

R290 HPWH RANGE

Haier's new Heat Pump
Water Heater range

available in 80L, 150L, 200L & 250L



R290 HPWH Range



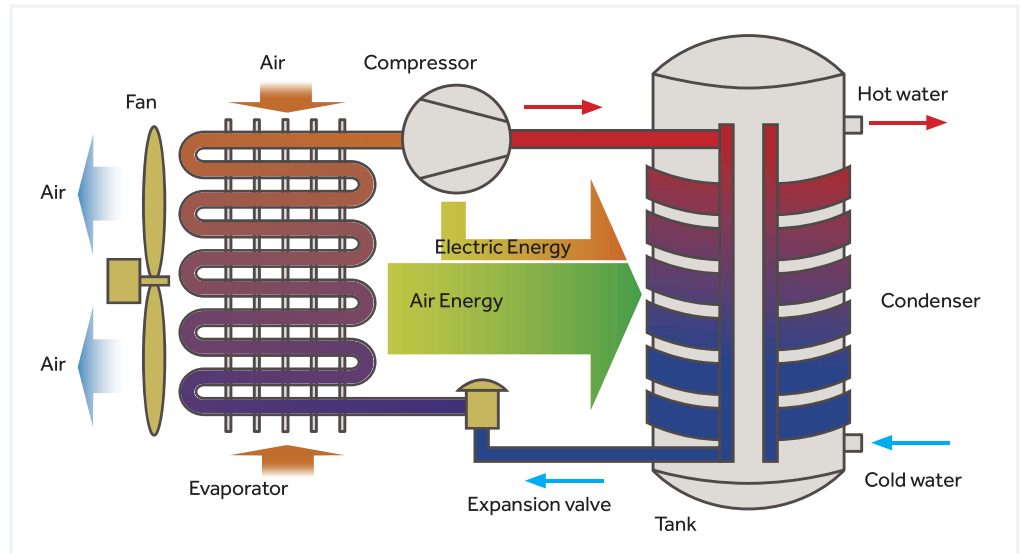
WHAT IS A HEAT PUMP WATER HEATER?

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 80-200 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.

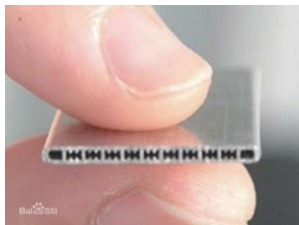
HOW IT WORKS?

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.



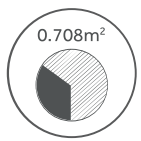
Titanium - aluminum alloy for better corrosion & heat resistances

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



Reduces the pressure drop which improves compress efficiency by 6%

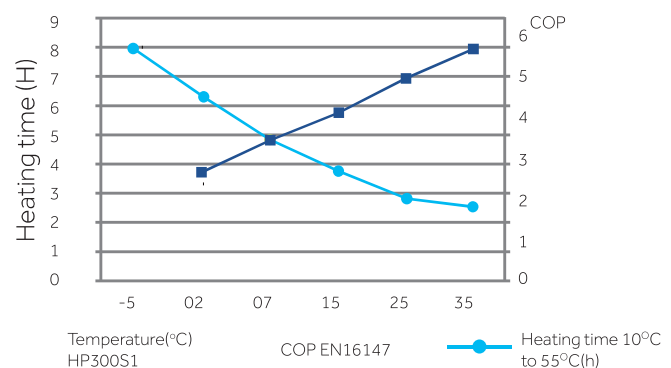
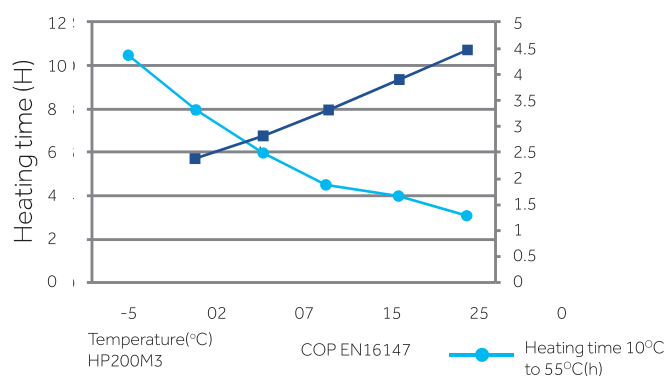
Micro-channel: pressure drop 0.03Mpa
Coil pipe: pressure drop 0.15Mpa



