DAIKIN

altherma

The natural combination

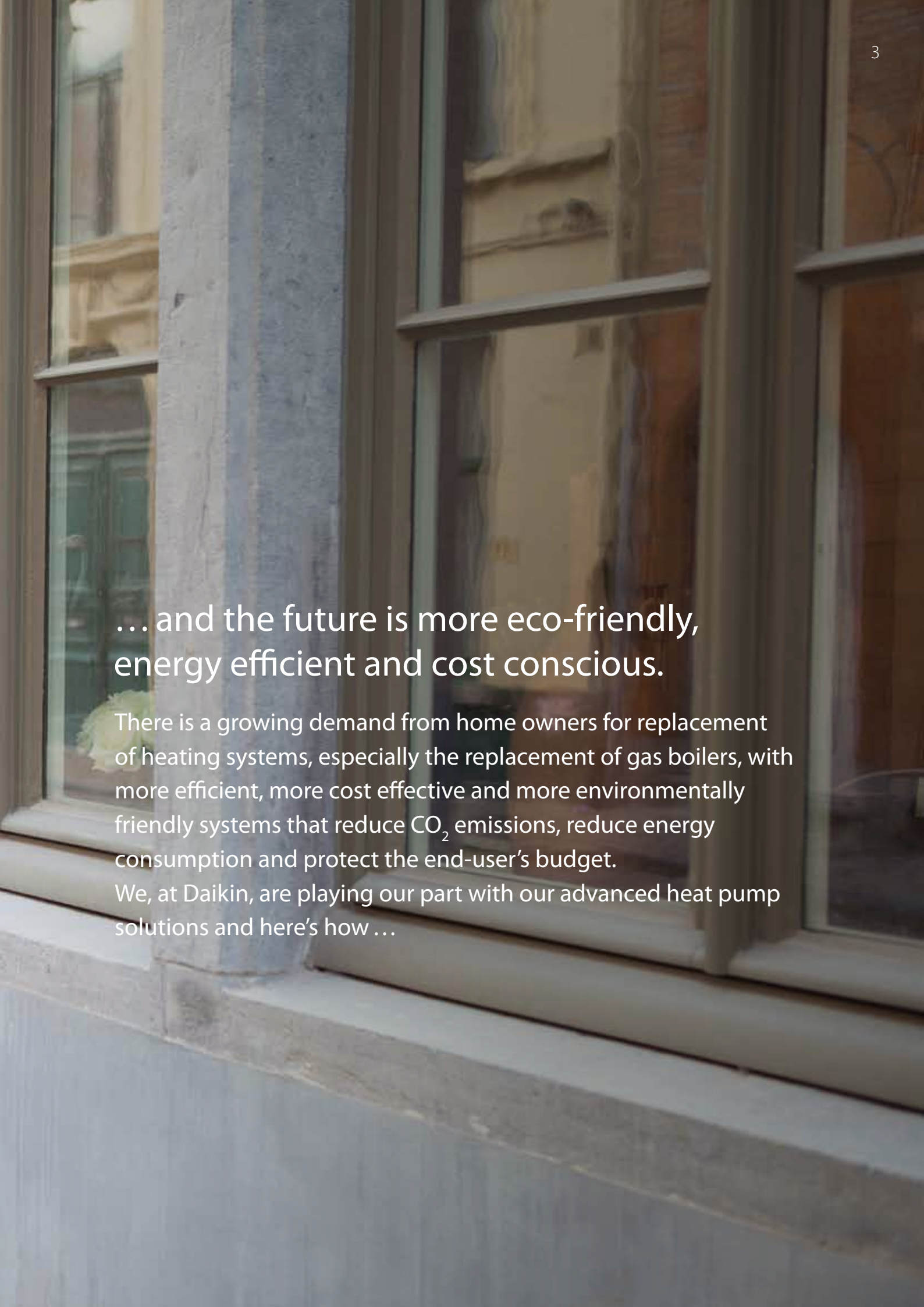
DAIKIN ALTHERMA

HYBRID HEAT PUMP SYSTEM

HEATING & DOMESTIC HOT WATER

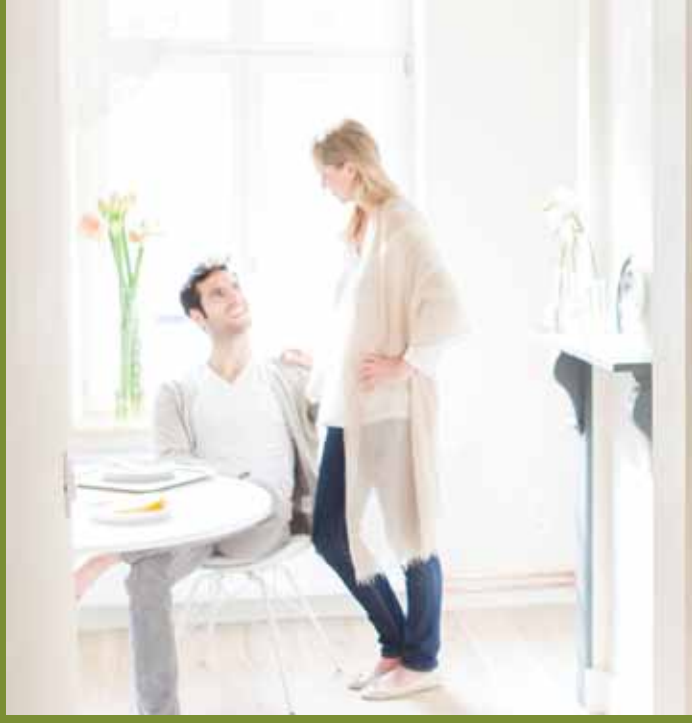
END USER LEAFLET

The future is now...



