

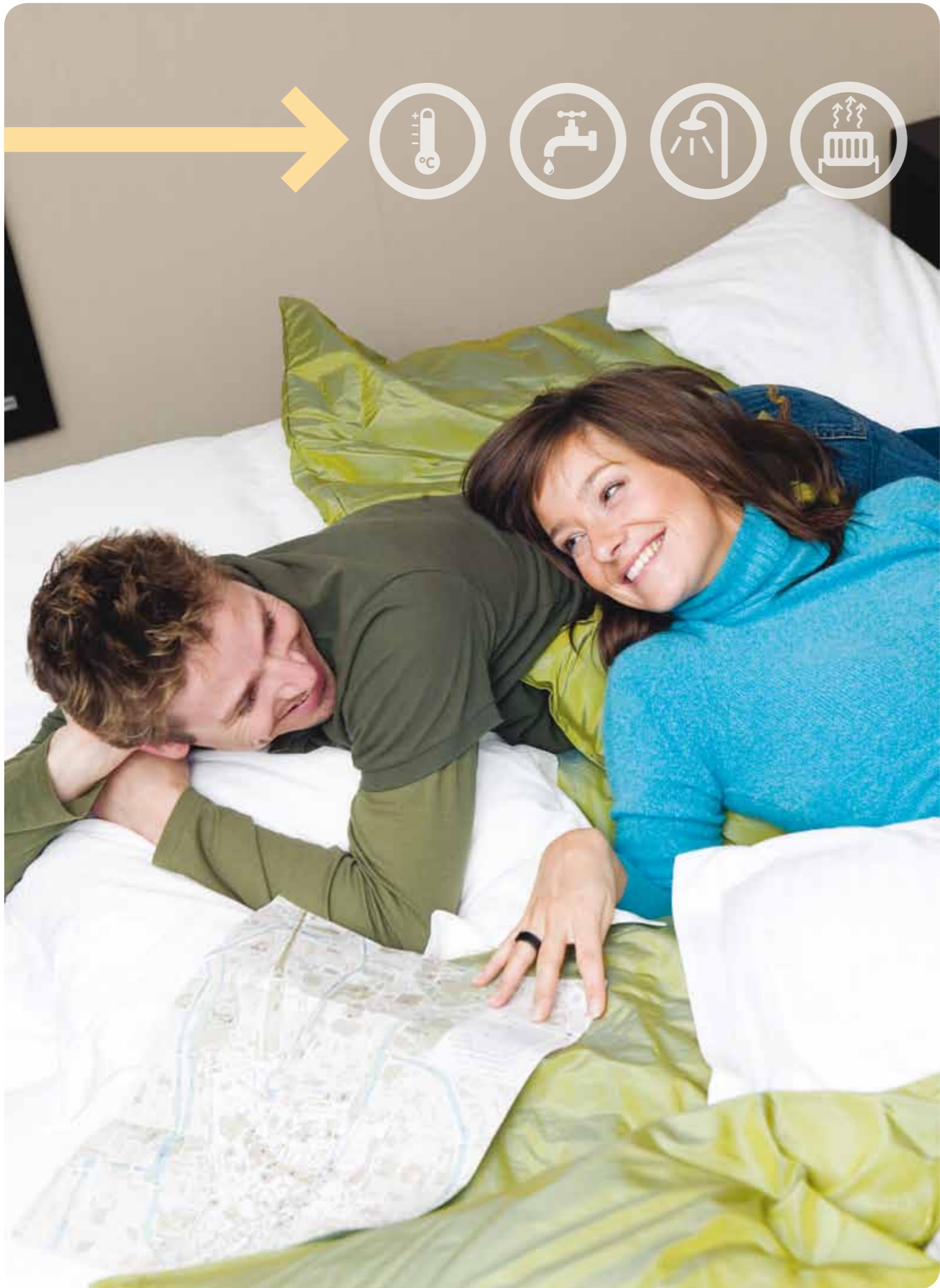


Heating Catalogue



Supplied by:

Vent-Axia



Changing the way we heat our homes



Now is the time to rethink the way we heat our homes and hot water. Central heating systems as we know them today are about to change dramatically.

Why? Fuel prices are rising.

Fossil fuel sources are becoming increasingly restricted. Everyone is concerned about reducing their energy bills. And the more eco-conscious among us also want to reduce our impact on the environment.

Whether for environmental or financial reasons (or even better, both), finding a more energy efficient and economical way to heat our homes is now a real priority – for the Government, for housing providers and for forward thinking home owners alike.

The good news is that you can get cheaper and ‘greener’ heat, without compromising on system performance.

Daikin’s efficient heating solutions make maximum use of the renewable energy all around us, converting free heat from the air and the sun to deliver completely reliable and controllable heating and hot water for homes, even when temperatures outside are below zero.

Daikin’s heating and renewables range offers:

- Savings on running costs
- Reduction in CO₂ emissions
- Easy installation
- Space saving, low noise units
- Safe, easy maintenance
- High reliability
- Solutions for new homes and for retrofit



Why the time is right for a new approach to heating our homes



Why choose efficient heating and renewable solutions from Daikin?



“ I want to see more homes, communities and businesses generating their own energy. We can literally bring power back to the people.”

Climate Change Minister, **Gregory Barker**

A Green Deal for householders

Our homes account for almost 27% of the UK's CO₂ emissions, more than 80% of which is attributed to our heating and hot water provision. Older, harder to heat properties make up the majority of homes in the UK and many have poor insulation, leading to excessive heat loss. The Government is committed to reducing CO₂ emissions and improving energy efficiency in our homes through a new Green Deal, announced in 2010, which will help individuals to invest in home energy-efficiency improvements.



A new Microgeneration Strategy

A new Microgeneration Strategy, is to be published in early 2011, with the express purpose of promoting microgeneration technologies. The Department of Energy and Climate Change is also looking at how we move forward to ensure the right incentives are in place for renewable heat.

The European RES Directive

The European RES Directive has set a goal that 20% of our total energy production must be produced from renewable energy sources by 2020. Air source heat pumps and solar thermal systems are recognised as renewable energy sources, so the market for these will grow fast over the next decade.

