

**Haier**  
HVAC Solutions

The solution  
for your  
**Hot Water  
Comfort**

# Haier Heating Solutions

The solution for your Hot Water Comfort

To see more of our hot water range please visit [www.haierhotwatersolutions.eu](http://www.haierhotwatersolutions.eu)

# Introduction

A heat pump is a renewable, 'green energy', alternative to a boiler. Air source heat pumps extract energy from the air in order to heat your home. They have the potential to both reduce your environmental impact and lower your fuel bills.

At Haier we are committed to providing reliable comfort heating and hot water solutions for your every day use. Our heating alternatives to traditional heating systems such as gas boilers aim to help reduce environmental impact without any impact on your comfort.

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Air to water  
heat pumps

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Heat Pump  
Water Heaters















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# Super Aqua A2W Heat Pump Range

# A2W Model Line-up

|       |   | Series  |  |
|-------|---|---|--|
|       |   | Super Aqua Monobloc<br>1 Phase  | Super Aqua Split<br>1 Phase  |
|       |   |  |   |
| 4 kW  |   |   |  <br>AW042SSCHA      HU062WAMNA     |
| 5 kW  | <br>AU052FYCRA(HW)   |   |  |
| 6 kW  |   |   |  <br>AW062SSCHA      HU062WAMNA |
| 8 kW  | <br>AU082FYCRA(HW) |   |  <br>AW082SNCHA      HU102WAMNA |
| 10 kW |   |   |  <br>AW102SNCHA      HU102WAMNA |
| 11 kW | <br>AU112FYCRA(HW) |   |  |
| 16 kW | <br>AU162FYCRA(HW) |   |  |

# What is a Haier Super Aqua?

The Haier Super Aqua Air to Water Heat Pump uses free renewable energy from the outside air as a heat source for space heating and providing domestic hot water. This energy efficient and environmentally-friendly solution substantially reduces energy consumption, running cost and CO<sub>2</sub> emissions in heating compared to conventional oil and gas boilers.

Hot water supply to support a full range of heat distribution choices

Fan Coil



Radiator



Underfloor Heating



Shower room



DHW Tank



Wired Controller



Super Aqua Monobloc



Super Aqua Split



# Super Aqua A2W Heat Pump Monobloc

# A2W Heat Pump - Monobloc

## Why Choose the Haier Super Aqua Monobloc

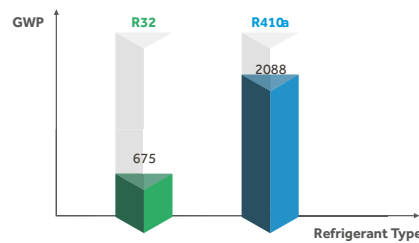
The Monobloc range is ideally suited for install by traditional plumbers as the refrigerant circuit is sealed and the pipework from the outdoor to indoor carries only water.

### Environmentally-friendly

The Super Aqua air to water heat pump is an environmentally friendly alternative compared to conventional oil and gas boilers. Our A2W solutions uses the outside air to create free renewable energy which is then used as heat source for space heating and hot water. This provides an energy efficient and environmentally-friendly solution which substantially reduces energy consumption, running cost and CO2 emissions in heating.



Firstly, the R32 refrigerant gas has a lower global warming potential, approximately a third of the older gas R410A. Secondly, the solutions using R32 gas have a higher efficiency and can reach higher water outlet temperatures.



### Complete Comfort

The Super Aqua Monobloc offers an integrated heating solution that guarantees complete comfort in your home. Leaving water temperature ranges from 5°C to 60°C, which provides comfortable cooling and heating for users. In addition, production of domestic hot water is guaranteed all year round.

Through the terminal box ATW-A01 the production of domestic hot water can be managed with the 3-way valve installed externally to the unit. It's possible to choose the most suitable type of application for each environment and satisfy every need through the combination of the applications in a system.



## Wide Application

The Super Aqua Monobloc ranges from 4kW to 16kW, and is suitable for both residential and small to medium sized commercial applications.

Smaller capacity units can be applied to new build residential buildings with their improved insulation whilst the medium-capacity system can be applied to refurbishments.

Super Aqua's high capacity system is suitable for installation in small to medium sized commercial applications, such as Cafés, restaurants, dental practices and hair salons.

**Home**



**Café & Restaurant**



**Hair Salons**



## Low sound levels

### Compressor

Due to the high efficiency Scroll Inverter driven compressor the Super Aqua operates at a low sound level. Additionally anti-vibration mounts are used for quiet operation and low vibration.

### Avial fan

A brushless DC fan motor and aerodynamically optimised impeller are used to reduce noise and vibration reduction.

### Pipeline design

The Super Aqua's pipeline is structured and designed effectively to avoid any noise and vibration generation.



In addition, quiet mode is available for comfortable operation at night.

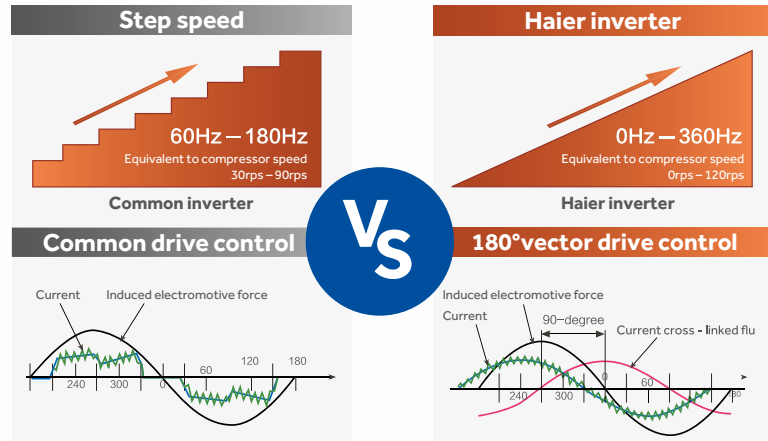


## Energy Saving

### Full DC inverter technology

The use of a full DC inverter twin rotary compressor generates energy saving as it has a smaller size and higher efficiency.

The variable frequency stepless speed control motor delivers further energy savings. Additionally the use of a water-cooled canned rotor pump achieves lower sound levels and higher efficiencies.



## High Reliability

### Intelligent anti-freezing technology

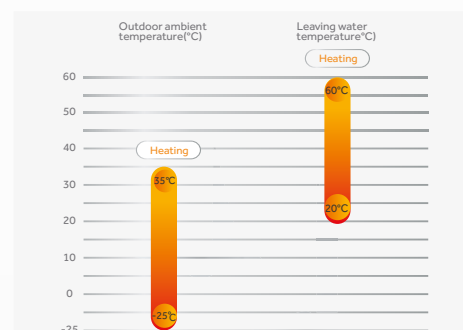
Our multi-sensor protection is designed to avoid freezing of the water system. In winter, when the sensor detects that the water temperature is below 3°C, the pump will turn on to prevent the water system from freezing.

The flow switch monitors the water flow and sounds an alarm when it goes below the minimum flow value, ensuring continuous reliability by avoiding any freezing issues.



### Wide operation range

Leaving water temperature ranges from 5°C to 60°C providing comfortable cooling and heating for users. 60°C leaving water temperature can be maintained even when outdoor ambient temperature is down to -25°C(5kW unit).



## Convenience

### Easy control

The controller comes in a modern white finish with touch screen making the device modern, clean and aesthetically pleasing. The backlight and intuitive icons ensures it is simple and easy to use. The built-in weekly timer allows pre-set automatic control and error codes display in case of a fault, as well as a historic log to ensure easier maintenance.



