



HEAT PUMP WATER HEATER





NEW 2024

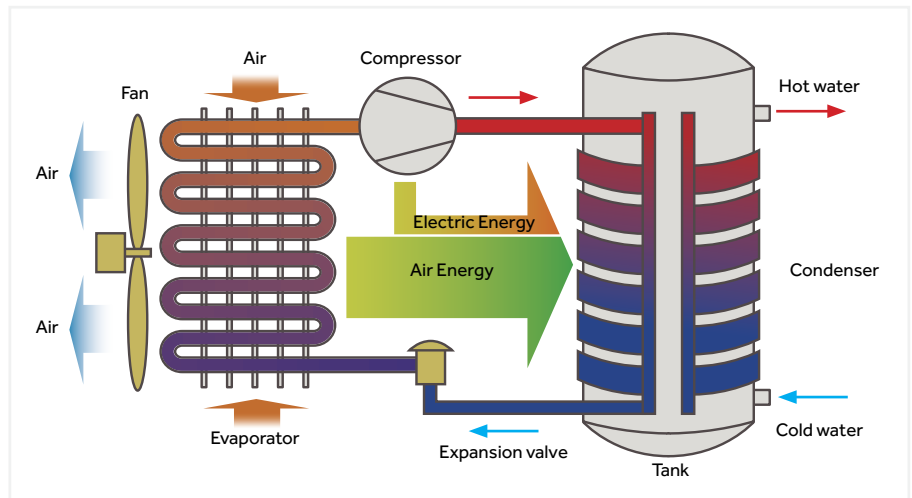
WHAT IS AN HEAT PUMP WATER HEATER?

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 adaptations to a wide range of applications ranging from small homes to light commercial scenarios. This system will provide domestic hot water at a fraction of the cost of older technologies, the installation = only involves water piping, therefore it is suitable for renewing previous hot water installations easily and conveniently. Furthermore in 2024 we introduced the new R290 Heat Pump Water Heater range which is both greener and more efficient.

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 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.



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.



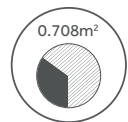
Titanium - aluminum alloy for better corrosion & heat resistances

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



Reduces the pressure drop which improves compress efficiency by 6%

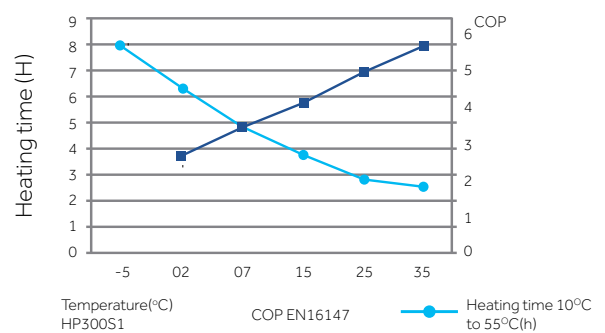
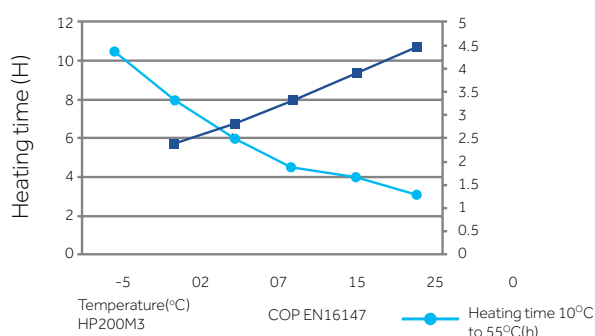
Micro-channel: pressure drop 0.03Mpa
Coil pipe: pressure drop 0.15Mpa



Larger contact surface improves heat transfer efficiency by 30%

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

PERFORMANCE CURVE



HPWH MODEL LINEUP

SERIES	MONOBLOC				SPLIT
	 M8 NEW	 M7 NEW	 M5	 M3	 S1
80L	•	-	•	-	-
110L	•	-	•	-	-
150L	•	-	•	-	-
200L	-	•	-	•	•
200L With Solar	-	•	-	-	-
250L	-	•	-	•	-
250L With Solar	-	•	-	•	-
300L	-	-	-	-	•

