

Daikin Altherma M HW



New generation of domestic water heat pumps

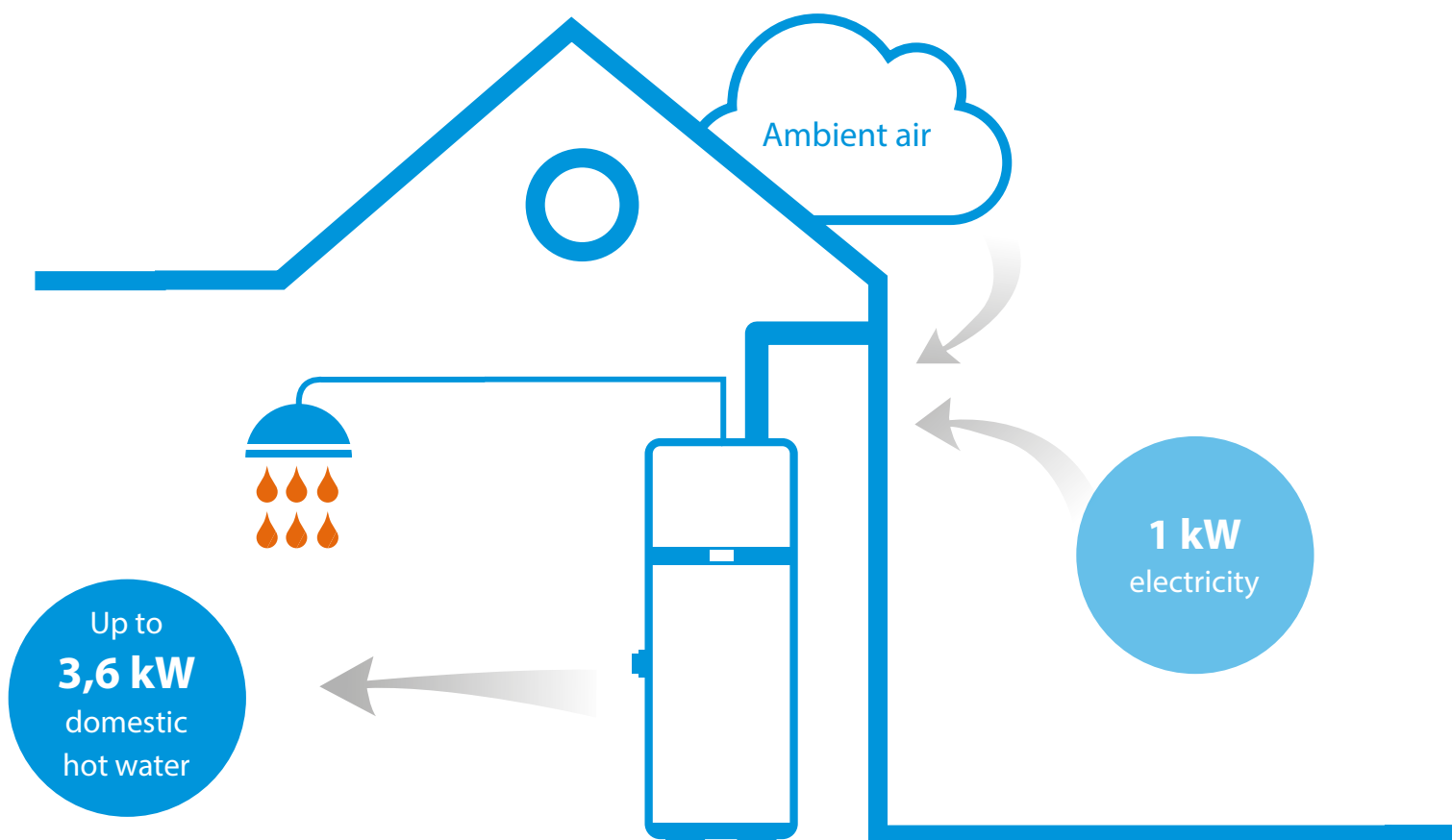


Why choose Daikin Altherma domestic hot water heat pump?

How does it work?

The system is made of a singly indoor unit that extracts energy from the air to provide domestic hot water. The unit collects up to 60% of its energy in the air, while the rest is provided by electricity.