# Specification & Dimensions

## Super Aqua Monobloc



**AU052FYCRA(HW)**



**AU082FYCRA(HW)**



**AU112FYCRA(HW)**  
**AU162FYCRA(HW)**

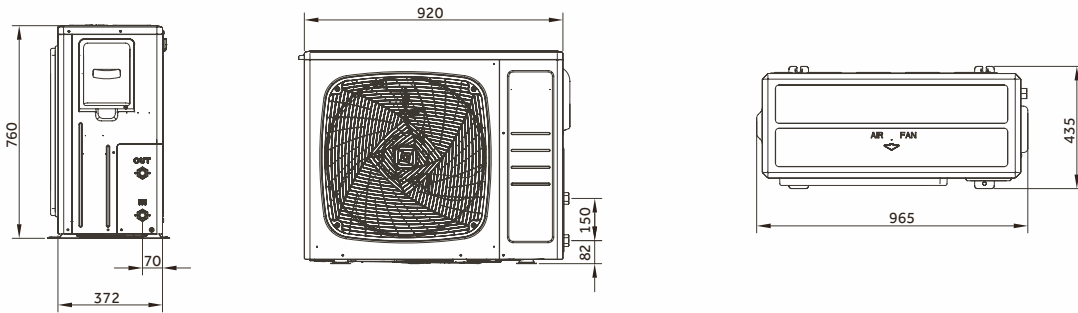
| Model   |                  |       | AU052FYCRA(HW)          | AU082FYCRA(HW)    | AU112FYCRA(HW)    | AU162FYCRA(HW)    |
|---|------------------|-------|-------------------------|-------------------|-------------------|-------------------|
| Heating<br>(LWT 35°C / OAT 7°C)                       | Capacity         | kW    | 5.00                    | 7.80              | 11.0              | 16.00             |
|   | Power input      | kW    | 0.99                    | 1.77              | 2.61              | 3.86              |
|   | COP              | -     | 5.05                    | 4.40              | 4.22              | 4.15              |
| Heating<br>(LWT 55°C / OAT 7°C)                       | Capacity         | kW    | 5.00                    | 7.01              | 9.99              | 14.01             |
|   | Power input      | kW    | 1.64                    | 2.76              | 4.40              | 5.63              |
|   | COP              | -     | 3.05                    | 2.54              | 2.27              | 2.49              |
| Space heating<br>Average climate<br>water outlet 35°C | SCOP             | -     | 4.61                    | 3.87              | 4.35              | 4.00              |
|   | ns               | %     | 181                     | 152               | 171               | 157               |
|   | Energy class     | -     | A+++                    | A++               | A++               | A++               |
| Space heating<br>Average climate<br>water outlet 55°C | SCOP             | -     | 3.28                    | 2.90              | 3.20              | 3.09              |
|   | ns               | %     | 128                     | 113               | 125               | 121               |
|   | Energy class     | -     | A++                     | A+                | A++               | A+                |
| Cooling<br>(LWT 18°C / OAT 35°C)                      | Capacity         | kW    | 5.00                    | 7.00              | 13.50             | 16.00             |
|   | Power input      | kW    | 1.00                    | 2.06              | 2.94              | 3.64              |
|   | EER              | -     | 5.00                    | 3.40              | 4.60              | 4.40              |
| Cooling<br>(LWT 7°C / OAT 35°C)                       | Capacity         | kW    | 5.00                    | 5.50              | 11.50             | 14.50             |
|   | Power input      | kW    | 1.56                    | 2.34              | 3.83              | 4.92              |
|   | EER              | -     | 3.20                    | 2.35              | 3.00              | 2.95              |
| Outdoor operating<br>temperature range                | Heating          | °C    | -25 ~ 35                | -20 ~ 35          | -20 ~ 35          | -20 ~ 35          |
|   | Cooling          | °C    | 10 ~ 46                 | 10 ~ 46           | 10 ~ 46           | 10 ~ 46           |
| Leaving water<br>temperature range                    | Heating          | °C    | 25 ~ 60                 | 20 ~ 55           | 20 ~ 55           | 20 ~ 55           |
|   | Cooling          | °C    | 5 ~ 20                  | 5 ~ 20            | 5 ~ 20            | 5 ~ 20            |
| Water flow rate                                       |                  | L/min | 14.30                   | 23.00             | 31.05             | 45.80             |
| Water piping connection                               | Inlet/Outlet     | inch  | 3/4                     | 1                 | 1                 | 1                 |
| Compressor  | Quantity         | -     | 1                       |                   |                   |                   |
|   | Type             | -     | DC inverter twin rotary |                   |                   |                   |
| Refrigerant   | Type             | -     | R32                     |                   |                   |                   |
|   | Charge/CO2 Eq.   | kg/T  | 1.05 / 0.709            | 1.15 / 0.777      | 2.40 / 1.620      | 2.60 / 1.755      |
| Net dimension   | (WxHxD)          | mm    | 920 × 760 × 372         | 950 × 965 × 370   | 950 × 1490 × 370  | 950 × 1490 × 370  |
| Packing dimension                                     | (WxHxD)          | mm    | 1045 × 890 × 488        | 1010 × 990 × 458  | 1010 × 1520 × 458 | 1010 × 1520 × 458 |
| Net/Gross weight                                      |                  | kg    | 69/80                   | 87/97             | 145/157           | 145/157           |
| Sound power level                                     |                  | dB(A) | 59                      | 64                | 67                | 68                |
| Power supply  |                  | ~V/Hz | 1, 220-240, 50/60       | 1, 220-240, 50/60 | 1, 220-240, 50/60 | 1, 220-240, 50/60 |
| Max. running current                                  |                  | A     | 13.5                    | 21.3              | 24.3              | 31.7              |
| Recommended circuit breaker                           |                  | A     | 20                      | 32                | 32                | 40                |
| Accessory   | Wired controller | /     | YR-E27 (Standard)       |                   |                   |                   |
|   | Filter           | /     | Standard                |                   |                   |                   |

**Note:**

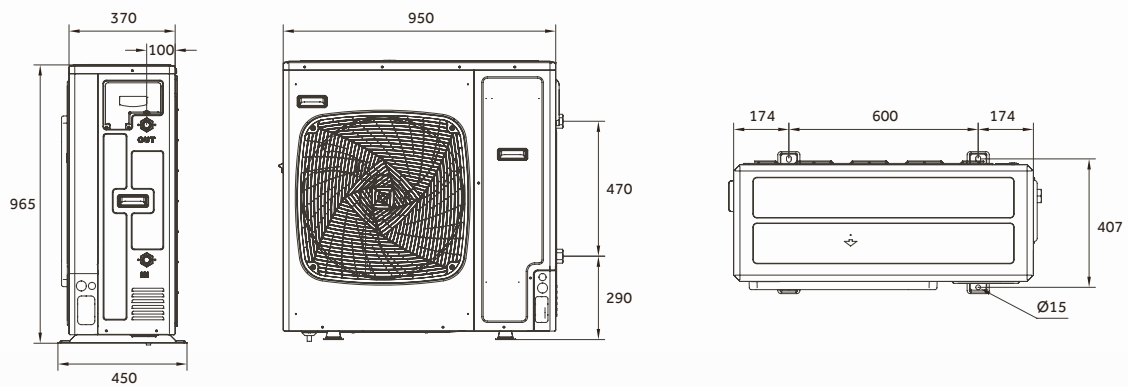
1. Efficiency data is based on EN14511.
2. LWT: Leaving water temperature; OAT: Outdoor air temperature.
3. Sound level values are measured at a semi-anechoic room. And the sound power level values are based on measurement of EN2012 under conditions of EN14825.
4. The above data may be changed without notice for future improvement on quality and performance.

## Outline dimension - Super Aqua Monobloc

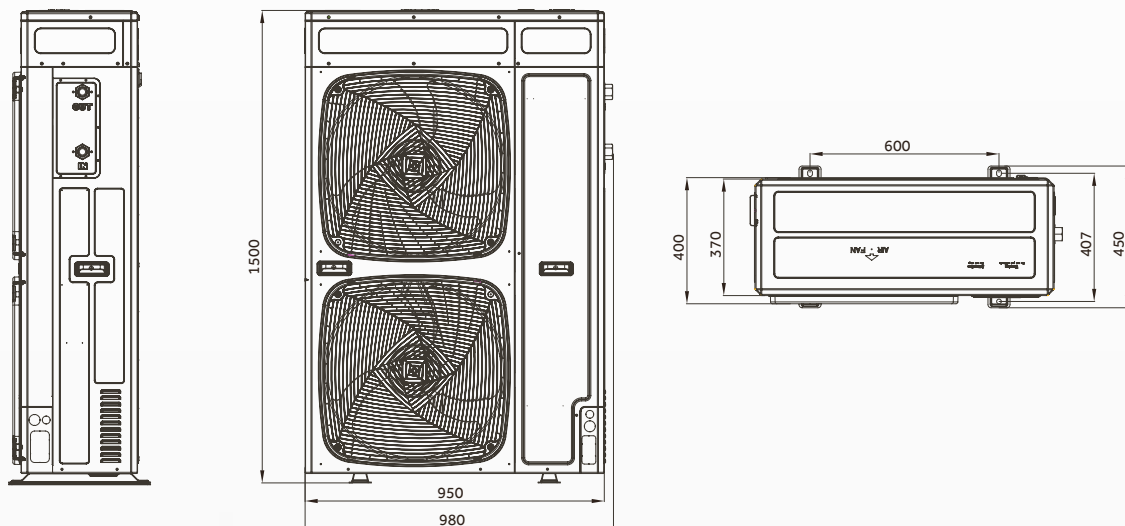
### AU052FYCRA(HW)



### AU082FYCRA(HW)



### AU112FYCRA(HW)/AU162FYCRA(HW)





**NEW**  
Super Aqua  
A2W Heat Pump  
Split

# NEW A2W Heat Pump - Split

## Why Choose the Haier A2W Split?

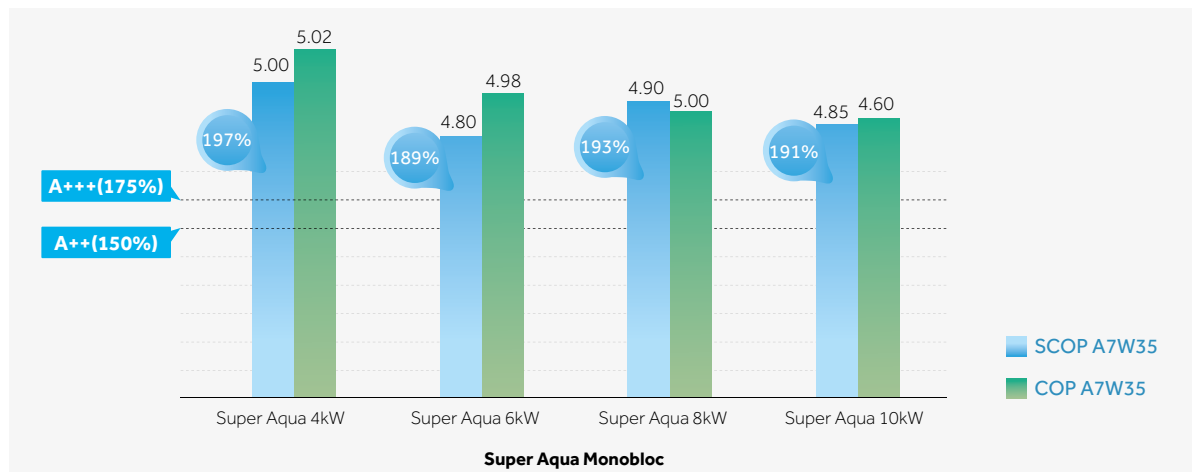
The application of a split system allows greater flexibility in the location of the outdoor unit due to the longer pipe lengths available on the smaller diameter pipes.