SERIES	MONOBLOC				SPLIT
Product Code	NEW M8 HP80M8-9 HP110M8-9 HP150M8-9	NEW M7 HP200M7-F9 HP200M7C-F9 HP250M7-F9 HP250M7C-F9	M5 HP80M5 HP110M5 HP150M5	M3 HP200M3 HP250M3 HP250M3C	S1 HP200S1 HP300S1
Description	Monobloc type heat pumps are packaged equipment, which includes all hydraulic components. It consists of only one outdoor unit. The advantage of the monobloc system is easy installation and no additional refrigerant piping requirement.				Split type heat pumps consist of one outdoor unit and one indoor unit. The heat exchange between the refrigerant and water is finished in the heat exchanger of indoor unit.
SG ready	●	●	-	-	●
Solar connection	-	● (200C & 250C)	-	● (250C)	-
Exhaust	●	●	●	●	-
hOn WiFi	●	●	-	-	-
Refrigerant	R290	R290	R134A	R134A	R134A
Max. water temperature	65°C	65°C	65°C	65°C	65°C
Energy rating	A+	A+	A+	A+	A+
Mute Mode	36dB(A)	36dB(A)	41dB(A)	41dB(A)	50dB(A)
COP @14°C	3,39	3,50	3,58	3,56	3,80
Micro channel condenser	●	●	●	●	●
Inverter	-	●	-	-	-
DC motor	●	●	-	-	-
Electr. Heater	1,200W	1,500W	1,500W	1,500W	2,150W
Smart defrost	●	●	●	●	●
Tank material	Enamel	Enamel	Enamel	Enamel	Enamel
Display	●	●	●	●	●
Modes	Auto, Eco, Boost, Vac	Auto, Eco, Boost, Vac	Auto, Eco, Boost, Vac	Auto, Eco, Boost, Vac	Auto, Eco, Eco+, Boost, Vac
Sterilisation	75°C	75°C	75°C	75°C	75°C

ECO R290 REFRIGERANT



R290 Refrigerant, More Eco-friendly

In order to achieve carbon neutrality and mitigate the impact of global warming, Haier is introducing a series air source heat pump water heaters using R290 natural refrigerant. This advanced household water solution, offer sustainable, green and comfortable hot water solutions.



Up to 65°C Water Temperature

The HPWH works alone to deliver water temperature as high as 65°C, and the water mixing rate at 40 °C can reach 130%*. The equivalent to 30% capacity increase, saving power and enjoying required hot water supply.



Excellent Thermodynamic Performance

The R290 refrigerant offers excellent thermodynamic performance, allowing for higher water temperatures to meet various application demands.

Higher Water Temperatures for Shower and Bacterial Proof

For Showers



For Bacterial Proof



Natural, Non-toxic, and Free of Ozone Depletion

The R290 is a high-purity propane refrigerant with a global warming potential (GWP) of 3. This indicates that it will contribute less to ozone depletion compared to other alternatives.



MULTI-ENERGY CONNECTED

Multi-energy Connected

Combine with boiler, solar thermal, PV, save energy and reduce costs.



Solar Water Heater & Heat Pump Water Heater

Priority given to solar energy, which greatly reduces energy costs for users.

Gas Boiler & Heat Pump Water Heater

As a compensatory energy source for heat pumps to achieve higher water temperatures.