… and the future is more eco-friendly, energy efficient and cost conscious.

There is a growing demand from home owners for replacement of heating systems, especially the replacement of gas boilers, with more efficient, more cost effective and more environmentally friendly systems that reduce CO_2 emissions, reduce energy consumption and protect the end-user's budget.
We, at Daikin, are playing our part with our advanced heat pump solutions and here's how …



A new opportunity in heating !

Heat pump solution to replace gas boilers

Are you looking to replace your old gas boiler with a more efficient and more cost effective system? Then look no further – **the Daikin Altherma range** with its market leading heat pump technology has the system for you.

The **Daikin Altherma hybrid** combines our advanced heat pump technology with a new highly efficient gas condensing boiler to deliver complete climate control and domestic hot water in an eco-friendly and cost effective manner.

- ✓ Heating cost optimisation
- ✓ Reduced cost of installation
- ✓ Rapid return on you investments

Daikin Altherma hybrid heat pump combines heat pump technology with gas

Daikin Altherma hybrid heat pump replaces your old gas boiler and connects to the existing emitters. Our hybrid system combines our market leading air-to-water heat pump technology, the most efficient available in the market, with the latest generation of gas condensing boilers to deliver you a 35% increase in heating and cooling efficiency plus major cost savings.

Your added-value benefits

You benefit from decreased heating costs, a rapid return on investment and no need to replace radiators and existing pipe work.

Our Daikin Altherma hybrid system delivers 3 important added-value benefits

✓ Heating cost optimisation
the hybrid system smartly chooses between heat pump and gas boiler operation, always selecting the most cost efficient mode to operate in any condition

35% more efficient for space heating

- the system is programmed for the most efficient and cost effective operation over the entire temperature range by selecting gas and/or electricity as energy source, taking into account the energy costs
- our specially developed hybrid logic maximises the use of the heat pump to reduce gas consumption to save you money

30% greater efficiency in domestic hot water production

- instantaneous hot water guaranteed *
- our optional specially designed tank stores hot water more efficiently
- the entire system can be linked to a solar array to further reduce heating costs and increase efficiency

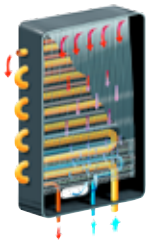
✓ Reduced cost of installation –
there is no need to replace your existing radiators and pipe work

- our Daikin Altherma hybrid system connects directly to the **existing pipe work** and **radiators** which reduces the cost and disruption of installation
- the space needed for the new system is very similar to that of an existing system so there is no loss of space and no need for structural modifications

✓ Rapid return on you investment –
the reduced operating costs will allow you to quickly recover the cost of the new system

- as a result of the increased efficiency of the Daikin Altherma hybrid system when compared to a traditional gas boiler system, there is a good return on investment depending on location and usage

✳ Did you know that…



the Daikin Altherma hybrid heat pump has the most efficient instantaneous domestic hot water heating on the market, thanks to a special 2-for-1 heat exchanger used for both space heating and domestic hot water heating. Thanks to direct heating of cold water, the Daikin Altherma hybrid heat pump system can benefit from the condensation effect, allowing an efficiency increase **up to 30%** over traditional gas condensing boilers.

Similar dimensions to existing gas boiler - no change to installation space

- existing gas boiler: HxWxD: 850mm x 50 mm x 350mm
- Daikin Altherma hybrid heat pump indoor unit: HxWxD: 890mm x 450mm x 400mm