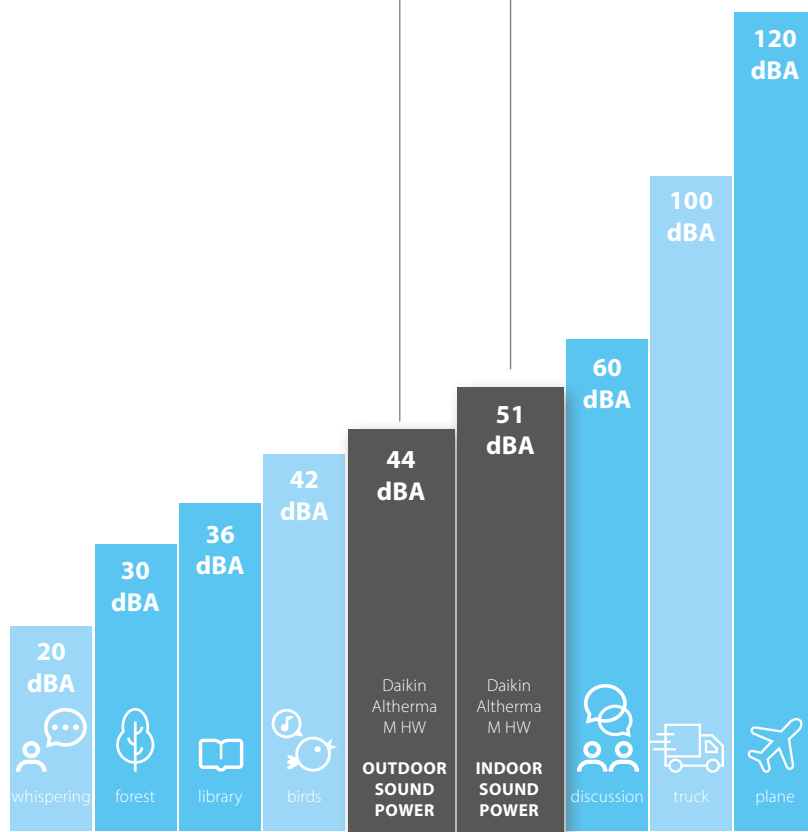
This heat pump relies on a compressor and a refrigerant to transfer the energy from the air to the water, heating the water up to your needs and delivering it into your house.





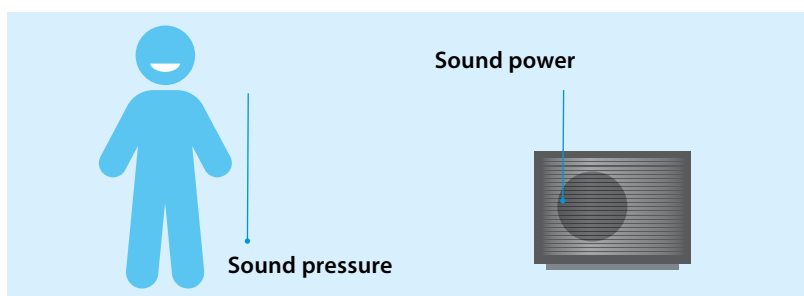
Remarkably quiet

With a sound power of 51dB(A) indoor, and 44dB(A) outdoor, it is one of the most silent domestic hot water heat pumps.

