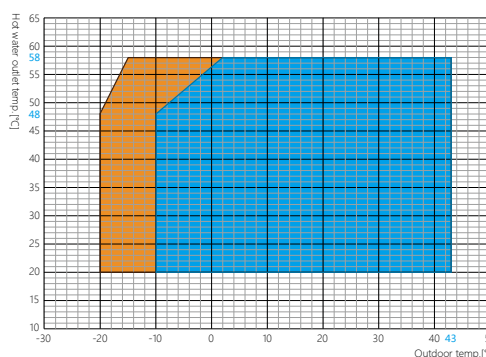
For Standard Unit:

Outdoor Temp. -10°C~43°C; Hot Water Temp. 20°C~58°C

For Low Outdoor Temp. Unit:

Outdoor Temp. -20°C~43°C; Hot Water Temp. 20°C~58°C

Please contact Climaveneta Office for other special request.

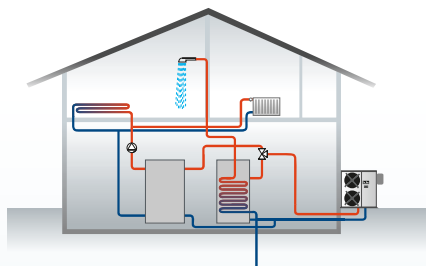


Intelligent Control

All microprocessor are entire imported from Italy which is with friendly human-machine interface, excellent control and adjust ability, expansion capability, supervision and control function as well as the strong compatibility.

Energy Saving and Environment Protected

We, CLIMAVENETA insist on selecting environment friendly refrigerant HFC410A.

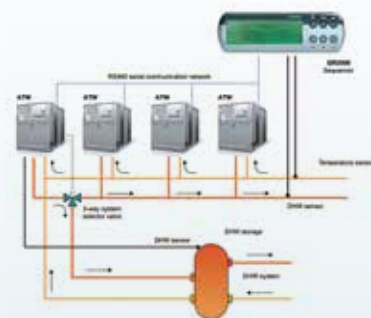


Wildly Used

Room heating and sanitary water heating are the main functions of heat pump type water heater. So it can be wildly used in club, Villa, swimming pool, hotel, school and etc.

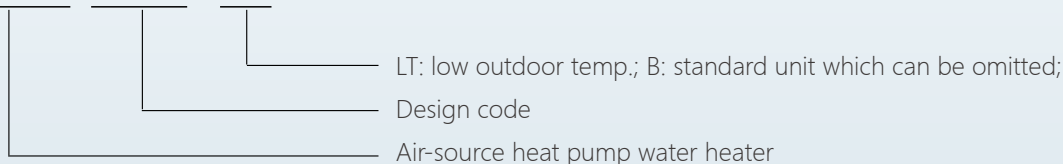
Dedicated Group Controller

All group controller origin from Italy which is convenient to cooperate with unit. The controller can adjust and control cluster units, balance unit's ON/OFF and working hours, and support water pump control.



Nomenclature

ATW 0302-LT



Air-source Heat Pump Water Heater

General Technical Data

Standard Unit

Model	ATW-B	0071	0091	0121	0151	0182	0242	0302	0364	0484	0604
Heating Capacity	kW	31.6	36.2	48.5	62.6	75.4	96.9	125.1	150.7	193.9	250.2
Total Power Input	kW	6.4	7.7	10.2	13.3	15.9	20.4	26.6	31.9	40.9	53.3
Produced Hot Water Flow	l/h	679	778	1043	1346	1621	2083	2689	3239	4168	5378
Pressure Drop	kPa	28	25	26	27	27	49	49	34	45	46
Compressor No.		1	1	1	1	2	2	2	4	4	4
Fan No.		1	1	1	1	1	2	2	2	4	4
Total Volume	m ³ /s	2.2	3.6	4.7	6.4	6.4	9.4	12.8	12.8	18.9	25.5
Fan Power (each)	kW	0.6	1.1	1.5	2.1	2.1	1.5	2.1	2.1	1.5	2.1
Refrigerant R410A											
Refrigerant Charge	Kg	12.0	20.0	20.0	21.0	25.0	30.0	32.0	50.0	60.0	64.0
Power Supply 380V/3/50Hz											
Dimention											
Length	mm	924	1177	1177	1177	1950	2460	2460	3828	5110	5110
Width	mm	809	1177	1177	1177	1160	1160	1160	1160	1160	1160
Height	mm	1829	1806	1806	1806	1713	1713	1713	1740	1740	1740
Weight	Kg	430	660	680	710	890	1085	1195	1650	2150	2270

Data referred to : (1) Initial water inlet 15°C, outlet 55°C; Ambient 20°CDB/15°CWB

(2) Flow rate based on $\Delta T=5^{\circ}\text{C}$.

