

Haier

HVAC Solutions

Professional, Smart &
Healthy Air Solutions



Air-to-Water Heat Pump Monobloc

For all your Heating &
Domestic Hot Water requirements

Haierhvac.eu

Haier HVAC SOLUTIONS IN EUROPE

Haier is a global leading provider of smart, comfort solutions with an ambition to continuously deliver unique and advance technologies, superior design and tailor-made experiences when it comes to the space we occupy. From modern heating solutions through to residential & commercial cooling across a wide range of applications. We have increased our presence in Europe as a trustworthy brand with premium products to offer, a growing network of distributors, post-sale service and 6-year warranty*.

Haier's Heating Solution business has been active for over 30 years where we are proud to be fully supported by some of the most talented and dedicated partners and teams across Europe including, Italy, Spain, Portugal, UK, France, Central Europe and Germany with many more markets opening each year. We are continuously striving to adopt market leading technologies to bring our customers the latest solutions for their heating and hot-water supply such as the use of R290 refrigerant which is taking strides in bringing a greener more sustainable solution to the market.

The total production capacity for Haier's heating range is over 600,000 sets per year, supported by 5 Heat Pump factories, 10+R&D centres and 120 test laboratories along with a number of dedicated European R&D and marketing teams in place to support various markets. This outstanding capacity enables us to continuously meet market demands and strive to lead with long-term sustainable developments and better climate solutions.

All this is further backed by Haier's history and heritage. The Haier Group was established in 1984 in Qingdao by Zhang Ruimin who has centered the business around the RenDanHeYi philosophy. The well-respected model, developed and implemented by Mr. Ruimin, is revolutionary as no other company has operated in this way.

RenDanHeYi puts the needs of the user first, with the model's core component being "zero distance" to the customers. This very component has empowered us to provide outstanding commitment and value to our partners and end customers, keeping their needs at the forefront at all times.

We have since gone from strength to strength by developing the best in class premium solutions for Global markets with IoT at the heart of our R&D and product development. We have been awarded the BrandZ Top 100 Most Valuable Global Brands for 4 consecutive years as the world's first and only IoT ecosystem brand. Haier has also topped Global Major Appliances Brand Rankings by Euromonitor International for 14 consecutive years.



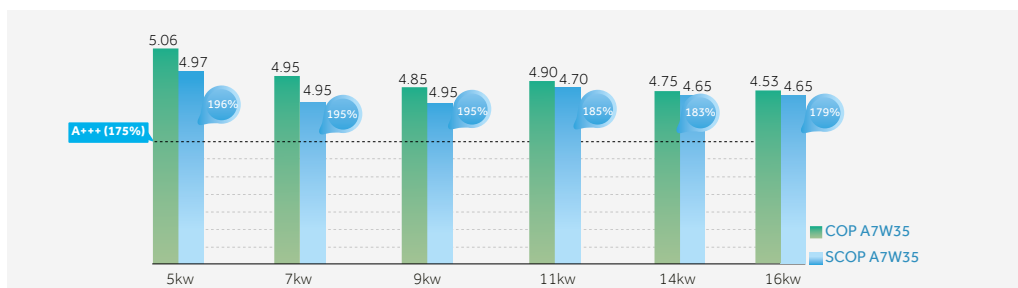
AIR-TO-WATER HEAT PUMP



WHY CHOOSE HAIER'S ATW SOLUTION?

An Air-to-Water Heat Pump (ATW HP) is a cheaper and more sustainable way to heat a living space. With an ATW HP, 75% of the total energy comes from a completely renewable source: Air. It is powered by electricity which is a more sustainable and cleaner alternative to gas. For each kilowatt of electricity consumed by a heat pump, approximately 4kW of thermal energy is generated, making it considerably more efficient than a condensing gas/oil boiler. This system is perfect for both space heating and domestic hot water supply.

Haier's ATW system delivers great efficiencies, which means our system can give up to 5kW of thermal energy for only one kilowatt of electric energy. The seasonal space heating energy efficiency class is up to A+++ at 35°C leaving water temperature and A++ at 55°C leaving water temperature.



ULTIMATE COMFORT

High Leaving Water Temperature

Haier's ATW HP is suitable for both underfloor heating and radiators. High leaving water temperature of 60°C is guaranteed even when the outdoor temperature is down to -15 °C.



Climate Curves

Both heating and cooling water temperatures are optimally configured when considering outdoor temperature, both in comfort and efficiency terms. The climate curve configuration allows the system to adapt to this outdoor temperature fluctuation with different temperature profiles tailored for each user's preferences.

Stable Water Temperature

Compressor rotation speed is controlled precisely thanks to inverter technology, which maintains the water temperature within a much smaller range compared to non-inverter systems.

