



THE MESSAGE FOR UK
HOUSEBUILDERS IS CLEAR...

THE ENERGY EFFICIENT HEATING SYSTEM



“The need to address energy usage and carbon emissions in buildings means housebuilders have reconsidered the use of traditional heating systems...

Regulations and consumer demand has created an innovative and technically advanced solution for complete home heating and hot water provision...”

Altherma by Daikin

A leader has emerged... Altherma by Daikin

Altherma is a highly flexible, energy efficient home heating system that extracts the heat from the outside air, raises this heat to a higher temperature and then distributes warmth around the home through high quality heating units. At the heart of the system lies an air to water heat pump.

Because of this advanced technology, three quarters of the heat generated by the Altherma system is absolutely free of charge! The Altherma air to water heat pump is today's answer to the current and future problems associated with conventional heating systems, such as, increasing primary energy costs and an unacceptably high environmental impact.

The sales and marketing potential of Altherma is not just topical but powerful! Consider minimal maintenance requirements, low running costs and the energy efficiency potential of leading edge technology that not only meets and exceeds industry standards but which is highly functional and very attractive to homeowners.

A brand built on quality & innovation

Daikin has more than 50 years' experience in the production of heat pumps, manufacturing over a million units a year for both residential and commercial applications. The whole system is manufactured entirely 'in house' at Daikin's state of the art factories - This includes the all important highly efficient inverter driven compressor unit. In fact, Daikin produces all of its compressors, some 80% of which are for use in heat pump applications.

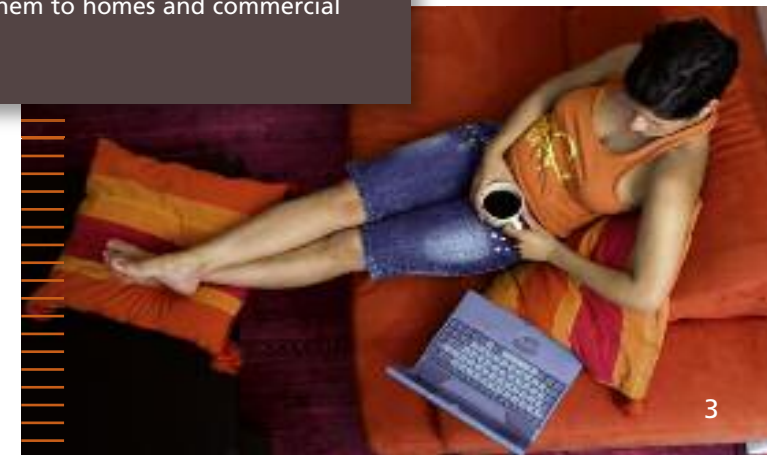
Q. So what makes Altherma unique?

A. The fact that it's from Daikin, a company with over 50 years of experience in manufacturing and supplying the highest quality solutions for heating and cooling...



50 Years

This is how long we've been manufacturing heat pumps, providing over a million of them to homes and commercial applications each year!



Meeting Building Regulations Now and in the Future

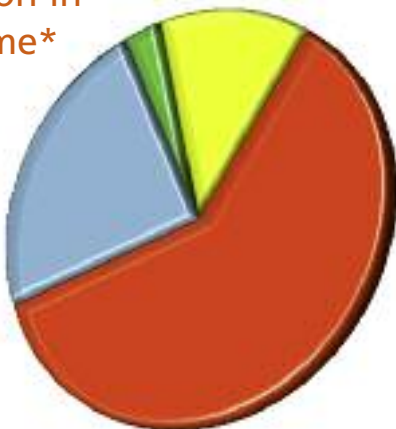
Few would argue that energy usage in buildings is one of the most topical issues of the day for housebuilders. Energy use in buildings is said to account for almost 50% of the country's carbon dioxide burden. The political and social pressure to reduce carbon dioxide emissions is ever increasing and every day the media report on the need for environmentally sustainable energy solutions for homes and buildings.

The UK government has stated its commitment to significantly reduce carbon dioxide emissions with the publication of the "Sustainable Energy & Climate Change Bill". The goal of this bill is to reduce the UK carbon dioxide emissions by 60% on 1990 levels by 2050.

Domestic dwellings account for almost 27% of all UK carbon dioxide emissions, some 152,000,000 tonnes. More than 80%* of the carbon dioxide emissions attributed to housing is linked to space and hot water heating.

Energy consumption in the typical UK home*

- Space Heating 61%
- Water Heating 23%
- Electrical Appliances 13%
- Cooking 3%



The government has put together a package of measures in order to enforce reductions in carbon dioxide emissions. One of the key drivers of these directives is part L1a (the conservation of fuel & power) of the building regulations. The current standard requires that dwellings must show a carbon dioxide reduction of approximately 20% against previous standards. It is planned to gradually increase the carbon dioxide reduction targets thus setting a roadmap to the government's goal of zero carbon.

2006	20% reduction
2010	25% reduction
2013	40% reduction
2016	Zero Carbon

The message is clear to all UK housebuilders. They need to anticipate these changes and design houses and apartments that not only achieve the required carbon dioxide reductions but exceed the standards.

Energy use in domestic dwellings is said to account for almost 27% of the country's CO₂ emissions!

A sustainable energy solution

Altherma is a system that provides a high quality, year round and complete solution to home heating and hot water. In terms of Building Regulations, Altherma allows housebuilders to meet and exceed the standards now and for the future.

Altherma can reduce CO₂ emissions and running costs by up to 50% when compared to traditional heating systems. This important statistic means that housebuilders have the capability to meet both current and anticipated future building regulation requirements.

UK housebuilders increasingly have to consider more and more creative methods in order to achieve the SAP target emission ratio (TER) to gain building regulation approval.

The exceptional energy efficiency and CO₂ reduction offered by utilising the Altherma system will provide housebuilders and their specifiers

with a much greater flexibility and choice when designing dwellings to current legislative standards. When Altherma is used, insulation, glazing and other building materials can be reviewed in the overall design so that building regulations can be met.

The added flexibility that Altherma gives means that building design can be managed in the best way to meet the financial budgets for house and apartment developments.

Altherma comes as a complete system for the housebuilder; manufactured, supplied by a single provider, Daikin.

Daikin UK has a well established network of professionally trained engineers to support the design and installation and warranty needs of the UK housebuilder.



Housebuilder Benefit

Altherma offers carbon dioxide savings and reductions of 30% to 50% compared to traditional heating systems.