An air-to-water heat pump (AWHP) is a cheaper and more sustainable way to heat a living space. With an AWHP, 75% of the total energy comes from a completely renewable source: air. It is powered by electricity which is a more sustainable and cheaper 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.

## Wide Application

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.



## High leaving water temperature

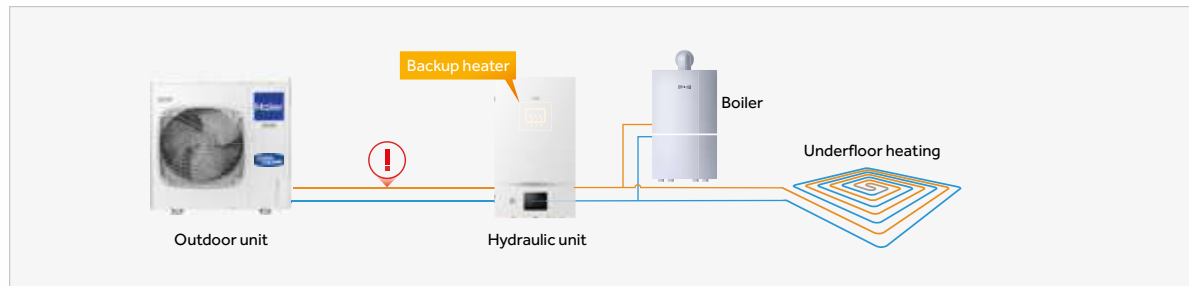
Haier Super Aqua is suitable for both underfloor heating and radiators. High leaving water temperature of 60°C is guaranteed without using backup heaters even when the outdoor temperature is down to -14°C.



# Ultimate Comfort

## Backup heater

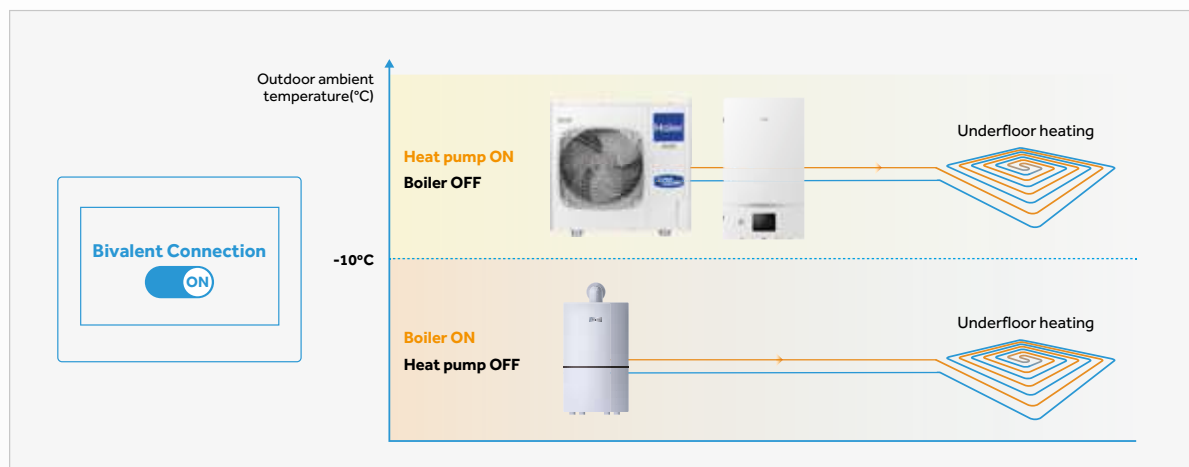
When the outdoor ambient temperature is too low the leaving water temperature cannot meet the set temperature. In this instance the inbuilt electric 'back up heater' is designed to meet the required exit water temperature.



## Hybrid connection

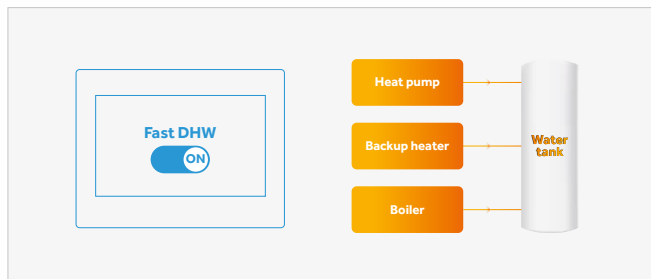
Super Aqua solutions can integrate backup energies like gas boilers or solar thermal and use them in the most efficient way possible. For example, in the bivalent connection mode the system will choose gas boiler under  $-10^{\circ}$  ambient temperature and change over to air-to-water energy when temperature rises above that point, reaching maximum efficiency for your system.

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



## Emergency operation

Should the system fail at any point, the electric water heater will guarantee the required water temperature, ensuring uninterrupted operation. In adding a hybrid system any other source of heater such as a gas boiler will also start operation.

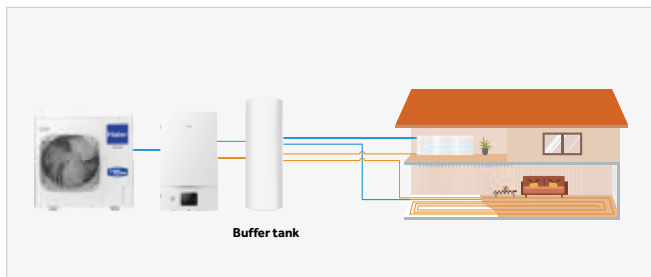


## Fast DHW

When Fast DHW is activated, the backup heater or auxiliary heating source will be activated at the same time together heat pump in order to reach DHW setting point as soon as possible, which will not be affected by outdoor ambient temperature and compressor running time.

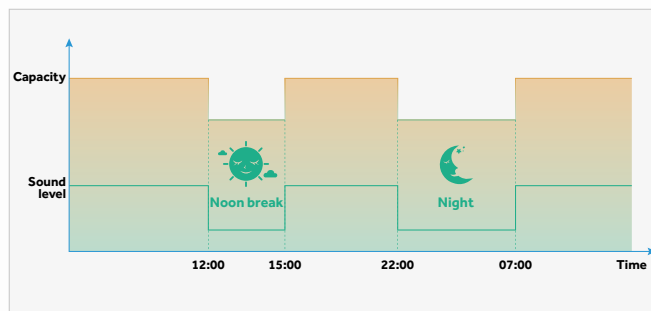
Note:

1. Only valid when DHW mode is selected.
2. Backup heater is allowed to be used or boiler is connected.



## 2 zones control

When there are different room temperature requirements, two zone temperature control through separate heating or cooling circuits is possible. Adjust and maintain two different water temperatures to achieve intelligent control and saving energy.



## Quiet mode

The Quiet mode can work together with the timer function. To guarantee low sound levels during quiet periods such as night time.

To achieve the perfect confort standard, heat must be correctly managed according to the user's needs. Super Aqua includes functions that ensure that the performance is always the optimal, monitoring system and external conditions and including accurate control systems.

### Climate curves

Both heating and cooling water temperatures are optimally configured when considering outdoor temperature, both in confort 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

The soundproof material that covers the compressor, brushless DC fan motor and shielded low noise water pump, all ensure a silent performance both in indoor and outdoor units.

# Ultimate Control



## Easy control

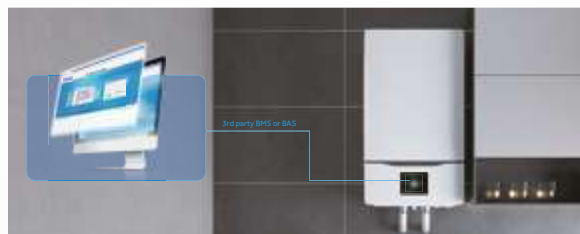
There is a 5-inch colorful controller on the front panel of indoor unit. It can be easily operated through the touch screen and intuitive icons. In addition, an optional wired controller is available that can be installed in the living room or bedroom.