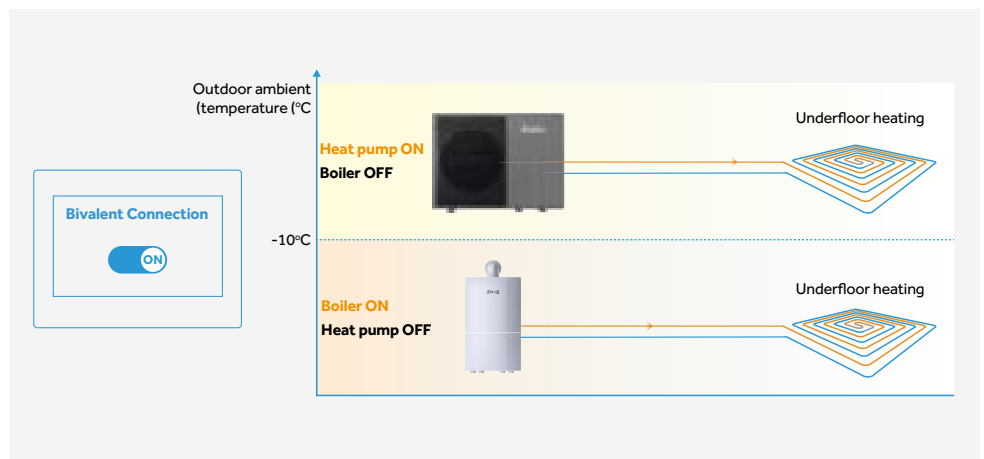
Low Sound Level

Our compressor comes with a double sound-absorbing casing and anti-vibration mounts which reduces sound levels. We also use brush-less DC fan motor's and shielded water pump's for added noise reduction.

Hybrid Connection

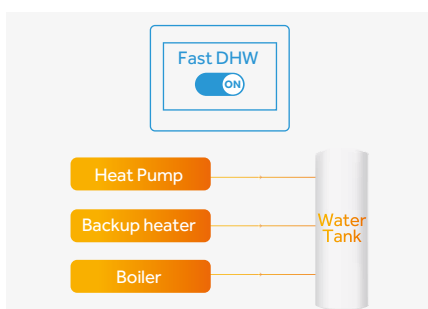
Our ATW solution can integrate backup energies like gas boilers or solar thermal and use them in the most efficient way possible. For example, in the bivalent connection mode the system could choose gas boiler under -10° ambient temperature and change over to air-to-water energy when the temperature rises above that point, reaching maximum efficiency for your system.

When the hybrid connection is turned off, both the boiler and heat pump conduct automatic control.



Fast DHW

When Fast Domestic Hot Water (DHW) function is activated, the electric heater in the DHW tank will be activated at the same time as the heat pump in order to reach the desired temperature set point as soon as possible, which will not be affected by the outdoor ambient temperature or the running time of the compressor.



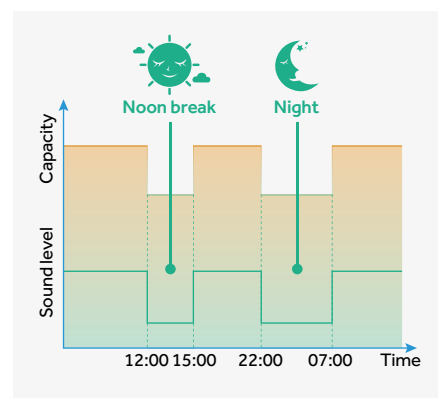
2 Zone Control

A two zone temperature control is possible through a separate heating or cooling circuits. This allows flexible temperature settings for different rooms. The functionality allows us to maintain two different water temperatures to achieve intelligent control and energy savings.



Quiet Mode

To guarantee low sound levels during quiet periods such as night time, the Quiet mode functionality works together with the timer function to ensure the mode is utilised when required.



ULTIMATE CONTROL

Easy control

Our new 5-inch, full colour, touch screen controller comes in a stylish black finish with a user friendly interface and intuitive icons for a truly modern experience. The controller can be installed in any location for easy access and operations.



Cascade Control

For complete flexibility, up to 8 units can be combined in one system for larger capacity requirements.



Easy 3rd party BMS solution

The ATW unit integrates the MODBUS RTU communication protocol, and can be connected to a 3rd party BMS or BAS directly, with no additional Modbus gateway needed.

Check System Parameters

The 'System Status' function, enables us to check important parameters about the system, which include the indoor and outdoor units. This information is helpful in monitoring the system and ensuring optimum performance.