Did you Know

Heat pumps are classed as renewable technology, because they extract heat from a renewable source, the air around us!

Building regulations and a sustainable future

What is the Code for Sustainable Homes?

The Code for Sustainable Homes is a national standard and has been developed to enable a change in sustainable building practice for new homes. The Code is intended as a single national standard to guide industry in the design and construction of sustainable homes. It is a means of driving continuous improvement, greater innovation and exemplary achievement in sustainable home building.

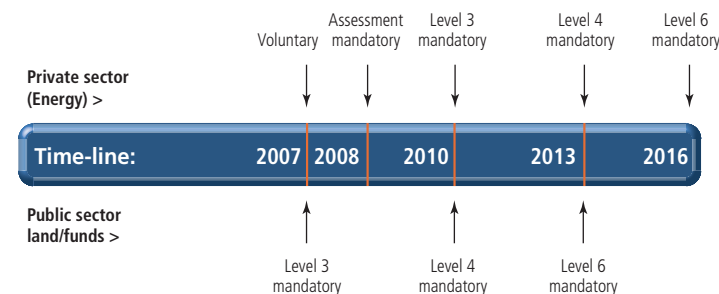


The Code measures the sustainability of a home against sustainable design categories, rating the 'whole home' as a complete package. The rating system is indicated by 'stars', to communicate the overall sustainability performance of a home. A home can achieve a sustainability rating of between one (★) and six (★★★★★).

It will form the basis for future developments of the Building Regulations in relation to carbon emissions from, and energy use in homes, therefore offering greater regulatory certainty to developers.

From the 1st May 2008 The Code for Sustainable Homes will become mandatory and display a rating in line with the star rating scheme for all new house and apartment buildings

The Code for Sustainable Homes Route Map



Achieving a sustainable rating		
Minimum Standards		
Energy		
Code Level	Standard (% better than Part L 2006)	Points Awarded
1 ★	10	1.2
2 ★★	18	3.5
3 ★★★	25	5.8
4 ★★★★	44	9.4
5 ★★★★★	100	16.4
6 ★★★★★★	Zero carbon home	17.6

Notes

1. Building Regulations: Approved Document L (2006) – 'Conservation of Fuel and Power.'
2. Zero emissions in relation to Building Regulations issues (i.e. zero emissions from heating, hot water, ventilation & lighting).
3. A completely zero carbon home (i.e. zero net emissions of carbon dioxide (CO₂) from all energy use in the home).
4. All points in this table are rounded to one decimal place.

The table above shows the minimum standards, and number of points required in order to achieve each level of the Code.

So how does Altherma face up to the code?

Another piece of good news for housebuilders is that when looked at in conjunction with other energy saving methods such as improved insulation etc, Altherma installations achieve level three (★★★). It is recognised that heat pumps will play a major role in achieving the carbon emissions reduction targets required by the code.

The government introduced the Sustainable Energy and Climate Change Bill with the aim of cutting CO₂ emissions by 60% from the levels of 1990 by 2050. This has impacted on housebuilders through the introduction of building regulations. To comply with the building regulations, housebuilders are developing their own low carbon strategies as well as looking for flexible solutions to satisfy these needs now and for the future.



Tomorrow's Solution Today!

Most property developers and housebuilders have their own environmental improvement policy and Altherma adds weight to this type of credential when it is installed in a new housing or apartment development.

For the housebuilder Altherma offers a high quality solution which is genuinely cost effective with many installation advantages compared to traditional systems and one which offers unrivalled sales and marketing value.

A home with a high environmental rating not only satisfies building regulations but meets the needs and desires of the modern homeowner.

Altherma offers the homeowner a low maintenance and reliable heating system with control that is second to none in the industry. Reduced energy bills are just the start of the marketing value when choosing Altherma; consider its impact on the requirements of

Home Information Packs (HIPS) as well as the growing consumer demand for environmentally conscious solutions.

The expectations of the consumer have changed. An increased demand for products that are 'low carbon' and 'energy efficient' has become a driving factor when choosing a home heating system – The Altherma system satisfies and exceeds these consumer demands, offering the housebuilder exceptional sales and marketing value.

Altherma is manufactured by a world leading company well known for excellence in customer support and service, altogether a partnership you can trust.

Altherma is safe, reliable, highly efficient and a true low cost, low CO₂ solution for home heating and hot water in the UK...

*ONE STEP AHEAD...
Altherma is already capable of meeting and exceeding the revisions to Part L Building Regs*



Heat pump technology at its best

The Daikin Altherma total heating and hot water system is based on heat pump technology and represents a flexible and cost effective alternative to a fossil fuel boiler, with a cooling option. The inherent energy efficiency characteristics of Altherma make it an ideal solution to reduce energy consumption and CO₂ emissions.

A heat pump extracts low temperature energy from the environment and increases its temperature for heating purposes.

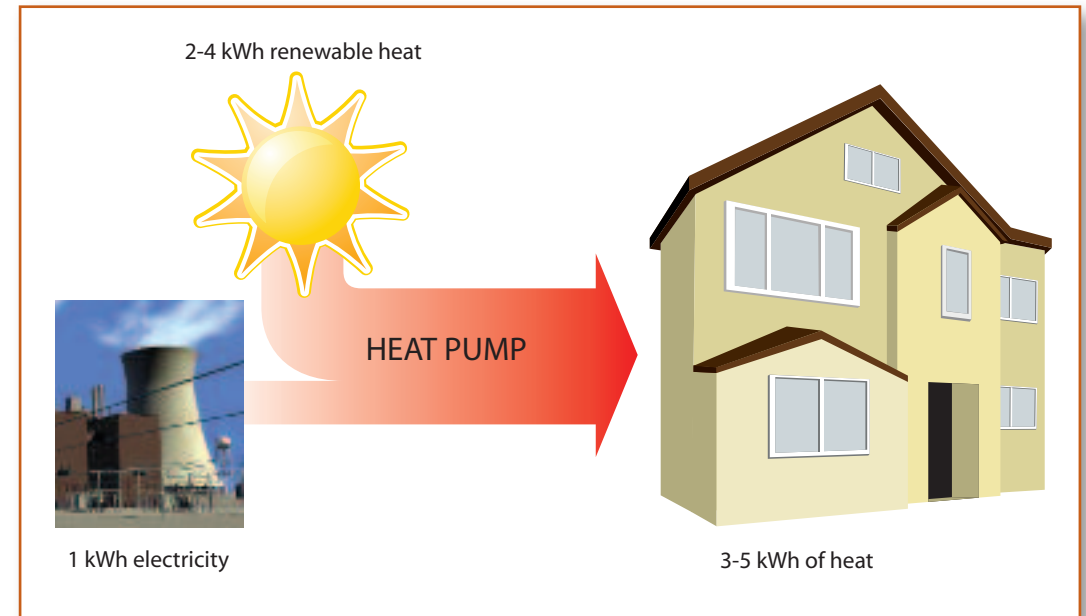
Heat pump efficiencies are normally quoted as the coefficient of performance of the system, these are typically in the range 3 to 5. In other words, extracting heat from renewable sources requires just 1kW of electrical input in order to generate 3kW to 5kW of heating