## 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.

## Easy 3rd party BMS solution

The indoor 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

Many important parameters about the system can be checked through the 'System Status' function, including the system parameters, indoor unit parameters and outdoor units parameters. These parameters are helpful to diagnose the system and ensure optimum performance.

## Scheduling programs

Users can create schedule programs, including naming the programs, timer on/off operation, mode selection, leaving temperature setting and the frequency etc.

Once the schedule program is set, the system will run according to the pre-set program automatically.

## 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

Note:

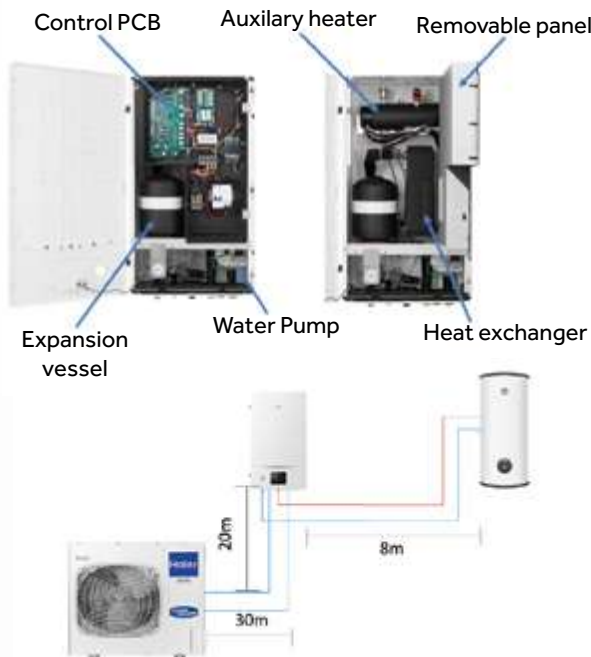
Cool mode can be disabled during installation. Only when it is activated, cool mode can participate the mode circulation;  
Pool mode is involved in the mode loop only when the pool function is available.



# High Reliability

## Convenient installation and maintenance

Haier's Super Aqua range includes multiple features that will make the installation and maintenance of our solutions easier. From internal components to the equipment design, every single detail is focused upon fast efficient installation providing them with the perfect tool for the job.



Multiple features coordinate to create the perfect easy installation design:

- Working parameter monitoring
- Configurable hot water priority and modes
- Program Schedule
- Easily accessible error log
- Convenient distribution of components
- Long available installation distance both in water and refrigerant sides
- Multiple system configuration
- MODBus-ready for easy BMS configuration.

## Safe performance

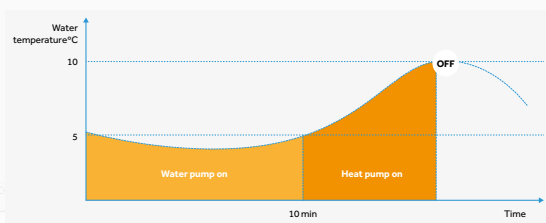
As Haier Super Aqua Split will be managing your daily hot water needs, it is essential that it is perfectly safe. With systems that ensure that the water is perfectly healthy and features that care about the machine's inner components and your home, the Haier Super Aqua Split solution is a carefree option for your home.

### Sterilisation mode

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

### 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. When the water temperature is below 5°C for more than 10 minutes, the heat pump is turned on to protect the system.



### Anti-rust water pump

The water pump runs for 60 seconds when inactive for more than 24 hours. This ensures that water is not stationary for extended periods of time which reduces the risk of rusting.

### 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 behaviour to optimise savings.



# Specification & Dimensions

## Super Aqua Split



**AW042SSCHA  
AW062SSCHA**



**AW082SNCHA  
AW102SNCHA**



**HU062WAMNA  
HU102WAMNA**



**HW-WA101DBT(Optional)**

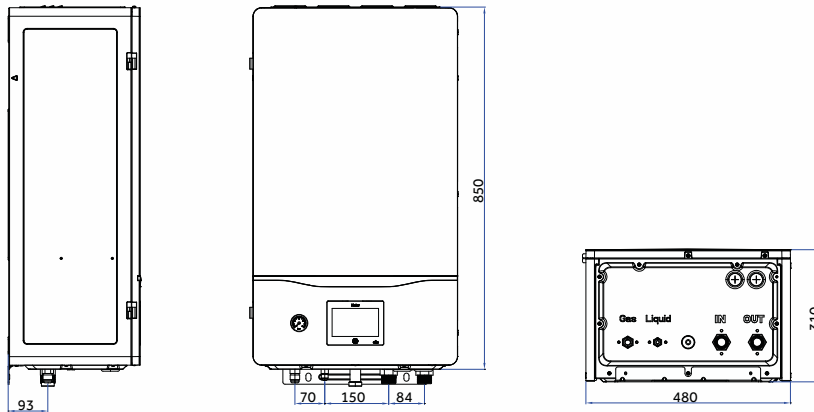
| Model   |                |          | Super Aqua S 4          | Super Aqua S 6          | Super Aqua S 8          | Super Aqua S 10         |
|---|----------------|----------|-------------------------|-------------------------|-------------------------|-------------------------|
| Heating<br>(LWT 35 °C / OAT 7 °C)                     | Capacity       | kW       | 4.00                    | 6.00                    | 8.00                    | 10.00                   |
|   | Power Input    | kW       | 0.80                    | 1.20                    | 1.60                    | 2.17                    |
|   | COP            | W/W      | 5.02                    | 4.98                    | 5.00                    | 4.60                    |
| Heating<br>(LWT 55 °C / OAT 7 °C)                     | Capacity       | kW       | 4.00                    | 6.00                    | 8.00                    | 10.00                   |
|   | Power Input    | kW       | 1.40                    | 2.05                    | 2.65                    | 3.45                    |
|   | COP            | W/W      | 2.86                    | 2.92                    | 3.02                    | 2.90                    |
| Space heating<br>Average climate<br>water outlet 35°C | SCOP           | -        | 5.00                    | 4.80                    | 4.90                    | 4.85                    |
|   | ns             | %        | 197                     | 189                     | 193                     | 191                     |
|   | Energy class   | -        | A+++                    | A+++                    | A+++                    | A+++                    |
| Space heating<br>Average climate<br>water outlet 55°C | SCOP           | -        | 3.45                    | 3.38                    | 3.32                    | 3.30                    |
|   | ns             | %        | 135                     | 132                     | 130                     | 129                     |
|   | Energy class   | -        | A++                     | A++                     | A++                     | A++                     |
| Cooling<br>(LWT 18 °C / OAT 35 °C)                    | Capacity       | kW       | 4.00                    | 6.00                    | 8.00                    | 10.00                   |
|   | Power Input    | kW       | 0.85                    | 1.26                    | 1.90                    | 2.50                    |
|   | EER            | W/W      | 4.70                    | 4.75                    | 4.20                    | 4.00                    |
| Cooling<br>(LWT 7 °C / OAT 35 °C)                     | Capacity       | kW       | 4.00                    | 6.00                    | 8.00                    | 9.00                    |
|   | Power Input    | kW       | 1.29                    | 1.97                    | 2.63                    | 3.00                    |
|   | EER            | W/W      | 3.10                    | 3.05                    | 3.04                    | 3.00                    |
| <b>Unit interior</b>                                  |                |          | <b>HU062WAMNA</b>       | <b>HU062WAMNA</b>       | <b>HU102WAMNA</b>       | <b>HU102WAMNA</b>       |
| Leaving water<br>temperature range                    | Heating        | °C       | 15-60                   | 15-60                   | 15-60                   | 15-60                   |
|   | Cooling        | °C       | 5-25                    | 5-25                    | 5-25                    | 5-25                    |
| Sound power level                                     |                | dB(A)    | 42                      | 42                      | 42                      | 42                      |
| Backup electric<br>heater capacity                    | Capacity       | kW       | 1+3                     | 1+3                     | 1+3                     | 1+3                     |
|   | Levels         | -        | 3                       | 3                       | 3                       | 3                       |
| Expansion vessel<br>capacity                          |                | L        | 5                       | 5                       | 5                       | 5                       |
| Pump  | Type           | -        | Variable speed          | Variable speed          | Variable speed          | Variable speed          |
|   | Power input    | W        | 75                      | 75                      | 75                      | 75                      |
| Water flow rate                                       |                | L/min    | 11.5                    | 17                      | 23                      | 28.7                    |
| Water pipe connection                                 | Inlet/Outlet   | inch     | R 1                     | R 1                     | R 1                     | R 1                     |
| Pipe diameter   | Liquid         | mm(inch) | 6.35 (1/4)              | 6.35 (1/4)              | 9.52 (3/8)              | 9.52 (3/8)              |
|   | Gas            | mm(inch) | 15.88 (5/8)             | 15.88 (5/8)             | 15.88 (5/8)             | 15.88 (5/8)             |
| Net dimension   | (WxHxD)        | mm       | 480 × 850 × 310         | 480 × 850 × 310         | 480 × 850 × 310         | 480 × 850 × 310         |
| Packing dimension                                     | (W×H×D)        | mm       | 580 × 1020 × 460        | 580 × 1020 × 460        | 580 × 1020 × 460        | 580 × 1020 × 460        |
| Net / Gross weight                                    |                | kg       | 41 / 53                 | 41 / 53                 | 43 / 55                 | 43 / 55                 |
| Power supply  |                | -V/Hz    | 1/220-240/50/60         | 1/220-240/50/60         | 1/220-240/50/60         | 1/220-240/50/60         |
| Max running current                                   |                | A        | 20                      | 20                      | 20                      | 20                      |
| Built-in circuit breaker                              |                | A        | 63                      | 63                      | 63                      | 63                      |
| <b>Unit exterior</b>                                  |                |          | <b>AW042SSCHA</b>       | <b>AW062SSCHA</b>       | <b>AW082SNCHA</b>       | <b>AW102SNCHA</b>       |
| Outdoor operating<br>temperature range                | Cooling        | °C       | 10-48                   | 10-48                   | 10-48                   | 10-48                   |
|   | Heating        | °C       | -25-35                  | -25-35                  | -25-35                  | -25-35                  |
| Compressor  | Quantity       | -        | 1                       | 1                       | 1                       | 1                       |
|   | Type           | -        | DC inverter twin rotary | DC inverter twin rotary | DC inverter twin rotary | DC inverter twin rotary |
| Refrigerant   | Type           | -        | R32                     | R32                     | R32                     | R32                     |
|   | Charge/CO2 Eq. | kg/T     | 1.2 / 0.81              | 1.2 / 0.81              | 1.6 / 1.08              | 1.6 / 1.08              |
| Pipe diameter   | Liquid         | mm(inch) | 6.35 (1/4)              | 6.35 (1/4)              | 9.52 (3/8)              | 9.52 (3/8)              |
|   | Gas            | mm(inch) | 15.88 (5/8)             | 15.88 (5/8)             | 15.88 (5/8)             | 15.88 (5/8)             |
| Max refrigerant pipe length                           |                | m        | 30                      | 30                      | 50                      | 50                      |
| Max height difference between ODU&IDU                 |                | m        | 20                      | 20                      | 30                      | 30                      |
| Pipe length without additional charge                 |                | m        | 10                      | 10                      | 10                      | 10                      |
| Additional charging volume                            |                | g/m      | 20                      | 20                      | 38                      | 38                      |
| Sound pressure level                                  |                | dB(A)    | 44                      | 45                      | 49                      | 53                      |
| Sound power level                                     |                | dB(A)    | 58                      | 61                      | 65                      | 68                      |
| Net dimension   | (W×H×D)        | mm       | 920 × 760 × 372         | 920 × 760 × 372         | 950 × 965 × 370         | 950 × 965 × 370         |
| Packing dimension                                     | (W×H×D)        | mm       | 1050 × 980 × 500        | 1050 × 980 × 500        | 1030 × 1090 × 480       | 1030 × 1090 × 480       |
| Net / Gross weight                                    |                | kg       | 55 / 67                 | 55 / 67                 | 76 / 86                 | 76 / 86                 |
| Power supply  |                | -V/Hz    | 1/220-240/50            | 1/220-240/50            | 1/220-240/50            | 1/220-240/50            |
| Max running current                                   |                | A        | 12.5                    | 13.0                    | 19.0                    | 22.0                    |
| Recommended circuit breaker                           |                | A        | 16.0                    | 16.0                    | 25.0                    | 32.0                    |
| External wired controller                             |                |          |                         |                         | HW-WA101DBT (Optional)  |                         |

