# The Quintessence of heat pump

meeting modern society's expectations



### Made in Europe, for Europe

European weather can be tough sometimes. That's why we designed the Daikin Altherma 3 H MT & HT.

Heating capacities are also maintained high by low ambient temperature thanks to genuine Daikin technology.

As the market leader, Daikin is always striving to make the most reliable and efficient heat pumps possible. Daikin developed the Bluevolution technology to achieve higher and greener performance. This technology is now part of all new products. The Daikin Altherma 3 H HT was the first Daikin outdoor unit with a distinctive design. Its single fan reduces the noise level and its black front grille makes the unit fit into any environment.

All these dedicated components were developed in-house to make the guintessence of heat pump unique.

Superior performance, renewable energy use, design and acoustic comfort. This is what the Quintessence of heat pump is all about.

### **BLUEVOLUTION**

The Bluevolution technology combines a specifically developed compressor and the R-32 refrigerant. Daikin is one of the pioneers in the world to launch heat pumps equipped with R-32. With a lower Global Warming Potential (GWP), the R-32 is equivalent in power to standard refrigerants, but achieves higher energy efficiency and lower CO<sub>2</sub> emissions.

Easy to recover and re-use, R-32 is the perfect solution to attain the new European CO<sub>2</sub> emission targets.

R-32

### Timeless design and space-saving installation

Aside from the acoustic comfort, design is a decisive point nowadays. Specific attention was paid to making the outdoor unit blend in with your home.

The black front grille stretches horizontally making the fan inside invisible. The mat grey casing reflects the colour of the wall behind for more discretion. This unit received the IF and reddot design awards 2019.





Witness a timeless design

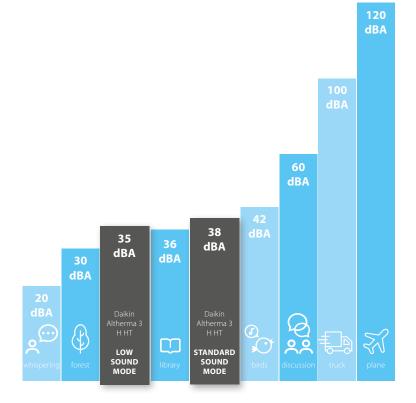


### Silence rhymes with comfort

The Quintessence of heat pump has been designed to reduce its acoustic level and meet the expectations of today's society.

In standard sound mode, the unit produces a sound pressure of 38 dBA at 3 metres, so somewhere between birds chirping and the inside of a library.

The unit also offers greater flexibility by having a low sound mode that reduces the sound pressure at 3 metres to 35 dBA, representing a real reduction of half the sound level!



### Sound power\* Sound pressure

\* Erp sound power: Daikin Altherma 3 H MT = 53 dBA Daikin Altherma 3 H HT = 54 dBA

### 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.



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## Innovation at the heart of our concerns

The Daikin Altherma 3 H MT & HT are at top of low sound and heating performances thanks to dedicated developments. Several major components are designed to make this product reach the excellence such as a double injection compressor and a single fan even for large capacity units as well as a brand-new casing.

### A redesigned casing

The black front grille made of horizontal lines is hiding the fan from view, reducing the perception of the sound produced by the unit.

The light grey casing is sligthly reflecting the environment where the unit is installed, helping it to blend in in any decor.

This unique design already got design awards.

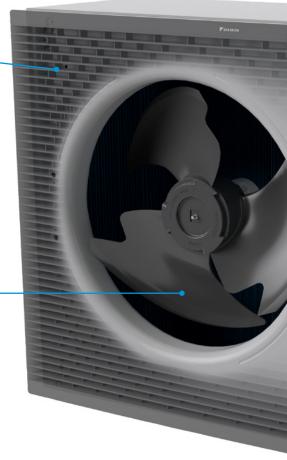




#### A single fan for all capacities

The single fan is slighlty larger, replacing the usual double fan for high capacity units (classes 8-10-12-14-16-18).

The shape of the fan has also been reviewed to reduce the contact surface with air therefore lower the sound level by improving the air circulation.

