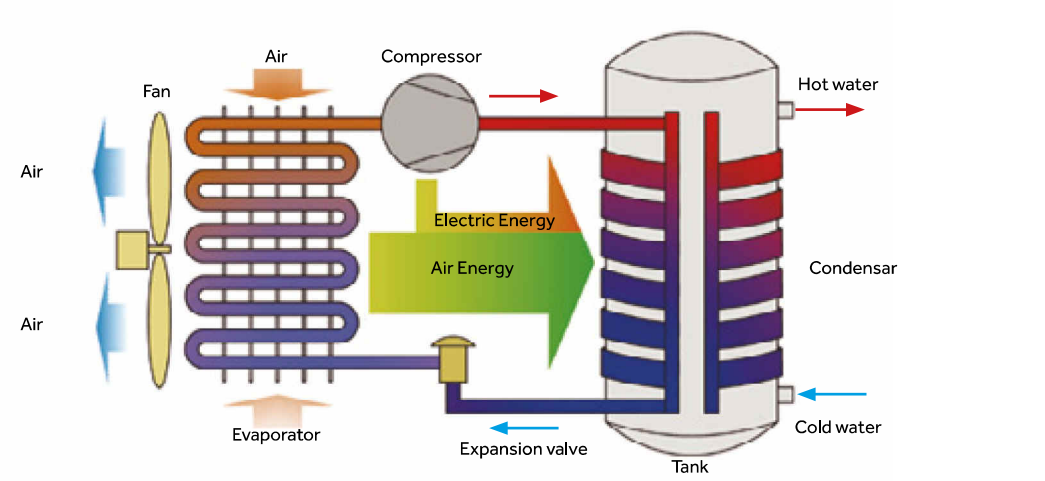
Haier
HVAC Solutions

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.

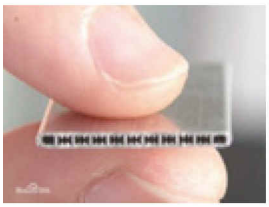
How it works



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.

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 exchnage 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

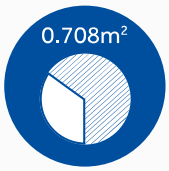
Micro-channel: 1500 hours salt spray test
Coil pipe: 200 hours salt spray test

Reduces the pressure drop which improves compress efficiency by 6%

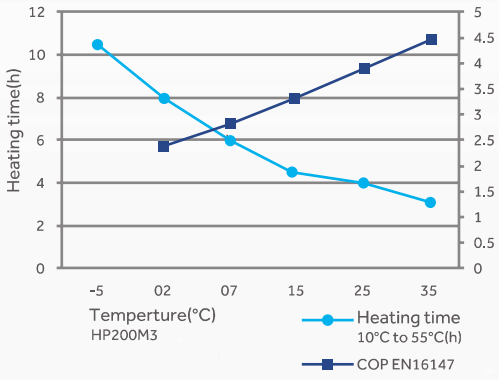
Micro-channel: pressure drop 0.03Mpa
Coil pipe: pressure drop 0.15Mpa

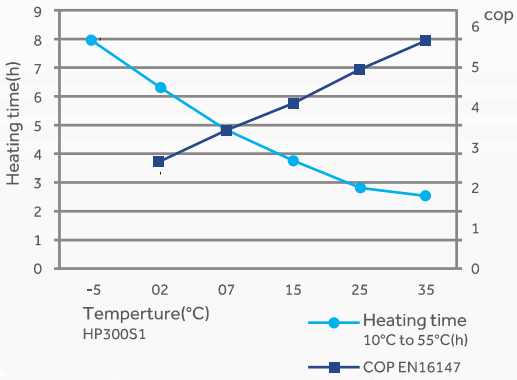
Larger contact surface improves heat transfer efficiency by 30%

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



Performance curve





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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

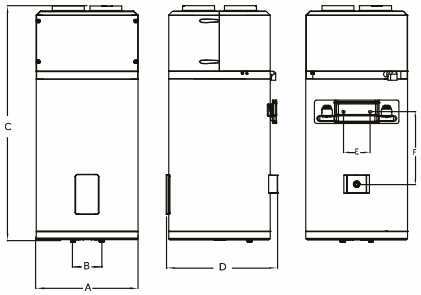
Quality
- Magnesium anode protection
- Titanium enamel steel tank
- 50 mm PUF insulation

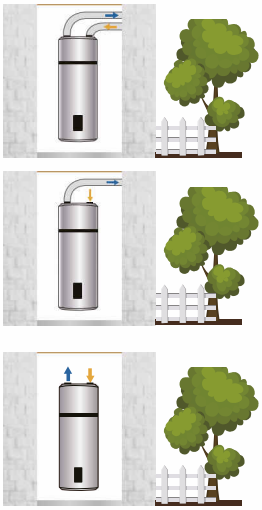
Design
- LED display with touch control
- Off peak power

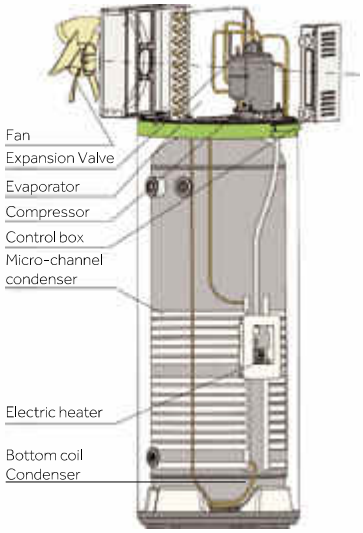
ABT | Smart Boost | Eco Comfort | Smart Vacation | Anti-freeze

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
Assembled System		
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
Performance		
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+
Dimensions and connections		
Water outlet connection	G1/2"M	G1/2"M
Water intlet & 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