PV & Heat Pump Water Heater

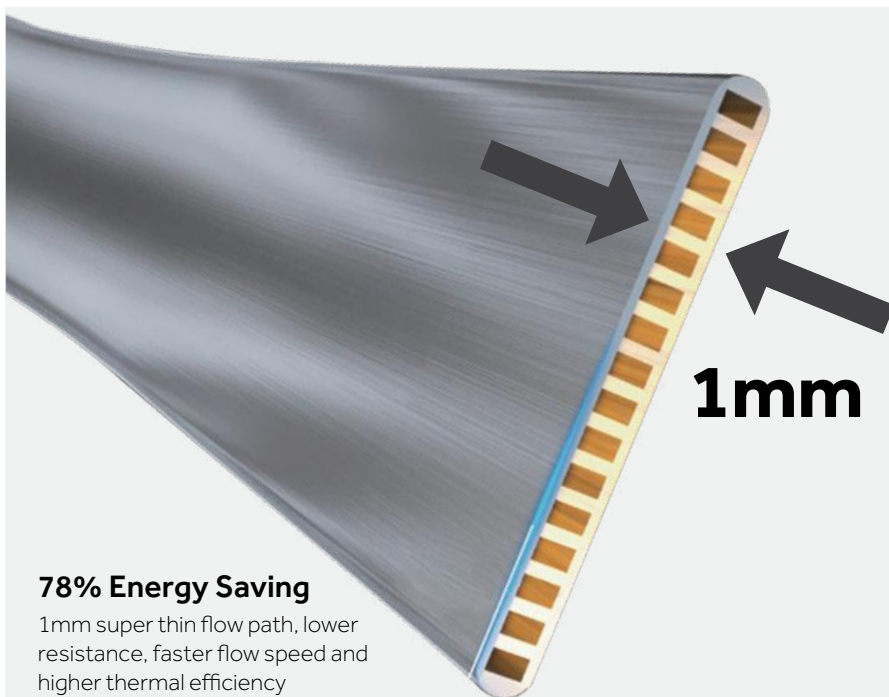
Select PV power to save electricity cost.

EFFICIENCY



Micro-channel Condenser Upgraded for R290 Refrigerant

The surface contact heat exchange area is larger, and the refrigerant is fully fed and heat is exchanged in a very small flow path, which greatly improves the efficiency of heat exchange compared to traditional heat exchangers.



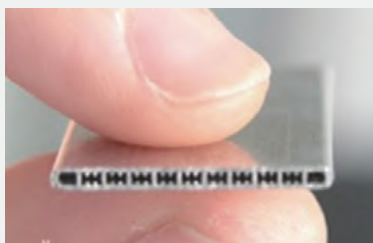
**Increase heat
transfer efficiency**



**Reduce power
consumption**



**Improve
Performance**



Multi-path design with multiple ultra-fine micro-channels in each path, enabling more efficient heat transfer while reducing flow resistance and lowering power consumption, resulting in a performance improvement.



The larger heat transfer surface area leads to an increase in heat transfer efficiency.



Uniform heating with temperature differences of within 4°C between the upper and lower layers, minimal stratification of hot water, outperforming copper pipe heat exchangers, and effectively reducing power consumption.



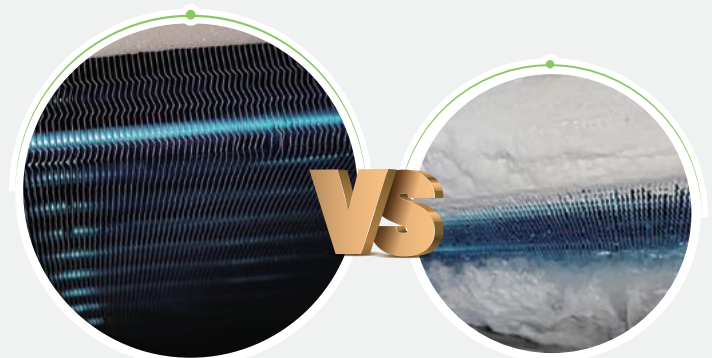
Dual Power Heating, Enables Faster Hot Water Production

The dual power heating mode of air energy and electric energy is adopted. The electric heating (1500W electric auxiliary) can be started at the same time to improve the heating efficiency in case of low temperature in the winter urgent need of a large amount of hot water, this achieves fast heating of the tank of water in a short time.



Smart Defrost, More Efficient and Energy Saving

Haier's smart defrosting control system is equipped with a four-way valve and an electronic expansion valve with higher refrigerant flow control accuracy, the defrosting effect is more sufficient, so that it is not easy to frost in low temperature conditions.



Haier
When tested at 7/6°C, the evaporator's frosting condition.

OTHERS
When tested at 7/6°C, the evaporator's frosting condition.



A Quiet Home, A Comfortable Life

Haier's advanced 2.0 noise reduction system, including DC motor and patent air supply structure, guarantees whisper-quiet operation without compromising performance.



SMART & CONVENIENT



Connect and Control from Anywhere, Anytime

Haier's R290 range of air source heat pump water heater can be operated from your mobile devices via WIFI. With the hOn app, you can easily control the heat pump anytime from anywhere.

hOn App: Your Smart Life Companion

Your appliance can be connected to your home wireless network and operated remotely using the app.