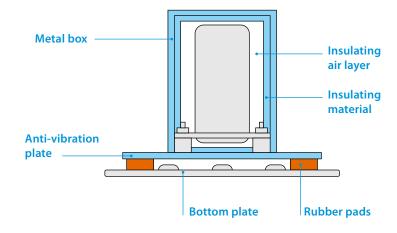


### Compressor insulation and anti-vibration

To reduce the compressor sound power, several actions were taken in terms of absorption and insulation.

First, the compressor is surrounded by a 3-layer insulation made of air, insulation material and a metal box.

Regarding the absorption, the unit benefits from a double sound reduction by using rubber pads between the bottom plate and the vibration plate under the compressor.





### New double injection compressor

To make this product unique, Daikin Europe cooperated with Daikin Japan to develop top notch components. The Daikin Altherma 3 H HT compressor is able to deliver a high leaving water temperature of 70 °C on its own, while the Daikin Altherma 3 H MT available in classes 8-10-12 delivers up to 65 °C leaving water temperature.

#### Impressive performance

With these new developments, the Daikin Altherma 3 H MT & HT reach the best performances illustrated in the energy labels:











Feel a true performance

# One solution, multiple combinations

The Quintessence range can be combined with three different indoor units to connect to the outdoor unit, offering specific features to ensure heating, cooling and domestic hot water in your home.

#### Outdoor unit

The outdoor unit is available in 6 classes 8-10-12-14-16-18 kW.



### Integrated DHW stainless steel tank model

This model is a compact unit with a small footprint of 595 x 625 mm. The unit is equipped with a tank of 180 or 230 L to answer your domestic hot water demand.

### Integrated ECH₂O DHW tank model

The ECH<sub>2</sub>O unit is equipped with a thermal DHW tank of 300 or 500 L that can be connected to thermal solar panels.

### Wall mounted model

This model is the most compact unit but needs to be with a separate tank to deliver domestic hot water.







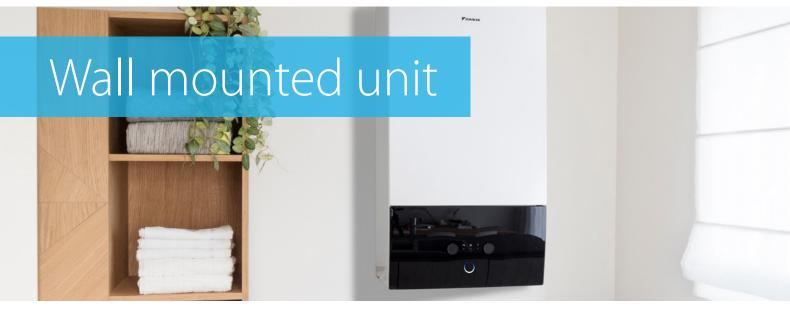
See exact dimensions per model in the specification tables (p22-29).









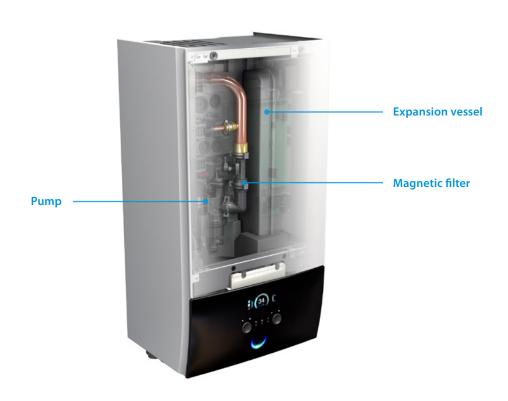


### Why choose Daikin wall mounted unit?

The Daikin Altherma 3 split wall mounted unit offers heating and cooling with high flexibility for a quick and easy installation, with an optional connection to deliver domestic hot water.