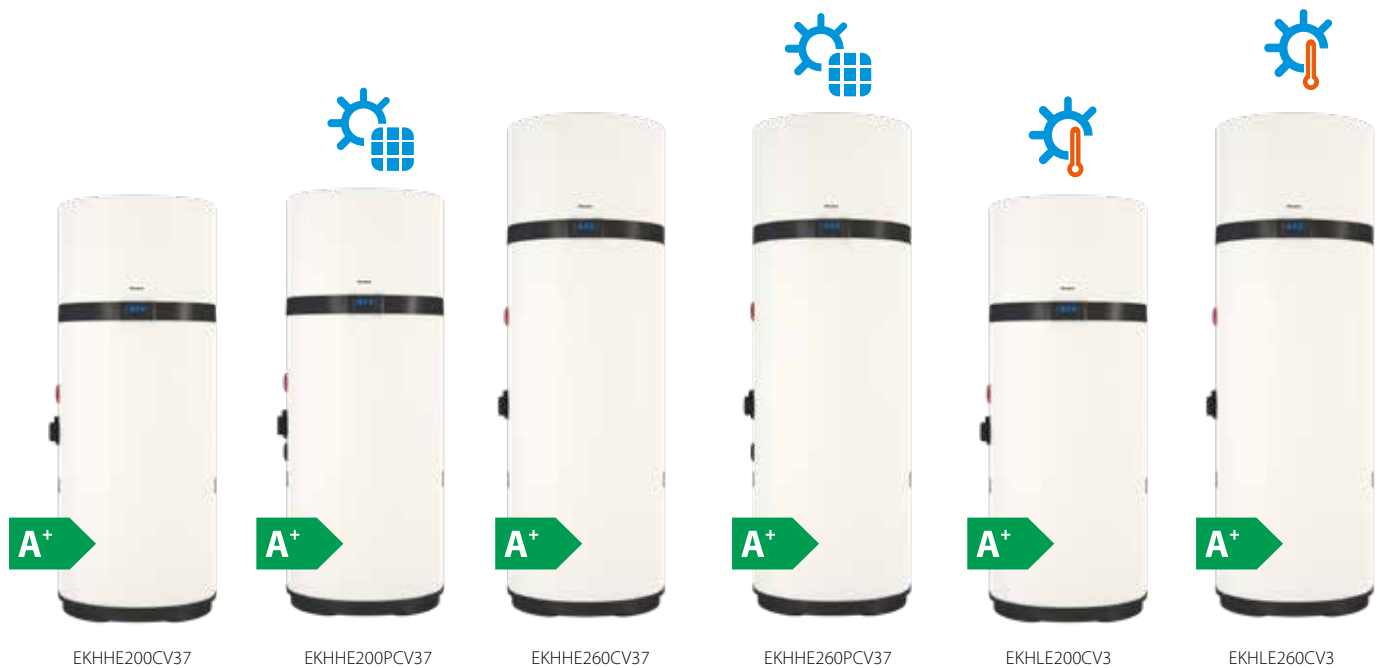


The acoustic level can be evaluated in two ways

- › The **sound power** is generated by the unit itself, independently of distance and environment
- › The **sound pressure** is the sound perceived at a certain distance. The sound pressure is usually calculated at between 1 and 5 metres from the unit.



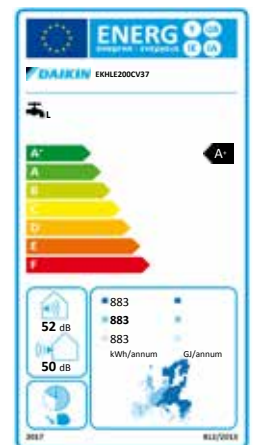
Product range



These models are connectable to solar thermal or another auxiliary source, thanks to an extra coil, support the heat up of domestic hot water.



High temperature models are dedicated for warm climate conditions.



Features

Daikin Altherma M HW is an air-water heat pump for the production of domestic hot water, storage in an enamelled steel tank, with condenser having an external jacket to guarantee top safety and hygiene.

- › Maximum temperature of 62°C from renewable energy with heat pump alone or through a heating element (up to 75°C)
- › Programmable digital interface with TOUCH keys
- › Integration through Solar Thermal energy (-PCV37 model) or through a heating element (up to 75°C) on all models
- › Integration with Photovoltaic Solar system

Intuitive controls

A very simple and intuitive display

- › White backlit LEDs to control temperature and features
- › **Red** backlit LEDs for alarm warnings
- › The 4 side TOUCH keys turn Daikin Altherma M HW on/off (⏻); keys to browse through the MENU (SET) and increase (+) or decrease (-) settings

Eco mode
Renewable energy only
 Daikin Altherma M HW only works in heat pump mode. The additional heater turns on as a support only if the outdoor temperature is outside the operating range (setpoint 62°C).

Fan mode
Air recirculation only
 Daikin Altherma M HW only works in ventilation mode. The heat pump and additional heater are off.

Electric mode
Electrical energy only
 Daikin Altherma M HW only works with the additional heater. Set point can be up to 75°C.

Auto mode
Renewable energy as the preferred option
 Daikin Altherma M HW works in heat pump mode by default. The additional heater turns on as a support only if the tank temperature increase is too slow (>4°C/30 min). Or the outdoor temperature is outside the operating range (setpoint 62°C).

Boost mode
Combined use of renewable and electrical energy
 Daikin Altherma M HW simultaneously operates as a heat pump and with the additional heater. Setpoint can be up to 75°C.