Scheduling programs

Users can create scheduled programs for convenience. This includes naming the programs, timer on/off operation, mode selection, leaving temperature setting and the frequency. Once the scheduled program is set, the system will run automatically as per preset settings.

Check Error Information

If errors occur, the service engineer can not only check the current errors, but also the historical error records, which is convenient for fast troubleshooting.

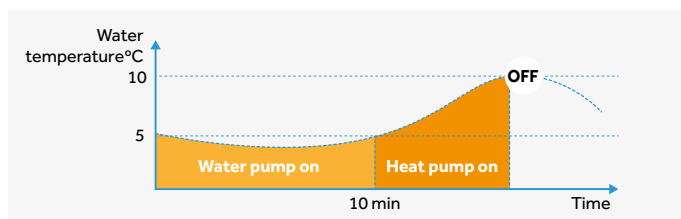
Mode selection

- 5 single operation modes: Cool, Heat, AUTO, DHW, Pool
- 5 combinations: Auto+Heat, Auto+Cool, Cool+DHW, Heat+DHW, Pool+DHW
- Default: DHW first Priority

HIGH RELIABILITY

Anti-freeze

The anti-freeze program protects hydraulic parts from damage, the water pump will turn on when the water temperature drops below 5°C for more than 10 minutes thus avoiding freezing.



Sterilisation mode

When the sterilisation mode is activated, elimination of harmful bacteria is achieved by heating the water to 70°C. This can be programmed weekly or scheduled for set periods.

Smart Grid compatibility

Modern energy companies integrate in their power grids Smart Grid functions. This system sends a signal to all the connected devices that carries information on the energy cost real time. Equipment compatible with this feature can then adjust their behavior to optimise savings.

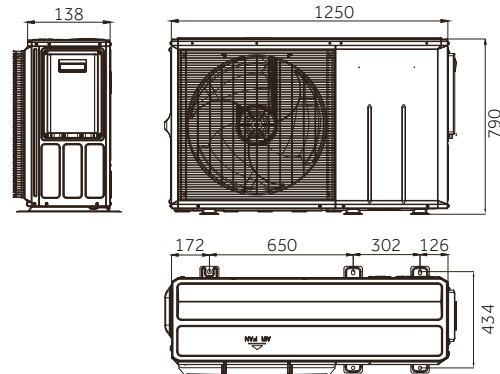
SPECIFICATION

Outdoor Unit



AW052MUCHA - AW072MUCHA - AW092MUCHA

Technical Illustrations



PCB Box



ATW-A02 (Optional)

Controller



HW-WA101DBT (Standard)

Model			AW052MUCHA	AW072MUCHA	AW092MUCHA
Heating (LWT 35°C / OAT 7°C)	Capacity	kW	5.00	7.00	9.00
	Power input	kW	0.99	1.40	1.84
	COP	-	5.06	5.00	4.90
Heating (LWT 55°C / OAT 7°C)	Capacity	kW	5.00	7.00	8.50
	Power input	kW	1.69	2.41	3.09
	COP	-	2.95	2.90	2.75
Space heating Average climate water outlet 35°C	SCOP	-	4.97	4.95	4.95
	ns	%	195	197	199
	Energy class	-		A+++	
Space heating Average climate water outlet 55°C	SCOP	-	3.52	3.38	3.34
	ns	%	138	132	131
	Energy class	-		A++	
Cooling (LWT 18°C / OAT 35°C)	Capacity	kW	5.00	7.00	8.00
	Power input	kW	1.02	1.44	1.86
	EER	-	4.90	4.85	4.30
Cooling (LWT 7°C / OAT 35°C)	Capacity	kW	5.00	7.00	8.00
	Power input	kW	1.56	2.19	2.76
	EER	-	3.20	3.20	2.90
Outdoor operating temperature range	Heating	°C		-25 ~ 35	
	Cooling	°C		10-48	
Leaving water temperature range	Heating	°C		25 ~ 60	
	Cooling	°C		5-25	
Water flow rate		L/min	14.3	20.1	25.8
Water piping connection	Inlet/Outlet	inch		1	
Compressor	Quantity	-		1	
	Type	-		DC inverter twin rotary	
Refrigerant	Type	-		R32	
	Charge/CO2 Eq.	kg/t	1.3/ 0.88	1.3/ 0.88	1.4/ 0.95
Net dimension	(WxHxD)	mm		790 x 1250 x 380	
Packing dimension	(WxHxD)	mm		1022 x 1395 x 550	
Net/Gross weight		kg	81/109	81/109	85/113
Sound power level		dB(A)	60	61	62
Power supply		V/-/Hz	220-240/1/50	220-240/1/50	220-240/1/50
Max. running current		A	12	12	16
Recommended circuit breaker		A	16	16	20
Accessory	Wired controller	-		HW-WA101DBT (Standard)	
	PCB Box	-		ATW-A02 (Optional)	
	Filter	-		Standard	

*Note: 1. According to EN14511, EN14825 (EU) and No 811/2013(EU).