Low Outdoor Temp. Unit

Model	ATW-LT	0071-LT	0091-LT	0121-LT	0151-LT	0182-LT	0242-LT	0302-LT	0364-LT	0484-LT	0604-LT
Heating Capacity	kW	32.2	38.0	49.3	62.4	76.0	98.7	124.8	152.0	197.4	249.5
Total Power Input	kW	6.7	8.4	10.4	13.6	16.7	20.8	27.3	33.5	41.7	54.6
Produced Hot Water Flow	l/h	692	817	1060	1342	1634	2122	2683	3268	4244	5364
Pressure Drop	kPa	29	28	27	27	27	51	49	35	46	45
Compressor No.		1	1	1	1	2	2	2	4	4	4
Fan No.		1	1	1	1	1	2	2	2	4	4
Total Volume	m ³ /s	2.2	3.6	4.7	6.4	6.4	9.4	12.8	12.8	18.9	25.5
Fan Power (each)	kW	0.6	1.1	1.5	2.1	2.1	1.5	2.1	2.1	1.5	2.1
Refrigerant R410A											
Refrigerant Charge	Kg	12.0	20.0	20.0	21.0	25.0	30.0	32.0	50.0	60.0	64.0
Power Supply 380V/3/50Hz											
Dimention											
Lenght	mm	924	1177	1177	1177	1950	2460	2460	3828	5110	5110
Width	mm	809	1177	1177	1177	1160	1160	1160	1160	1160	1160
Height	mm	1829	1806	1806	1806	1713	1713	1713	1740	1740	1740
Weight	Kg	430	660	680	710	890	1085	1195	1650	2150	2270

Data referred to : (1) Initial water inlet 15°C, outlet 55°C; Ambient 20°CDB/15°CWB

(2) Flow rate based on $\Delta T=5^{\circ}\text{C}$.

Electrical Data

Standard Unit

Model	Power (V/ph/Hz)	Compressor (each)				Fan (each)		Total unit		
		Qty	FLI(kW)	FLA(A)	LRA(A)	FLI(kW)	FLA(A)	FLI(kW)	FLA(A)	SA(A)
ATW 0071-B	380/3/50	1	9.1	15.3	98	0.6	3.0	9.7	18.3	101
ATW 0091-B	380/3/50	1	10.4	17.5	142	1.1	2.1	11.9	16.6	144
ATW 0121-B	380/3/50	1	13.3	22.7	147	1.5	3.0	14.8	25.7	150
ATW 0151-B	380/3/50	1	17.4	29.3	197	2.1	4.1	19.5	33.4	201
ATW 0182-B	380/3/50	2	10.7	18.6	142	2.1	4.1	23.4	41.3	165
ATW 0242-B	380/3/50	2	13.3	22.7	147	3.0	6.0	29.7	51.5	176
ATW 0302-B	380/3/50	2	17.4	29.3	197	4.2	8.2	39.0	66.8	235
ATW 0364-B	380/3/50	4	10.7	18.6	142	6.3	8.2	48.9	82.7	206
ATW 0484-B	380/3/50	4	13.3	22.7	147	6.0	12.0	59.3	103.0	227
ATW 0604-B	380/3/50	4	17.4	29.3	197	8.4	16.4	77.9	133.6	301

F.L.I. Full load power input at max admission condition

F.L.A. Full load current at max admission condition

L.R.A. Locked rotor current for single compressor

S.A. Strating Current

Power supply 380/3/50±10% voltage

unbalance ≤3%

Electrical Data

Low Outdoor Temp. Unit

Model	Power (V/ph/Hz)	Compressor (each)				Fan (each)		Total unit		
		Qty	FLI(kW)	FLA(A)	LRA(A)	FLI(kW)	FLA(A)	FLI(kW)	FLA(A)	SA(A)
ATW 0071-LT	380/3/50	1	9.4	16.1	98	0.6	3	10.1	19.1	101
ATW 0091-LT	380/3/50	1	10.4	19	142	1.1	2.1	12	21.1	144
ATW 0121-LT	380/3/50	1	13.8	23.3	147	1.5	3	15.3	26.3	150
ATW 0151-LT	380/3/50	1	17.6	29.9	197	2.1	4.1	19.7	34	201
ATW 0182-LT	380/3/50	2	10.9	19	142	2.1	4.1	23.9	42.1	165
ATW 0242-LT	380/3/50	2	13.8	23.3	147	3	6	30.6	52.6	176
ATW 0302-LT	380/3/50	2	17.6	29.9	197	4.2	8.2	39.3	68	235
ATW 0364-LT	380/3/50	4	10.9	19	142	4.2	8.2	47.7	84.2	207
ATW 0484-LT	380/3/50	4	13.8	23.3	147	6	12	61.3	105.2	229
ATW 0604-LT	380/3/50	4	17.6	29.9	197	8.4	16.4	78.6	136.1	303