output. Heat pump systems therefore, are 3 to 5 times more efficient than fossil fuel boilers and are more than capable of warming a house completely, even during the lowest winter temperatures.

The increasing popularity of these heating systems is reflected by their overwhelmingly successful application in the cold climates of Scandinavia.

Millions of heat pumps are installed across Europe and the market is growing rapidly due to increasing awareness of the system's obvious benefits. Recent research indicates that during the last five years alone heat pump sales have doubled¹.

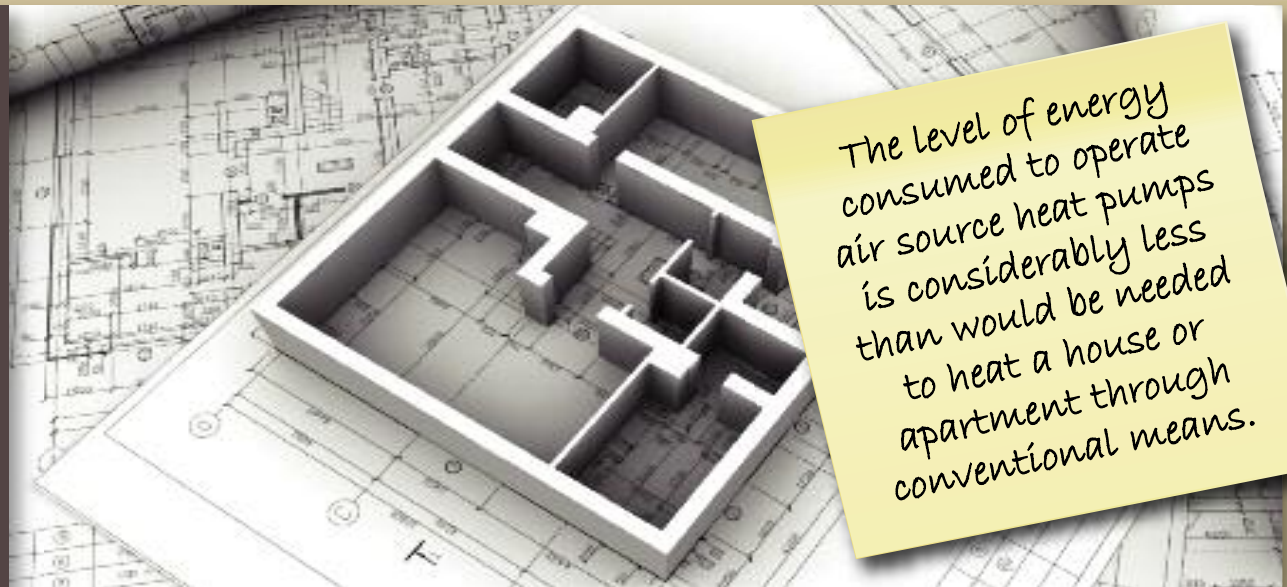
¹Source: BSRIA Report 18733/3 Edition 2.



A growing market...

Millions of heat pumps are installed across Europe and the market is growing rapidly due to increasing awareness of the system's obvious benefits. In fact, recent research indicates that during the last five years alone heat pump sales have doubled!¹

¹ Source: BSRIA Report 18733/3 Edition 2.



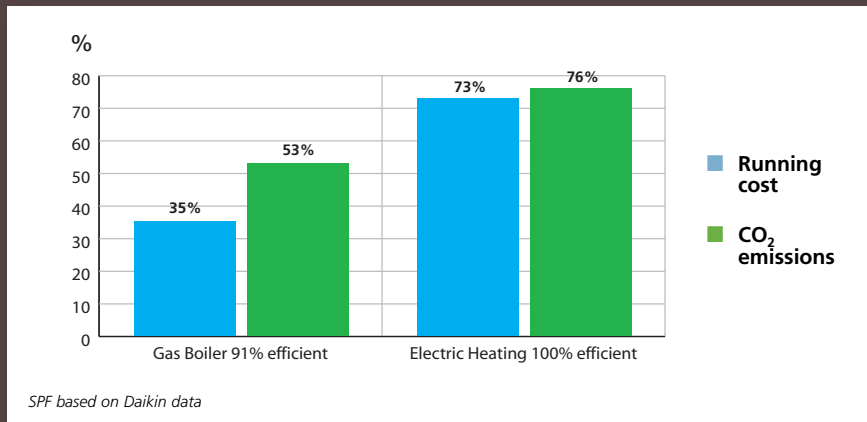
The level of energy consumed to operate air source heat pumps is considerably less than would be needed to heat a house or apartment through conventional means.

Example one

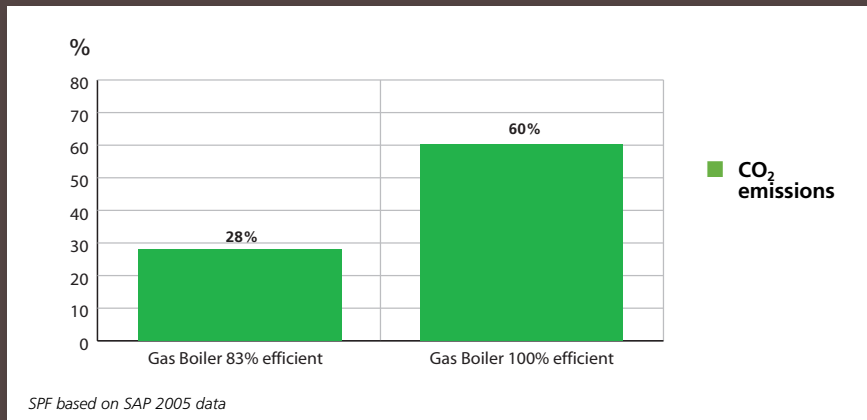
- 2 bed flat in Manchester
- Under floor heating system
- Seasonal heating efficiency 400%
- Weather compensation as standard