Specifications



Type	Volume (l)	Capacity	Dimensions (mm)	Optimisation from Photovoltaic	Integrated Solar Thermal Control	Legionella Control Sanitisation	Time slot-based operation	OFF PEAK feature	Defrosting on	Holiday Mode
EKHHE-CV37	200		628 x 628 x 1607	•	-	•	•	•	•	•
	260		628 x 628 x 1892	•	-	•	•	•	•	•
EKHHE-PCV37	200		628 x 628 x 1607	•	•	•	•	•	•	•
	260		628 x 628 x 1892	•	•	•	•	•	•	•
EKHLE-CV3	200		628 x 628 x 1607	•	-	•	•	•	-	•
	260		628 x 628 x 1892	•	-	•	•	•	-	•

Installation

Daikin Altherma M HW can be installed in any room, including non-heated ones like garages and laundry rooms, and does not require any special work, except for the holes for the air intake and exhaust pipes.



Some installation methods

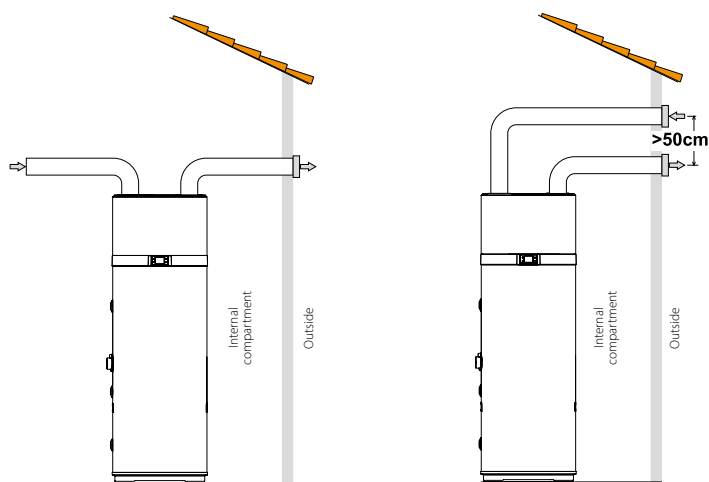


Fig. 1 - Example of air discharge connection

Fig. 2 - Example of air discharge connection

The heat pump requires suitable air ventilation. A suggested method for a designated air duct is provided in Fig. 1. Plus, it is essential to guarantee suitable ventilation in the room where the appliance is installed.

An alternative solution is provided in the picture on the right (Fig. 2): it involves additional ducting that draws air from outdoors, rather than directly from indoors.