The Code for Sustainable Homes

The Code for Sustainable Homes is a national standard in England and Wales, setting minimum energy efficiency standards in homes from levels 1-6. All public sector housing must now achieve Level 4 of the Code: a 44% improvement in energy efficiency on the Building Regulations Part L 2006. All private sector housing will have to achieve the same level by 2013. Reaching these higher levels will require major changes to the way properties are designed and built – and energy efficient or renewable heating systems will be in big demand.



Daikin heating systems are more than capable of delivering all of a home's heating and hot water requirements throughout the year – even when the temperature outside is down to -20°C.

Daikin systems use tried and tested technology

As a global leader with more than 50 years' experience in the design and manufacture of heating and cooling technology, Daikin provides a comprehensive choice of domestic heating and renewable energy products which are ideally suited to the UK housing market.

Daikin has systems to suit every requirement

With our excellent range of high temperature, low temperature and solar thermal systems, we offer the most advanced solutions for new builds, renovation projects and retrofit installations – from detached rural homes and harder to heat older properties to city centre apartment schemes and affordable housing.

Fully packaged system from one manufacturer

Daikin offers all the components of a heating system, including the hot water cylinder, from one manufacturer. All our products combine to create a completely integrated system from a world-class brand, renowned for quality, reliability and performance. So every component is designed to work together for optimum performance and efficiency – guaranteed.

MCS Certification

Daikin Altherma air source heat pumps are certified by the Microgeneration Certification Scheme (MCS). This scheme certifies both microgeneration products and installers. The MCS gives an installer a mark of competency and demonstrates that they can install to the highest quality every time.



European Eco-label

Daikin Altherma products carry the European Eco-label, certifying their performance meets EU-wide environmental criteria. The Eco-label scheme represents products in the top of their class for environmental performance, with compliance verified by an independent test body.



Quiet Mark

Daikin Altherma range is also the first to achieve the Quiet Mark from the Noise Abatement Society (NAS). Daikin is the first heat pump manufacturer to receive this recognition in the UK, which proves that Daikin Altherma products operate at very low sound levels comfortable for human hearing tolerances.



What's more?

As a SAP Appendix – Q listed product, Daikin Altherma system can help achieve higher SAP ratings within a dwelling when its performance data is included in SAP calculations instead of default values for air source heat pump.





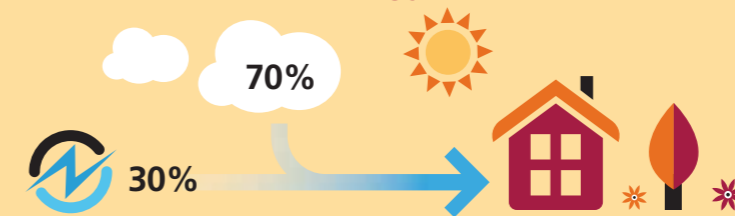
Daikin Altherma Air Source Heat Pumps



Innovation and quality are constantly at the forefront of Daikin's philosophy. Daikin's systems provide highly efficient solutions, which minimise the impact on the environment and running costs.

Daikin Altherma is a domestic heating and hot water system based on air source heat pump (ASHP) technology. It represents a flexible and cost-effective alternative to a fossil fuel boiler.

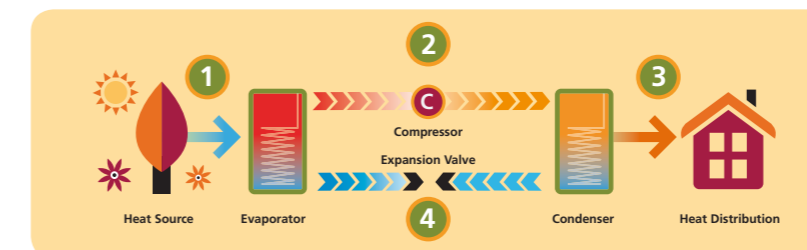
70% of heat is generated free from renewable energy - the air



A heat pump simply moves heat, extracting the latent heat from the outside air and transferring it into the

water of the central heating and hot water system. Basically, it works like a refrigerator, but in reverse!

How does a heat pump work?



1 A heat exchanger contains refrigerant, which is colder than the outside air. As the air passes the exchanger, the refrigerant absorbs the latent heat from the outside air and evaporates.

2 The vapour passes into the compressor and is compressed, increasing its pressure and temperature, effectively concentrating the heat.

3 Hot vapour is condensed in the second heat exchanger where heat is rejected and the vapour condenses back into a liquid. The rejected heat passes into the central heating and hot water system, ready for use in the home.

4 The liquid refrigerant passes back through an expansion valve, ready to start the cycle again.

Daikin Altherma Advantages over Traditional Boiler Systems

- 3 to 5 times more efficient
- Advanced Energy Saving Features
 - Weather compensation built in as standard
 - Inverter Compressor Technology
- 30 – 50% reduction in CO₂ emissions
- Low running and maintenance costs
- Low noise – unobtrusive and quiet
- Easy to install, no groundwork i.e. trenches or boreholes
- Ideal for off gas grid properties
- Single phase power supply with low starting current
- Flexible, can be connected to underfloor heating, radiators or fan coils
- As a package of energy saving measures, helps towards higher rating in the Code for Sustainable Homes
- Can be connected with a solar thermal system which can provide up to 60% of your hot water needs.



Low Temperature Systems – Split System



The Daikin Altherma LT Split system offers complete flexibility for both new build and refurbishment projects, where a water temperature of up to 50°C is sufficient.