Altherma CO₂ & Running cost savings (Seasonal efficiency 400%)



Altherma CO₂ savings (SAP 2005 data - Seasonal efficiency 250%)

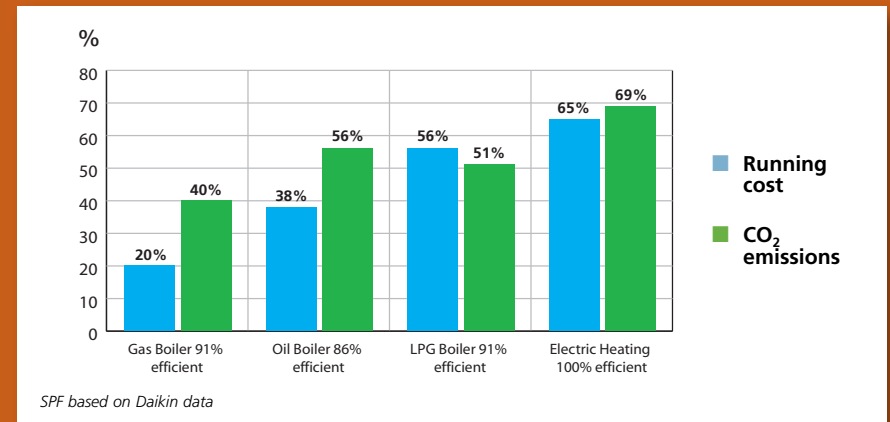


Example two

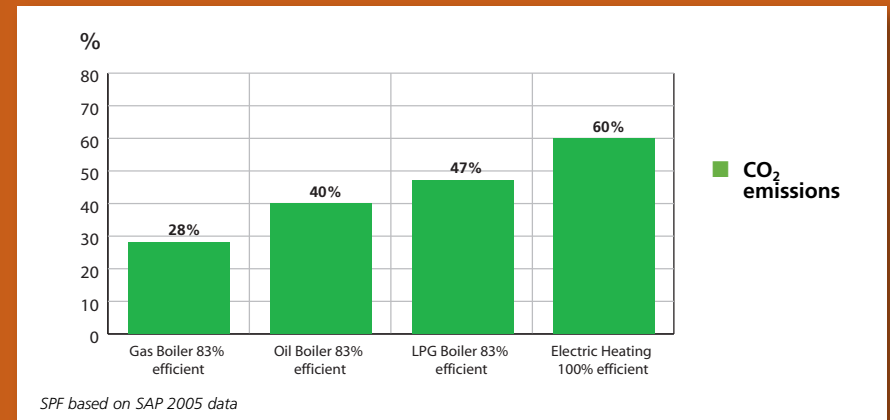
- 3 bed house in Sussex
- Heated by radiators
- Seasonal heating efficiency 320%
- Weather compensation as standard



Altherma CO₂ & Running cost savings (Seasonal efficiency 320%)



Altherma CO₂ savings (SAP 2005 data - Seasonal efficiency 250%)



The System at a Glance

A heat pump system consists of an outdoor unit, indoor hydro box (incorporating the control system) and a domestic hot water tank.



Outdoor unit: Sustainable energy converter

The outdoor unit extracts heat from the outside air and raises its temperature to a level high enough to supply heating. This heat is then transferred to the indoor unit through refrigeration pipework (thus, the additional advantage is that the pipes can never freeze). The compact outdoor unit is easily installed as no drilling or excavation work is required.



Indoor hydrobox: Heating and hot water system

The Hydrobox transfers the heat to the water circulating in the underfloor heating, radiators or fan coil units and also to the domestic hot water tank. If you opt for the combination of heating and cooling, then the indoor unit can also decrease the water temperature to distribute a refreshing coolness.



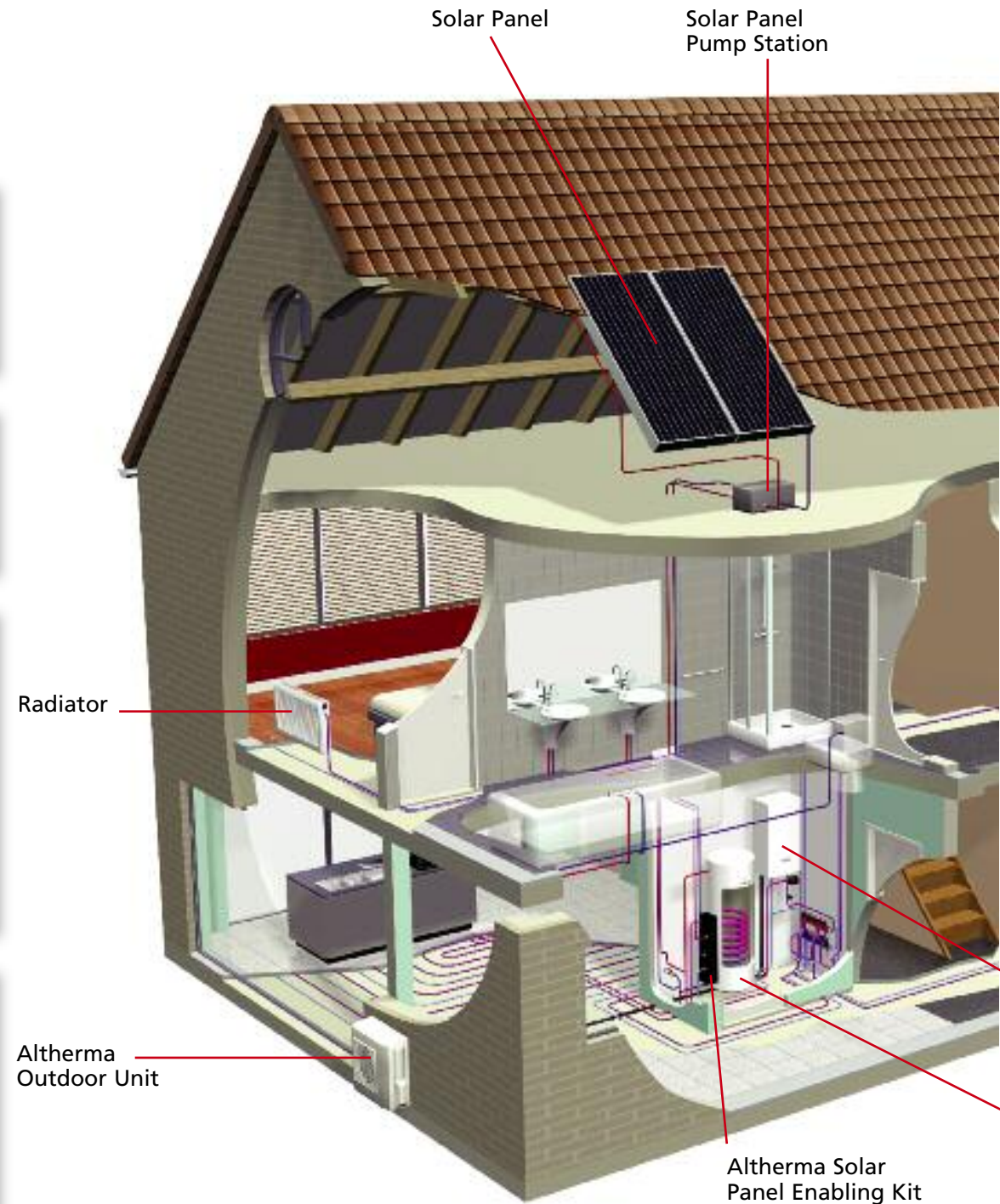
Domestic hot water tank: Designed for low energy consumption