F.L.I. Full load power input at max admission condition

F.L.A. Full load current at max admission condition

L.R.A. Locked rotor current for single compressor

S.A. Strating Current

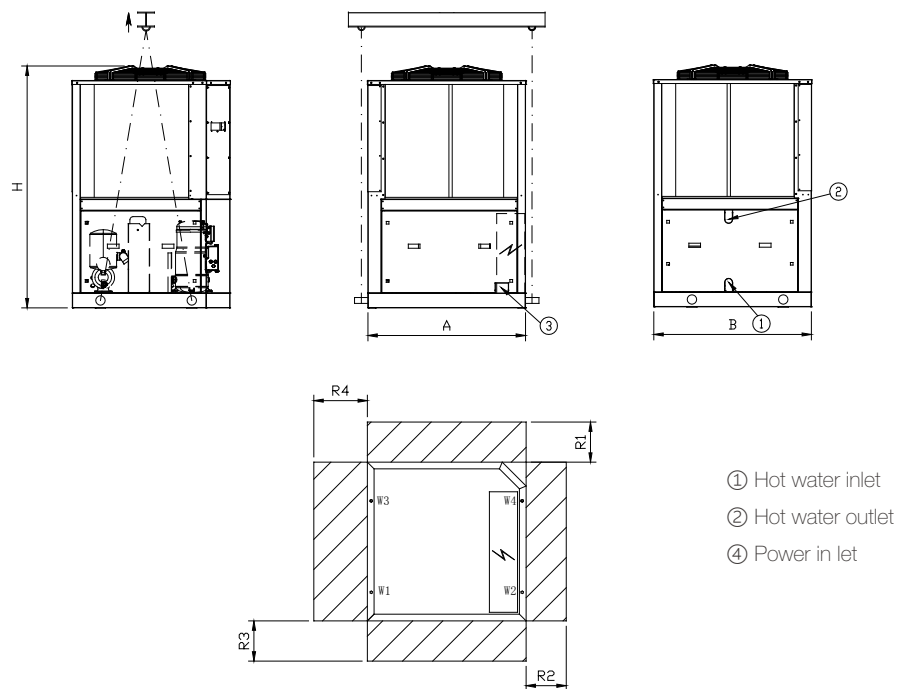
Power supply 380/3/50±10% voltage

unbalance ≤3%

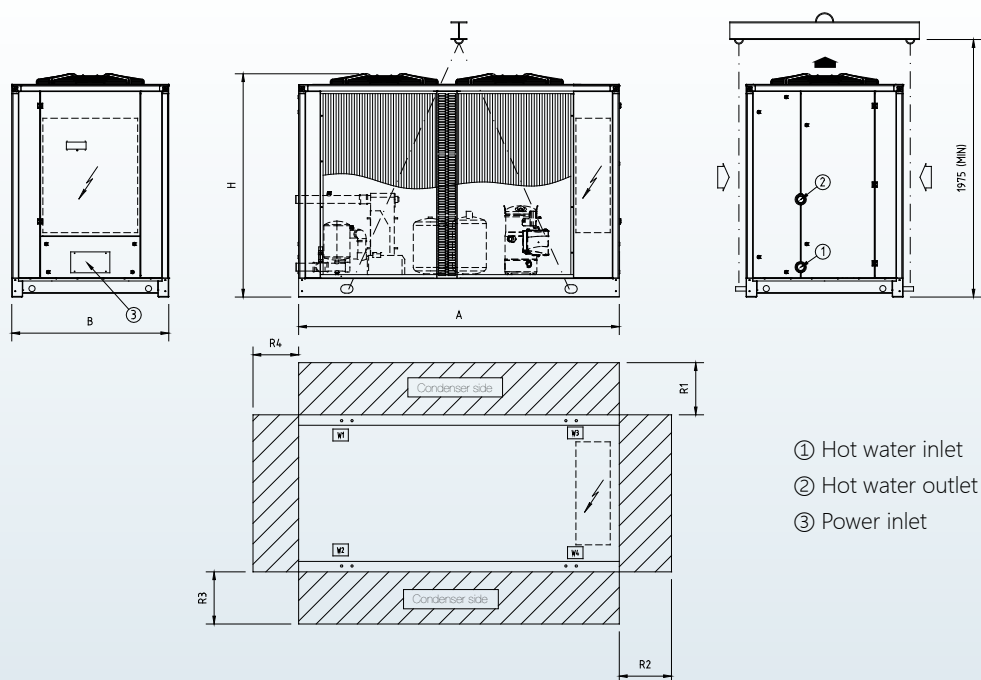
Air-source Heat Pump Water Heater

Dimension Drawing

ATW 0071-0151-B/LT

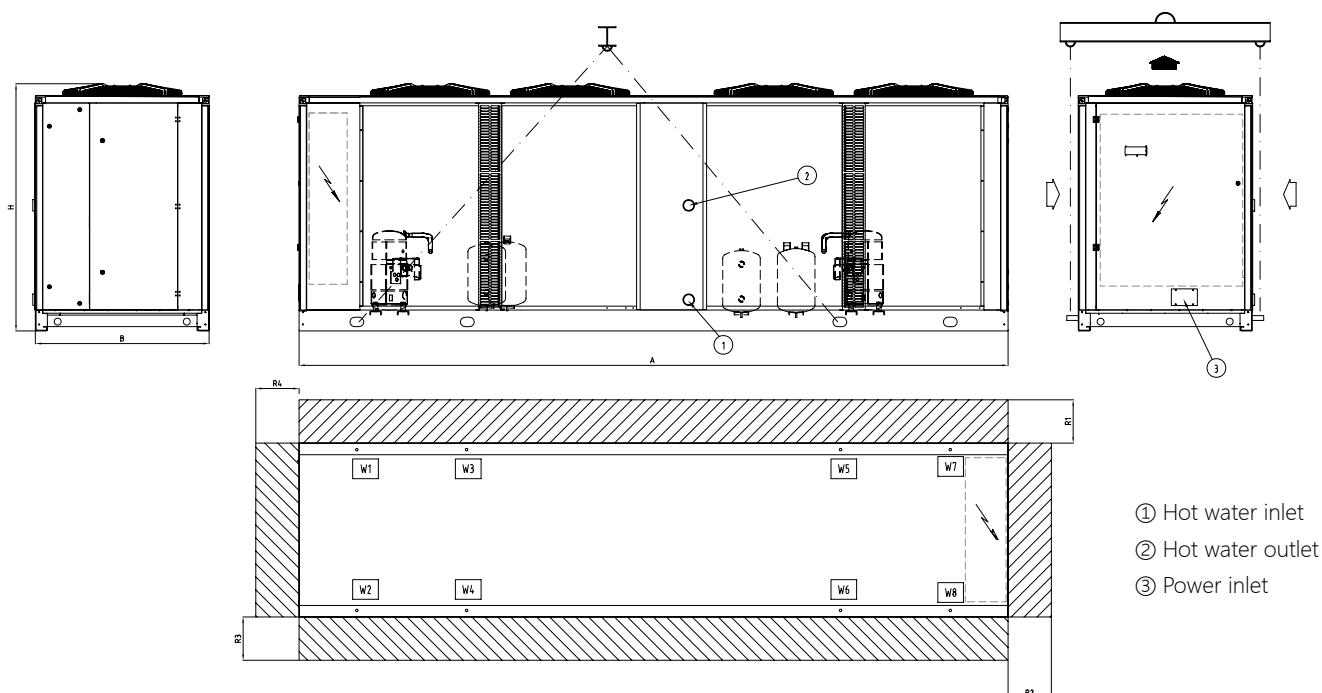


ATW 0182-0242-B/LT



Dimension Drawing

ATW 0364-0604-B/LT



Dimension(mm)

Model	Dimension(mm)			Clearance space(mm)				Water connection(IN/OUT)	
	A	B	H	R1	R2	R3	R4	Type	Φ
ATW 0071-B/LT	924	809	1829	500	800	500	500	GAS	1-1/2"
ATW 0091-B/LT	1177	1177	1806	500	1000	500	500	GAS	1-1/2"
ATW 0121-B/LT	1177	1177	1806	500	1000	500	500	GAS	1-1/2"
ATW 0151-B/LT	1177	1177	1806	500	1000	500	500	GAS	1-1/2"
ATW 0182-B/LT	1950	1160	1713	1000	1000	1000	600	GAS	1-1/2"
ATW 0242-B/LT	2460	1160	1713	1000	1000	1000	600	GAS	2"
ATW 0302-B/LT	2460	1160	1713	1000	1000	1000	600	GAS	2"
ATW 0364-B/LT	3828	1160	1740	1000	1000	1000	600	GAS	2-1/2"
ATW 0484-B/LT	5110	1160	1740	1000	1000	1000	600	GAS	3"
ATW 0604-B/LT	5110	1160	1740	1000	1000	1000	600	GAS	3"



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