System elements

Solar thermal system

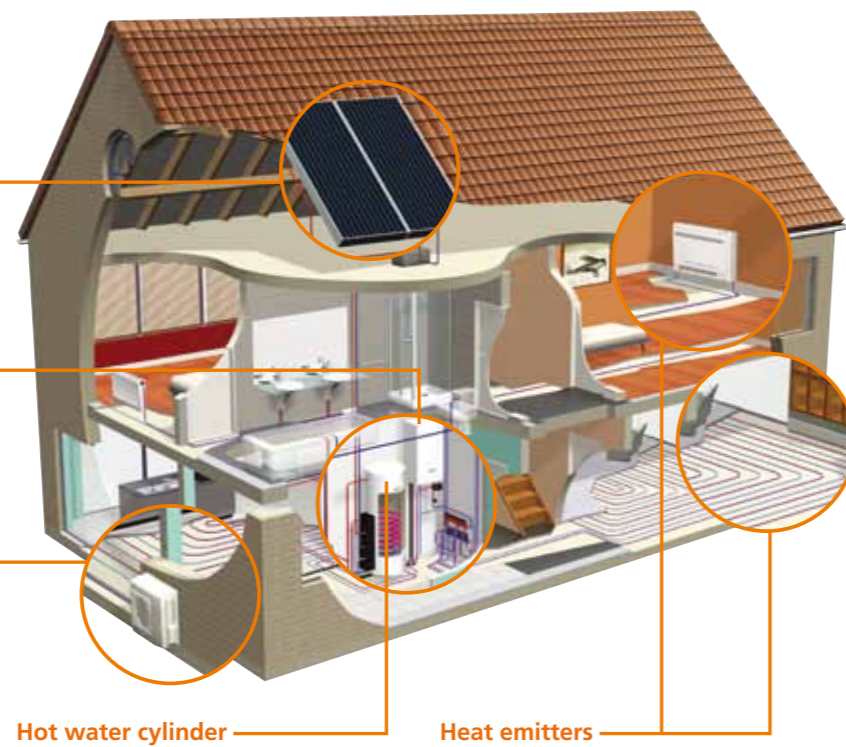
The low temperature system also offers the option of being connected with an indirect pressurised solar thermal system to create a fully renewable system.

Indoor Unit

The wall hung indoor unit, or hydrobox, generates water temperatures of up to 50°C for use with heating emitters and for hot water production.

Outdoor unit

The outdoor unit extracts heat from the outside air and transfers it to the indoor unit via refrigerant piping. The outdoor unit can be located up to 70 metres from the indoor unit.



Hot water cylinder

The hot water cylinder is specially designed to maximise hot water supply and comes in three sizes: 150, 200 and 300 litres.

Heat emitters

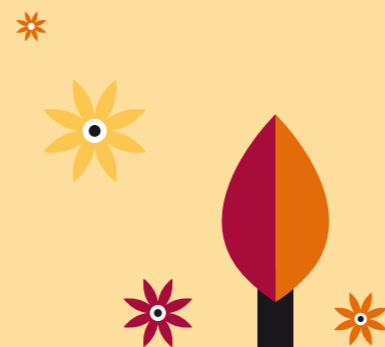
The low temperature system can work with low temperature radiators, underfloor heating, fan coils or heat convectors. Fan coils and heat convectors can provide both heating and cooling if required.



Stylish design

The Daikin Altherma LT Split system is now also available with integrated design.

- Floor standing indoor unit.
- Provides installation benefits to installers and homeowners.
- Cylinder can be mounted on top of the indoor hydrobox, saving space inside the house.
- Quicker installation time
- Improved cylinder efficiency and performance.



Low Temperature Systems – Monobloc System



When there are internal space constraints, the Daikin Altherma LT Monobloc system offers a perfect solution as it combines all the main hydraulic components in a single outdoor unit, and no refrigerant handling qualification is required.

System elements

Solar thermal system

Optional connection with solar panels to create a fully renewable system

Hot water cylinder

The hot water cylinder is specially designed to maximise hot water supply and comes in three sizes: 150, 200 and 300 litres.

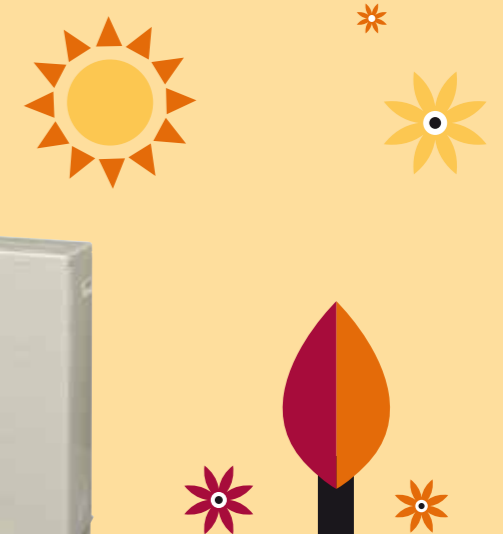
Outdoor Unit

Simplified installation, as it requires only power and water connections. Sealed refrigerant circuit including back-up heater.



Daikin Altherma LT Monobloc is now available in 6kW and 8kW capacities, ideal for small properties, extending the existing range:

- Quick installation
- Simplified wiring
- All hydraulic components included in the unit
- Connects with solar thermal systems to create a completely renewable solution for even greater energy savings
- Plug and go solution for tight spaces requiring smaller capacities
- Back-up heater indoors.



Daikin Altherma High Temperature



In older or harder to heat properties, you need a system that reliably delivers higher flow water temperatures, up to 80°C, without necessarily replacing the whole radiator system.

System elements

Solar system

The high temperature system can also be connected with a solar thermal system, for greater efficiency and cost savings.

The high temperature system works in conjunction with an unpressurised drain-back solar thermal system and thermal store.

Outdoor unit

The outdoor unit extracts heat from the outside air and transfers it to the indoor unit via refrigerant piping.



Indoor Unit

The floor standing indoor hydrobox increases the temperature, generating water temperatures of up to 80°C for use with radiators and for hot water production.

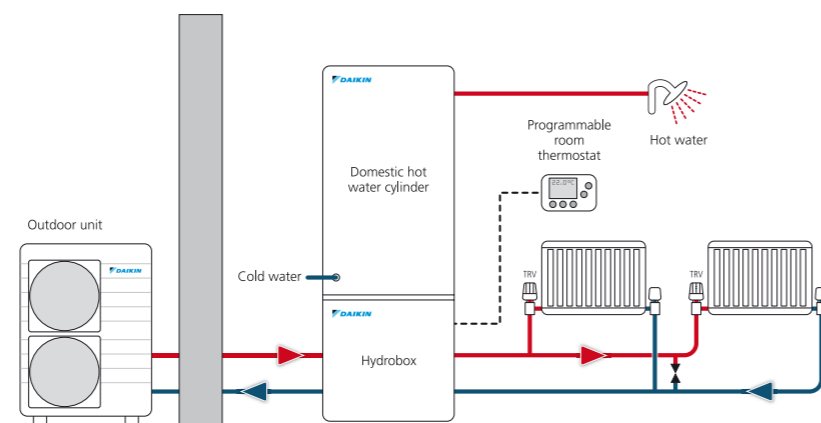
Hot water cylinder

The hot water cylinder can be stacked on top of the indoor unit, thus saving space. This cylinder is replaced by a Daikin thermal store when the heat pump is installed in conjunction with a drainback solar system.