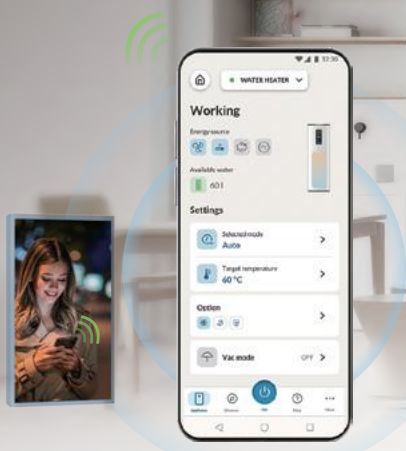
Available on the
App Store



GET IT ON
Google Play



EXPLORE IT ON
AppGallery



Getting started

1

Ensure that your home WiFi network is turned on

2

After startup, it will enter fast pairing mode without the need for manual operation

3

If the connection is successful, the WiFi icon will always be on



On your mobile device

1

Download the app from
hon-smarthome.com

2

Register and create an account

3

Add your appliance and
set up the WiFi connection.



Large Screen Display



Auto Mode

Automatically heats water to set temperature and maintains it.



ECO Mode

In this mode, priority of heat pump heating; User entered timer settings.



ELEC Mode

In this mode, the backup element is used as the only heat source. This function ensures hot water supply if the heat pump is not working properly.



BOOST Mode

Heat pump and backup element are activated at the same time.



VAC Mode

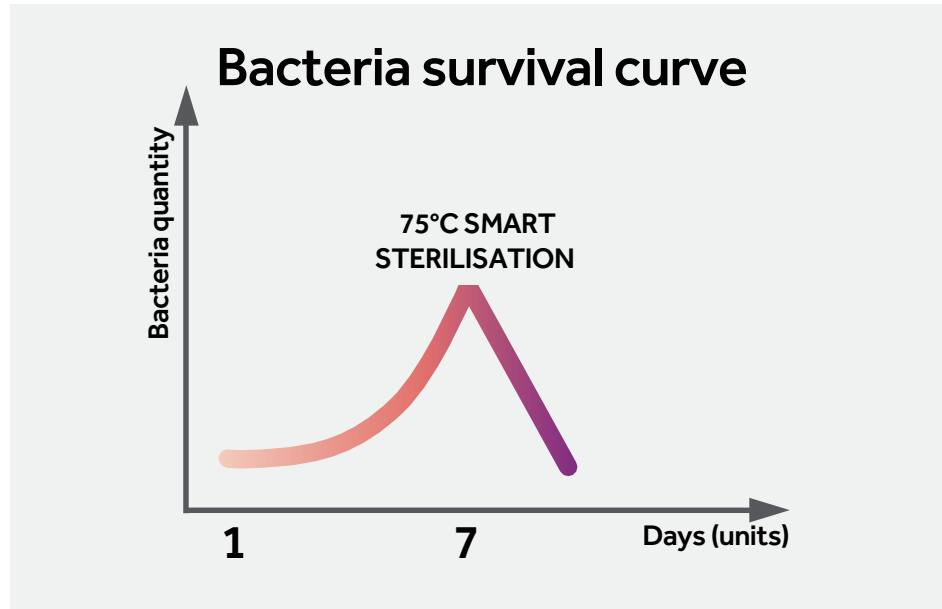
Maintains a minimum temperature to prevent freezing.

HEALTHY



75°C Smart Sterilisation

The system automatically heats the water once every 7 days by 75°C to sterilise against diseases such as legionella. During vacation the system will automatically sterilise the day before the end of the holiday.



HIGH QUALITY & DURABLE



High-quality Enamel Tank, Longer Service Time

High-quality enamel tank, featuring an exclusive design for water heaters, offers a longer service life and stable performance.



1

Professional Quality

Haier has upgraded its enamel technology to enhance uniformity and create a high-density enamel tank that is resistant to corrosion, acid, alkali, and extremely durable.

2

Advanced Formula

By using high-quality enamel powder (made in the USA) and upgrading the formula to eliminate the pinhole, the granule weight will be lighter and the anti-corrosion performance will be better.

3

Production Technology

The enamel material is melted at super high temperature, the enamel layer will isolate the water and steel plate to prevent rust and scale. The tank will have longer service life.