Daikin Altherma hybrid heat pump in practice

Replacing a gas boiler by Daikin Altherma hybrid heat pump means

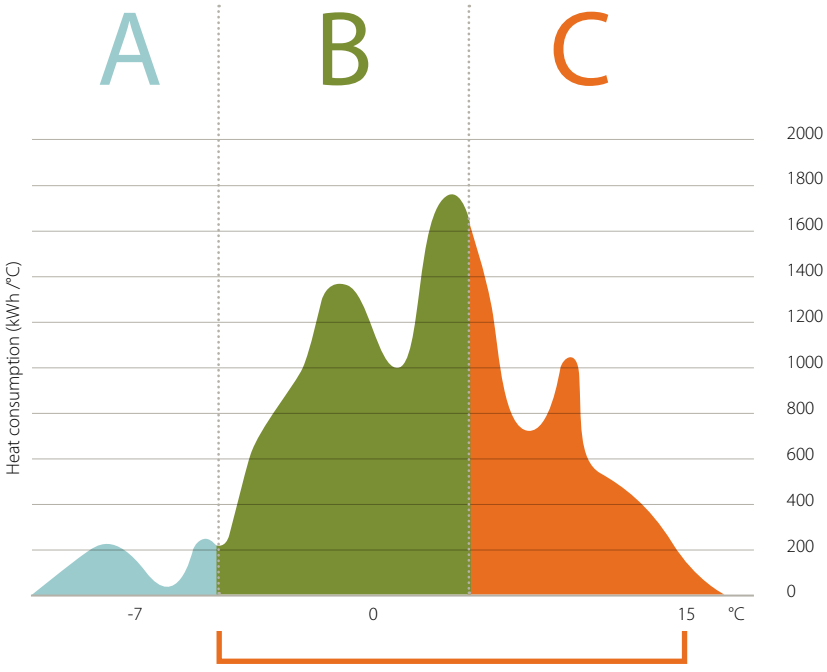
saving on running costs both for space heating as for domestic hot water supply

Case study

Running costs comparison versus new gas condensing boiler - Typical Belgian example

With our Daikin Altherma hybrid heat pump, the most cost efficient combined operation will be used no matter what the ambient outdoor temperature is.

Heat consumption during a typical Belgian winter



A Low temperature zone
100% use of gas boiler

B Mid temperature zone
Heat pump + gas boiler

C High temperature zone
100% use of heat pump

+35% efficiency (space heating)
compared to existing condensing gas boiler

	DAIKIN ALTHERMA HYBRID HEAT PUMP	NEW GAS CONDENSING BOILER	EXISTING GAS CONDENSING BOILER
		SPACE HEATING	
Energy supplied by HP	12,800 kWh		
HP efficiency	3.64 SCOP		
Energy supplied by gas boiler	6,700 kWh	19,500 kWh	19,500 kWh
Space heating efficiency	90%	90%	75%
Running costs	1,220 €	1,520 €	1,820 €
		DHW HEATING	
Energy supplied by gas boiler*	3,000 kWh	3,000 kWh	3,000 kWh
DHW heating efficiency*	90%	80%	65 %
Running costs*	230 €	260 €	320 €
		TOTAL	
Running costs	1,450 €	1,780 €	2,140 €

* for combi-boiler, no separate domestic hot water tank

→ Yearly savings: for space heating and domestic hot water

versus new gas condensing boiler — 330 €/year — -19%

versus existing gas condensing boiler — 690 €/year — -32%

Heat load	16 kW
Design temperature	-8°C
Space heating off temperature	16°C
Maximum water temperature	60°C
Minimum water temperature	38°C
Gas price	0.070 €/kWh
Electricity price (day)	0.237 €/kWh
Electricity price (night)	0.152 €/kWh
Total space heating requirement	19,500 kWh
Total DHW heating requirement (4 persons)	3,000 kWh

Technical

specifications

				GAS MODULE	HEAT PUMP MODULE	
INDOOR UNIT				*EHYKOMB33AA	*EHYHBH05A	*EHYHBH08AV3
Function				Heating only	Heating only	
Power rating	Nom.		kW	7.2-32.7	-	-
Heating capacity	Nom.	80/60	kW	7.1-26.3	-	-
		50/30	kW	7.8-27.1	-	-
User efficiency	High	Space heating	%	107	-	-
	High	Domestic hot water	%	95.8	-	-
Casing	Colour			S5730 White	S5730 White	
Dimensions	Unit	HeightxWidthxDepth	mm	710x450x240	970x450x165	
Weight	Unit		kg	36		

OUTDOOR UNIT				*EVLQ05CV3	*EVLQ08CV3
Heating capacity	Nom.	Heat pump operation only	kW	4.40 [1] 4.03 [2]	7.40 [1] 6.89 [2]
COP	Heat pump operation only			5.04 [1] 3.58 [2]	4.45 [1] 3.42 [2]
Dimensions	Unit	HeightxWidthxDepth	mm	735x825x300	
Sound power level	Heating	Nom.	dBA	61	62
Sound pressure level	Heating	Nom.	dBA	48	49

(1) cooling Ta 35°C - LWE 18°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C)
(1) cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)

* Note: grey cells contain preliminary data

SEASONAL EFFICIENCY

Today, Daikin leads the way towards more efficient, cost-effective and environmentally friendly comfort solutions, introducing products optimised for all seasons. In fact, Daikin products reduce energy and costs in a smart way. They are designed to perform under all conditions and reflect the actual performance you can expect over an entire heating and cooling season. So, with Daikin you make the right choice for your wallet… and the environment.

Daikin products are distributed by:

FSC

ECPEN13-731_P

ECPEN13-731_P • XX • 05/13 • Copyright Daikin
Printed on non-chlorinated paper. Prepared by **La Movida**, Belgium
Resp. Ed.: Daikin Europe N.V., Zandvoordestraat 300, B-8400 Oostende