For boiler replacement and retrofit projects:

The Daikin Altherma High Temperature system is ideal for straight-forward boiler replacement. The system offers:

- Superior and unique cascade heat pump technology
- Water flow temperature of up to 80°C, without extra electric heating
- Hot water recovery time as fast as a gas boiler
- Modular design and easy to install – all components are pre-assembled



Typical HT system

Solar Thermal Systems

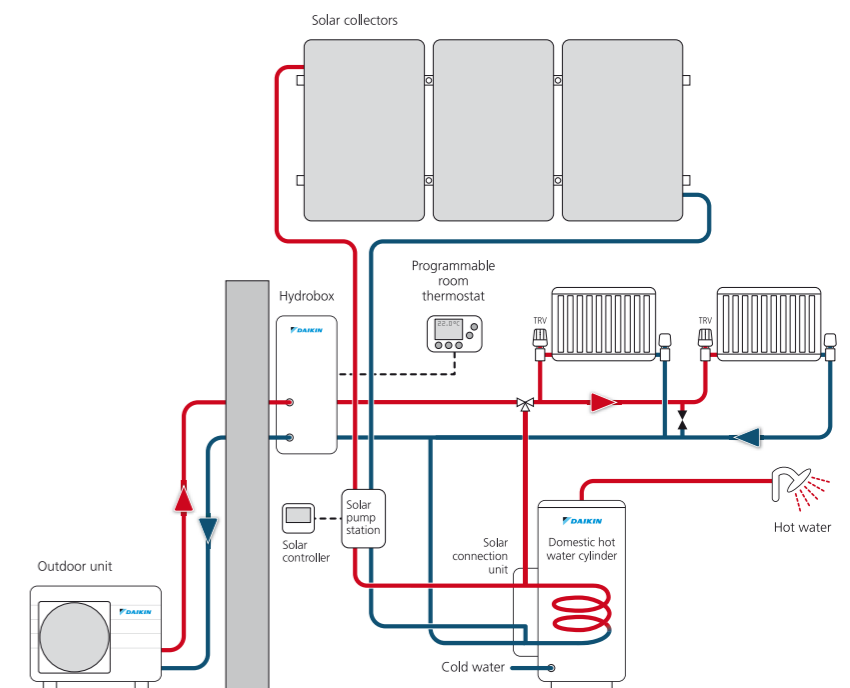


Daikin Solar Systems integrate with the Daikin Altherma range of heat pumps to provide extra renewable energy support for domestic hot water.

Integrating Daikin Solar Thermal with the Daikin Altherma Heat Pump

In combination with solar collectors, Daikin Altherma maximises the use of renewable free energy from the environment, therefore delivering highest energy utilisation and very low environmental impact.

- High efficiency flat plate collectors
- Quick and easy connection of panels
- Robust panel design
- Selective coating on absorber
- Strong solar glass cover
- Intelligent control for optimum utilisation of the solar energy
- Simple and reliable technology
- CO₂ reduction, environmental benefits
- Daikin Solar system and Daikin Altherma helps towards achieving high levels in the Code for Sustainable Homes
- The solar energy (kWh) is measured by a sensor, which controls the heat pump speed for maximum efficiency.
- Can be retrofitted to existing Daikin heat pump installation.



Typical LT system with pressurised solar thermal system

Solar Thermal Systems

A choice of solar thermal systems ensures the correct solution for your project.



Daikin solar thermal systems offer complete flexibility and are available for indirect pressurised and drainback systems in pre-defined packs for easy selection. Packs are based on flat plate panels.

Indirect Pressurised Systems

Pressurised panels are available, for use with Low temperature heat pump, in packs of one, two or three panels, and in horizontal or vertical orientation for profiled or slate type tiles.

A simple solar enabling kit connected to the Daikin Altherma cylinder can automatically switch from heat pump to solar when there is sufficient heat to heat the water cylinder.

The Indirect Pressurised Solar Pack includes:

- Flat plate collectors
- Roof brackets for concrete/profiled tiles x 4
- Mounting rail for panel
- Hydraulic connection kit
- Solar controller
- Solar pump station
- Flow sensor
- Solar fluid 20 litres
- Coupling kit for multiple panels.

Drainback systems

Drainback systems, for use with high temperature heat pump, are available in packs of one, two, three, four or five panels, in horizontal or vertical orientation. They are also available for profiled or slate type tiles for red or anthracite roof.

- The solar collectors are only filled with water when enough heat is provided by the sun.
- In this case, pumps in both the control unit and the pump unit switch on and fill the collectors with water from the thermal store in less than a minute.
- Daikin thermal store
 - Highly efficient, stratified thermal store for hot water
 - Highly insulated (80mm)
 - No antifreeze required – higher efficiency and lower maintenance
 - Solar energy held within the store can also be used for heating support
 - Up to 800 litres of hot water before re-heat required.



The Drainback Solar Pack includes:

- Flat plate collectors
- Roof brackets for concrete/profiled tiles x 4
- Mounting rail for panel
- Hydraulic connection kit including Anthracite and red roof cowl
- Solar controller & pump station
- Coupling kit for multiple panels.

Solar Keymark certification



Daikin Solar collectors have Solar Keymark certification, the quality label for solar thermal products in Europe. This accreditation certifies that the solar collectors (models EKSV26P and EKSH26P) comply with EN 12975.

The Solar Keymark certification helps customers to select quality assured solar collectors. Daikin solar collectors are now listed on the Solar Keymark Collector international database.

For an up to date list of products awarded the Solar Keymark, go to www.estif.org/solarkeymark and click 'products'.

Heat Pump convectors



Daikin Altherma heat pumps are compatible with many different types of heat emitters such as heat convectors.