As for domestic hot water, Altherma is just as clever. The unique lay-out and special placement of the system components maximises energy efficiency. The water inside the storage tank is primarily warmed up by thermal energy from the outside air, thanks to the heat pump. The combination of an electric element, in the upper part of the tank, and the heat pump heat exchanger, in the lower part of the tank, ensures the lowest possible energy consumption with rapid water heating. In addition, a built in disinfection function can automatically raise the water temperature to 70°C or higher to prevent the risk of bacteria growth.



Altherma solar enabling kit: Integrating sustainable solar hot water heating

Altherma has the option to integrate with solar panels to heat the domestic hot water tank. A simple enabling kit connected to the Altherma domestic hot water tank can automatically switch from heat pump to the solar panel when there is sufficient heat available to heat the water tank. This means not only will sustainable free energy come from the air, via the Altherma heat pump, but also from the sun via the solar panel.



Which Heating System to Use?

Heat Emitters

There are several different types of system to provide heating in your home and Altherma is compatible with all of them. The selected system can simply be connected to the Altherma unit. Below are examples of some of the most commonly used heating emitters:

Underfloor Heating

Underfloor heating is possibly the best solution for new installations.

The main benefits are:

- Maximum comfort due to radiated heat
- Maximum efficiency compared to other heat emitters
- Unobtrusive i.e. no wall space required
- Seasonal COP typically 3.5 to 4.5
- Water flow temperatures typically 35 to 40°C



Fan coils

These systems are more flexible in that they can provide both heating and cooling if required.

The main benefits are:

- Able to heat and cool
- Cased or concealed units
- Individual control
- Ease of installation
- Water flow temperatures typically 35°C heating 7°C for cooling option
- Seasonal COP heating typically 3.5 to 4.5



Radiators

A traditionally used system as costs are relatively inexpensive compared to other systems.

The main benefits are:

- Traditional heating solution
- Low capital cost
- Ease of installation
- Water temp typically 50°C with heat pumps (radiators must be sized accordingly)
- Seasonal COP with weather compensation typically 2.5 to 3.5



Energy efficient
Altherma uses 3-5
times less energy
than a traditional
heating system

Heat pumps and how they work

Heat pumps work on a well established principle, known as, vapour compression or refrigerant cycle. They work in much the same way as the common refrigerator, a technology already embedded in every household, but in reverse.

The heat pump consists of four main components: the compressor, expansion valve, and two heat exchangers,

one to absorb heat from the heat source and one to reject the heat.

Quite simply, heat pumps are a mover of heat, they absorb heat from one place and move it via a heat transfer medium or refrigerant to be used somewhere else.

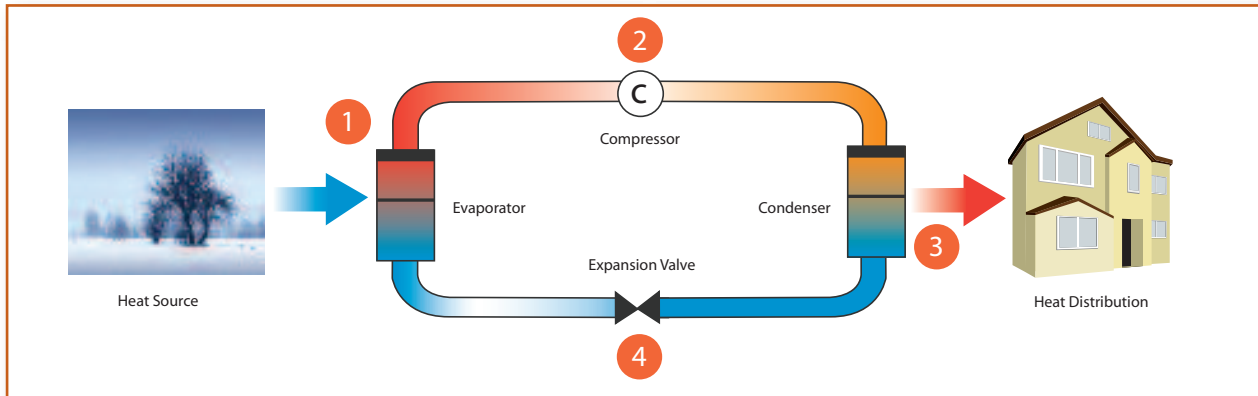
The cycle can be explained in a four stage process:

1 STAGE ONE

The heat transfer medium (the refrigerant) is colder than the heat source (the outside air). As the outside air passes across the first heat exchanger (the evaporator) the liquid refrigerant absorbs the heat and evaporates.

2 STAGE TWO

The vapour then passes to the compressor and is compressed. When compressed the pressure is increased and the temperature of the vapour rises, effectively concentrating the heat.