### High flexibility for installation and domestic hot water connection

- Inclusion of all hydraulic components means no third party components are required
- > PCB board and hydraulic components are located in the front for easy access
- > Compact dimensions allows for small installation space, as almost no side clearances are required
- The unit's sleek design blends in with other household appliances
- > Combine with a stainless steel or ECH<sub>2</sub>O thermal store



### Flexibility in providing domestic hot water

If the end user requires hot water and installation height is limited, a separate stainless steel tank provides the required installation flexibility.

ECH<sub>2</sub>O thermal store range: additional hot water comfort

Combine your wall mounted unit with a thermal store for additional hot water comfort.

- Fresh water principle: receive domestic hot water on demand while eliminating the risk of contamination and sedimentation
- > Optimal domestic hot water performance: with high tapping performance
- > Fit for future possibility to integrate with renewable solar energy and other heat sources, e.g. fireplace
- Lightweight and robust build on the unit combined with cascade principle offers flexible installation options



### Flexibility in providing space heating

The wall mounted unit is the perfect choice in case the end user is looking for space heating or cooling while domestic hot water is provided by another system.

Example of installation with a stainless steel domestic hot water tank.

**Heating and cooling** 

# Underfloor heating Domestic hot water

### Daikin Altherma 3 H HT W

### Wall mounted **heating only** air-to-water heat pump

- > Inclusion of all hydraulic components means no third party components are required
- PCB board and hydraulic components are located in the front for easy access
- Compact dimensions allows for small installation space, as almost no side clearances are required
- > The unit's sleek design blends in with other household appliances
- > Combine with a stainless steel tank or ECH<sub>2</sub>O thermal store
- > Heat pump operation down to -28 °C











More details and final information can be found by scanning or clicking the QR codes.





Hz/V







V3/1~/50/230 / W1/3~/50/400

32 / 16

EPRA14-18DV37





Efficiency data			ЕТВН	+ EPRA	16E6V7 + 14DV7/DW7	16E9W7 + 14DV7/DW7	16E6V7 + 16DV7/W7	16E9W7 + 16DV7/W7	16E6V7 + 18DV7/DW7	16E9W7 + 18DV7/DW7	
Space heating	Average	General	SCOP		3.58 / 3.57						
<b>*</b>	climate water outlet 55 °C		ns (Seasonal space heating efficiency)	%	140						
			Seasonal space heatin	g eff. class	A++						
	Average	General	SCOP		4.51 / 4.71						
	climate water outlet 35 °C		ns (Seasonal space heating efficiency)	%	177 / 186						
			Seasonal space heating eff. class		A+++						
Indoor Unit				ЕТВН	16E6V7	16E9W7	16E6V7	16E9W7	16E6V7	16E9W7	
Casing	Colour	Colour			White + Black						
	Material					Sheet metal					
Dimensions	Unit		HeightxWidthxDepth	mm	840x440x390						
Weight	Unit			kg	42						
Operation range	Heating	Ambient	Min.~Max.	°C	-28 ~ 35						
		Water side	Min.~Max.	°C	18 ~ 70						
	Domestic	Ambient	Min.~Max.	°C	-28 ~ 35						
			Min.~Max.	°C	10 ~ 63						
Sound power level	Nom. dBA				44						
Sound pressure level	Nom.	lom. dBA				30					
Outdoor Unit				EPRA	14DV	37/W17	16DV	/37/W17	18DV	37/W17	
Dimensions	Unit		HeightxWidthxDepth	mm			1,003x1	,270x533			
Weight	Unit kg				146 / 151						
Compressor	Quantity							1			
	Type				Hermetically sealed scroll compressor						
Operation range	Heating		Min.~Max.	°CDB			-28	~ 35			
	Domestic h	ot water	Min.~Max.	°CDB				~ 35			
Refrigerant	Туре							-32			
	GWP							575			
	Charge			kg				.20			
	Charge TCO <sub>2</sub> Eq			2.84							
	Control			Expansion valve							
LW(A) Sound power level (according to EN14825)							5	54			
Sound pressure level (at 1 meter)	Nom.					4	43		2	48	

Power supply Current Name/Phase/Frequency/Voltage

Recommended fuses