Heat Pump Convectors

Heat pump convectors can provide both heating and cooling if required and can be used with the Daikin Altherma heat pump to offer a compact and highly efficient solution:

- Designed to operate at low flow temperature (35°C) to optimise the efficiency of an air to water heat pump
- Super quiet operation
- No draughts
- Able to heat and cool
- Compact size
- Unique solution
- Savings on running costs.

Can easily replace existing heat emitters

- Ideal solution for difficult areas instead of underfloor heating (i.e. bedrooms) or instead of large unsightly radiators
- Deliver ample levels of heat, even at low water temperatures
- Offer remote control of each convector, for easy control of room temperature, fan speed, automatic or night mode, rapid heating or cooling and weekly timer
- Easy to use controls
- Can be installed against wall or recessed
- Plug and play installation.

Intelligent integration with Daikin Altherma system

If required, the heat pump convector and the other heat emitter can be set at two different temperature zones, thanks to the unique interlink function, which enhances the performance of the heating system.

In refurbishment projects, where it can be difficult to install a drain pipe, a unique feature is that the cooling is still possible by limiting the water temperatures.



Testimonials



Crown Estates

“Daikin UK has provided us with the confidence and backup to ensure the smooth installation of the product which required only minor adaptation to the existing heating and hot water pipe work.” spokesman for the Crown Estate.

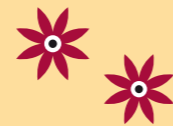


High Standing Lodge, owned by The Crown Estate in Windsor Great Park was due for a total refurbishment. Until the summer of 2009 it had been heated by an oil fired system, however the Estate wanted to trial an air source heat pump installation in line with its commitment to sustainable energy production.

A Daikin Altherma HT 11 kW unit was selected from the high temperature range and since commissioning water flow temperatures of 75°C and hot water storage temperatures of 70°C have been recorded.

The main benefits of Daikin Altherma HT at this property are:

- Daikin Altherma HT works in conjunction with existing radiator heat emitters or new radiators designed for flow temperatures of 70°C to 80°C (normally supplied by conventional fossil fuel boilers)
- Simulation software estimates that the new installation will provide approx 55% carbon emission reduction and will deliver efficiencies of 310%
- The installation will also save on running costs
- There is no need for a back up electrical heating system as Daikin Altherma HT is able to provide heating and hot water all through the year, even on the coldest days
- The electrical requirement is single phase 240 volt electrical supply. There are no chimneys, flues or fuel storage tanks needed
- The system is very safe to use as there is no flammable fuel usage or poisonous flue gases.



New build home in Norfolk

“After many years of using electric heating and now with the cost of energy escalating we decided that Daikin Altherma would be an ideal solution combined with underfloor heating. We anticipate energy savings of well over 50% compared to the equivalent electric or oil fired system.” Mr Cornwall



When Mr and Mrs Cornwall decided to build a new bungalow for their retirement the incorporation of renewable technology to provide efficient and environmentally compatible solutions was high on their agenda.

They already had solar water heating in their previous bungalow and as there was no gas supply available in their area they were keen to include the use of modern renewable heating and hot

water solutions in their new home to ensure maximum energy efficiency and to maintain affordable running costs.

The bungalow was designed with underfloor heating to provide a system with 400% efficiencies compared with oil and gas. This would provide huge savings in the expected 20 year lifetime of the system.

Low Temperature Application Daikin Altherma – Split



Technical Data



INDOOR UNIT			EKHBH008B***	EKHBX008B***	EKHBH016B***	EKHBX016B***
Function			Heating Only	Reversible	Heating Only	Reversible
Dimensions	H x W x D	mm	922 x 502 x 361			
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)			



OUTDOOR UNIT			ERHQ006BV3	ERHQ007BV3	ERHQ008BV3	ERHQ011B**	ERHQ014B**	ERHQ016B**
Dimensions	HxWxD	mm	735 x 825 x 300			1170 x 900 x 320		
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					
Sound Pressure / Power Level	Heating	dBA	48 / 61		49 / 62	49 / 64	51 / 64	53 / 66
	Cooling	dBA	48 / 63		50 / 63	50 / 64	52 / 66	54 / 69
Weight	kg		56			103		
Refrigerant Charge	R-410A	kg	1.7			3.7		
Power Supply			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)

Sound Pressure Level Measured at 1m from the Unit

COMBINATION TABLE INDOOR – ACCESSORIES		EKHBH008B***	EKHBX008B***	EKHBX016B***	EKHBX016B***
Stainless Steel DHW Cylinder (unvented)	EKHWSU150B3V3	•	•	•	•
	EKHWSU200B3V3	•	•	•	•
	EKHWSU300B3V3	•	•	•	•
Solar Enabling Kit	EKSOLHWAV1	•	•	•	•
Optional PCB for Solar Connection and Remote Alarm Reporting	EKRP1HB	•	•	•	•
Wired Remote Control	EKRTW	•	•	•	•
Wireless Remote Control	EKRTR + EKRTETS	•	•	•	•

Low Temperature Application

Daikin Altherma – Monobloc



Technical Data

Note that specification tables refer to Product part numbers. Please check the material reference on the Price list at time of ordering

OUTDOOR UNIT – SINGLE PHASE	HEATING ONLY			REVERSIBLE				
	EDHQ011A6V3	EDHQ014A6V3	EDHQ016A6V3	EBHQ011A6V3	EBHQ014A6V3	EBHQ016A6V3		
Nominal Capacity	Heating	kW	11.2	14	16	11.2	14	16
	Cooling	kW	-			10	12.5	13.1
Nominal Input	Heating	kW	2.47	3.2	3.79	2.47	3.2	3.79
	Cooling	kW	-			3.6	5.3	5.85
COP			4.54	4.37	4.22	4.54	4.37	4.22
EER			-			2.78	2.36	2.24
Operation Range	Heating	°C	-15 ~ 35*			-15~35*		
	Cooling	°C	-			10 ~ 46		
	Domestic Water	°C	-20 ~ 43			-20 ~ 43		
Sound Power Level	Heating	dB(A)	64	64	66	64	64	66
	Cooling	dB(A)	-			64	66	69
Sound Pressure Level	Heating	dB(A)	51	51	52	51	51	52
	Cooling	dB(A)	-			50	52	54
Dimensions	H x W x D	mm	1418 x 1435 x 382			1418 x 1435 x 382		
Weight		kg	180			180		
Refrigerant Charge	R-410A	kg	2.95			2.95		
Power Supply			1 ~ / 230V / 50Hz			1 ~ / 230V / 50Hz		
Recommended Fuses	A		32			32		