Larger contact surface improves heat transfer efficiency by 30%

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

PERFORMANCE CURVE



R290 HPWH Range

SERIES	MONOBLOC	
Image		
Product Code	M8 HP80M8-9(UK) HP110M8-9(UK) HP150M8-9(UK)	M7 HP200M7-F9(UK) HP250M7-F9(UK) HP200M7C-F9(UK) HP250M7C-F9(UK)
Volume	80L - 110L - 150L	200L - 250L
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.	
SG ready	●	●
Solar connection	-	● (200C & 250C)
Exhaust	●	●
hOn WiFi	●	●
Refrigerant	R290	R290
Max. water temperature	65°C	65°C
Energy rating	A+	A+
Mute Mode	36dB(A)	36dB(A)
COP @14°C	3,39	3,50
Micro channel condenser	●	●
Inverter	-	●
DC motor	●	●
Electr. Heater	1,200W	1,500W
Smart defrost	●	●
Tank material	Enamel	Enamel
Display	●	●
Modes	Auto, Eco, Boost, Vac	Auto, Eco, Boost, Vac
Sterilisation	75°C	75°C

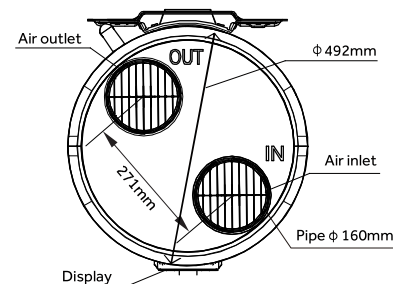
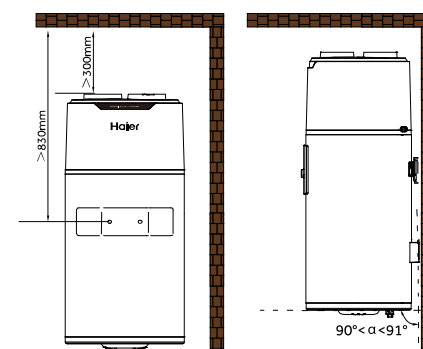
M8 + M7 INSTALLATION

M8 - 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.



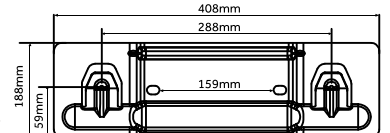
Garage or laundry room (without ducts)



Laundry room (with one duct)

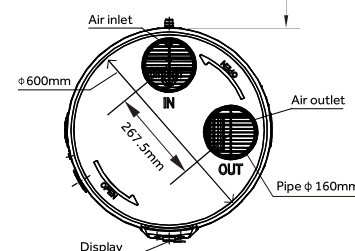
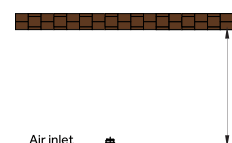


Habitable room or outside air (with two ducts)



M7 - Easy Install

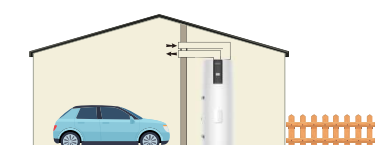
Smart hanger structure design, without complex actions, just fix the wall hanging board on the load-bearing wall, lift the machine, and align the back hanger with the wall hanging board to hang in, more convenient installation.