Anti-Freeze

The Heat pump will auto heat to 15°C when the ambient temperature reaches below 2°C and the water temperature is below 7°C

R290 HPWH



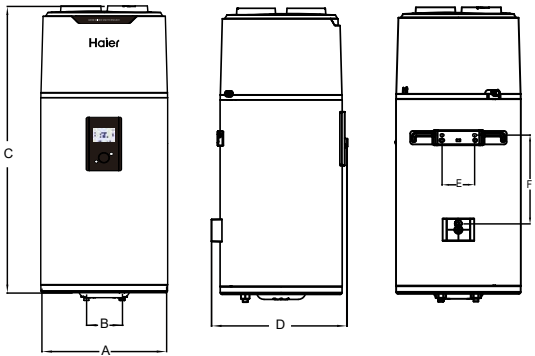
M8 HPWH

R290

NEW 2024



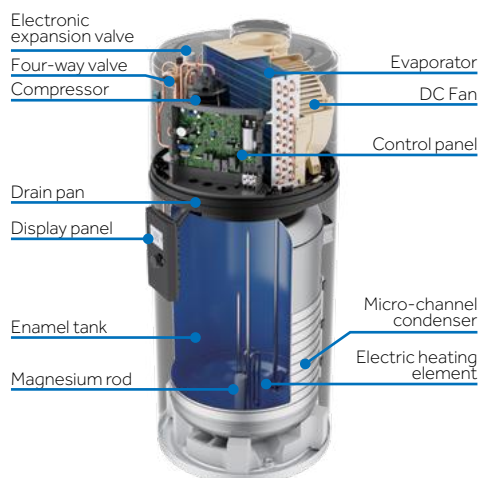
HP80M8-9 - HP110M8-9 - HP150M8-9



Model	A	B	C	D	E	F
HP80M8-9	492	140	1170	537	159	360
HP110M8-9	492	140	1320	537	159	360
HP150M8-9	492	140	1680	537	159	470

Unit: mm

M8 TECHNICAL PARAMETERS



FEATURES

- The R290 refrigerant offers excellent thermodynamic performance, allowing for higher water temperatures
- Full inverter technology and micro-channel condenser, resulting in lower energy consumption and higher heating efficiency
- Micro-channel condenser upgraded for R290 refrigerant
- Dual power heating, enables faster hot water production
- Equipped with a TFT screen and smart connectivity
- Easy installation, with simple design structure for wall mounting

Model		HP80M8-9	HP110M8-9	HP150M8-9
Tank volume	L	82	102	149
Rated voltage/ frequency	V/Hz	220-240/50	220-240/50	220-240/50
Tank rated pressure	bar	8	8	8
Corrosion protection		Magnesium rod	Magnesium rod	Magnesium rod
Water proof grade		IPX4	IPX4	IPX4
Performance				
Type of extraction		Ambient/Exterior	Ambient/Exterior	Ambient/Exterior
COP@7°C/EN16147		2.91	2.72	3.03
COP@14°C/EN16147		3.07	2.90	3.39
Tapping cycle		M	M	L
Power input by electric backup		1200	1200	1200
Rated power input by heat pump	W	250	250	250
Maximum power input by heat pump	W	370	370	370
Maximum power input	W	1570	1570	1570
Standby power input/Pes	W	15.3	18.7	22.5
Max volume of usable hot water at 40°C setting at 55°C	L	103.8	128.3	190
Heating up time (7°C)	h	4.44	5.64	8.62
Heating up time(14°C)	h	3.8	4.79	7.18
Default temperature setting	°C	55	55	54
Temperature setting range-with heater	°C	35-75	35-75	35-75
Maximum length of air duct	m	36	36	36
Diameter of air duct connection	mm	160	160	160
Max air quantity	m ³ /h	375	375	375
Max working pressure of refrigerant	MPa	1.0/3.3	1.0/3.3	1.0/3.3
Refrigerant type/weight	kg	R290/0.12	R290/0.12	R290/0.12
Noise power	dB(A)	50	50	50
Ambient temperature for use of product	°C	-7-45	-7-45	-7-45
Operating temperature of heat pump	°C	-7-45	-7-45	-7-45
Dimensions and connections				
Water inlet and outlet connection		R1/2" M Large Flow	R1/2" M Large Flow	R1/2" M Large Flow
Safety valve connection		R1/2" M	R1/2" M	R1/2" M
Drain&Water inlet connection		R1/2" M	R1/2" M	R1/2" M
Product dimensions	(mm)	492 × 537 × 1170	492 × 537 × 1320	492 × 537 × 1680
Packing dimensions without pallet	(mm)	587 × 587 × 1247	587 × 587 × 1397	587 × 587 × 1894
Packing dimensions with pallet	(mm)	/	/	587 × 587 × 1894
Net/Gross weight	kg	51/58	54/62	64/83

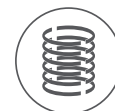
*The COP and noise level data was tested in Haier lab.

The COP values obtained with external air temperature of 7°C and 14°C, inlet water temperature of 10°C and set temperature of 55°C (according to EN 16147).

The data in this catalogue is purely indicative as the data may vary. Please be advised to check the accuracy of the data with the supplier before purchasing products.



R290



Micro-Channel Condenser



Up to 65°C



Dual Power Heat



Child Lock



36dB



hOn Wifi



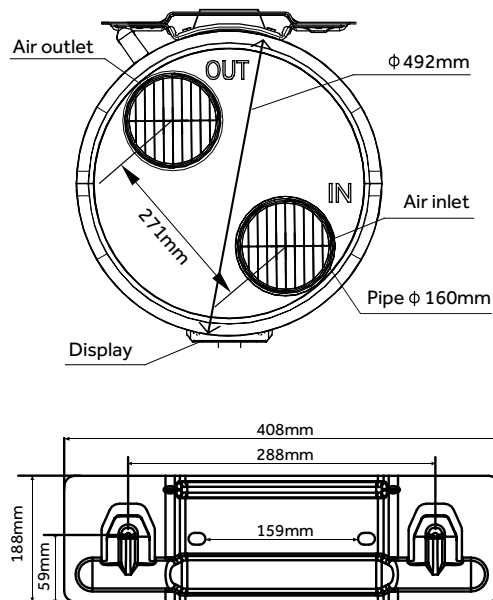
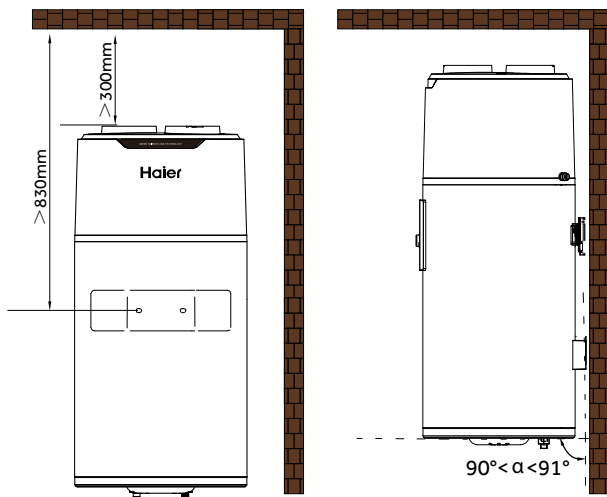
Enamel Tank



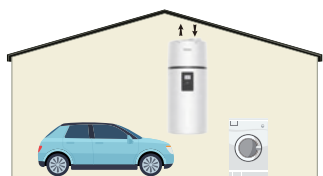
M8 INSTALLATION

Easy Install

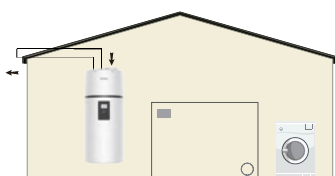
Smart hanger structure design, without complex actions, just fix the wall hanging board on the load-bearing wall, lift the machine, and align the back hanger with the wall hanging board to hang in, more convenient installation.



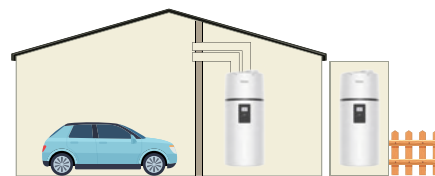
After the installation is completed, it is necessary to use a level ruler to check whether the support is maintained in a horizontal state.



Garage or laundry room (without ducts)



Laundry room (with one duct)



Habitable room or outside air (with two ducts)