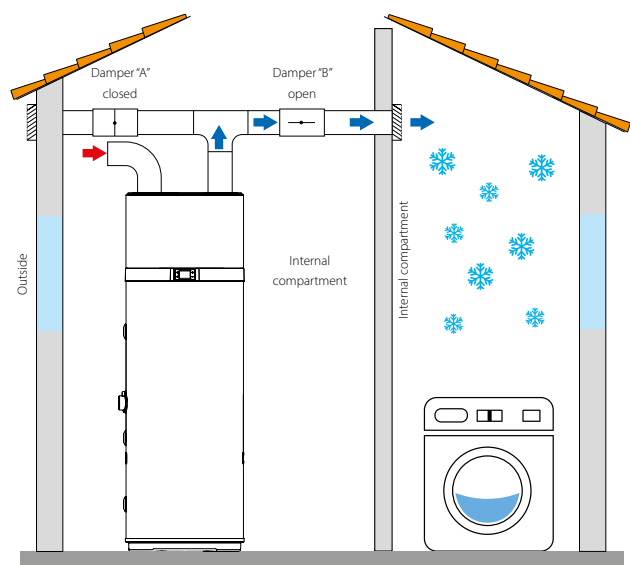


Fig. 3 - Example of installation in summer

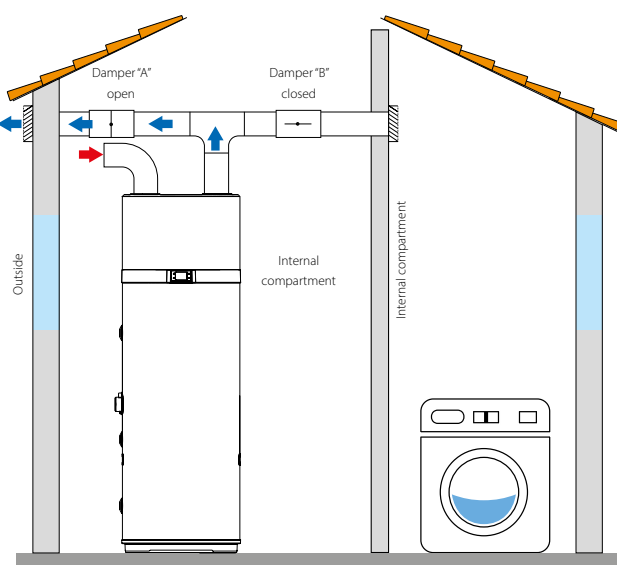


Fig. 4 - Example of installation in winter

One of the unique features of heat-pump heating systems is the fact that these units considerably reduce the temperature of the air, which is usually ejected outdoors. As well as being colder than the air in the room, the ejected air is also completely dehumidified, which is why the airflow can be conveyed back into the home to cool specific areas or rooms in summer. Installation involves doubling the exhaust pipe, on which two dampers ("A" and "B") are applied to convey the airflow either outside (fig. 3) or inside the house (fig. 4).

Daikin Altherma M HW Second Generation

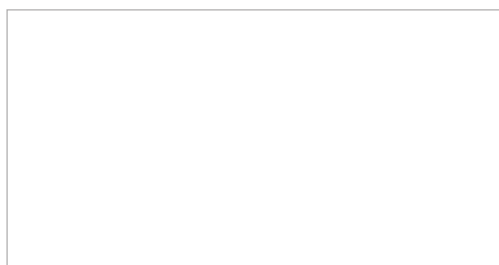
- › Available in wall mounted (200-260 L)
- › Compact modern design
- › Anti-legionella cycle
- › Scheduled operation
- › Integrated solar thermal control (EKHHE-PCV37)
- › Suitable for warm climate (EKHLE-CV3)



Indoor unit			EK	HHE200CV37	HHE260CV37	HHE200PCV37	HHE260PCV37	HLE200CV3	HLE260CV3
Heat up time	Max.		hh:mm	06:27	09:29	06:27	09:29	07:16	09:44
COP				3.23	3.37	3.23	3.37	4.32	4.32
Domestic hot water	Output	Nom	kW	1.34	1.25	1.34	1.25	1.60	
Equivalent hot water	Max		l	247	340	241	335	247	340
Dimensions	Unit	Height	mm	1,607	1,892	1,607	1,892	1,607	1,892
		Diameter	mm	Top: 621, Bottom: 628					
Weight	Unit	Empty	kg	85	97	96	106	86	98
Installation place				Indoor					
IP class				IP24					
Refrigerant	Type			R-134a					
	GWP			1,430					
Charge			TCO ₂ Eq	1.43					
			kg	1					
Casing	Colour			White					
	Defrost method			Hot gas				-	-
Automatic defrost start			°C	-5				-	-
System pressure	Max.		bar	7				4	
	Operation range	Ambient	Min. °CDB	-7				4	
Heat pump		Max. °CDB		43					
	Power supply	Phase		1					
Frequency			Hz	50					
Voltage			V	230					
Maximum running current			A	8.5				8.2	
Integrated heating element power	Nom.		kW	1.5					
	Casing	Material		Enamelled steel					
Tank	Installation	Solar thermal connection possible		-	-	Yes	Yes	-	-
	Standing heat loss		W	63	71	63	71	63	70
Power supply	Phase			1					
	Frequency		Hz	50					
	Voltage		V	230					
General	Declared load profile			L	XL	L	XL	L	XL
	Water heating energy efficiency class			A+					
	Thermostat temperature setting		°C	55					
	Average climate	AEC (Annual electricity consumption)		kWh	761	1,210	761	1,210	883
η _{wh} (water heating efficiency)			%	135	138	135	138	116	127
Cold climate	AEC (Annual electricity consumption)		kWh	944	1,496	944	1,496	883	1,315
Warm climate	AEC (Annual electricity consumption)		kWh	631	1,046	631	1,046	883	1,315
Sound power level	Domestic hot water heating		dBA	53	51	53	51	52	



Daikin Europe N.V. Naamloze Vennootschap Zandvoordestraat 300 · 8400 Oostende · Belgium · www.daikin.eu · BE 0412 120 336 · RPR Oostende (Publisher)



ECPEN22-782

03/22



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