MONOBLOC 6kW-8kW			EBHQ006BAV3	EBHQ008BAV3
COP			4.56	4.05
Sound power level	Heating	dB(A)	61	62
	Cooling	dB(A)	63	63
Sound pressure level	Heating	dB(A)	48	49
	Cooling	dB(A)	48	50
Dimensions	HxWxD	mm	805 x 1190 x 360	
Refrigerant Charge (Factory)		kg	1.7	
Power Supply			1~/230V/50Hz	
Water Connection		"	1"	
BACK UP HEATER KIT			EKMBUHBA6V3	
Dimensions	Max depth	mm	170	
	Max width	mm	380	
	Max height	mm	575	
Power supply			1~/230V/50Hz	
Water connection		"	1 1/4"	
CONTROL BOX			EKCBH008BAV3	EKCBX008BAV3
Function			HEATING ONLY	REVERSIBLE
To use with			EBHQ006~008BAV3	
Dimensions	Max depth	mm	100 (excluding user interface)	
		mm	120 (including user interface)	
	Max width	mm	412	
	Max height	mm	390	
Power supply			1~/230V/50Hz	
Colour			RAL 7011 (iron grey)	

Measuring conditions:

Heating Ta DB/WB 7°C/6°C - LWC 35°C (DT=5°C)

Cooling Ta 35°C - LWE7°C (DT=5°C) *E(D/B)L* models can reach -20°C

Low Temperature Application

Daikin Altherma LT – Hot Water Cylinder



Technical Data



DOMESTIC HOT WATER CYLINDER		EKHWSU150B3V3	EKHWSU200B3V3	EKHWSU300B3V3
Suitable for		Unvented Systems (EKUHWB Kit also required - see below)		
Water Volume	l	150	200	300
Max Water Temperature	°C	85		
Booster Heater Capacity	kW	3		
Power Supply	ph/V/Hz	1 / 230 / 50		
Height	mm	1015	1265	1715
Diameter	mm	580		
Empty Weight	kg	38	46	60
Colour		Neutral White		
Material Inside Cylinder		Stainless Steel (DIN 1.452 1)		
Material Outside Casing		Epoxy-Coated Mild Steel		
Piping Connections (Diameter)	Water inlet H/E	inch	3/4"	
	Water outlet H/E	inch	3/4"	
	Cold water in	inch	3/4"	
	Hot water out	inch	3/4"	

ACCESSORY KIT FOR UNVENTED SYSTEMS		DOMESTIC HOT WATER CYLINDER EKHWSU-B3V3
EKUHWB	Includes: Combined Pressure Reducing Valve, Non Return Valve, Strainer, Expansion Relief Valve, Expansion Vessel, Tundish	•
EKUHW2WB	Separate 2 Way Valve (to use with EKUHWB for installations with Solar Kit)	•



Low Temperature Application

Daikin Solar Thermal System – Pressurised



Technical Data



SOLAR COLLECTOR			EKSV26P	EKSH26P
Position			Vertical	Horizontal
Dimensions	H x W x D	mm	2000 x 1300 x 85	1300 x 2000 x 85
Outer Surface		m ²	2.6	
Absorber Surface		m ²	2.36	
Weight		kg	42	
Water Content		l	1.7	2.1
Absorber			Harp-Shaped Copper Pipe Register with Laser-Welded Highly Selective Coated Aluminium Plate	
Coating			Micro-Therm (Absorption max. 96%, Emission ca. 5% +/- 2%)	
Glazing			Single Pane Safety Glass, Transmission +/- 92%	
Heat Insulation			Mineral Wool, 50mm	
Max. Pressure Drop at 100l/min		mbar	3	0.5
Allowed Roof Angle			15° to 80°	
Max. Standstill Temperature		°C	200	
Max. Operating Pressure		bar	6	
Thermal Performance (*)				
Zero Loss efficiency (o)	Absorber/Gross	%	78.7 / 71.2	
Heat Loss coefficient (a1)	Absorber/Gross	W/m ² K	4.27 / 3.86	

The collectors are standstill resistant over a long period and are tested for thermal shock. Minimum collector yield over 525kWh/m² at 40% covering proportion, location Würzburg, Germany. (*) Thermal performance tested according EN12975-2:2006. Reference surface for o, a1, a2 = absorber surface & gross surface.



SOLAR KIT			EKSOLHWAV1
Dimensions	H x W x D	mm	770 x 305 x 270
Heat Exchanger	Pressure Drop	kPa	21.5
	Max. inlet Temp	°C	110
	Heat Exchange Capacity	W/K	1400
Ambient Temperature	Max.	°C	35
	Min.	°C	1
Power Supply			1 ~ / 220-240V / 50Hz
Power Supply intake			Indoor Unit
Weight		kg	8
Sound Pressure Level		dBA	27



PUMP STATION			EKSRDS1A with controller EKSR3PA
Mounting Method			On Wall
Dimensions	H x W x D	mm	332 x 230 x 145
Power Supply			230V / 50 Hz
Control			Digital Temperature Difference Controller with Plain Text
Max. Electric Power Consumption of the Control Unit	W		2
Solar Panel Temperature Sensor			Pt1000
Storage Tank Sensor			PTC
Return Flow Sensor			PTC
Feed Temperature and Flow Sensor (option)			Voltage Signal (3,5V DC)