**\*Note:**

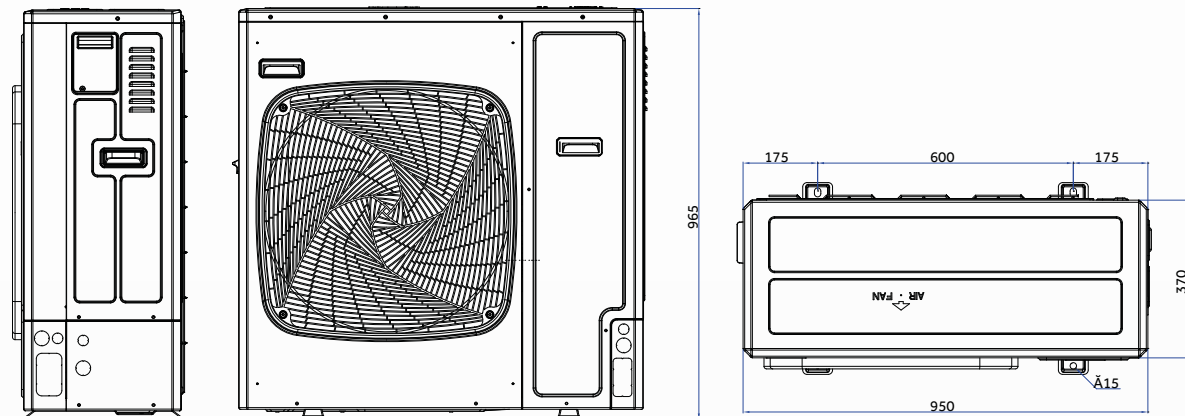
1. According to EN14511, EN14825 (EU) and No 811/2013(EU).
2. LWT: Leaving water temperature; OAT: Outdoor air temperature.
3. Sound level values are measured at a semi-anechoic room. And the sound power level values are based on measurement of EN2102-1 under conditions of EN14825.
4. The above data may be changed without notice for future improvement on quality and performance.

## Outline dimension - Super Aqua Split

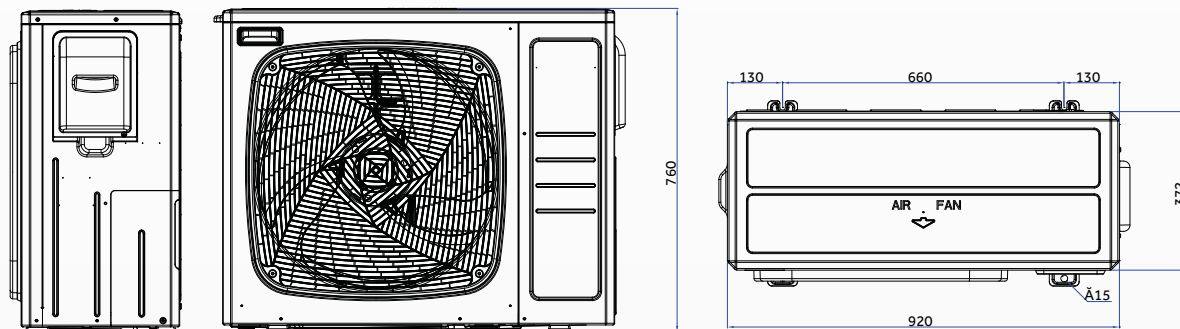
### HU062/102WAMNA



### AW082/102SNCHA



### AW042/062SSCHA



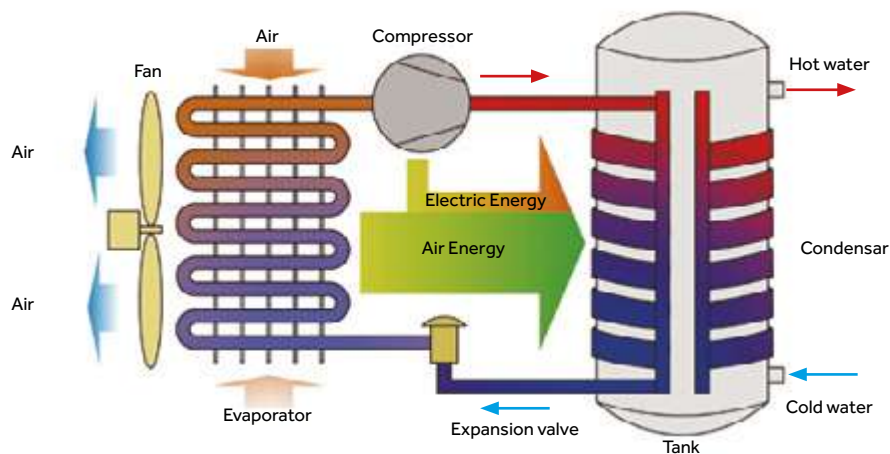


# Heat Pump Water Heater

# What is a Heat Pump Water Heater?



Our range of Heat Pump Water Heaters provides a direct solution to your hot water necessities. It combines the renewable energy of an aerothermal source with a storage capacity of 80-300 L, allowing it to adapt to a wide range of applications ranging from small homes to light commercial. This system will provide domestic hot water at a fraction of the cost of older technologies, and the installation will only involve water piping so it's suitable for renewing previous hot water installations easily and conveniently.


## How it works



To understand the concept of heat pumps, imagine a refrigerator working in reverse. While a refrigerator removes heat from an enclosed box and expels that heat to the surrounding air, a HPWH takes the heat from surrounding air and transfers it to water in an enclosed tank.