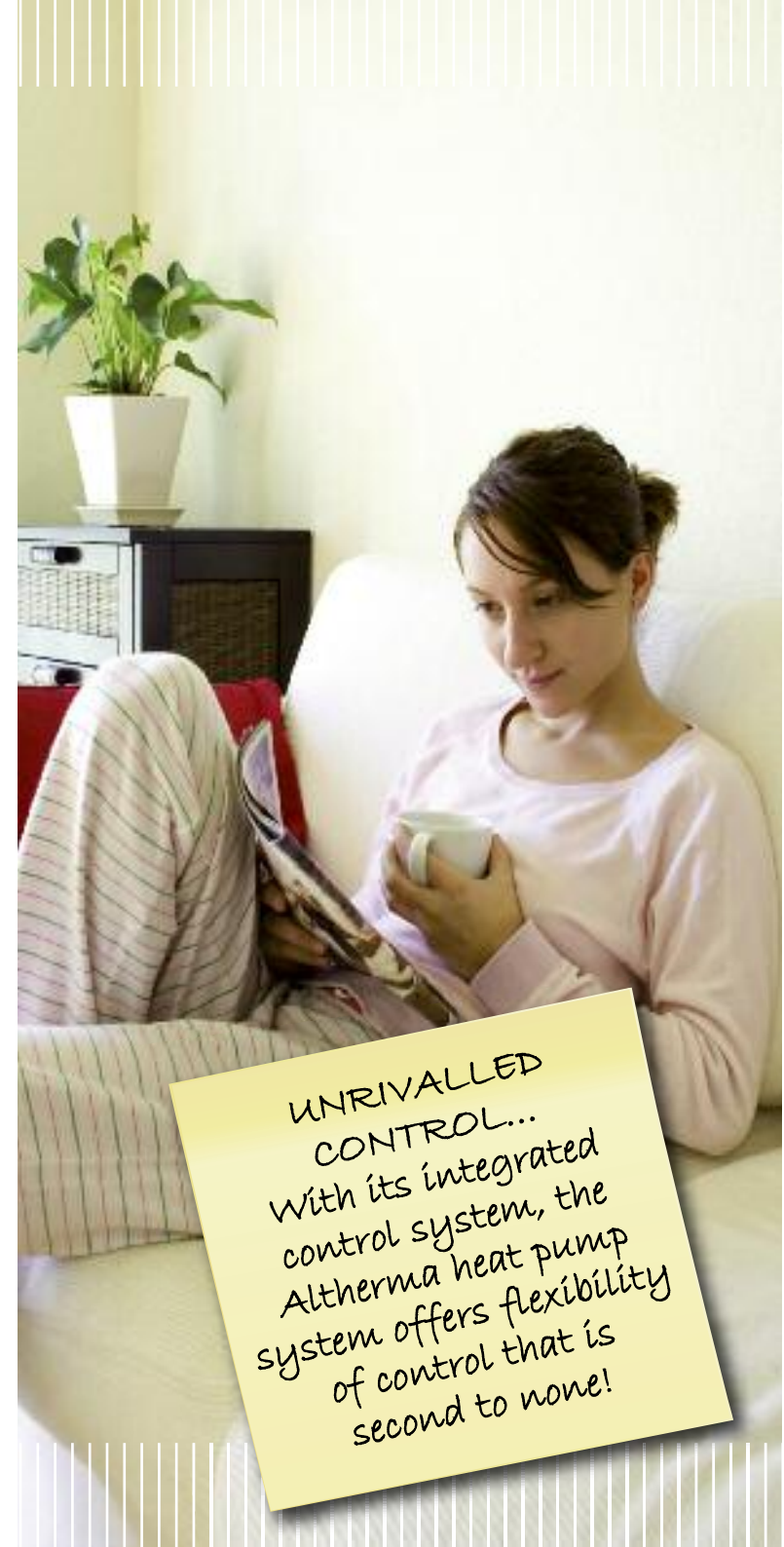


4 STAGE FOUR

The liquid refrigerant then passes through an expansion valve, reducing its pressure and temperature, ready to start the whole cycle once again.

3 STAGE THREE

The hot vapour passes to the second heat exchanger (the condenser) where the heat is rejected and the vapour condenses back into a liquid. In the case of Altherma the rejected heat is passed into the water of the central heating and hot water system ready for use in the home.



UNRIVALLED CONTROL...
With its integrated control system, the Altherma heat pump system offers flexibility of control that is second to none!

Altherma makes the difference...

Altherma is unique, offering the best heat pump technology solution in the market today.

Inverter Compressor Technology at the Heart of Altherma.

Altherma uses advanced inverter compressor technology, a system developed by Daikin for many years.

Many heat pumps do not have inverter compressors and therefore do not have Altherma's fully modulating control capability. This provides real energy savings compared to heat pumps without inverter compressor technology.

The compressor is the main component at the heart of all heat pumps. The inverter technology in Altherma ensures that the compressor is controlled to give optimum performance reducing energy consumption compared to fixed speed heat pump systems.



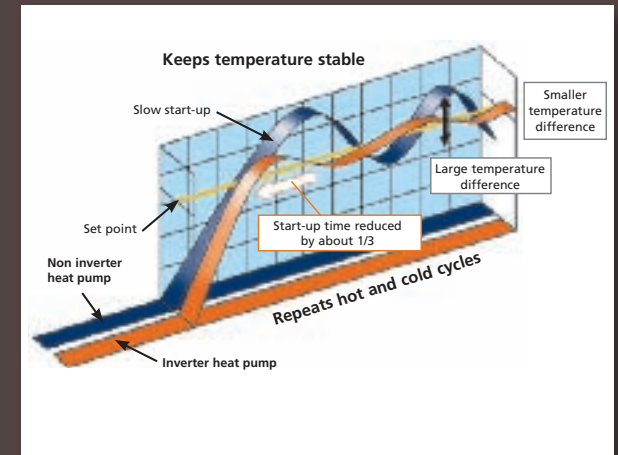
How the Inverter Compressor Works

"Through the inverter control, Altherma is able to fully modulate the heating capacity of the system by reducing the compressor speed. This means that at any time Altherma is only producing the exact amount of heat required, therefore consuming less electricity."

In addition, when the Altherma is operating in partial load condition the efficiency is further increased as the systems heat exchangers become oversized, thus making the heat transfer even more efficient.