High Temperature Application

Daikin Altherma – HT



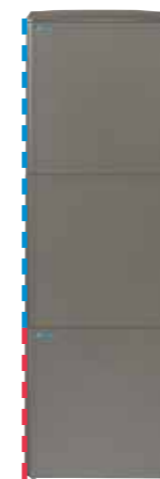
Technical Data



COMBINATION OUTDOOR INDOOR					
OUTDOOR UNIT – SINGLE PHASE			ERSQ011AAV1	ERSQ014AAV1	ERSQ016AAV1
Nominal Capacity	Heating	kW	11	14	16
Nominal input	Heating	kW	3.57	4.66	5.57
COP			3.08	3.00	2.88
Operation Range	Heating	°C	-20 to +20		
	Domestic water	°C	-20 to +35		
Sound Power Level	Heating	dBA	68	69	71
Sound Pressure Level	Heating	dBA	52	53	55
Dimensions	H x W x D	mm	1345 x 900 x 320		
Weight		kg	120		
Refrigerant Charge	R-410A	kg	4.5		
Power Supply			1 ~ / 230V / 50Hz		
Recommended Fuses		A	32		
INDOOR UNIT – FUNCTION HEATING ONLY			EKHBRD011AAV1	EKHBRD014AAV1	EKHBRD016AAV1
Dimensions	HxWxD	mm	705 x 600 x 695		
Weight		kg	144.25		
Leaving Water Temp		°C	25-80 Without Electrical Heating		
Drain Valve / Fill Valve			Yes		
Material			Precoated Sheet Metal		

Measuring conditions: EW: 55°C; LW: 65°C; dT: 10°C; Ambient conditions: 7°CDB/6°CWB

COMBINATION TABLE INDOOR – ACCESSORIES		EKHBRD011AAV1	EKHBRD014AAV1	EKHBRD016AAV1
Stainless Steel DHW Cylinder (unvented)	EKHTSU200AA	•	•	•
	EKHTSU260AA	•	•	•
Wired Remote Control	EKRTW	•	•	•
Wireless Remote Control	EKRTR + EKRTETS	•	•	•



--- DHW cylinder (EKHTSU)

DOMESTIC HOT WATER CYLINDER		EKHTSU200AA	EKHTSU260AA
Suitable For		Unvented Systems (EKUHWHT Kit also required - see below)	
Water Volume	l	200	260
Max Water Temperature	°C	75	
Height	mm	1335	1610
Width	mm	600	600
Depth	mm	695	695
Empty Weight	kg	81	89
Colour		Metallic Grey	
Material Inside Cylinder		Stainless Steel	
Material Outside Casing		Precoated Sheet Metal	
Piping Connections (Diameter)	Water inlet H/E	inch	3/4"
	Water outlet H/E	inch	3/4"
	Cold water in	inch	3/4"
	Hot water out	inch	3/4"

KITS CONNECTED TO DHW CYLINDER		DOMESTIC HOT WATER CYLINDER EKHTSU
EKUHWHTA	Kit for Unvented Systems includes: Combined Pressure Reducing Valve, Non Return Valve, Strainer, Expansion Relief Valve, Expansion Vessel, Tundish	•
EKFMAHTA	Option Kit for Standalone Cylinder, includes Top Plate and Adaptors (to go from quick couplers to screw connections)	•

High Temperature Application

Daikin Solar Thermal System – drainback



Technical Data



SOLAR COLLECTOR			EKSV26P	EKSH26P
Position			Vertical	Horizontal
Dimensions	H x W x D	mm	2000 x 1300 x 85	1300 x 2000 x 85
Outer Surface		m ²	2.6	
Absorber Surface		m ²	2.36	
Weight		kg	42	
Water Content		l	1.7	2.1
Absorber			Harp-Shaped Copper Pipe Register with Laser-Welded Highly Selective Coated Aluminium Plate	
Coating			Micro-Therm (Absorption max. 96%, Emission ca. 5% +/- 2%)	
Glazing			Single Pane Safety Glass, Transmission +/- 92%	
Heat Insulation			Mineral Wool, 50mm	
Max. Pressure Drop at 100l/min		mbar	3	0.5
Allowed Roof Angle			15° to 80°	
Max. Standstill Temperature		°C	200	
Max. Operating Pressure		bar	6	
Thermal Performance (*)				
Zero Loss efficiency (o)	Absorber/Gross	%	78.7 / 71.2	
Heat Loss coefficient (a1)	Absorber/Gross	W/m ² K	4.27 / 3.86	

The collectors are standstill resistant over a long period and are tested for thermal shock.
Minimum collector yield over 525kWh/m² at 40% covering proportion, location Würzburg, Germany.
(*) Thermal performance tested according EN12975-2:2006. Reference surface for o, a1, a2 = absorber surface & gross surface.



PUMP STATION			EKSRP53
Mounting Method			On Side of Tank
Dimensions	H x W x D	mm	815 x 230 x 142
Power Supply			245
Control			Digital Temperature Difference Controller with Plain Text
Max. Electric Power Consumption of the Control Unit		W	2
Solar Panel Temperature Sensor			Pt1000
Thermal Store Sensor			PTC
Feed Temperature and Flow Sensor (option)			Voltage Signal (3,5V DC)



DOMESTIC HOT WATER THERMAL STORE WITH SOLAR CONNECTION			EKHWP300A	EKHWP500A
Mounting Method			Floor Standing	
Casing Colour			Dusty Grey - RAL 7037	
Casing Material			Impact Resistant Polypropylene	
Water Volume		l	300	500
Maximum Water Temperature		°C	85	
Dimensions	H x W x D	mm	1590 x 595 x 615	1590 x 790 x 790
Empty Weight		kg	67	100
Domestic Hot Water Heat Exchanger			Stainless Steel 1,4404	
Volume		l	27.8	28.4
Maximum Operation Pressure		bar	6	
Heat Exchanger Surface		m ²	5.7	5.9
Average Specific Thermal output		W/K	2795	2860
Charging Exchanger			Stainless Steel 1,4404	
Volume		l	12.3	17.4
Heat Exchanger Surface		m ²	2.5	3.7
Average Specific Thermal output		W/K	1235	1809
Auxiliary Solar Heating Exchanger			Stainless Steel 1,4404	
Volume		l	-	5
Heat Exchanger Surface		m ²	-	1
Average Specific Thermal output		W/K	-	313