A refrigerant (R134A) changes state, through compression and expansion cycles, absorbing the heat in the air at low temperature and transferring it to domestic water at a higher temperature.

|                | Monobloc  | Split  |
|----------------|---|--|
| Floor standing | <br>PV<br><br>HP80M5<br>HP110M5               | <br>HP200S1<br>HP300S1 |
|                | <br>PV<br><br>HP200M3<br>HP250M3<br>HP250M3 C |  |



# Condenser Design



## Micro-channel condenser

The micro-channel condenser has larger contact surface for better heat transfer performance and less refrigerant consumption.



## Bottom Coil

An extra coil fitted to the bottom of the tank increases the heat exchange area to deliver more hot water and contributes to better efficiency.

## Condenser micro-channel vs coil pipe



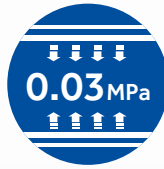
### Multiple channel design

Every piece of a micro-channel condenser has 18 micro-channels, which compared to the single-channel coil pipes offer much more contact surface.



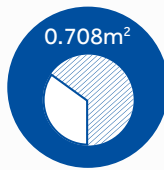
### Titanium - aluminum alloy for better corrosion & heat resistances

Micro-channel: 1500 hours salt spray test  
Coil pipe: 200 hours salt spray test



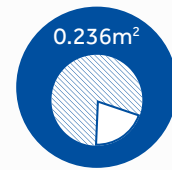
### Reduces the pressure drop which improves compress efficiency by 6%

Micro-channel: pressure drop 0.03Mpa  
Coil pipe: pressure drop 0.15Mpa

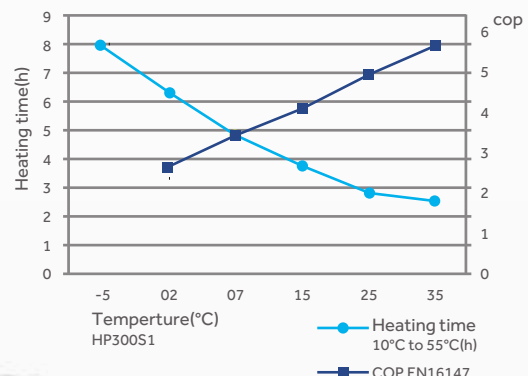
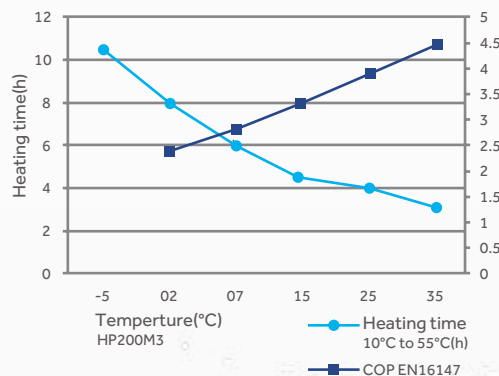


### Larger contact surface improves heat transfer efficiency by 30%

Micro-channel: contact surface 0.708m²  
Coil pipe: contact surface 0.236m²



## Performance curve



## Control panel-Monobloc

5" LED display with simple and user friendly touch control allows access to the 4 working modes

### AUTOmode

The Heat pump will work in priority with the electric heater as a backup.

### ECOMode

The Heat pump uses off-peak electricity to minimise the expenses.

### BOOSTmode

The Heat pump and electric heater starts up at same time to deliver hot water as fast as possible.

### VACATION mode

The unit stays in stand by mode during the vacation and then restarts in auto mode to prepare enough hot water just one day before the user returns from vacation.



HP200M3  
HP250M3  
HP250M3 C

## Control panel-Split

5" LED display with simple and user friendly touch control allows access to the 5 working modes

### AUTOmode

The Heat pump will work in priority with the electric heater as a backup.

### ECOMode

The Heat pump works 24 hours however the electric heater only works during off peak condition.

### ECOMode+

Both the Heat pump and electric heater only work under off peak conditions.

### VACATIONmode

The unit stays in stand by mode during the vacation and then restarts in auto mode to prepare enough hot water just one day before the user returns from vacation.

### BOOSTmode

The Heat pump and electric heater work at same time to deliver rapid hot water.



HP200S1  
HP300S1



HP80M5  
HP110M5 **Monobloc**



**Easy to install**

Plug and play like electric water heater, easy to install and replace.



**Eco Power**

Works under low tariff hours to reduce electric cost



**Micro-channel Condenser**

The micro-channel condenser has larger contact surface for better heat transfer performance and less refrigerant consumption.



**Fast Heating**

Powerful compressor enables faster heating.



**Slim Body**

Slim body design saves space.

**Comfort**

- ◆ Multi mode functionality including Eco, Boost, Auto, Anti-legionella & Vacation
- ◆ Additional heating element
- ◆ Timer control for Peak Power settings
- ◆ Hot water volume display

**Efficiency & Energy Saving**

- ◆ COP@7°C= 2.7 (HP80M5/HP110M5)
- ◆ Noise level ≤ 50 dB(A)
- ◆ Working temperature : -7°C~45°C
- ◆ Micro-Channel condenser

**Quality**

- ◆ Magnesium anode protection
- ◆ Titanium enamel steel tank
- ◆ 50 mm PUF insulation

**Design**

- ◆ LED display with touch control
- ◆ Off peak power



ABT



Smart Boost



Eco Comfort



Smart Vacation

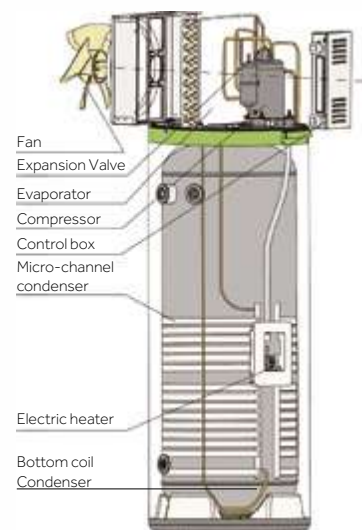
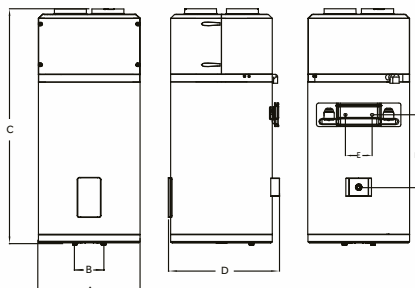


Anti-freeze



| Model   | A   | B   | C    | D   | E   | F   |
|---------|-----|-----|------|-----|-----|-----|
| HP80M5  | 492 | 140 | 1170 | 538 | 159 | 362 |
| HP110M5 | 492 | 140 | 1320 | 538 | 159 | 362 |

Unit:MM



| Model   | HP80M5                    | HP110M5                   |
|---|---------------------------|---------------------------|
| Installation  | Vertical wall-hung/ducted | Vertical wall-hung/ducted |
| Tank volume (L)   | 80                        | 110                       |
| Rated voltage/ frequency (V/Hz)                         | 220-240V/50Hz             | 220-240V/50Hz             |
| Tank rated pressure (bar)                               | 8                         | 8                         |
| Corrosion protection                                    | Magnesium anode           | Magnesium anode           |
| Water proof grade                                       | IPX4                      | IPX4                      |
| <b>Assembled System</b>                                 |                           |                           |
| Electric backup power (W)                               | 1200                      | 1200                      |
| Average input - heat pump only(W)                       | 240                       | 240                       |
| Maximum input- heat pump only(W)                        | 350                       | 350                       |
| Maximum power input (W)                                 | 1550                      | 1550                      |
| Default temperature setting (°C)                        | 55                        | 55                        |
| Temperature setting range with heater (°C)              | 35-75                     | 35-75                     |
| Temperature setting range heat pump only (°C)           | 35-65                     | 35-65                     |
| Refrigerant type / Weight (kg)                          | R134a/0.45                | R134a/0.45                |
| Noise power dB(A)                                       | 50                        | 50                        |
| Working temperature - heat pump only (°C)               | -7-45                     | -7-45                     |
| Working temperature - system (°C)                       | -7-45                     | -7-45                     |
| <b>Performance</b>                                      |                           |                           |
| Type of extraction                                      | Exterior                  | Exterior                  |
| COP@7 °C (EN16147)                                      | 2.72                      | 2.64                      |
| COP@14 °C (EN16147)                                     | 3.17                      | 3.19                      |
| Heating up time (h) (@7°C)                              | 4h58                      | 6h35                      |
| Heating up time (h) (@14°C)                             | 4h09                      | 5h23                      |
| Tapping cycle (EN16147)                                 | M                         | M                         |
| Maximum volume of usable hot water (L) V40 (EN16147)    | 102.5                     | 132.6                     |
| Water heating energy efficiency class (ERP)             | A+                        | A+                        |
| <b>Dimensions and connections</b>                       |                           |                           |
| Water outlet connection                                 | G1/2" M                   | G1/2" M                   |
| Water inlet & Drain connection                          | G1/2" M                   | G1/2" M                   |
| Safety valve connection                                 | G1/2" M                   | G1/2" M                   |
| Product Dimensions (WxHxD) (mm) Tank unit/external unit | 537 x 1170 x 492          | 537 x 1320 x 492          |
| Packing dimensions (WxHxD) (mm) Tank unit/external unit | 587 x 1247 x 587          | 587 x 1397 x 587          |
| Gross weight (kg)                                       | 59                        | 64                        |
| Net weight (kg)   | 51                        | 55                        |
| Load qty. 40HQ  | 160                       | 80                        |



**A+**  
Energy Class

HP200M3  
HP250M3  
HP250M3C **Monobloc**



**PV** (only M3C)

In combination with Photovoltaic panels you can set the unit to optimise the use of electricity



**Easy to install**

Plug and play like electric water heater, easy to install and replace



**Eco Power**

Works under low tariff hours to reduce electric cost.