Installation in an unheated room >15m²



Installation with 2 ducts to the outside



Installation with 2 ducts to an unheated room >15m²

M8 HPWH R290



Features



R290



Micro-Channel
Condenser



Up to 65°C



Dual Power
Heat



Child Lock



36dB

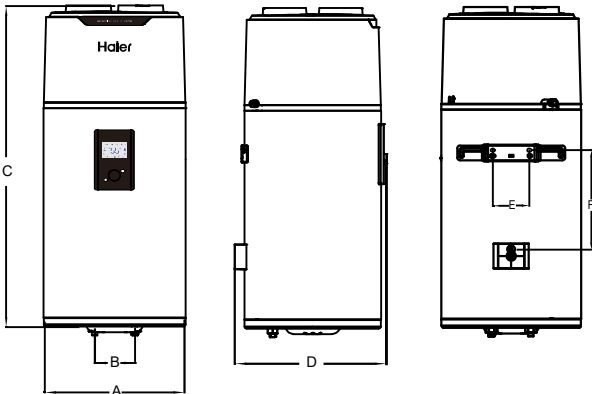


hOn Wifi



Enamel Tank

Technical Illustrations



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

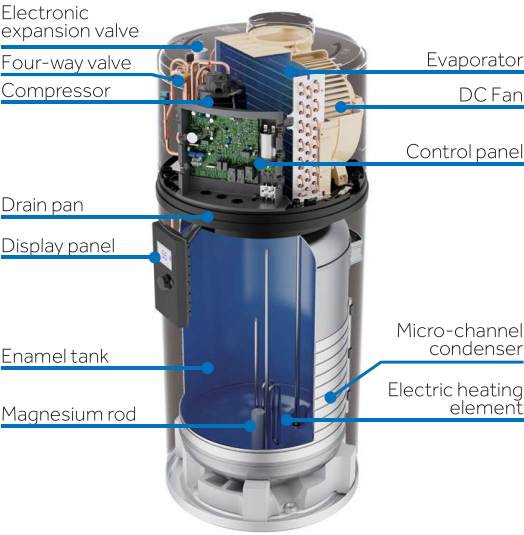
Unit: mm

82 L

102 L

149 L

Haier



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(UK)	HP110M8-9(UK)	HP150M8-9(UK)
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	m3/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).



M7 HPWH R290



A+
Energy Class

Features



R290



Micro-Channel
Condenser



Up to 65°C



Dual Power
Heat



Child Lock



36dB

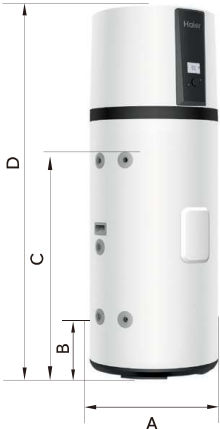
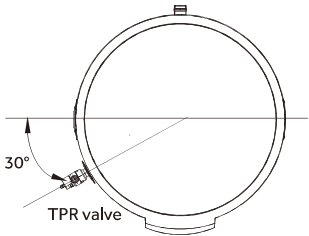


hOn Wifi



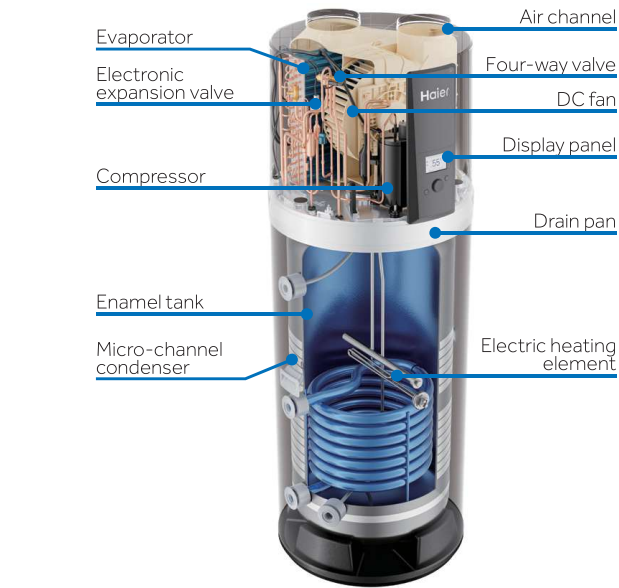
Enamel Tank

Technical Illustrations



Model	A	B	C	D
HP200M7-F9(UK)	620	270	980	1694
HP250M7-F9(UK)	620	270	1275	1989
HP200M7C-F9(UK)	620	270	980	1694
HP250M7C-F9(UK)	620	270	1275	1989