Other Advantages from Inverter Compressor Technology:

- Altherma is able to modulate its capacity and therefore there is no need for the bulky buffer tanks (typically 100-200 litre capacity) that are required on many fixed speed systems
- Low starting currents – no high inrush on start up, Altherma start current is always lower than the run current
- All units are single phase – perfectly suited to domestic application
- High efficiency – only uses what it needs
- Less compressor on/off cycling – extends compressor life



Above: Inverter versus fixed speed heat pump

Weather Compensation

Whatever the temperature outside Altherma optimises the temperature inside.

Altherma has weather compensation built into its integrated control system. Weather compensation allows the Altherma system to minimise energy input to achieve optimum temperature conditions. Compared to most systems Altherma will be more efficient and cost less to use. Altherma has weather compensation built in as standard.

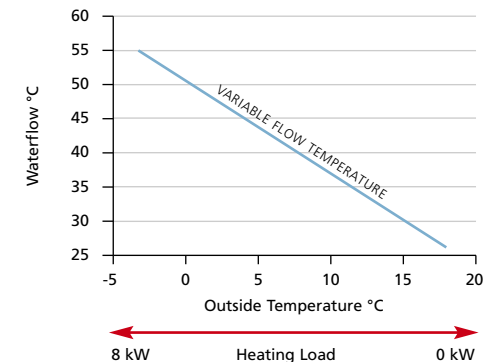
How it works:

Typically, systems are designed to meet the heat loss of the dwelling at the minimum expected outdoor temperature, for example kW at -5°C.

As the outside temperature gets warmer the heating requirement of the home is reduced. In a traditional system such as a boiler and radiator system there is a high fixed flow temperature, for example 70°C. This means that the heating system is oversized when the temperature outside is warmer than the design condition and as a consequence the system will heat in bursts, frequently starting & stopping. This reduces the end user comfort and is a waste of valuable energy!

Altherma has a weather compensation system as part of its control and so as the temperature outside increases and therefore the heating requirement reduces, it can control the temperature inside the home by

Weather Compensation Graph



regulating the flow temperature in the radiator or under floor heating system. This optimises energy usage without compromising the temperature inside the house or apartment, saving up to 30% in energy costs compared to those without weather compensation.

Housebuilder Advantages

The Altherma system not only provides a solution to meet current and future regulations, it also provides the housebuilder with an added value product to market to their customers.

Truly cost effective renewable solution

Altherma enhances the Code for Sustainable Homes rating, improves the environmental standing of the building company and helps secure planning permission. Altherma is cost effective when compared to other renewable technologies such as ground source heat pumps, photo voltaic panels or biomass systems.

Ease of installation

Compared to traditional heating systems there are no flues, no gas or oil piping to install. There is no need for storage tanks, no gas main connection, no additional ventilation

requirements. The electrical supply is single phase and the system has low starting currents. The installation, one for each individual dwelling, could not be any more straightforward.

The most cost effective heat pump system

Compared to other types of heat pump system there is no need for expensive ground works or bore holes. Altherma comes as a completely integrated system for the housebuilder; with outdoor unit, indoor hydro-box and water tank all controlled by a built in control system.

Complete solution from Daikin

The whole system is manufactured, supplied by a single provider, Daikin. Daikin has a well established network of professionally trained engineers to support the design and installation needs of the housebuilder.



Housebuilder Benefit

Altherma is the most cost effective renewable technology solution available today for heating and hot water systems in apartments and houses.



Homeowner Advantages

A home that includes an Altherma installation will become a dream come true for most homeowners in today's environmentally conscious world.

Reduce energy costs

Altherma will have a lifetime cost saving of many thousands of pounds with a reduced fuel cost of up to 50% combined with minimal maintenance requirements.

Daikin - a name you can trust

Daikin a company well known and trusted, manufactures Altherma which is a tried and tested reliable system. The system is state of the art technology well ahead of its competitors.

Heating all year round whatever the weather

Altherma will provide all year round heating and ample hot water even in the most extreme conditions.

Safe to use for you and the world

Altherma is an added value product which is much safer and has technology that will reduce the carbon foot print by up to 50% when compared to traditional systems.

Altherma is truly a product of tomorrow, available today!

A renewable energy solution which can provide all year round, heating and hot water, even in the most extreme weather conditions.





Confidence for you Comfort for your Customers

Customer Satisfaction

In today's consumer driven world Altherma will meet all customer expectations. Space heating controlled precisely and efficiently, hot water always readily available. An inbuilt functionality to meet all circumstances including boost function for rapid recovery, back up heater for extreme circumstances and options for integrating solar panels.

Altherma is a renewable energy solution that helps to minimise carbon emissions and so reduces the pressures on global warming and reliance on fossil fuels.

Daikin... a brand you can trust

Altherma is a tried and tested system with thousands of units installed around the world.

Daikin has a reputation for the highest quality products which are reliable and robust. Even in extreme conditions (to -20°C) Altherma will give supreme performance all year round.



Homeowner Benefit

Using the integrated control system for Altherma, the user is able to set up a full weekly programme. In this way, the temperature is reduced automatically at night or during holiday periods, and it is once again pleasantly warm when the user gets up or returns home.

The Benefits of Altherma to the House Builder & Developer

Altherma is the best sustainable energy solution for domestic heating and hot water available in the marketplace. Altherma is a well proven and tested product, able to meet the needs of modern building requirements and legislation in terms of carbon emissions and improved energy efficiency.

Using the latest heat pump technology Altherma can be adapted to suit the most commonly used heating emitters to produce low cost heating and hot water to most houses and apartment buildings.

The message is clear

Altherma satisfies the heating and hot water needs in houses and apartments for everyone, from the housebuilder and developer, to the home owner.