**Micro-Channel Condenser**

The micro-channel condenser has larger contact surface for better heat transfer performance and less refrigerant consumption.



**Fast Heating**

Powerful compressor enables faster heating.



**Slim Body**

Slim body design saves space.

**High Efficiency/Economy**

- ◆ A+ Energy Class
- ◆ COP up to 3.56
- ◆ Multiple energy source capability (HP250M3C only)
- ◆ High performance compressor
- ◆ Micro - channel condenser
- ◆ 50mm PUF insulation
- ◆ Off peak electricity timer setting
- ◆ ECO Mode - heat water with heat pump only
- ◆ Vacation mode - for optimum system utilisation

**Easy Installation**

Our monoblock heat pump water heater can be easily installed to replace a traditional electric storage water heater. Compared with the split heat pump water heater, a monoblock is more flexible where it can be installed.

When installed in locations such as basement, a monoblock provides cooling and dehumidification benefits.

**Health**

Every 7 days, the ABT feature will raise tank water temperature to 65°C, to sanitise the inner tank with this automatic anti-bacteria technology, ensuring clean healthy water.



ABT



Auto Defrost



Anti-freeze



Eco Comfort



Smart Boost



Duct  
Installation

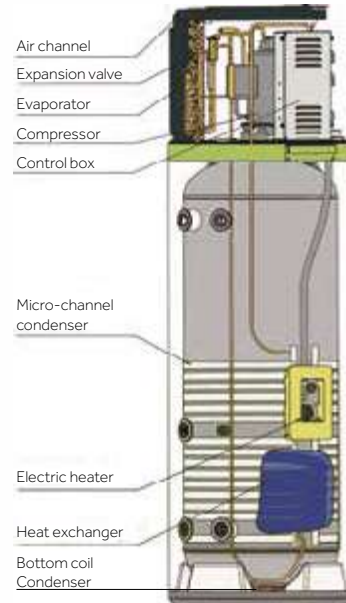
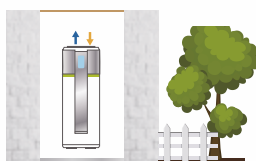
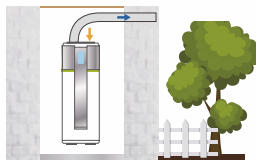
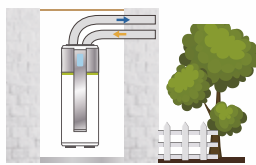
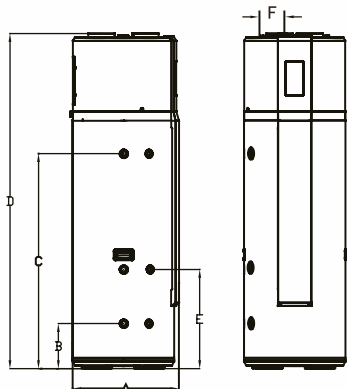


Smart Vacation



| Model    | A   | B   | C    | D    | E   | F   |
|----------|-----|-----|------|------|-----|-----|
| HP200M3  | 629 | 270 | 980  | 1692 | -   | 180 |
| HP250M3  | 629 | 270 | 1275 | 1987 | -   | 180 |
| HP250M3C | 629 | 270 | 1275 | 1987 | 590 | 180 |

Unit:MM



| Model   | HP200M3            | HP250M3            | HP250M3C           |
|---|--------------------|--------------------|--------------------|
| <b>Tank</b>                                   |                    |                    |                    |
| Tank volume (L)                               | 195                | 246                | 240                |
| Rated voltage/ frequency (V/Hz)               | 230V/50Hz          | 230V/50Hz          | 230V/50Hz          |
| Tank rated pressure (bar)                     | 7                  | 7                  | 7                  |
| Extra exchanger design / area                 | No                 | No                 | 1m <sup>2</sup>    |
| Corrosion proof                               | Magnesium anode    | Magnesium anode    | Magnesium anode    |
| <b>Performance</b>                            |                    |                    |                    |
| Type of extraction                            | Ambient / Exterior | Ambient / Exterior | Ambient / Exterior |
| COP@7 °C (EN16147)                            | 3.04               | 3.02               | 3.10               |
| COP@15 °C (EN16147)                           | 3.39               | 3.41               | 3.56               |
| Tapping cycle (EN16147)                       | L                  | L                  | L                  |
| Electric backup power (W)                     | 1500               | 1500               | 1500               |
| Average input - heat pump only(W)             | 495                | 495                | 495                |
| Maximum input- heat pump only(W)              | 625                | 625                | 625                |
| Maximum power input (W)                       | 2125               | 2125               | 2125               |
| Standby power input/ Pes(W)                   | 27                 | 27                 | 27                 |
| Vmax  | 224                | 311                | 332                |
| Heating up time (h) (@7°C)                    | 5h30               | 7h21               | 6h55               |
| Heating up time (h) (@15°C)                   | 4h41               | 6h10               | 6h                 |
| Default temperature setting (°C)              | 55                 | 55                 | 55                 |
| Temperature setting range with heater (°C)    | 35-75              | 35-75              | 35-75              |
| Temperature setting range heat pump only (°C) | 35-65              | 35-65              | 35-65              |
| Refrigerant type / Weight (kg)                | R134a/0.9          | R134a/0.9          | R134a/0.9          |
| Noise power db(A)                             | 57                 | 58                 | 59                 |
| Working temperature - system (°C)             | -7-45              | -7-45              | -7-45              |
| <b>Dimensions and connections</b>             |                    |                    |                    |
| Product Dimensions (WxHxD) (mm) Tank          | 629 x 1692 x 600   | 629 x 1987 x 600   | 629 x 1987 x 600   |
| Packing dimensions (WxHxD) (mm) Tank          | 695 x 1940 x 736   | 695 x 2250 x 736   | 695 x 2250 x 736   |
| Gross weight (kg)-Tank/external unit          | 103                | 116                | 132                |
| Net weight (kg)-Tank/external unit            | 91                 | 102                | 119                |
| Load qty. 40HQ                                | 51                 | 51                 | 51                 |



HP200S1  
HP300S1

## Split



### Micro-channel Condenser

The micro-channel condenser has a larger contact surface for better heat transfer performance and less refrigerant consumption.



### Fast Heating

Powerful compressor enables faster heating.



### Eco Power

Works under low tariff hours to reduce electric cost.

### Efficiency & Energy Saving

- ◆ A+ Energy Class
- ◆ COP is up to 3.8
- ◆ High performance compressor
- ◆ Micro-channel condenser
- ◆ 50mm PUF Insulation
- ◆ Off peak electricity timer setting
- ◆ ECO Mode - heat water with heat pump only
- ◆ Vacation mode - for optimum system utilisation

### Large Capacity Hot Water

- ◆ 200L & 300L Capacity
- ◆ Maximum volume of usable hot water (L) V40 (EN16147) is Up to 382L (HP300S1).
- ◆ High performance heat pump compressor
- ◆ Maximum water temperature using only the heat Pump is Up to 65°C

### Quick Heating

- ◆ 2150W electric heating element
- ◆ Under boost mode, the heat pump and electric heating element will work together to generate hot water quickly.



ABT



Auto Defrost



Anti-freeze



High Efficiency



Smart Boost



Quiet Operation



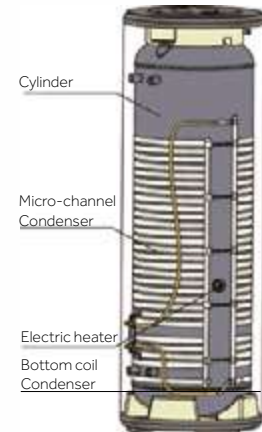
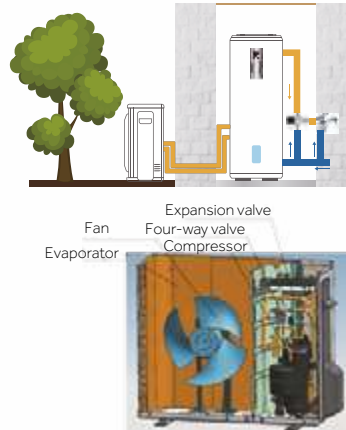
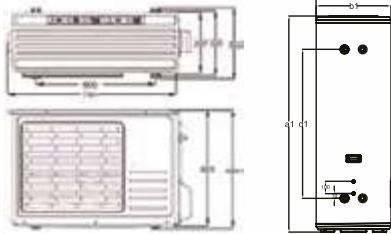
Smart Vacation

CE CB



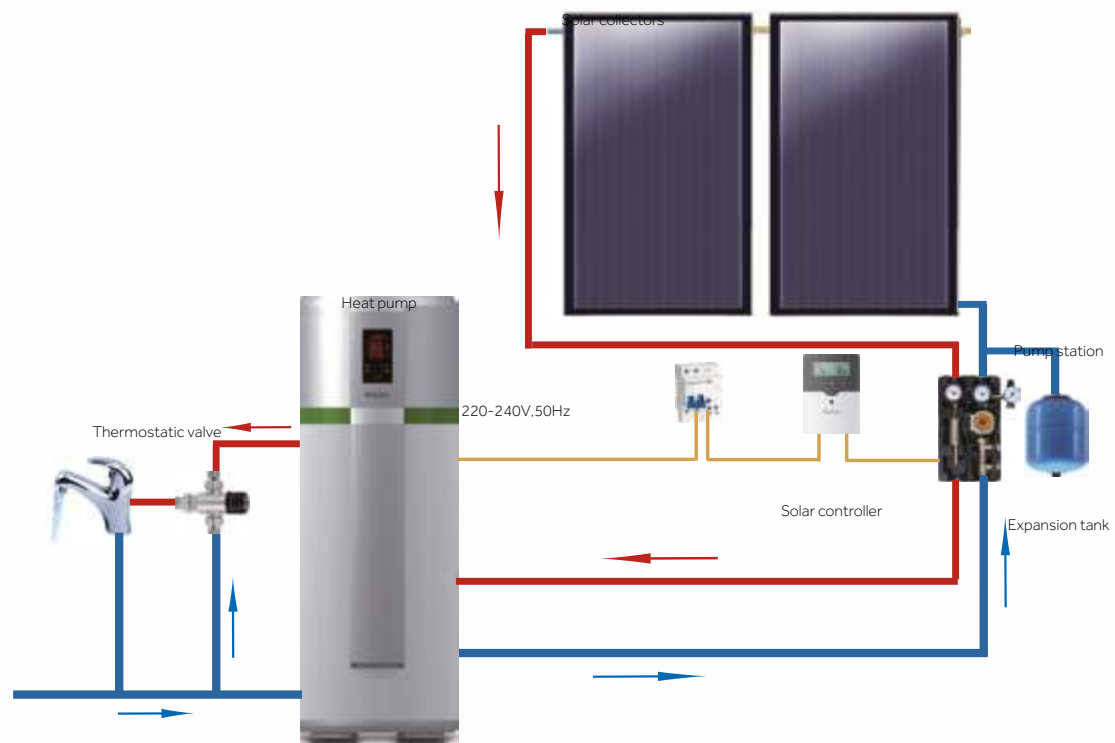
| Model   | A1   | B1  | C1  | D1   |
|---------|------|-----|-----|------|
| HP200S1 | 1765 | 512 | 522 | 1270 |
| HP300S1 | 1795 | 600 | 610 | 1242 |

Unit:MM

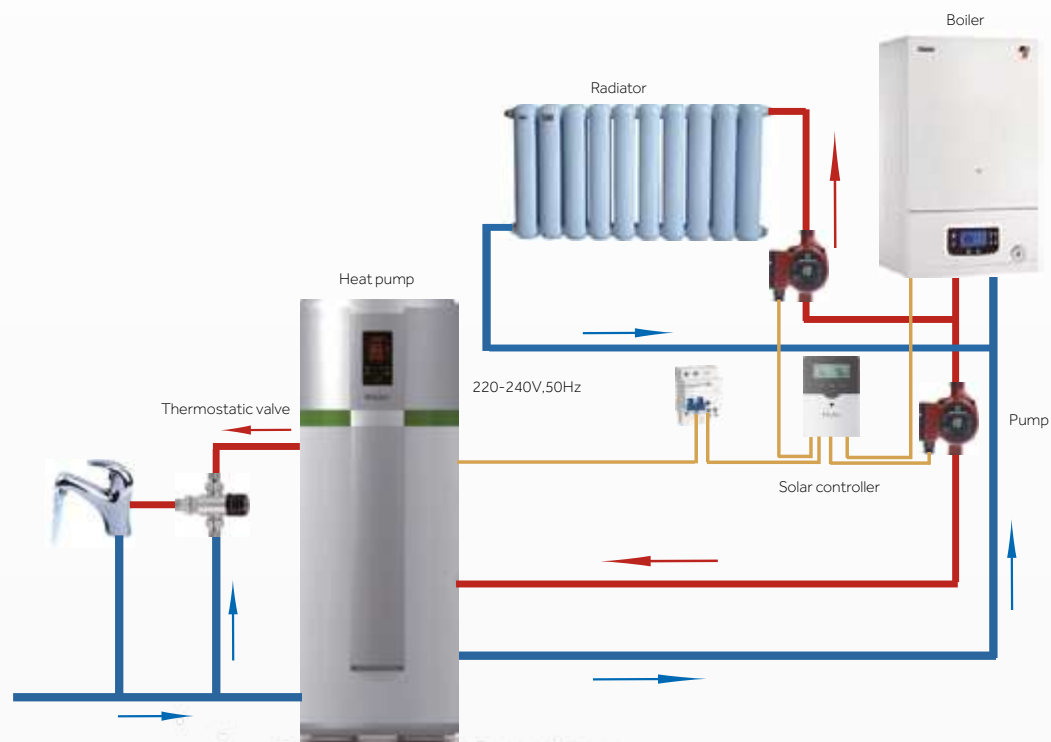


| Model   | HP200S1                      | HP300S1                      |
|---|------------------------------|------------------------------|
| Model (tank unit)                                       | TS200HE-S1                   | TS300HE-S1                   |
| Model (external unit)                                   | UE1.0-S1                     | UE1.5-S1                     |
| Tank volume (L)   | 195                          | 293                          |
| Rated voltage/ frequency (V/Hz)                         | 230V/50Hz                    | 230V/50Hz                    |
| Tank rated pressure (bar)                               | 8.5                          | 8.5                          |
| Corrosion protection                                    | Magnesium anode              | Magnesium anode              |
| Water proof grade                                       | IPX4                         | IPX4                         |
| <b>Assembled System</b>                                 |                              |                              |
| Electric backup power (W)                               | 2150                         | 2150                         |
| Average input - heat pump only(W)                       | 665                          | 850                          |
| Maximum input- heat pump only(W)                        | 1000                         | 1350                         |
| Maximum power input (W)                                 | 3150                         | 3500                         |
| Default temperature setting (°C)                        | 55                           | 55                           |
| Temperature setting range with heater (°C)              | 35-75                        | 35-75                        |
| Temperature setting range heat pump only (°C)           | 35-65                        | 35-65                        |
| Refrigerant type / Weight (kg)                          | R134a/1.3                    | R134a/1.5                    |
| Noise power dB(A)                                       | 64                           | 64                           |
| Working temperature - heat pump only (°C)               | -7-45                        | -7-45                        |
| Working temperature - system (°C)                       | -7-45                        | -7-45                        |
| <b>Performance</b>                                      |                              |                              |
| Type of extraction                                      | Exterior                     | Exterior                     |
| COP@7 °C (EN16147)                                      | 3.09                         | 3.2                          |
| COP@14 °C (EN16147)                                     | 3.54                         | 3.8                          |
| Heating up time (h) (@7°C)                              | 4h03                         | 4h49                         |
| Heating up time (h) (@14°C)                             | 3h32                         | 3h49                         |
| Tapping cycle (EN16147)                                 | L                            | XL                           |
| Standby power input/ Pes(W) (@7°C)                      | 28                           | 29                           |
| Maximum volume of usable hot water (L) V40 (EN16147)    | 245.1                        | 382.6                        |
| Water heating energy efficiency class (ERP)             | A+                           | A+                           |
| <b>Dimensions and connections</b>                       |                              |                              |
| Water outlet connection                                 | G3/4" F                      | G3/4" F                      |
| Water inlet & Drain connection                          | G3/4" F                      | G3/4" F                      |
| Safety valve connection                                 | G3/4" F                      | G3/4" F                      |
| Product Dimensions (WxHxD) (mm) Tank unit/external unit | 1765/899 x 352/681 x 544/512 | 1795/899 x 352/681 x 632/600 |
| Packing dimensions (WxHxD) (mm) Tank unit/external unit | 1927/960 x 425/735 x 676/636 | 1958/960 x 425/735 x 737/696 |
| Gross weight (kg)                                       | 89/44                        | 112/48                       |
| Net weight (kg)   | 77/41                        | 98/44                        |
| Load qty. 40HQ  | 60                           | 51                           |

## Connection to solar collectors(HP250M3C)



## Connection to gas boiler(HP250M3C)





# Haier

## HVAC Solutions

For more information on our hot water range  
visit [www.haierhotwatersolutions.eu](http://www.haierhotwatersolutions.eu)