Unit: mm



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 install

Model		HP200M7-F9(UK)	HP200M7C-F9(UK)	HP250M7-F9(UK)	HP250M7C-F9(UK)
Total cylinder capacity	L	194	185	250	240
Rated voltage/frequency	V/Hz	220-240/50	220-240/50	220-240/50	220-240/50
Tank Max pressure	bar	7	7	7	7
Thermal insulation	mm	50	50	50	50
Corrosion protection		Magnesium rod	Magnesium rod	Magnesium rod	Magnesium rod
Insulation protection rating		IPX4	IPX4	IPX4	IPX4
Performance					
COP@7°C(EN16147)		3.26	3.24	3.21	3.21
COP@14°C(EN16147)		3.50	3.50	3.45	3.45
Max air quantity	m3/h	300	300	300	300
Power input by electric backup	W	1500	1500	1500	1500
Rated power input by heat pump	W	320	320	320	320
Maximum power input by heat pump	W	535	535	535	535
Maximum power input	W	2035	2035	2035	2035
Heating water capacity	L/h	24	24	24	24
Heating up time(10°C/55°C)@7°C	h	7.8	6.71	10.51	10.09
Default temperature setting	°C	65	65	65	65
Temperature setting range-with heater	°C	35-75	35-75	35-75	35-75
Maximum temperature output for the heat pump only	°C	65	65	65	65
Refrigerant type/weight	kg	R290/0.15	R290/0.15	R290/0.15	R290/0.15
Noise power dB(A) @7°C	dB(A)	50	50	50	50
Sound pressure at 1m	dB(A)	36	36	36	36
V40 @7°C	L	234	229	313	314.4
Ambient temperature of heat pump	°C	-7-45	-7-45	-7-45	-7-45
Dimensions and connections					
Water inlet and outlet connection		Rp 3/4 Large Flow	Rp 3/4 Large Flow	Rp 3/4 Large Flow	Rp 3/4 Large Flow
TPR valve connection		Rp 3/4	Rp 3/4	Rp 3/4	Rp 3/4
Drain & water inlet connection		Rp 3/4	Rp 3/4	Rp 3/4	Rp 3/4
Product dimensions	(mm)	600 × 620 × 1694	600 × 620 × 1694	600 × 620 × 1989	600 × 620 × 1989
Packing dimension with pallet	(mm)	736 × 695 × 1940	736 × 695 × 1940	736 × 695 × 2250	736 × 695 × 2250
Net/gross weight	kg	86/109	96/119	98/121	107/131
Filled weight of the appliance	kg	281	282	345	348

*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).



CONNECTION TO SOLAR COLLECTORS

The diagram illustrates a solar heating system integrated with a heat pump. A white cylindrical heat pump unit is connected to a network of pipes. Red pipes represent the solar collector loop, which includes two solar collectors and a pump station. Blue pipes represent the domestic water supply and return. A thermostatic valve is shown on the cold water supply line. A solar controller unit is connected to the heat pump and the solar collector loop. An expansion tank is also part of the system. Arrows indicate the flow direction: red for the solar loop and blue for the domestic water loop.

CONNECTION TO GAS BOILER

The diagram illustrates a solar heating system integrated with a heat pump and a boiler. The components and their connections are as follows:

- Heat pump:** A vertical white unit with a digital display and controls. It is connected to the solar collector loop via blue pipes.
- Solar collector loop:** Consists of a blue pipe at the bottom with an arrow pointing right, and a blue pipe at the top with an arrow pointing left. A red pipe with an arrow pointing right branches off from the bottom blue pipe, passes through a **Thermostatic valve** and a faucet, and then returns to the heat pump.
- Boiler:** A white rectangular unit on the right. It is connected to the solar collector loop via a red pipe with an arrow pointing up, which branches off from the top blue pipe. The red pipe returns to the boiler from the bottom.
- Radiator:** A horizontal blue unit with multiple vertical sections. It is connected to the boiler loop via a red pipe with an arrow pointing up, which branches off from the red pipe between the boiler and the solar collector loop. The red pipe returns to the boiler from the bottom.
- Electrical controls:** A central control unit with a digital display and buttons, labeled **Solar controller**. It is connected to the solar collector loop via yellow wires. A power supply unit labeled **220-240V, 50Hz** is also connected to the system.
- Pump:** A red circular unit with a black motor, located at the bottom right. It is connected to the solar collector loop via a red pipe with an arrow pointing up, which branches off from the bottom blue pipe. The red pipe returns to the pump from the bottom.

HPWH



TFT display with smart connectivity - simple and user friendly touch control allows access to the 4 working modes

AUTO MODE

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

ECO MODE

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

BOOST MODE

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

HOLIDAY 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.

Haier

Heating

R290 HPWH Range



**Absol
Renewable
Energy**

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