Heat Emitters



Technical Data



HEAT PUMP CONVECTOR				FWXV15AVEB	FWXV20AVEB
Dimensions		H x W x D	mm	600 x 700 x 210	
Total capacity		Nom.	kW	1.5	2
Heating Capacity		Water Volume	Nom.	m ³ /hr	0.26
				l/min	0.34
Water pressure drop		Nom.	kPa	13	22
Total capacity		Nom.	kW	1.2	1.7
Cooling capacity		Sensible capacity	Nom.	kW	0.98
		Water Volume	Nom.	m ³ /hr	0.2
				l/min	0.29
Water pressure drop		Nom.	kPa	10	17
Air Flow Rate		Heating	H/ML/SL	m ³ /h	318/228/150/126
		Cooling	H/ML/SL	m ³ /h	474/354/240/198
Refrigerant				Water	
Sound Pressure/Power level		Heating		dB(A)	19 / 35
		Cooling		dB(A)	29 / 45
Weight		Unit		kg	15
Power Supply					1 ~ / 230V / 50Hz
Air Filter					Removables/Washable/Mildew proof
Air direction control					Right, Left, Horizontal, Downward
Temperature control					Microcomputer control

Nominal capacity based on following conditions:

Heating: indoor temp. 20°CDB; entering water temp. 45°C, water temperature drop 5K.

Cooling: indoor temp. 27°CDB; entering water temp. 7°C, water temperature drop 5K.

Awards & Industry Associations



Service dedicated to your needs



Our award winning Daikin heating product range.

Environment & Energy Awards 2010

The Daikin Altherma High Temperature system is winner of the Environment & Energy Awards 2010 in the Energy Product/Service category.



In our efforts to support the industry and drive forward developments of new technology, Daikin UK supports the following organisations:

Chartered Institute of Plumbing and Heating Engineers (CIPHE)

Federation of Environmental Trade Associations (FETA)

Heat Pump Association (HPA)

Heating and Ventilating Contractors' Association (HVCA)

National Energy Action (NEA)

Northern Housing Consortium

Scottish Federation Housing Association

Heating and Hot Water Industry Council

Self-Build Product Innovation Awards 2010

The Daikin Altherma High Temperature system is winner of the Self-Build Product Innovation Awards 2010 in the 'Heating, Plumbing, Ventilation and Building Services' category.



Rushlight Awards 2009

In 2009, the Daikin Altherma High Temperature system received two Rushlight Awards for Ground & Air Source Power and the overall Natural Energy Award, which recognises the most significant contribution of the year to renewable energy technology.



Daikin was also a finalist in the following awards:



When you select a Daikin system, you can depend on absolute quality and reliability, both of our products and of our service.

Find an Installer

Daikin Altherma installers are featured on the Find an Installer listing, which offers a fast way to match up installers with projects. Go to www.altherma.co.uk for:

- A database of installers in a local area
- Identification of MCS certified installers
- Links to local installers' website

Daikin UK product training

Daikin UK's customised product training for installers is designed to raise standards, set industry benchmarks and help develop both product and service expertise. We provide the highest quality training and hands on instruction at our industry leading technology centres.

Regional coverage all throughout the country in Glasgow, Birmingham, Bristol, Manchester and Woking. Most of the centres are fully equipped with the latest range of products installed and fully operational for maximum hands on experience.

Local training

Daikin also partners with specialist technical colleges – City of Bath College, College of North West London and Dudley College – to help raise standards, set industry benchmarks and ensure that Daikin trained heating engineers have the necessary expertise to deliver the highly energy efficient heating systems on which our future homes will depend.

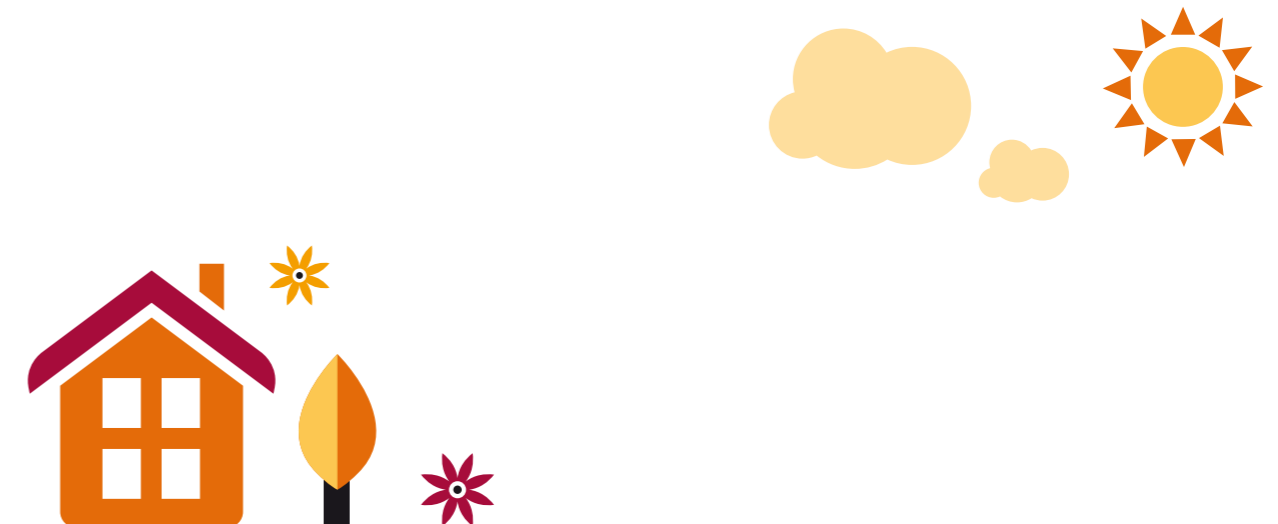
Design Assistance

When designing a Daikin system, Daikin Altherma simulation software can show you the heating system required, its typical running costs, energy consumption and CO₂ savings. System schematics and heat loss calculation tools are also available to help you select the best system for your requirements.

Technical support

Daikin offers pre-sales and after-sales technical support at all branches.

Midlands Region	0845 641 9370
Northern Region	0845 641 9340
North London	0845 641 9360
Central London	0845 641 9350
South London	0845 641 9355
Scottish Region	0845 641 9330
Western Region	0845 641 9320





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Daikin UK 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 the product.



Daikin units comply with the European regulations that guarantee the safety of the 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 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 to 2 indoor units. VRV products, Rooftops, FWB-J and FWD-units are not within the scope of the Eurovent Certification Programme.

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