2. LWT: Leaving water temperature; OAT: Outdoor air temperature.

3. Sound level values are measured at a semi-anechoic room. And the sound power level value sare based on measurement of EN2102-1 under conditions of EN14825.

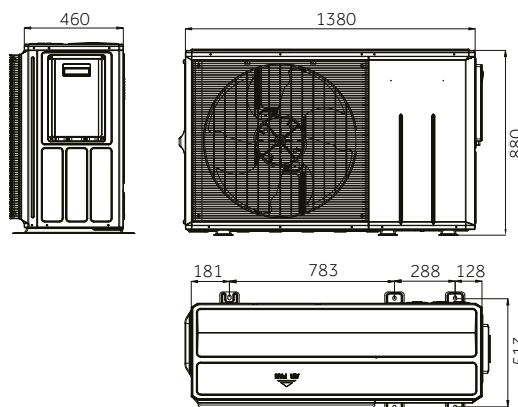
4. ATW-A02 is needed when using solar thermal function and pool heating function.

5. The above data may be changed without notice for future improvement on quality and performance.

Outdoor Unit



Technical Illustrations



AW112(N)MXCHA - AW142(N)MXCHA - AW162(N)MXCHA

PCB Box



ATW-A02 (Optional)

Controller



HW-WA101DBT (Standard)

Model			AW112MXCHA	AW11NMXCHA	AW142MXCHA	AW14NMXCHA	AW162MXCHA	AW16NMXCHA
Heating (LWT 35°C / OAT 7°C)	Capacity	kW	11.00	11.00	14.00	14.00	16.00	16.00
	Power input	kW	2.24	2.24	2.95	2.95	3.53	3.53
	COP	-	4.90	4.90	4.75	4.75	4.53	4.53
Heating (LWT 55°C / OAT 7°C)	Capacity	kW	10.50	10.50	13.50	13.50	15.20	15.20
	Power input	kW	3.50	3.50	4.82	4.82	5.53	5.53
	COP	-	3.00	3.00	2.80	2.80	2.75	2.75
Space heating Average climate water outlet 35°C	SCOP	-	4.70	4.70	4.65	4.65	4.55	4.55
	ns	%	185	185	183	183	179	179
	Energy class	-	A+++					
Space heating Average climate water outlet 55°C	SCOP	-	3.40	3.40	3.45	3.45	3.40	3.40
	ns	%	133	133	135	135	133	133
	Energy class	-	A++					
Cooling (LWT 18°C / OAT 35°C)	Capacity	kW	10.00	10.00	13.50	13.50	15.20	15.20
	Power input	kW	2.27	2.27	3.14	3.14	3.80	3.80
	EER	-	4.40	4.40	4.30	4.30	4.00	4.00
Cooling (LWT 7°C / OAT 35°C)	Capacity	kW	10.00	10.00	12.00	12.00	14.00	14.00
	Power input	kW	3.23	3.23	4.21	4.21	5.28	5.28
	EER	-	3.10	3.10	2.85	2.85	2.65	2.65
Outdoor operating temperature range	Heating	°C	-25 ~ 35					
	Cooling	°C	10-48					
Leaving water temperature range	Heating	°C	25 ~ 60					
	Cooling	°C	5-25					
Water flow rate		L/min	31.5	31.5	40.1	40.1	45.9	45.9
Water piping connection	Inlet/Outlet	inch	1					
Compressor	Quantity	-	1					
	Type	-	DC inverter twin rotary					
Refrigerant	Type	-	R32					
	Charge/CO2 Eq.	kg/t	1.8/ 1.22	1.8/ 1.22	2.5/ 1.69			
Net dimension	(WxHxD)	mm	880 x 1380 x 460					
Packing dimension	(WxHxD)	mm	1112 x 1526 x 630					
Net/Gross weight		kg	108/148	108/148	117/157	117/157	117/157	117/157
Sound power level		dB(A)	63	63	65	65	65	65
Power supply		V/-/Hz	220-240/1/50	380-415/3/50	220-240/1/50	380-415/3/50	220-240/1/50	380-415/3/50
Max. running current		A	20	10	32	12	32	12
Recommended circuit breaker		A	25	16	40	16	40	16
Accessory	Wired controller	-	HW-WA101DBT (Standard)					
	PCB Box	-	ATW-A02 (Optional)					
	Filter	-	Standard					

*Note: 1. According to EN14511, EN14825 (EU) and No 811/2013(EU).

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