*Simplicity itself...
Altherma maximising
the use of sustainable
free energy from
the air, for home
heating and hot water,
all year round.*



- ✓ 30 – 50% reduction in CO₂ emissions
- ✓ Meets & exceeds CO₂ reduction targets required by building regulations
- ✓ Helps achieve 3 stars rating in the code for sustainable homes
- ✓ Low running costs
- ✓ Low maintenance
- ✓ Low noise – unobtrusive and quiet
- ✓ Easy to install, no groundwork i.e. trenches or boreholes
- ✓ No gas supply required
- ✓ Ideal for properties not on the gas grid
- ✓ No flues or ventilation required
- ✓ No fuel storage tanks required
- ✓ Comparable installation costs to gas fired boilers
- ✓ Suitable for both apartments & houses
- ✓ Single phase power supply with low starting current
- ✓ Flexible, can be connected to underfloor heating, low temperature radiators or fan coils
- ✓ Weather compensation built in as standard



INDOOR UNIT			EKHBH008AA***	EKHBX008AA***	EKHBH016AB***	EKHBX016AB***
Function			Heating only	Reversible	Heating only	Reversible
Dimensions	H x W x D	mm	922x502x361	922x502x361	922x502x361	922x502x361
Leaving water temperature range	heating	°C	15-50		15-55	
	cooling	°C	-	5-22	-	5-22
Drain valve			Yes			
Material			Epoxy polyester painted galvanised steel			
Colour			RAL 9010 (neutral white)			
FACTORY MOUNTED HEATER			POWER SUPPLY		CAPACITY STEPS	
EKHBH(X)008AA3V3 / EKHBH(X)016AB3V3			1 ~ /230V		1	
EKHBH(X)008AA6V3 / EKHBH(X)016AB6V3			1 ~ /230V		2	
EKHBH(X)008AA9WN / EKHBH(X)016AB9WN			3 ~ /400V		2	



OUTDOOR UNIT			ERHQ006AD	ERHQ007AD	ERHQ008AD	ERHQ011AA	ERHQ014AA	ERHQ016AA
Dimensions	HxWxD	mm	735x825x300			1170x900x320		
Nominal Capacity	heating	kW	5.75	6.84	8.43	11.2	14.0	16.0
	cooling	kW	5.12	5.86	6.08	10.0	12.5	13.1
Nominal input	heating	kW	1.26	1.58	2.08	2.46	3.17	3.83
	cooling	kW	2.16	2.59	2.75	3.60	5.29	5.95
COP			4.56	4.33	4.05	4.55	4.42	4.18
EER			2.37	2.26	2.21	2.78	2.36	2.20
Operation range	heating	°C	-20 ~ 25			-20 ~ 35		
	cooling	°C	10 ~ 43			10 ~ 46		
	hot water	°C	-20 ~ 43			-20 ~ 43		
Sound pressure level	heating	dBA	48	48	49	49	51	53
	cooling	dBA	48	48	50	50	52	54
Weight			56			103		
Refrigerant charge	R-410A	kg	1.7			3.7		
Power supply			1 ~ /230V/50Hz			1 ~ /230V/50Hz		
Recommended fuses	A		20			32		

Nominal Capacity and Power input based on the following conditions:
Heating: Ambient 7°CDB/6°CWB / Leaving Water Temp. 35°C (DT 5°C) **Cooling:** Ambient 35°C / Leaving Water Temp. 7°C (DT 5°C)

DOMESTIC HOT WATER TANK



		EKHS150B3V3	EKHS200B3V3	EKHS300B3V3	EKHWSU150B3V3	EKHWSU200B3V3	EKHWSU300B3V3
Suitable for		Open Vent System			Unvented system (EKUHWB kit also required)		
Water volume	l	150	200	300	150	200	300
Max water temperature	°C	85			85		
Booster heater capacity	kW	3			3		
Power supply	ph/V/Hz	1/230/50			1/230/50		
Height	mm	900	1150	1600	1015	1265	1715
Diameter	mm	580			580		
Empty weight	kg	37	45	59	38	46	60
Colour	Neutral White			Neutral White			
Material inside tank	Stainless Steel (DIN 1.452 1)			Stainless Steel (DIN 1.452 1)			
Material outside casing	Epoxy-Coated Mild Steel			Epoxy-Coated Mild Steel			
Piping connections (Diameter water inlet H/E)	inch	3/4" FBSP					
Water outlet H/E	inch	3/4" FBSP					
Cold water in	inch	3/4" FBSP					
Hot water out	inch	3/4"					

SOLAR ENABLING KIT

SOLAR ENABLING KIT			EKSOLHWAV1
Dimensions	HxWxD	mm	770x305x270
Heat exchanger	Pressure drop	kPA	21.5
	max. inlet temp.	°C	110
	capacity	W/	1,400
Ambient temperature	max.	°C	35
	min	°C	1
Power supply			1 - /220-240V/50Hz
Power supply intake			Indoor unit

OPTIONS - OUTDOOR UNIT

		Hydro Box Heating Only EKHBH008 EKHBH016	Hydro Box Reversible EKHBH008 EKHBH016	Outdoor Unit ERHQ006-016
EKHBDP	Drain pan Kit for cooling operation below 18°C	n/a	•	n/a
EKRP1HB	Option PCB for solar connection and remote alarm reporting	•	•	n/a
EKBPHT16	Drain pan heater tape	n/a	n/a	•

ACCESSORY KIT FOR UNVENTED SYSTEMS - DOMESTIC HOT WATER TANK

		Domestic Hot Water Tank EKHSU-B3V3	Domestic Hot Water Tank EKHS-B3V3
EKUHWB	Includes: Combined Pressure Reducing Valve, Non Return Valve, Strainer, Expansions Relief Valve, Expansion Vessel, Tundish	•	n/a
EKUHW2WB	Separate 2 way valve (To use with EKUHWB for installations with Solar Kit)	•	n/a

“Expectations of consumers are changing...

An increased expectation and even demand for products that are ‘low carbon’ and ‘energy efficient’ is now becoming a driving factor when choosing a home heating system...

...The Altherma system easily satisfies and even exceeds these consumer demands, offering the housebuilder truly unrivalled sales and marketing value.”



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Daikin's unique position as a manufacturer of heat pumps equipment, compressors and refrigerants has led to its close involvement in environmental issues. For several years Daikin has had the intention to become a leader in the provision of products that have limited impact on the environment. This challenge demands the eco design and development of a wide range of products and an energy management system, resulting in energy conservation and a reduction of waste.



Daikin Europe N.V. is approved by LRQA for its Quality Management System in accordance with the ISO9001 standard ISO9001 pertains to quality assurance regarding design, development, manufacturing as well as to services related to product.



ISO14001 assures an effective environmental management system in order to help protect human health and the environment from the potential impact of our activities, products and services and to assist in maintaining and improving the quality of the environment.



Daikin units comply with the European regulations that guarantee the safety of the product.



Daikin Europe N.V. participates in the Eurovent Certification Programme for Air Conditioners (AC), Liquid Chilling Packages (LCP) and Fan Coil Units (FC): the certified data of certified models are listed in the Eurovent Directory. Multi units are Eurovent certified for combinations up 2 indoors units.

Daikin products are distributed by: