DAIKIN

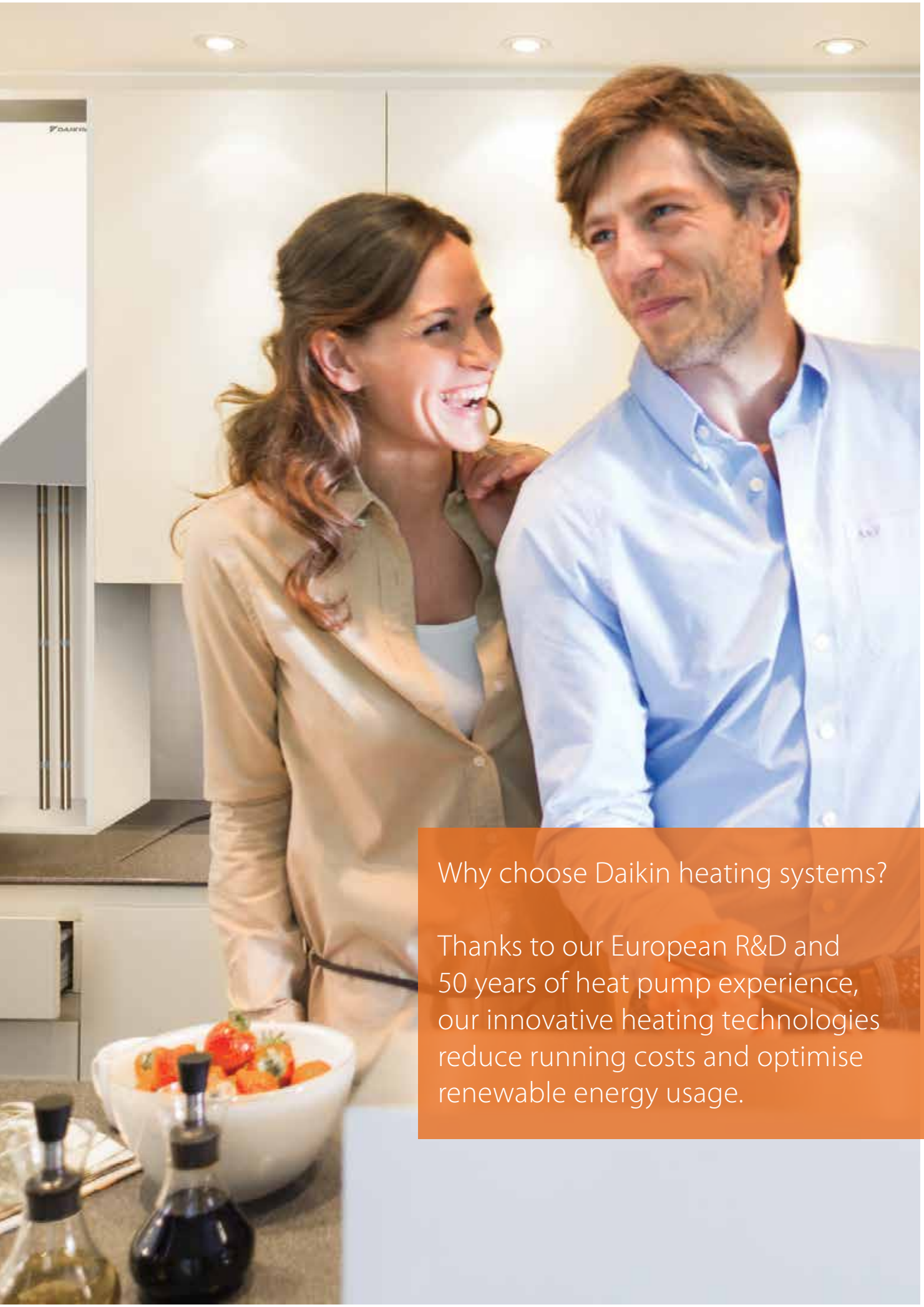
altherma

Product catalogue 2015
Heating

All-in-one comfort for residential
& commercial applications

Daikin Altherma:

at the heart of any heating solution



Why choose Daikin heating systems?

Thanks to our European R&D and 50 years of heat pump experience, our innovative heating technologies reduce running costs and optimise renewable energy usage.

Heating, domestic hot water and cooling

Sustainable & efficient energy solutions

Your customer requires a new heating system

- must be energy efficient
- must have low CO_2 emissions

Your solution: Daikin

- top seasonal efficiencies
- uses air-to-water and ground-to-water heat pump technology, hybrid technology or gas condensing technology

Your customer gains:

- reduced energy bill
- limited environmental impact
- optimal temperatures and comfort

Your gains:

- modular construction
- easy installation
- simple commissioning

Result: win-win for you and the customer

Offer your customer the benefits of a Daikin solution

Advanced technologies deliver energy efficiency and cost savings

1 Ground-to-water technology: extracting heat from the ground

Geothermal technology allows heat to be extracted from the ground and used to raise the temperature of the water in the system.

› High seasonal efficiency even in colder climates, thanks to stable source temperatures.

2 Air-to-water technology: extracting heat from the outside air

Using a heat pump, the system extracts heat from the outside air to raise the temperature of the water in the system

› Guaranteed operation down to -25ºC so no winter worries
› A solar solution can be included for pre-heating the domestic hot water.

3 Hybrid technology: a gas boiler combined with air-to-water technology

Combining the latest and most efficient gas-condensing boilers with our heat pump technology gives the customer the best of both worlds.

› The most economical heating mode is chosen depending on settings selected
› Ideal for the replacement of existing gas boilers.

4 Combustion technology: the latest and most efficient gas condensing boilers

Our innovative heat exchanger will provide both space heating as domestic hot water.

› Delivers maximum heating efficiency
› Modulating control system results in low running costs at all times.

Optimal comfort

Our solutions allow a single system to deliver heating in the winter, cooling in the summer and domestic hot water all year round and when combined with our user-friendly control system, it allows the customer to programme for perfect comfort!

Perfect for any application

Daikin heating systems are the perfect solution for any application in both the residential and commercial fields, providing optimal comfort, energy efficiency and cost savings. Whether a new build or a renovation project and no matter what size of building, our systems can be tailored to provide the perfect solution.

Combines with all types of heat emitters

The choice of heat emitters depends on what the customer needs in terms of comfort and aesthetics and the Daikin heating systems combine perfectly with underfloor heating, heat pump convectors and low or high temperature radiators.

Top energy-efficient solutions for every application

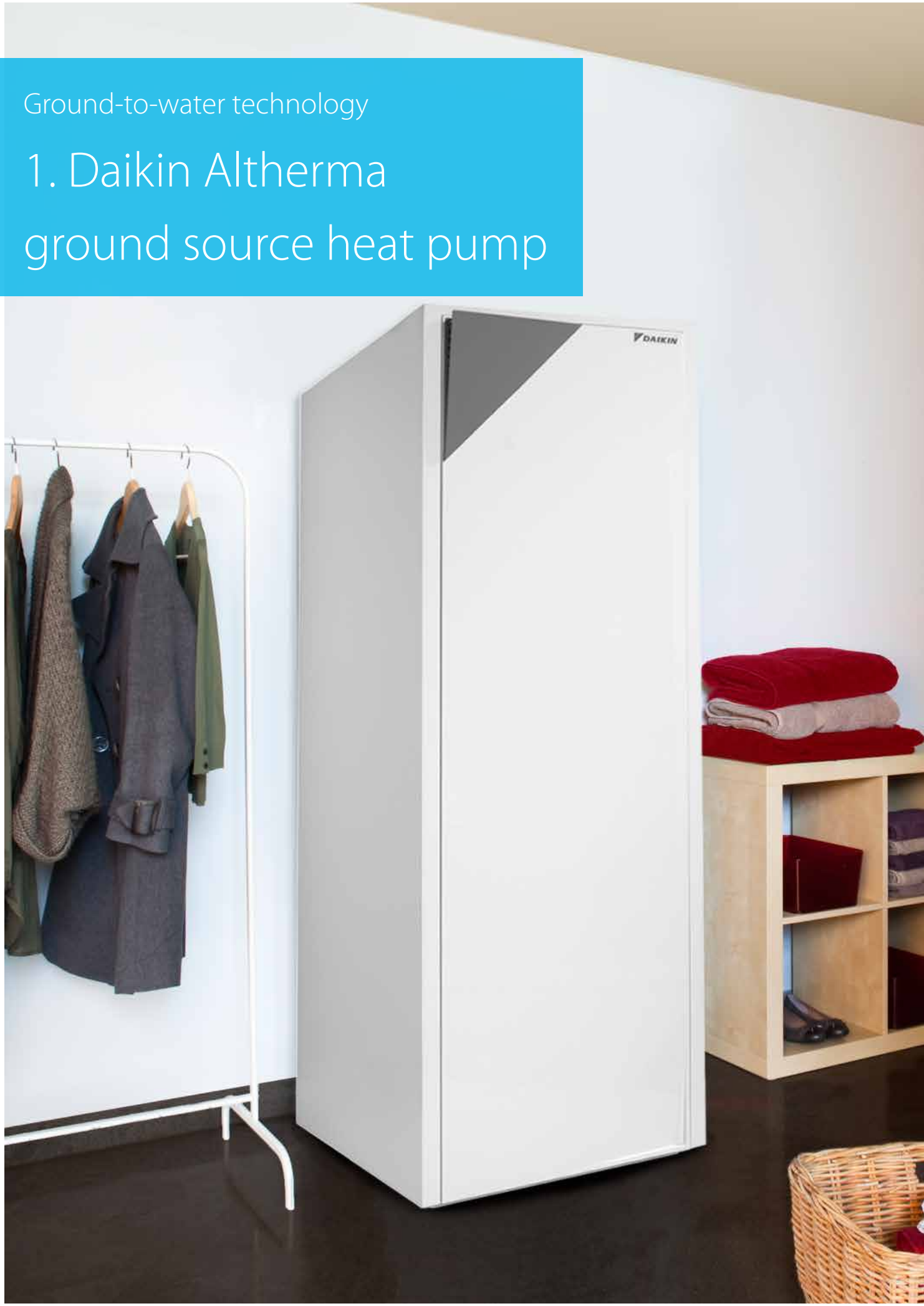
From renewable to combustion

	Ground-to-water technology	Air-to-water techno	
	Daikin Altherma ground source heat pump	Daikin Altherma low temperature split	Daikin Altherma low temperature monobloc
Different technologies			
	p 8 Specifications: p 72	p 14 Specifications: p 73	p 26 Specifications: p 86
Different heating applications	› Suitable for new houses and for renovations.	› Ideal for new houses, low energy houses or together with an existing boiler (bivalent)	
Installation	› 1 indoor unit	› 1 indoor unit › 1 outdoor unit	› 1 outdoor unit
Different heat emitters	› Under floor heating › Fan coil units › Heat pump convector › Low and high temperature radiators	› Under floor heating › Low temperature radiators › Fan coil units › Heat pump convector	
Functionalities	› Domestic hot water	› Domestic hot water › Cooling › Solar connection for hot water production	

ology		Hybrid technology	Combustion
Daikin Altherma high temperature split	**Daikin Altherma Flex Type**	**Daikin Altherma hybrid heat pump**	**Gas condensing boiler**
			
p 32 Specifications: p 92	p 42 Specifications: p 96	p 54 Specifications: p 100	p 64 Specifications: p 102
› Ideal for replacement of a traditional boiler	› Ideal for large hot water and heating requirements in › Apartments › Collective housing › Hotels › Fitness › Spa › Schools › Hospitals › Libraries	› Ideal for replacement of a gas boiler	› Ideal for replacement of an existing gas boiler
› 1 indoor unit › 1 outdoor unit	› Several indoor units › 1 or more outdoor units	› 1 indoor unit + 1 gas condensing boiler › 1 outdoor unit	› 1 indoor unit
› High temperature radiators	› Under floor heating › Low temperature radiators › Fan coil units › Heat pump convector	› Under floor heating › Low and high temperature radiators	› Under floor heating › Radiators
› Domestic hot water › Solar connection for hot water production	› Domestic hot water › Cooling (Heat recovery)	› Domestic hot water › Cooling › Solar connection for hot water production	› Domestic hot water

Ground-to-water technology

1. Daikin Altherma ground source heat pump



Why choose Daikin Altherma ground source heat pump?

Your customer requires a new heating system
- must work in low ambient temperatures
- must work with renewable energy sources and low environmental impact
- low running costs

Your solution: the Daikin Altherma ground source heat pump
- provides heating and domestic hot water from renewable and free energy sources - the underground
- uses inverter heat pump technologies for higher seasonal efficiency

Your customer benefits:
- optimal comfort plus domestic hot water
- low operating costs due to high efficiencies
- low environmental impact

Your gains:
- thanks to a factory-fitted domestic hot water tank
- easy installation
- simple commissioning

Result: win-win for you AND the customer

Making
a difference

High seasonal efficiency thanks to our inverter heat pump technology

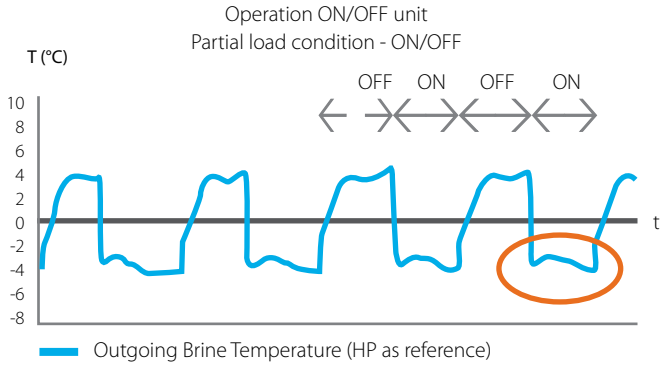
The Daikin inverter heat pump technology has been shown to provide an increase in seasonal efficiency of up to 20% when compared to traditional on/off ground source heat pumps.

- The brine, a water/anti-freeze mixture that operates as the heat transfer medium between the ground and the heat pump, is kept at a higher stable temperature.
- Back up operation is reduced to a minimum
- High compressor operating efficiencies are reached at partial load operation, i.e. when full capacity of the unit is not required.

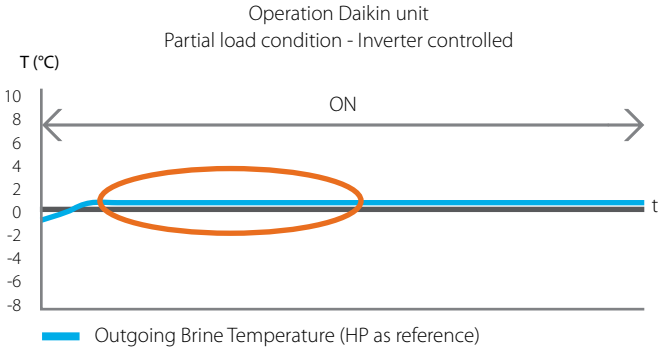
This results in reduced running costs and a faster return on investment.return on investment.

Higher brine temperatures during continuous compressor operation, in partial load conditions

Case study

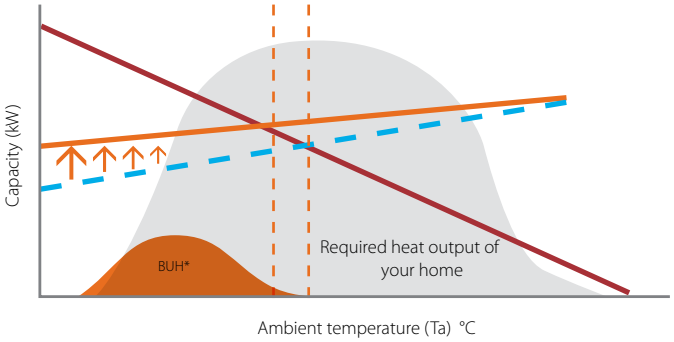


Typical application:
- Location: Sweden
- Design temperature: -17°C
- Heat load: 13kW
- Heating off temperature: 16°C



In this typical application, when full capacity is not required the compressor works in partial load operation. Traditional on/off ground source heat pumps switch ON and OFF sequently in partial load conditions and the brine temperature decreases down to -4ºC when the unit is operating. Daikin's inverter technology results in a stable outgoing brine temperature of around 0ºC. This increased stability in brine temperature results in a higher and more constant evaporating temperature which leads to higher operating efficiencies.

Less back up heater operation thanks to the boosting of the inverter compressor frequency



Heat load line
Traditional ON/OFF unit
Daikin unit
BUH* = Back-up heater

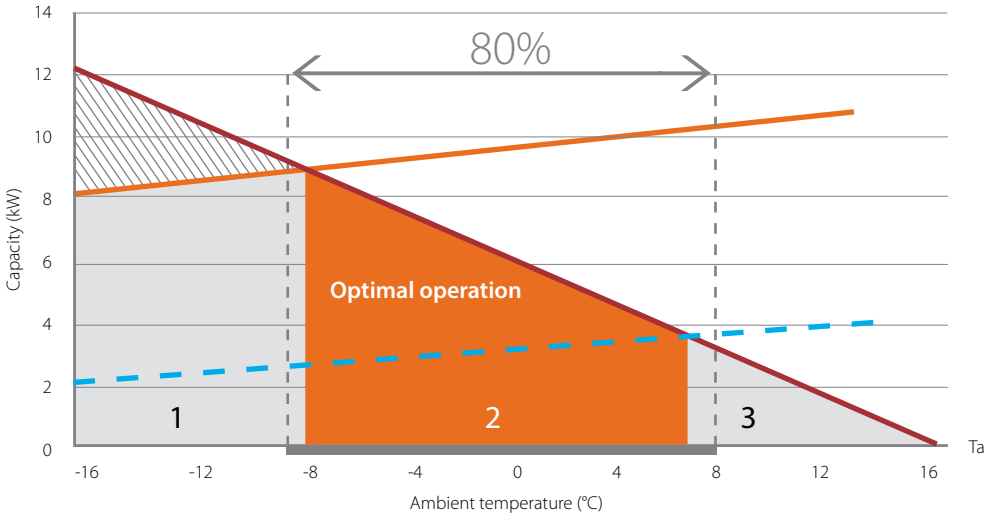
Compared to a traditional On/Off unit, the requirement for support from the back up heater is much lower for the Daikin Altherma ground source heat pump, thanks to the boosting effect of our inverter compressors, also this leads to lower running costs.

Big partial load operation at relevant ambient conditions

Case study

Typical Nordic climate application with standard heat load:

- Location: Sweden
- Design temperature: -17°C
- Heat load: 12kW



Heat load line
Daikin Altherma ground source heat pump - minimum capacity
Daikin Altherma ground source heat pump -maximum

1 **Full load operation with additional electric assistance (if required):** the heat load is higher than the maximum heating capacity
2 **Partial load operation:** the heat load is lower than the maximum heating capacity and higher than the minimum heating capacity. This is the optimal operation zone.
The compressor will reduce its operating frequency to deliver the exact required capacities with high operating efficiencies.
3 **On/Off operation:** The heat load is below the minimum heating capacity, therefore the unit will go into On/Off mode to deliver the required capacity.

In a Nordic climate, around 80% of the required heat output has to be delivered in an ambient temperature range between -9°C and 8°C, indicated by the orange zone. To deliver a high seasonal Coefficiency of Performance (COP), it is crucial to have high operating efficiencies for this ambient temperature range as the majority of the required heat has to be delivered within this temperature range.
As you will see, thanks to its wide modulating range, the Daikin Altherma ground source heat pump almost completely covers the relevant ambient temperature range whilst in partial load operation, which it the optimal operational zone of the unit. This is, of course, a major benefit compared to traditional On/Off compressors.

Quick and easy installation including a domestic hot water tank

To keep things simple, the domestic hot water tank is factory-fitted, thus reducing the installation time and with the pipework connections on the top of the unit it is very easy to connect.
The overall weight of the unit is reduced to facilitate ease of shipping and installation.

Compact indoor unit with pleasing design

- The full integration of heat pump module and domestic hot water tank keeps the footprint very compact
- High quality design helps the unit blend in with other household units
- The footprint of the integrated unit is 728mm x 600mm - about the same as a normal household appliance - and at 1800mm high, it fits neatly in any standard room. A further benefit to both the installer and the user is that only 10mm side clearance is required and all the pipework connections are on top of the heat pump unit.

New user interface

- Quick commissioning: the installer can program all the settings for an installation on a laptop computer and then simply upload them to the controller during commissioning. This not only reduces on-site time, but allows the installer to use a similar setting on similar installations.
- User-friendly room thermostat functionality: the user can raise or lower water temperature as a function of the actual room temperature, resulting in a more stable room temperature and higher comfort levels.
- Energy management functionality: the controller displays both the output and input energy of the unit allowing the user to manage their energy consumption more accurately.
- Easy servicing: the controller records the time, date and nature of the last 20 error occurrences enabling quicker diagnostics and maintenance.

Air-to-water technology

2. Daikin Altherma low temperature split

Why choose Daikin Altherma low temperature?

Your customer requires: a new heating system
- must work in a new build or low-energy house
- must work with under floor heating, convectors and low temperature radiators

Your solution: the Daikin Altherma low temperature
- provides heating, domestic hot water and cooling with optional solar support
- available in capacities from 4 to 16 kW depending on requirements
- available as split floor standing, split wall mounted, or monobloc
- ideal for new builds and low energy houses

Your customer gains:
- optimal comfort plus domestic hot water
- low operating costs thanks to high efficiencies

Your gains:
- modular construction
- flexible installation
- simple commissioning

Result: win-win for you AND the customer

Daikin Altherma
low temperature heat pump
the natural choice

Daikin Altherma low temperature split

Best seasonal efficiencies providing the highest savings on running costs. Perfect fit for new builds, as well as for low-energy houses.

1. Integrated heating and hot water unit, saving installation space and time
- All components and connections factory-made
- Very small installation footprint required
- Minimum electrical input with constant availability of hot water
- Model with integrated bi-zone kit available from spring 2015.

2. Integrated heating and hot water unit with extended flexibility
- Solar support of domestic hot water with unpressurised (drain-back) and pressurised solar system
- Lightweight plastic tank with exceptional hygienic benefits
- Bivalent option: combinable with a secondary heat source
- App control possible.

3. Wall mounted indoor unit with optional domestic hot water tank

The best solution in specific situations:
- Ideal when either no domestic hot water or more flexibility for domestic hot water is required
- Combinable with a separate domestic hot water tank with optional solar connection.

Daikin Altherma low temperature monobloc

A monobloc is the answer when the requirement is for a simple system relying on a single outside unit and no inside unit.

- Everything combined in one outdoor
- Quick and easy installation as only water pipes run indoors from the outdoor unit
- Limited installation space required as only outdoor space is required
- Freeze protection of hydraulic parts.

Daikin Altherma low temperature split

Guaranteed operation: Daikin Altherma is suitable for all climates, even withstanding severe winter conditions

Daikin is renowned for its know-how related to frost protection on its heat pump range.
The outdoor units are specifically designed to avoid ice build-up problems, even in the most severe winter conditions.

Daikin Altherma low temperature has a guaranteed operation down to an outside temperature of -25°C. This ensures sufficient heat pump operation for even the coldest climates.

1. The 4-8kW range of Daikin Altherma has a specifically designed casing to avoid the risk of ice formation on the outdoor unit coil.

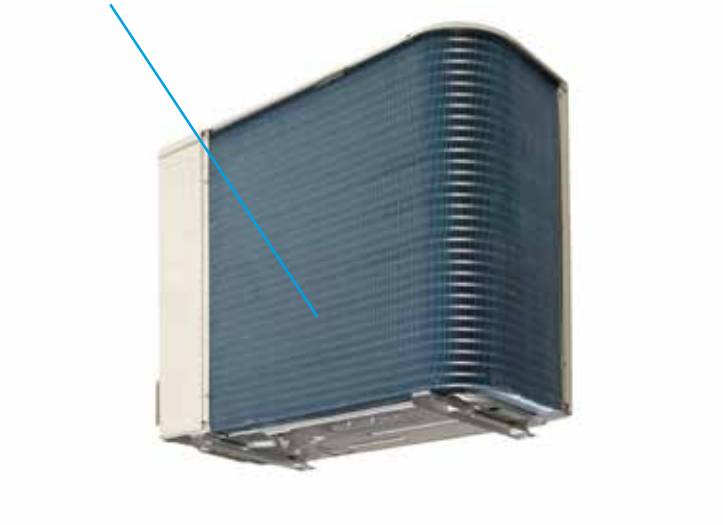
› The outdoor unit has a free hanging coil, ensuring no ice accumulates in the lower part of the outdoor unit. This is key to offering appropriate frost protection and has the additional advantage that no electrical bottom plate heater is required.

› The discharge grill is also specifically designed to avoid ice accumulation.

2. The 11-16kW range of Daikin Altherma (ERLQ-C) has specific frost protection.

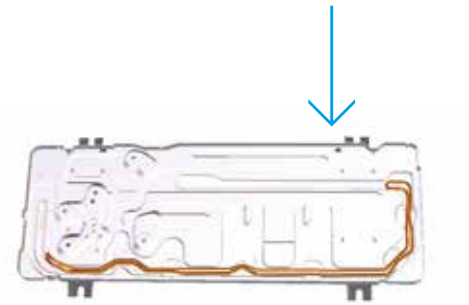
› Hot gas pass: hot gaseous refrigerant coming from the compressor runs through the bottom plate to keep the base free of ice and all the drain holes open.
› Sub-cool pass: before the refrigerant pipe is split by the distributor to the hairpins, the refrigerant passes through the bottom of the coil to keep this lower part free of ice.

Free hanging coil



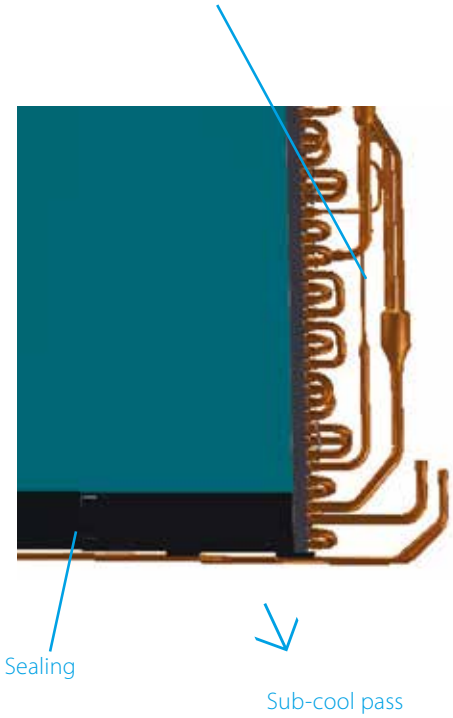
Our advanced protection against frost and icing means that we can offer the Daikin Altherma across the whole of Europe.

Hot gas pipe



New discharge grille

Distributor



Only a small capacity bottom plate heater is installed (35W) on the ERLQ011,014,016C range, with smart operation logic only operating during defrost cycles. This saves around 90% of electricity consumption compared to a thermostatically controlled bottom plate heater.

Integrated floor standing unit, saving installation space and time

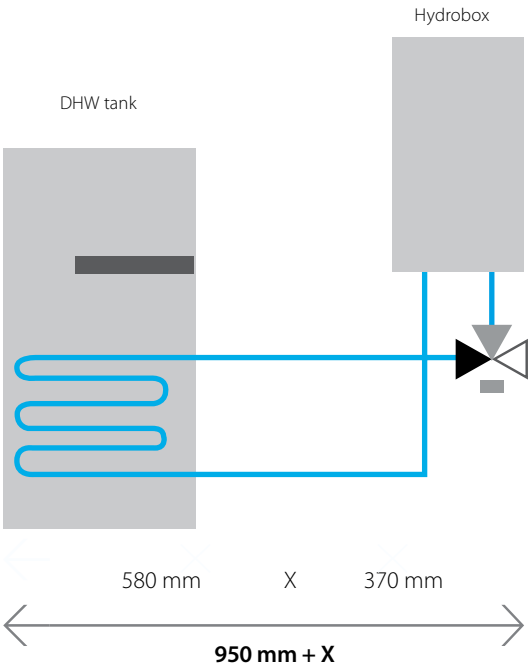
- The stainless steel domestic hot water tank is included in the unit, with all connections between the heat pump module and tank factory mounted. This allows for a fast installation compared to a traditional set-up (wall-mounted with separate domestic hot water tank) with only water and refrigerant pipes to be connected.
- All hydraulic components are included (circulating pump, expansion vessel, back-up heater, etc. No need to look for third party components.
- The electric PCB board and hydraulic components are accessible from the front. This ensures easy serviceability and avoids the risk of any damage to electrical components due to water leakages.
- All water and refrigerant connections are at the top of the unit, assuring easy connection and accessibility. This means no connections are required at the back of the unit, resulting in a lower installation footprint.

Components are accessible from the front

Thanks to the all-in-one design, the installation space is minimised both in terms of footprint and height

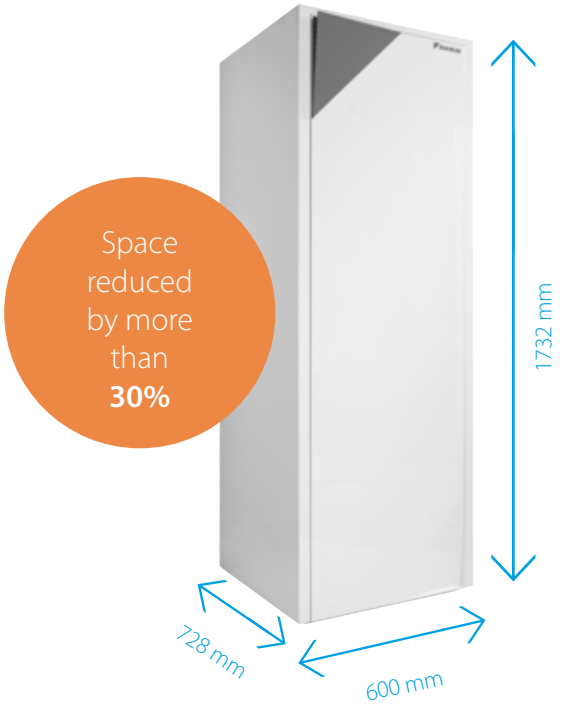
1 Compared to the traditional split-up version for a wall-mounted indoor unit and separate domestic hot water tank, the integrated indoor unit greatly reduces the installation space required.

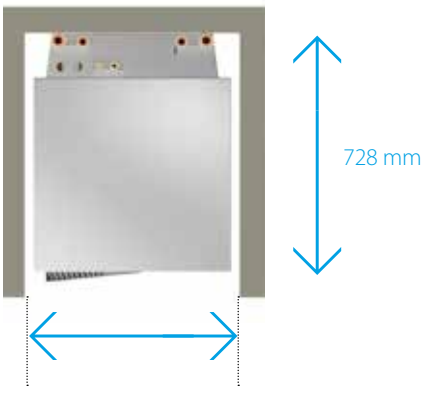
Traditional set-up



VS

Integrated indoor unit





600 mm + 10 mm clearance on both sides

2 Smaller footprint: with a width of only 600 mm and a depth of 728 mm, the integrated indoor unit has a similar footprint compared to other household appliances. For installation, almost no side clearances are required, and no space is required behind the unit for the piping, as the piping connections are at the top.This results in an installation footprint of only 0.45 m^2.

3 Low installation height: both the 180l and 260l version come with a height of 173 cm. The required installation hight is less than 2 m.

4 The compactness of the integrated indoor unit is emphasised by its sleek design and modern look, easily fitting with other household appliances.

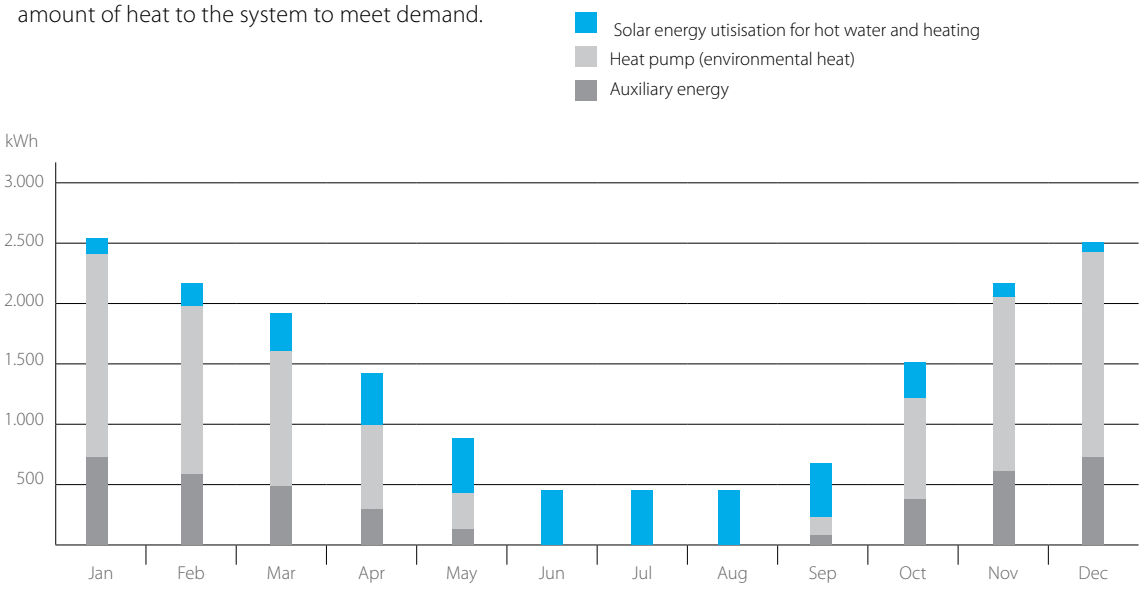
Integrated solar unit, maximising renewable energy and offering top comfort

Solar support of domestic hot water with unpressurised (drain-back) or pressurised solar system

The integrated solar unit uses free energy from the sun to support the production of domestic hot water.
At its peak, 80% of solar energy can be converted into usable heat, made possible by the extremely high efficiency of our flat solar panels. Solar energy and heat pumps complement each other ideally in this application. The heat pump adds the required amount of heat to the system to meet demand.

The graphic shows when and how much the solar system supports the heating and hot water generation.

Combined with a heat pump, which also exploits regenerative ambient energy, the use of ancillary energy is reduced to an absolute minimum.

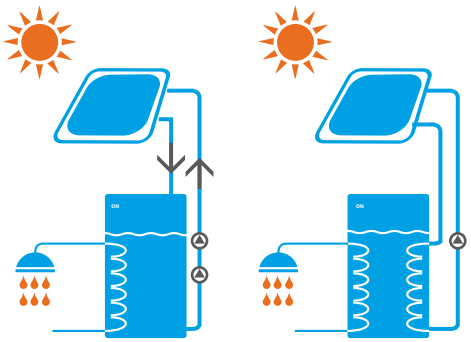


Depending on your customer's needs, an unpressurised or pressurised system can be offered.

Unpressurised solar system (with EHSH(X)-A)
The solar collectors are only filled with water when sufficient heat is provided by the sun. In this case, both pumps in the control and pump unit switch on briefly and fill the collectors with storage tank water. After filling, which takes less than a minute, one of the pumps switches off and water circulation is maintained by the remaining pump.

If there is insufficient sunshine or if the solar storage tank does not need more heat, the feed pump switches off and the entire solar system drains into the storage tank. The addition of antifreeze is not necessary since, if the installation is not in use, the collector surfaces are not filled with water. Another environmental advantage!

Pressurised solar system (with EHSH(X)B-A)
If needed, a pressurised thermal hot water system can also be offered. The system is filled with heat transfer fluid containing the correct amount of antifreeze to avoid freezing in winter.
The whole system is pressurised and sealed.



Lightweight plastic tank with exceptional hygienic benefits

The integrated domestic hot water tank is water-hygienic and is state of- the-art technology. Thanks to the flow-through principle, legionella bacteria cannot grow, thus eliminating the need for a thermal disinfection cycle. Its exceptional water hygiene benefits have been confirmed in an extensive study by the Hygiene Institute at the University of Tübingen.

Bivalent option: combinable with a secondary heat source (EHSH(X)B-A only)

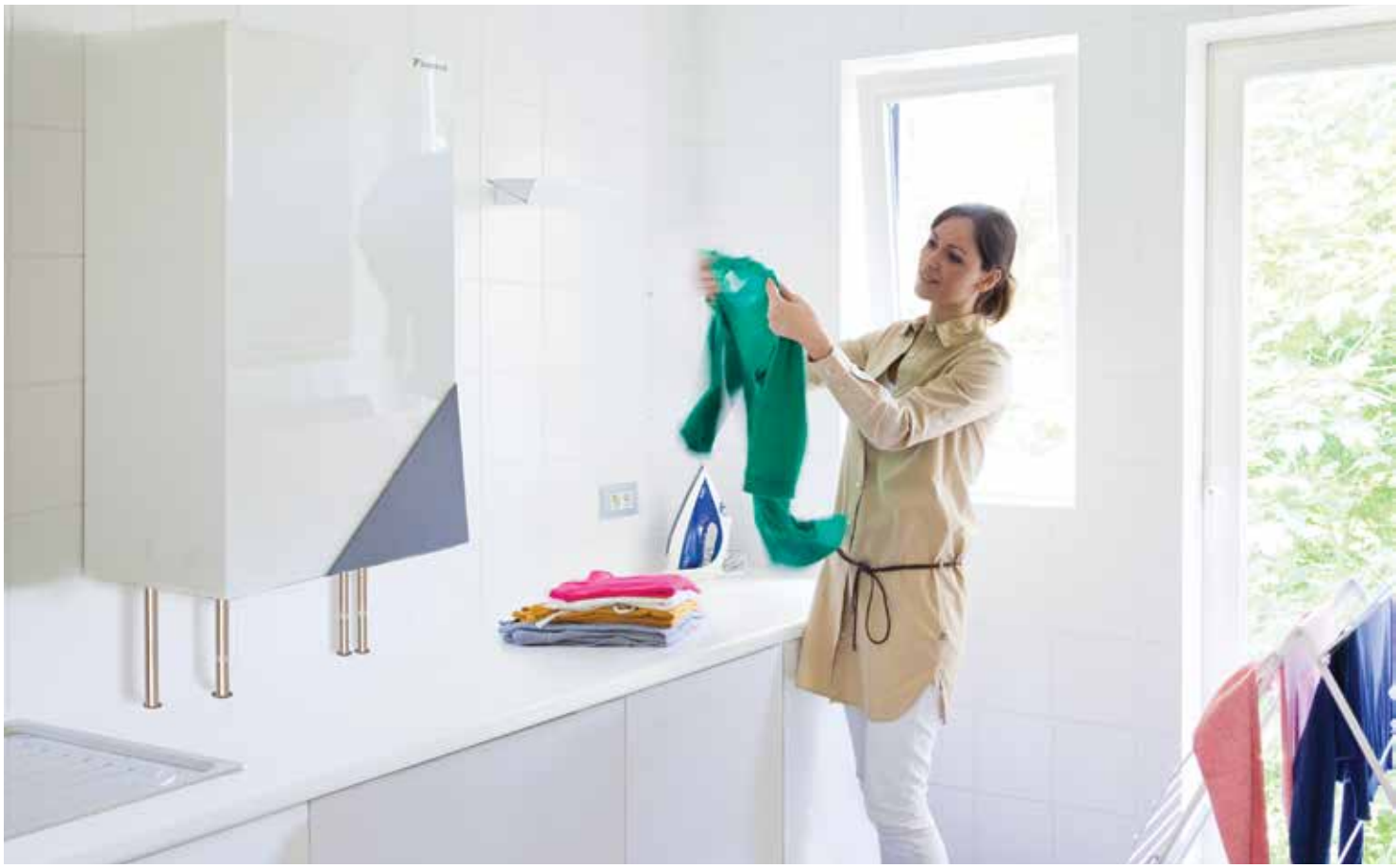
Heat from other sources can also be efficiently stored in the indoor unit. A solar system can also be supported by oil-fired and gas-fired boilers, pellet-fired boilers or wood-fired stoves with back boilers for heating and hot water generation. If you are not installing a solar system from the beginning, it can be fitted quickly and easily at any time afterwards.

App control possible

1. Control with the app
Simple consistent handling with intuitive menu navigation and control can be carried out via your smartphone with the app. available from beginning of 2014.

2. Clear display and easy modification
The display shows values and parameters in clear text. All operating modes, timer programmes and operating parameters can be set and modified quickly.

3. Simple controller for easy regulation
The water temperature for the heating is regulated in accordance with the outdoor temperature. The controller automatically detects winter and summer, and switches the heating mode on and off to suit the demand. The controller is easy and intuitive to operate and can be extended by the use of a room controller, which can be used conveniently to control and monitor the heating system.



Wall mounted unit, offering flexibility for installation and domestic hot water connection

The wall-mounted indoor unit

1. When no domestic hot water is required in combination with the Daikin Altherma system

› All hydraulic components are included in the heat pump unit (circulating pump, expansion vessel, back-up heater, etc), no need to look for third-party components
› All hydraulic components and the PCB board, are accessible from the front for easy serviceability
› Compact unit: 890 mm (height) x 480 mm (width) x 344 mm (depth)
› Small installation space as almost no side clearances are required
› Modern outlook easily fits in with other modern household appliances.

2. The wall-mounted indoor unit can be combined with a separate domestic hot water tank

› EKHWS stainless steel tank: 150l, 200l or 300l
› EKHWE enameled tank: 150l, 200l or 300l.

3. When solar connection for hot water is required:
Averaged over an entire year, the sun delivers half of the energy we need to bring our domestic hot water up to the desired temperature. High efficiency collectors with highly selective coating transfer all the short-wave solar radiation into heat.
The collectors can be mounted on virtually any kind of roof.

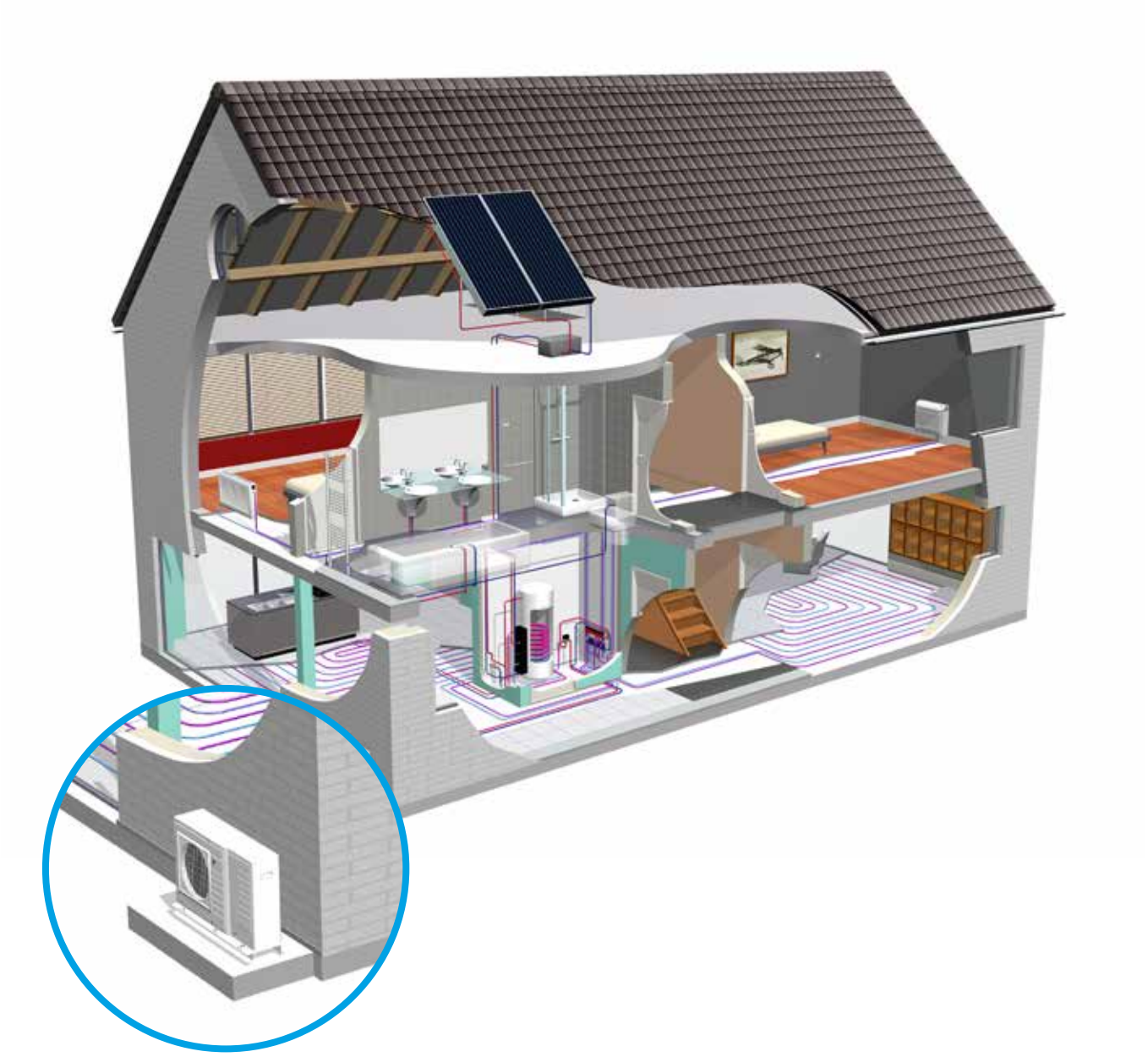
Unpressurised solar system
- The solar collectors are only filled with water
- Heat is provided by the sun.
- Both pumps switch on briefly and fill the collectors with storage tank water.
- After filling, water circulation is maintained by the remaining pump.

Pressurised solar system
- System is filled with heat transfer fluid with the correct amount of antifreeze to avoid freezing in winter.
- System is pressurised and sealed.
- A solar kit and solar pump station will be needed to connect the domestic hot water tank (EKHWS or EKHWE) to the solar collector.

Daikin Altherma
low temperature monobloc

Why choose
a monobloc system?

› No indoor space required for the heating system
› Quick installation: only water pipes run indoors from the outdoor unit as all hydraulic parts are located within the outdoor unit.



☑ Outdoor unit only

Extra small casing

6kW and 8kW casing

Daikin Altherma monobloc is available in the following versions:

› heating only or heating and cooling
› with or without bottom plate heater
› single phase or three phase
› 6kW, 8kW, 11kW, 14kW or 16kW.

Back-up heater: optional in line 6 kW for 6-8 kW models. Standard built in for 11-14-16 kW models.

Daikin Altherma small capacity models (6 to 8 kW) are equipped with **a swing compressor.** Swing compressors have been setting trends in the area of energy efficient performance for the past 10 years (leaks and friction are basically non-existent) in thousands of outdoor units.

The **scroll compressors** provided in the Daikin Altherma monobloc models (11 to 16 kW) are designed as compact, robust, low-noise device to guarantee optimal operational reliability (no valves and built-in swing-link coupling) and efficiency (through a low initial flow and a constant compression ratio). A technology already used in many Daikin heat pumps.

H_2O piping, No refrigerant piping

11kW, 14kW and 16kW casing

Freeze protection of hydraulic parts

In order to protect the water pipes from freezing up during winter, insulation is provided for all hydraulic components and special software has been applied to activate the pump and back-up heater if necessary. This prevents the water temperature from dropping below freezing point and obviates the need for the addition of glycol to the water pipes.

Domestic hot water tank and solar support

Whether your customer wants domestic hot water only or the advantage of solar energy, Daikin offers you the domestic hot water tank that meets his or her requirements.

EKHWS / EKHWE
Domestic hot water tank

› Available in 150,200 and 300l
› Stainless steel (EKHWS) or enameled (EKHWE).

Pressurised solar system
Averaged over an entire year, the sun delivers half of the energy we need to bring our domestic hot water up to the desired temperature. High efficiency collectors with highly selective coating transfer all the short-wave solar radiation into heat.
The collectors can be mounted on roof tiles.
If needed, a pressurised thermal hot water system can also be offered. The system is filled with heat transfer fluid with the correct amount of antifreeze to avoid freezing in winter. The whole system is pressurised and sealed. A solar kit and solar pump station will be needed to connect the domestic hot water tank (EKHWS or EKHWE) to the solar collector.

EKHWP
Domestic hot water tank with unpressurised solar support

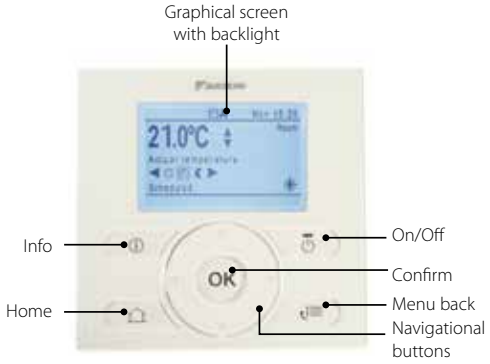
› Available in 2 capacities: 300 and 500 litres
  - Can be combined with unpressurised solar system
  - Optimised connections
› Easier installation of each system circuit
  - Improved design: attractive colour and new form
  - Optimised for easy transport and installation
  - Better insulation means reduced energy costs
  - Higher flow-rate thanks to optimised connection technology
  - Clear connections mean easier installation.

Unpressurised solar system
The solar collectors are only filled with water when sufficient heat is provided by the sun. In this case, both pumps in the control and pump unit switch on briefly and fill the collectors with storage tank water. After filling, which takes less than a minute, one of the pumps switches off and water circulation is maintained by the remaining pump.
If there is insufficient sunshine or if the solar storage tank does not need more heat, the feed pump switches off and the entire solar system drains into the storage tank. The addition of antifreeze is not necessary since, if the installation is not in use, the collector surfaces are not filled with water – another environmental advantage!

Easy control

System controller for Daikin Altherma low temperature split

In case something goes wrong, full-text error messages will guide the end-user to take appropriate action to try and resolve the problem. If the problem persists and a site intervention is necessary, the service engineer will be able to review the last 20 error occurrences. Detailed information on the operational conditions of the unit, such as the running hours of the different elements, operating temperatures or number of starts, can easily be read out from the extended end-user's menu.



System controller for Daikin Altherma low temperature monobloc

The leaving water temperature is dependant on the outside ambient temperature thanks to the floating setpoint functionality. At low outside ambient temperatures, the leaving water temperature will increase to satisfy the increasing heating requirement of the building and vice versa.

Optional room thermostat

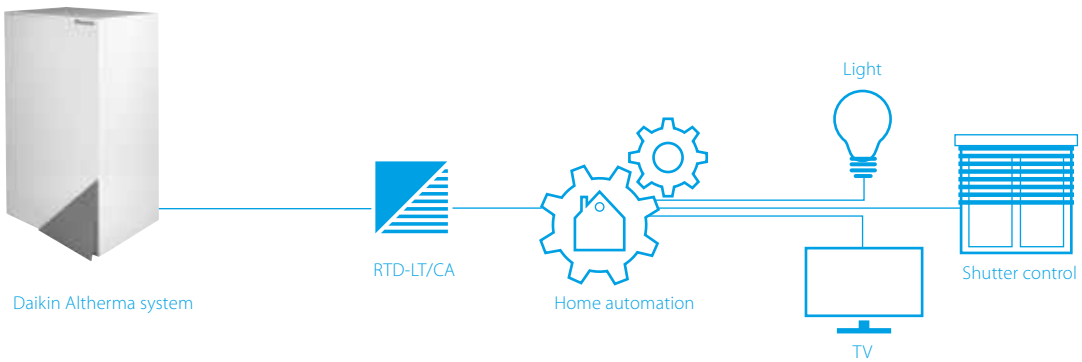
The thermostat measures the room temperature and communicates directly to the user interface. The LCD screen of the room thermostat indicates all the necessary information regarding the setting of the Daikin Altherma system in the blink of an eye. An external sensor (EKRTETS) can be placed between the under floor heating and the floor, as an option to the wireless room thermostat. The user can easily navigate between the different menus, the most common of which include:

- Setting the temperature of the room based on measurements from the built-in or external sensor
- Off function (with integrated frost-protection function)
- Holiday function mode
- Comfort and reduced function modes
- Time (day and month)
- Programmable week-timer with 2 user defined and 5 pre-set programmes, with up to 12 actions per day
- Keylock function
- Setting limits. The installer can change the upper and lower limits
- Floor temperature protection.*

* only in combination with EKRTETS

Home automation

The Daikin RTD-LT/CA accessory allows your customers to control their Daikin Altherma low temperature heat pump via their home automation system.

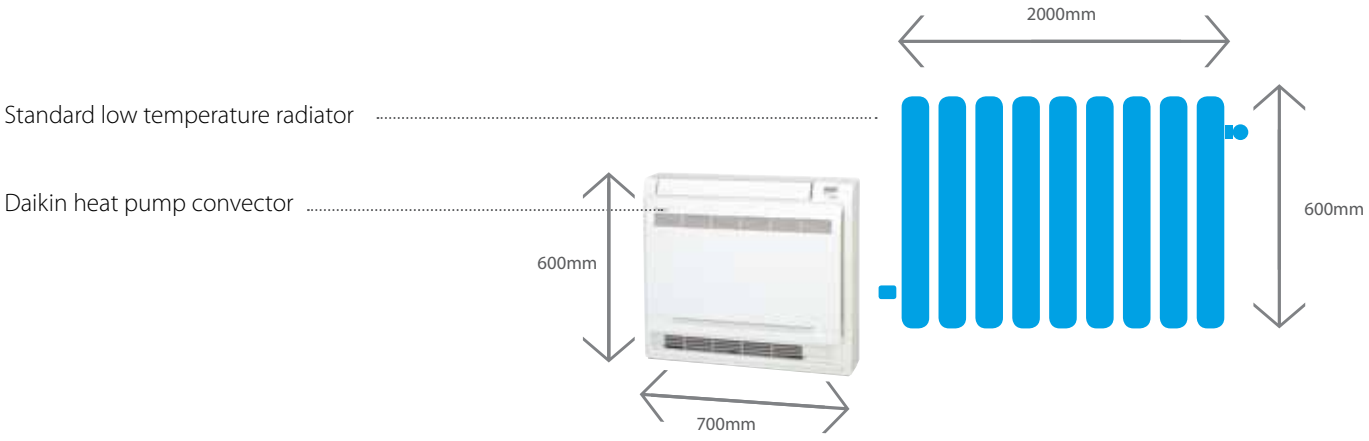


Heat pump convector

The latest in heat pump convector technology for high performance

The Daikin heat pump convector is specifically designed to offer optimal efficiencies and comfort for residential applications.

- Small dimensions compared to low temperature radiators
- Low sound level, optimal for bedroom applications (down to 19 dBA)
- High-capacity cooling with water temperatures down to 6°C.



Air-to-water technology

3. Daikin Altherma high temperature split

Why choose Daikin Altherma high temperature?

Your customer requires a new heating system
- must work with existing high temperature radiators
- must replace the existing boiler

Your solution: the Daikin Altherma high temperature
- provides heating and domestic hot water with optional solar support
- available in capacities from 11 to 16 kW depending on requirements
- works with existing high temperature radiators up to 80°C without additional back-up heater

Your customer gains:
- optimal comfort plus domestic hot water
- low operating costs due to high efficiencies

Your gains:
- reduced installation time as a result of not having to replace radiators and piping
- simple commissioning

Result: win-win for you AND the customer

For replacement
of oil boilers

Daikin Altherma high temperature system offers heating and domestic hot water for your home. This system can perfectly replace a tradional boiler and connect to the existing piping.
Daikin Altherma high temperature is therefore the ideal solution for renovations. The split system consists of an outdoor unit and an indoor unit and can be completed with solar connection.

- Low running costs and optimum comfort at even the coldest outdoor temperatures, thanks to the unique cascade compressor approach
- No need to change your existing radiators and piping as water temperatures can be increased up to 80°C for heating and domestic hot water use
- Only limited installation space needed as the indoor unit and domestic hot water tank can be stacked on each other.

A Indoor unit
B Outdoor unit
C Domestic hot water tank

B Outdoor unit
C Domestic hot water tank

Split system

A split system consists of an outdoor unit and an indoor unit

The Daikin Altherma outdoor unit includes a heat pump that extracts heat from the outside air resulting in nearly 2/3 of all usable heat coming from a sustainable and free source.
The outdoor unit extracts heat from the ambient outdoor air. This heat is transferred to the indoor unit via refrigerant piping.
The indoor unit receives the heat from the outdoor unit and further increases the temperature, allowing water temperatures up to 80°C for heating through radiators and for domestic hot water use. Daikin's unique cascade compressor approach to the heat pumps (one in the outdoor unit/one in the indoor unit) means optimum comfort at even the coldest outdoor temperatures, without the need for an electric back-up heater. Available capacities are 11, 14 and 16 kW. If a greater heating capacity than 16 kW is required, you can now combine several indoor units with one single outdoor unit to give up to 40 kW of heating.

Daikin Altherma high temperature heats up to 3 times more efficiently than a traditional heating system based on fossil fuels or electricity. A lower running cost is thus achieved, while you can still enjoy a stable and pleasant level of comfort.

Accessories for high temperature applications

User interface

With Daikin Altherma's user interface, the ideal temperature can be easily, quickly and conveniently regulated. It allows for more precise measurement and can regulate your comfort even more optimally and energy efficiently.

Heat emitters

The Daikin Atherma high temperature system is designed to work with high-temperature radiators, which come in various sizes and formats to suit the interior design as well as the heating requirement. The radiators can be individually controlled or they can be regulated by the central heating control programme.

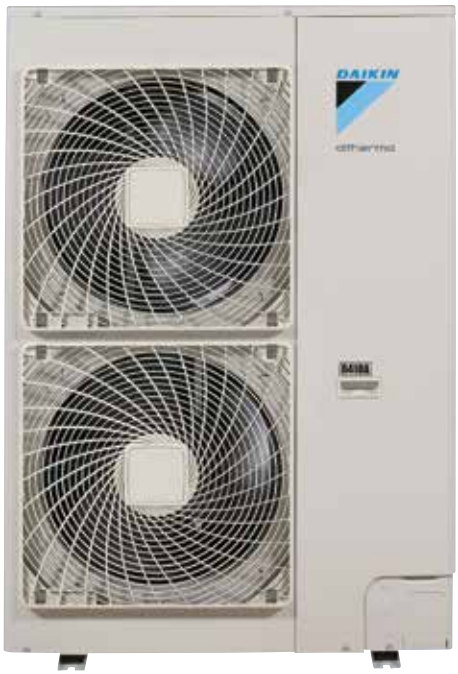
Solar connection

The Daikin Altherma high temperature heating system can optionally use solar energy for hot water production.
If the solar energy is not required immediately, the purpose-built hot water tank (EKHWP) can store large quantities of heated water for up to a day for later use as domestic hot water or for heating.

☑ Outdoor unit and indoor unit

Outdoor unit

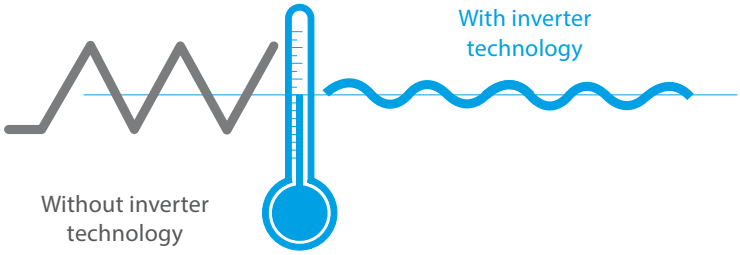
Daikin Altherma high temperature uses 100% thermo-dynamic energy to obtain water temperatures **up to 80°C** without using an additional heater.



Inverter control means even more savings!

The inverter constantly adapts your system to actual heating demand. No need to fiddle with settings: the programmed temperature is optimally maintained regardless of outdoor and indoor factors such as the amount of sunlight, the number of people in the room, etc. This results in unmatched comfort, prolonged system life since it's only in operation when needed, and 30% additional savings in energy costs compared to non-inverter heat pumps.

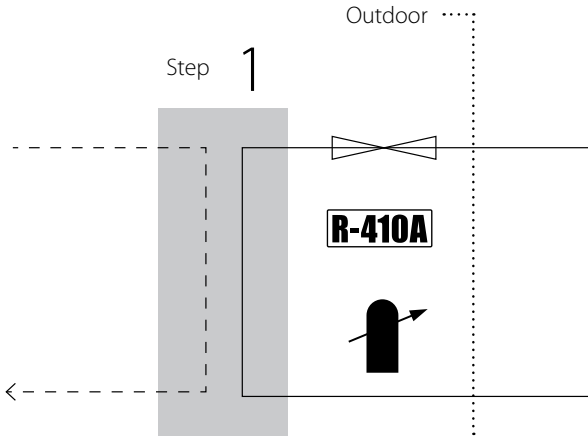
Heating operation:



Daikin Altherma cascade technology

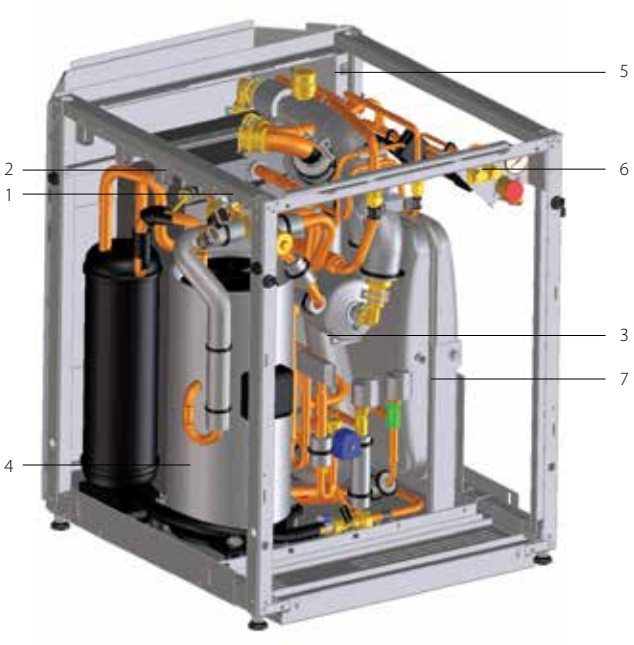
High performance in 3 steps:

1 **The outdoor unit** extracts heat from the ambient outdoor air. This heat is transferred to the indoor unit via R-410A refrigerant.

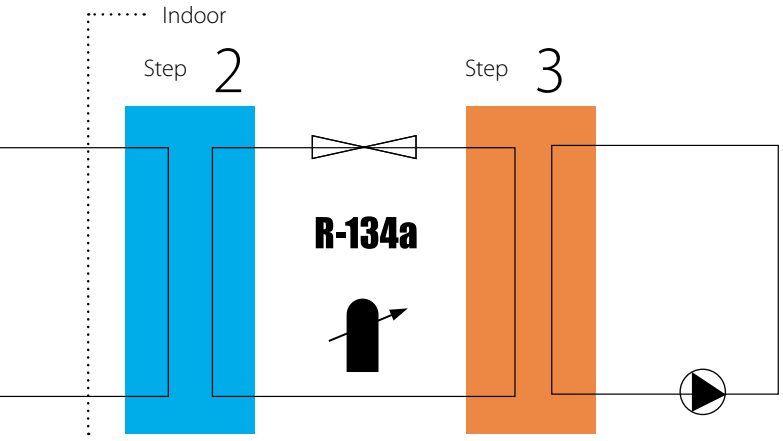


Indoor unit

› Available in heating only applications
› No back-up heater required thanks to cascade technology



1. Heat exchanger R-134a ⟷ H_2O
2. Heat exchanger R-410A ⟷ R-134a
3. Pump (DC-inverter to maintain fixed ΔT)
4. Compressor R-134a
5. Air purge
6. Manometer
7. Expansion vessel (12l)



2 The **indoor unit** receives the heat and further increases the temperature with R-134a refrigerant.

3 The **heat is transferred from the R-134a** refrigerant circuit to the water circuit. Thanks to the unique cascade compressor approach, water temperatures of 80° C can be reached without using an additional back-up heater.

Domestic hot water tank

Non-stacked

or

Stacked

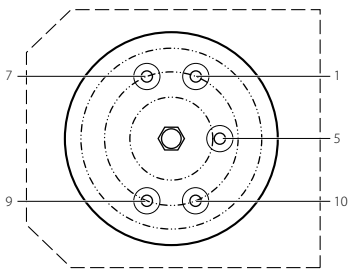
Whether your customer wants domestic hot water only or the advantage of solar energy, Daikin offers you the domestic hot water tank that meets his or her requirements.

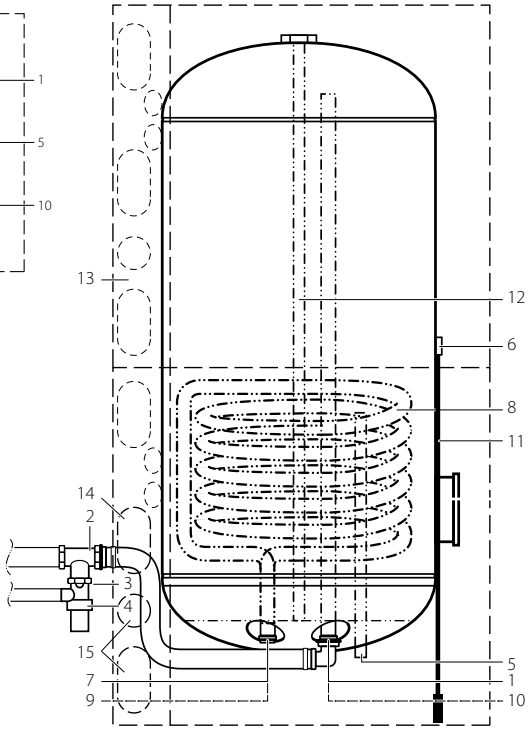
The indoor unit and domestic hot water tank can be stacked to save space, or installed next to each other, if only limited height is available.

EKHTS: Domestic hot water tank

- Available in 200 and 260 litres
- Efficient temperature heat-up: from 10°C to 50°C in only 60 minutes*
- Heat loss is reduced to a minimum thanks to the high quality insulation
- At necessary intervals, the indoor unit can heat up the water to 60°C to prevent the risk of bacteria growth.

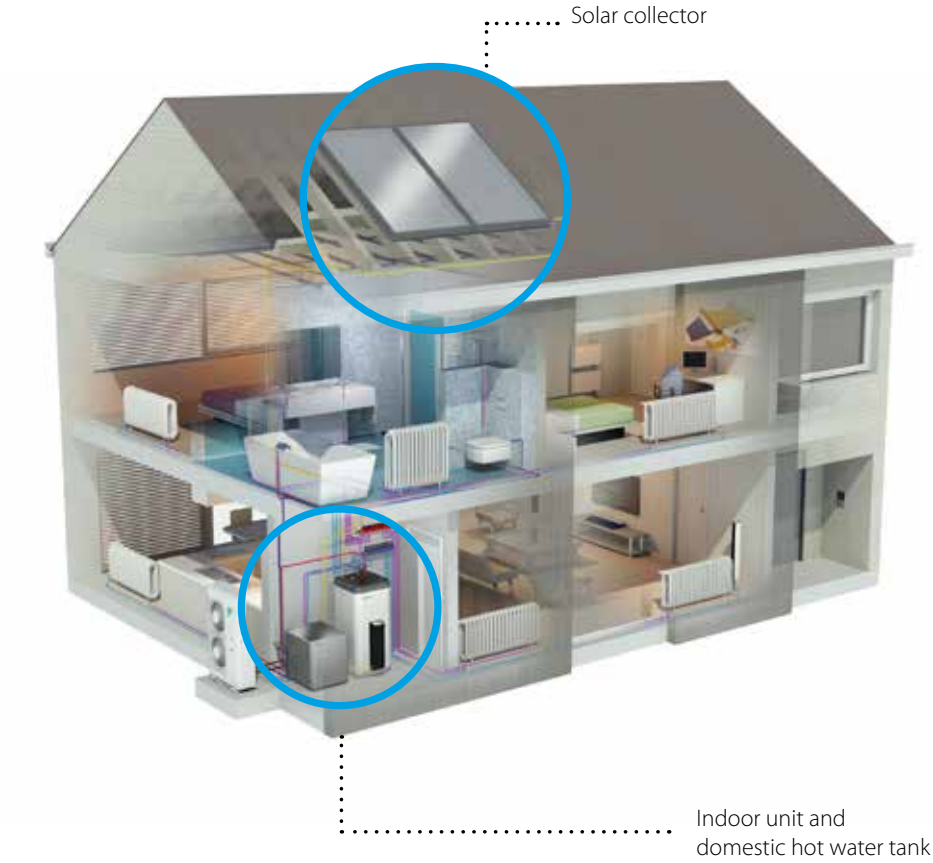
* Test done with a 16kW outdoor unit at ambient temperature of 7°C, 200L tank





1. Hot water connection
2. T-piece (field supply)
3. Pressure relief valve connection
4. Pressure relief valve (field supply)
5. Recirculation hole
6. Thermistor socket
7. Flow inlet connection
8. Heat exchanger coil
9. Return outlet connection
10. Cold water connection
11. Thermistor
12. Anode
13. Knockout holes
14. Knockout holes

Solar connection



Solar collectors

Averaged over an entire year, the sun delivers half of the energy we need to bring our domestic hot water up to the desired temperature. High-efficiency collectors with highly selective coating transfer all the short-wave solar radiation into heat.
The collectors can be mounted on roof tiles.

Unpressurised solar system

The solar collectors are only filled with water when sufficient heat is provided by the sun. In this case, both pumps in the control and pump unit switch on briefly and fill the collectors with storage tank water. After filling, which takes less than a minute, one of the pumps switches off and water circulation is maintained by the remaining pump.

If there is insufficient sunshine or if the solar storage tank does not need more heat, the feed pump switches off and the entire Solar System drains into the storage tank. The addition of antifreeze is not necessary since, if the installation is not in use, the collector surfaces are not filled with water – another environmental advantage!

EKHWP: domestic hot water tank

The domestic hot water tank has two sections: The upper, always hot, section – the active water zone – and the lower, colder section – the solar zone. The active water is heated in the upper section of the storage tank. The high temperature of this zone ensures that sufficient hot water is always available.

Solar collectors work more efficiently when colder water flows through them. Therefore, the water that is fed directly to the solar collectors in solar operation is stored in the solar zone.

Easy control

System controller

The user interface controls the high temperature heating system in two ways:

1/ Weather dependant floating set point

When the floating set point functionality is enabled, the set point for the leaving water temperature will be dependant on the outside ambient temperature. At low outside ambient temperatures, the leaving water temperature will increase to satisfy the increasing heating requirement of the building. At warmer temperatures the leaving water temperature will decrease to save energy.

2/ Thermostat control

With Daikin Altherma's user interface with integrated temperature sensor, the ideal temperature can be easily, quickly and conveniently regulated. The easy-to-control user interface for high temperature applications guarantees your comfort:

- Space heating
- Quiet mode
- Setback function
- Disinfection function
- Off function
- Time scheduler
- Domestic water heating mode

Optional room thermostat

The thermostat measures the room temperature and communicates directly to the user interface. The LCD screen of the room thermostat indicates all the necessary information regarding the setting of the Daikin Altherma system in the blink of an eye. The user can easily navigate between the different menus, the most common of which include:

- Setting the temperature of the room based on measurements from the built-in or external sensor
- Off function (with integrated frost-protection function)
- Holiday function mode
- Comfort and reduced function modes
- Time (day and month)
- Programmable week-timer with 2 user defined and 5 pre-set programmes, with up to 12 actions per day
- Keylock function
- Setting limits. The installer can change the upper and lower limits
- Floor temperature protection. *

* only in combination with EKRTETS


DAIKIN

Air-to-water technology

4. Daikin Altherma Flex Type

Why choose Daikin Altherma Flex Type?

Your customer requires: a new heating system

- must work in a large building and in complex spaces such as apartments, spas, hotels and restaurants
- must provide heating, cooling and large volumes of domestic hot water
- each apartment or space must have individual control

Your solution: the Daikin Altherma Flex Type

- provides heating, domestic hot water and cooling for large volumes
- uses heat recovery technology to deliver efficient cooling
- capable of being expanded by adding outdoor units and additional indoor units

Your customer benefits:

- ease of maintenance
- low operating costs due to high efficiencies
- satisfied users

Your gains:

- modular construction
- one flexible system for several solutions

Result: win-win for you AND the customer

Daikin Altherma Flex Type

for large residential and commercial applications

Heat emitters

All types of heat emitters can be connected thanks to its wide water temperature range (up to 80°C) and its ability to work with multiple set points, allowing a combination of different heat emitters operating at different water temperatures.

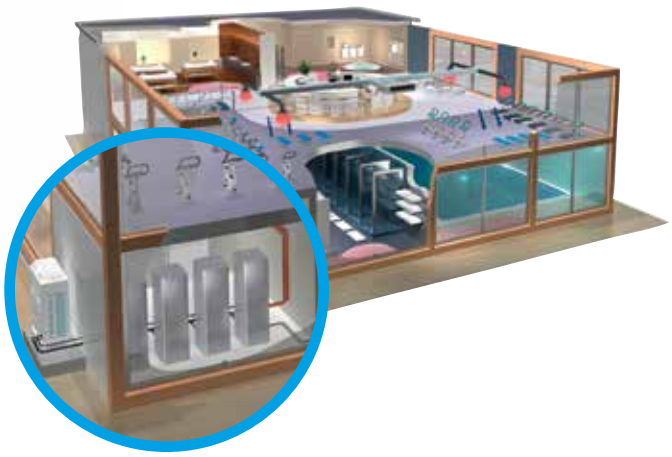
Modular system

One or more outdoor units can be connected to several indoor units (maximum 10 indoor units per outdoor unit).

Advanced control and monitoring

To further increase the efficiency, an RTD-W per indoor unit and a sequencing controller for the full heating system can be installed to monitor the exact heating demand.

1 Heating
2 Cooling
3 Hot water



Apartment buildings & collective housing

Daikin Altherma Flex Type is designed with the particular challenge of apartment building and collective housing in mind.

High efficiency is ensured by the combination of technologies with low operating costs as a result. Next to central control, the latest integrated control technologies also allow the temperature of each residential space to be individually regulated and maintained.

Hotels

Daikin Altherma Flex Type offers reliable solutions for hotel applications. The system efficiently generates hot water in both heating and cooling modes. Thanks to the heat recovery technology the rooms are cooled in the most efficient way.

Restaurants

Highly efficient production of large hot water volume also makes the system a perfect solution for restaurants. With its very low environmental impact the system represents a perfect green energy solution.

Spas and leisure

All types of hot water applications

Daikin Altherma Flex Type easily provides heating and cooling to a large number of rooms of varying sizes, while at the same time large volumes of hot water are also needed. Advanced control and monitoring assure highly efficient operation. Furthermore only limited installation space is required.

☑ Two Daikin technologies combined

Outdoor unit: Daikin VRV technology

Modular flexibility

The Daikin Altherma Flex type makes use of Daikin's renowned VRV technology. Multiple indoor units can be connected to a single outdoor unit.
A combination of Proportional Integral Derivative controlled compressors and electronic expansion valves in the outdoor unit continuously adjust the circulating refrigerant volume in response to load variations in the indoor units connected to it.
This allows the indoor units to operate independently of each other, assuring total flexibility.

Each apartment retains control of its own heating, hot water and cooling.

Heat recovery

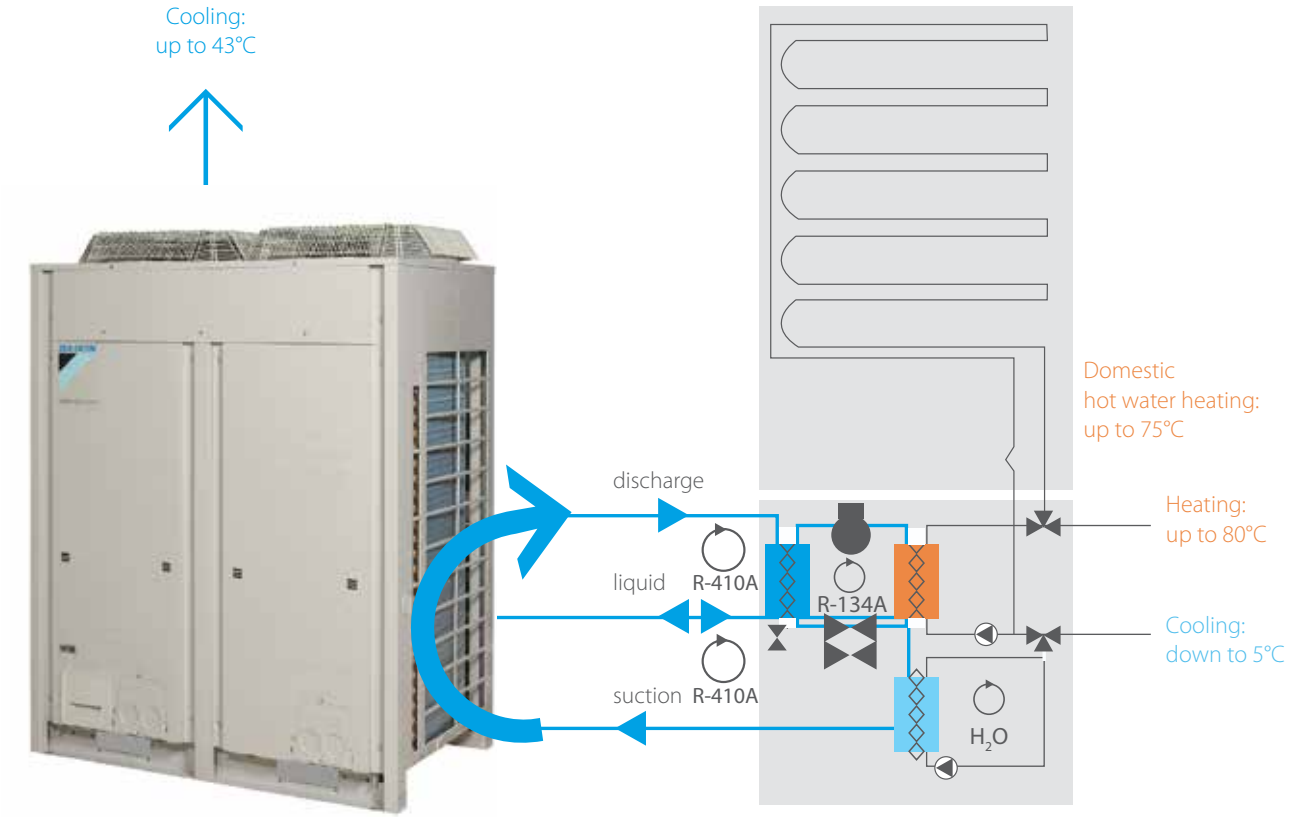
Heat absorbed while cooling one apartment can be recovered instead of being simply released into the air.

This recovered heat can be used
› for domestic hot water production in the same apartment
› for space heating and domestic hot water production in other apartments

Maximum use is made of available energy, thus reducing electricity costs.

Inverter compressors

Daikin Altherma Flex Type owes its remarkable low energy consumption to a unique combination of highly efficient inverter-controlled Daikin compressors with a variable operating point. This allows capacity to be exactly matched to the actual heating demand of the building. The ability to optimally control the heat capacity of the outdoor unit also means maximum comfort and minimum energy consumption.



Indoor unit: Daikin Altherma cascade technology

The Daikin Cascade technology uses an outdoor unit that extracts heat from the surrounding air and transfers this to the indoor unit via a R-410A refrigerant circuit. The indoor unit then increases this heat via the R-134a refrigerant circuit and it is then used to heat the water circuit.
Using the unique cascade compressor approach, water temperatures of 80º C can be achieved without additional back-up heaters.

Space heating

Daikin Altherma Flex Type makes use of the cascade technology to improve the efficiency of the spacing heating supplied because it has a number of significant advantages over single refrigerant heat pumps:

› it provides for a wide range of water temperatures (25º - 80ºC) which enables all types of heat emitters to be connected including under floor heating, convectors and radiators and it is compatible with existing radiator systems
› there is no drop in capacity with increasing water temperatures
› it delivers high capacities at low ambient temperatures right down to -20ºC
› No back-up electrical heater is required.

Domestic hot water heating

The cascade technology also delivers water temperatures of 75°C that can be used to heat up the domestic hot water tank, which makes it highly efficient for the production of domestic hot water.

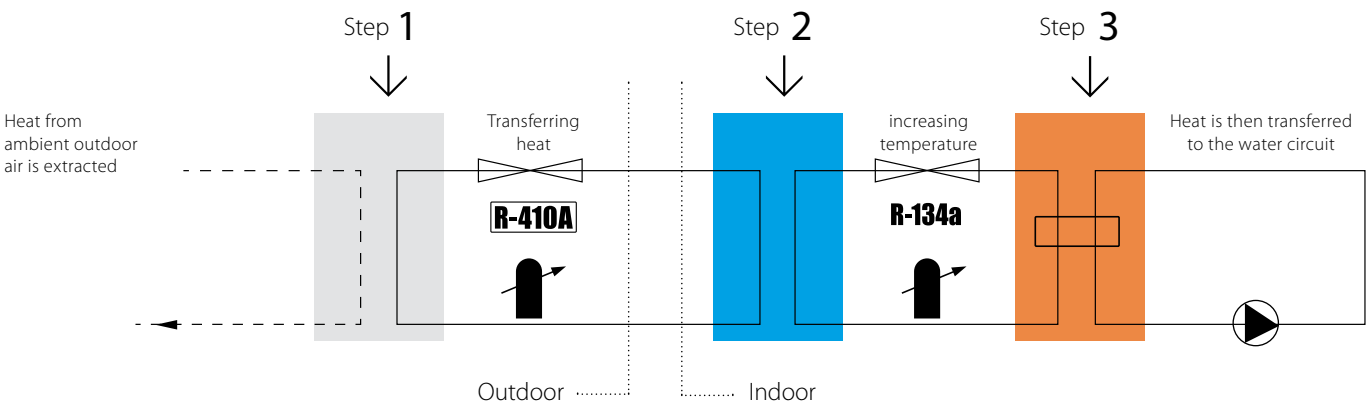
› Domestic hot water can be produced up to 75° C, without the assistance of an electric heater
› No electric heater required for Legionella disinfection
› COP of 3.0 for heating from 15° C to 60° C
› Heat-up time from 15° to 60° C in 70 minutes (200L tank)
› Equivalent hot water volume of 320L at 40°C (without reheat) for a 200L tank at a tank temperature of 60°C. Higher volumes of equivalent hot water are available with the 260l tank, or using a higher tank temperature.

Cooling

The second refrigerant cycle R-134a can be bypassed to offer efficient cooling. The R-410A refrigerant cycle is reversed, and the cool water circuit can be used to cool the rooms.

› High cooling capacities with water temperatures down to 5°C, in combination with Daikin heat pump convector or Daikin fan coil units
› Under floor cooling is possible, with water temperatures down to 18° C
› Heat from cooling operation can be recovered to heat the domestic hot water tank.

Cascade technology

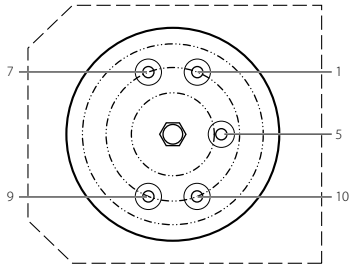


Domestic hot water tank

Non-stacked

or

Stacked



The indoor unit and domestic hot water tank can be stacked to save space, or installed next to each other, if only limited height is available.

EKHTS: Domestic hot water tank

- Available in 200 and 260 litres
- Efficient temperature heat-up: from 10°C to 50°C in only 60 minutes*
- Heat loss is reduced to a minimum thanks to the high quality insulation
- At necessary intervals, the indoor unit can heat up the water to 60°C to prevent the risk of bacteria growth.

1. Hot water connection
2. T-piece (field supply)
3. Pressure relief valve connection
4. Pressure relief valve (field supply)
5. Recirculation hole
6. Thermistor socket
7. Flow inlet connection
8. Heat exchanger coil
9. Return outlet connection
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13. Knockout holes
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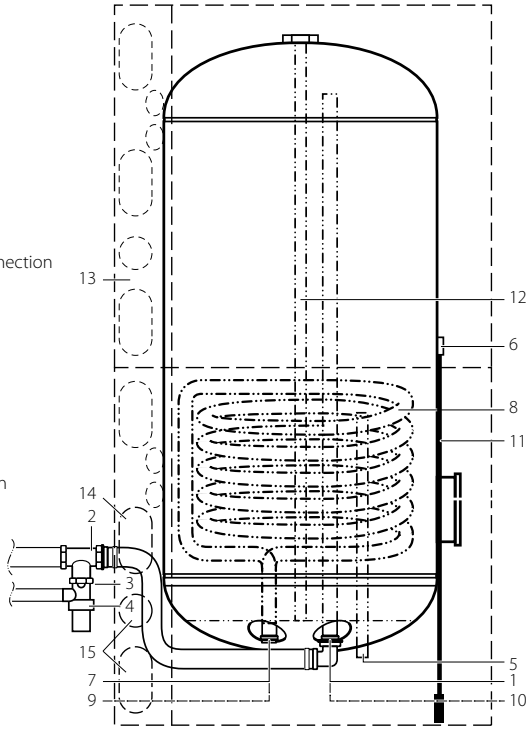


* Test done with a 16kW outdoor unit at ambient temperature of 7°C, 200L tank

Easy control

System controller

The user interface controls the high temperature heating system in two ways:

1/ Weather dependant floating set point

When the floating set point functionality is enabled, the set point for the leaving water temperature will be dependant on the outside ambient temperature. At low outside ambient temperatures, the leaving water temperature will increase to satisfy the increasing heating requirement of the building. At warmer temperatures the leaving water temperature will decrease to save energy.

2/ Thermostat control

With Daikin Altherma's user interface with integrated temperature sensor, the ideal temperature can be easily, quickly and conveniently regulated. The easy-to-control user interface for high temperature applications guarantees your comfort:

- Space heating
- Quiet mode
- Setback function
- Disinfection function
- Off function
- Time scheduler
- Domestic water heating mode

Optional room thermostat

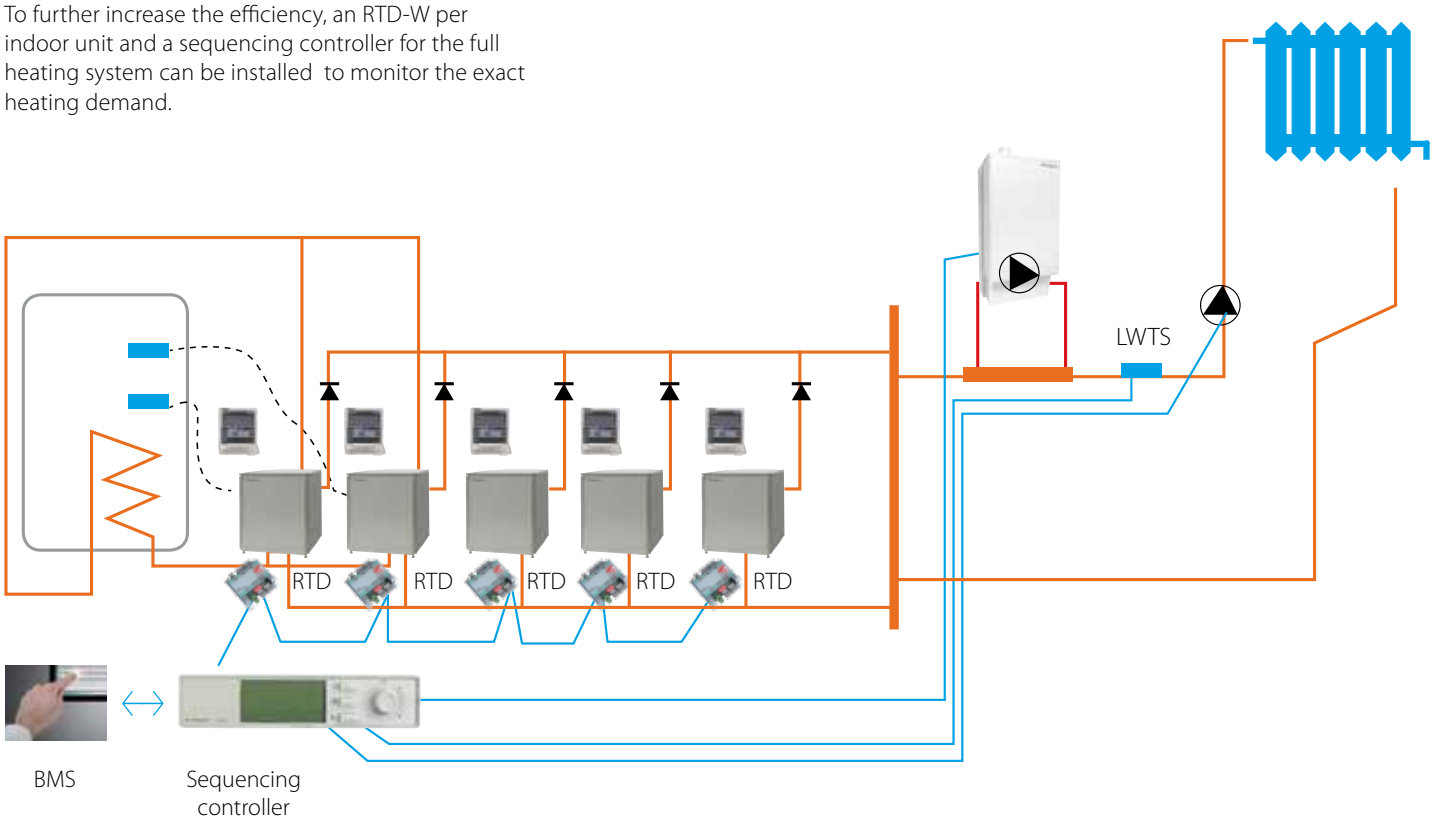
The thermostat measures the room temperature and communicates directly to the user interface.
The LCD screen of the room thermostat indicates all the necessary information regarding the setting of the Daikin Altherma system in the blink of an eye.
An external sensor (EKRTETS) can be placed between the under floor heating and the floor, as an option to the wireless room thermostat.
The user can easily navigate between the different menus, the most common of which include:

- Setting the temperature of the room based on measurements from the built-in or external sensor
- Cooling and heating mode
- Off function (with integrated frost-protection function)
- Holiday function mode
- Comfort and reduced function modes
- Time (day and month)
- Programmable week-timer with 2 user defined and 5 pre-set programmes, with up to 12 actions per day
- Keylock function
- Setting limits. The installer can change the upper and lower limits
- Floor temperature protection and protection against condensation for underfloor cooling. *

* only in combination with EKRTETS

Advanced control and monitoring for high efficiency and ease of operation

To further increase the efficiency, an RTD-W per indoor unit and a sequencing controller for the full heating system can be installed to monitor the exact heating demand.



Central control thanks to RTD-W interface

Daikin's RTD control systems allow the company's entire product portfolio to be integrated fully with other building systems. Designed for a wide range of applications, their pre-programmed functions ensure systems are highly efficient, delivering reduced energy consumption and carbon emissions, while maintaining excellent levels of comfort.
Whatever the application, Daikin's RTD controls mean all systems can be controlled centrally, helping owners, building managers, operators and home owners to reduce energy consumption (and bills), as well as lowering carbon emissions.
The RTD-W control uses dry-contacts, 0-10V signal and Modbus interface to monitor, control and integrate domestic and commercial hot water and heating systems.

Sequencing controller

Thanks to the Modbus interface of the RTD-W, the sequencing controller (EKCC8-W) can centrally monitor the whole heating system.

The sequencing controller transfers centralised settings and control through Modbus to the units:
› weather dependent leaving water set point and schedule
› domestic hot water set point and schedule
› quiet mode schedule

A centralised overview of the operating conditions of all units is shown on one screen, including error history.
A main energy reducing function is the cascade operation of units. The number of operating indoor units is defined based on the difference between measured common leaving water temperature and the set point. The order of start-up of the units is determined by running hours, domestic hot water operation and grouped per outdoor unit.
In case of capacity shortage and unit alarm, the back-up heater operation is enabled by the sequencing controller.

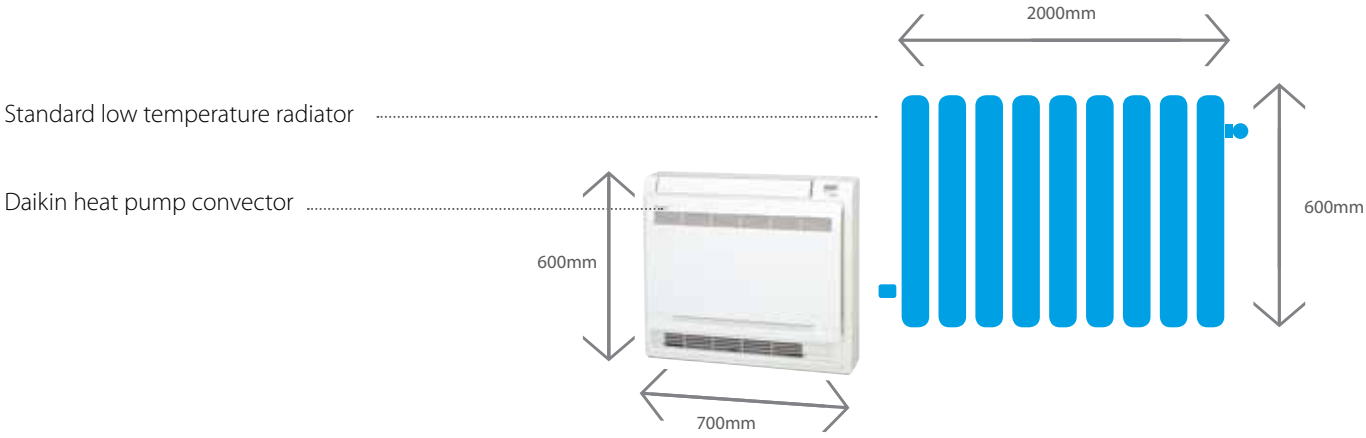
The advanced monitoring of the heating system ensures the **building owner** a low energy bill and a clear view on the operation of the system.
The **installer** has a clear view on the error history if intervention is needed.

Heat pump convector

The Daikin heat pump convector operates at typical water temperatures of 45°C, which can be efficiently produced thanks to the Daikin Altherma cascade technology.
The heat pump convector is therefore the ideal heat emitter for apartment applications, providing high comfort levels:

Small dimensions compared to low-temperature radiators: width is reduced with 2/3rd

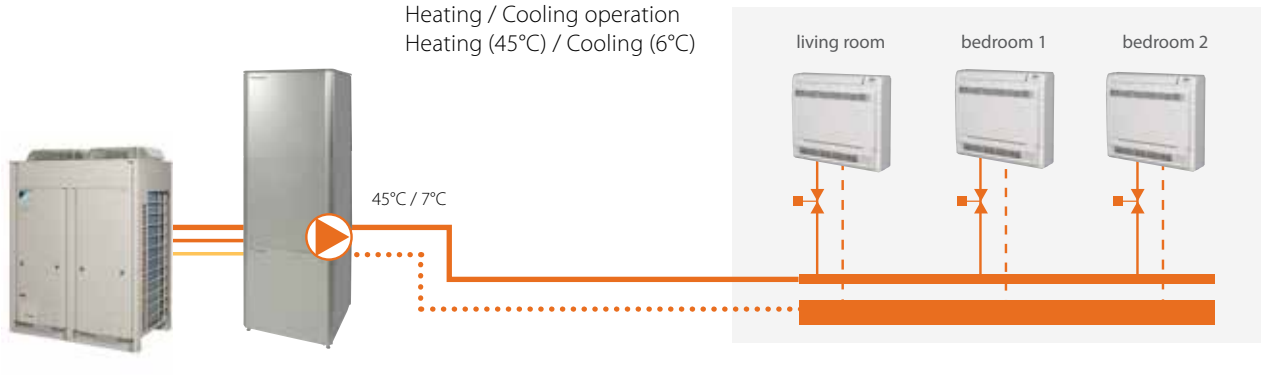
› **Low sound level** down to 19 dB(A), optimal for bedroom applications
› **High-capacity cooling** with water temperatures down to 6° C



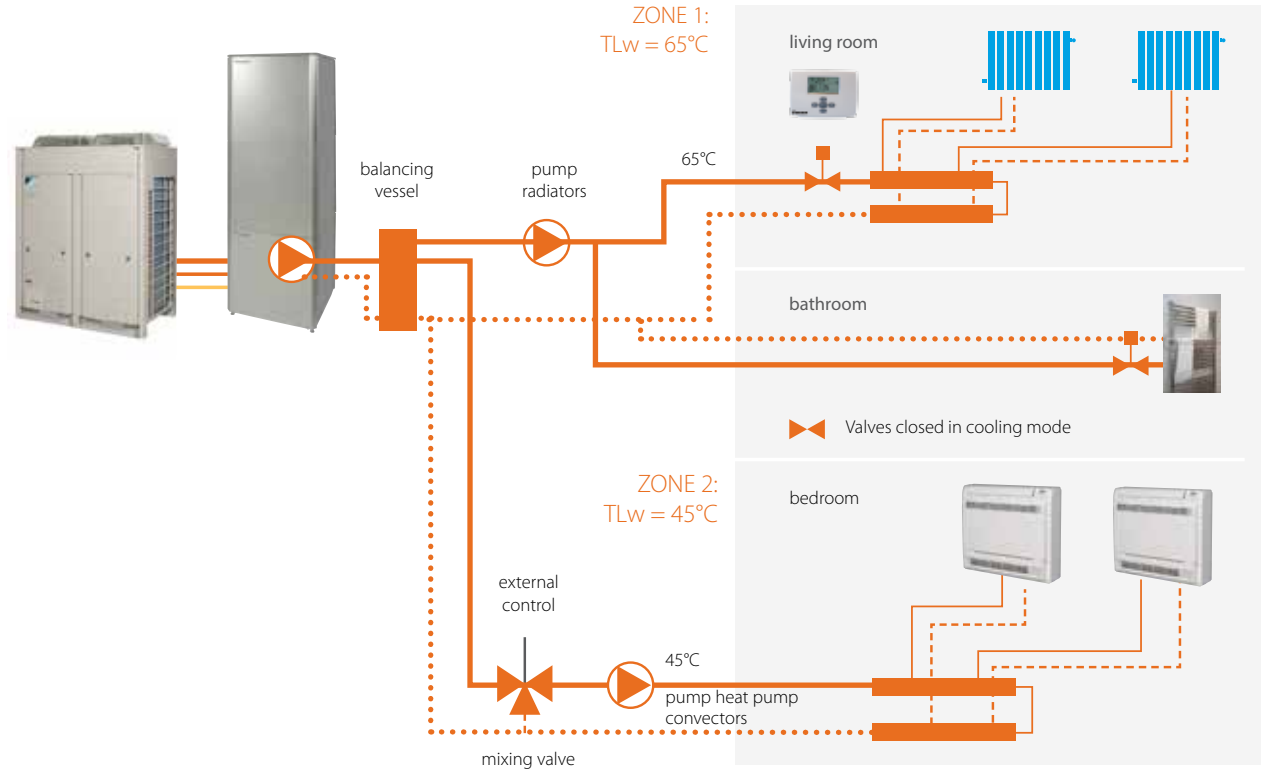
Infrared remote control (Standard)
ARC452A15

Control

Each Daikin heat pump convector has its own control and every room can be independently heated (or cooled) as required. The remote control has a built-in weekly timer for optimum flexibility and comfort. Operation of the unit can be adapted to individual requirements.



All types of heat emitters can be connected to Daikin Altherma for apartment buildings and collective housing, thanks to its wide water temperature range and its ability to work with multiple set points, allowing a combination of different heat emitters operating at different water temperatures. The set point of the indoor unit is a function of the actual demand of the various heat emitters, ensuring optimum efficiency at all times and under all conditions.



	Heat demand on/off			
living room	Off	On	Off	Off
bathroom	Off	Off/on	On	Off
bedroom	Off	Off/on	Off/on	On
Indoor unit	Off	65°C	65°C	45°C

Hybrid technology

5. Daikin Altherma hybrid heat pump

Why choose Daikin Altherma hybrid heat pump?

What your customer wants:
- more energy efficient systems
- more cost effective systems

Your solution:
choose a Daikin Altherma hybrid heat pump
- combination of gas condensing technologies and air-to-water heat pumps
- delivers up to 35% more heating efficiency
- optimises the operation of the most efficient gas condensing boilers

Your customer benefits:
- low running costs for heating and domestic hot water
- low investment costs
- ideal for renovation applications

Your gains:
- modular construction
- Easy and fast installation

Result: win-win for you AND the customer

An opportunity
in residential heating !

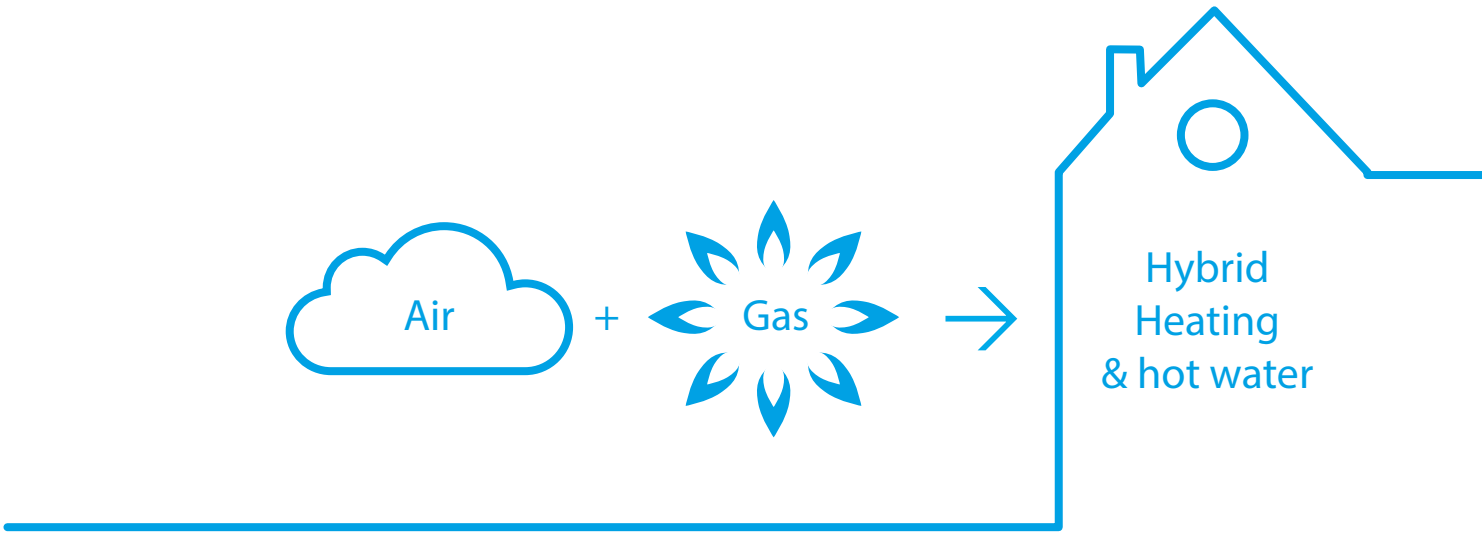
What is condensing boiler technology?

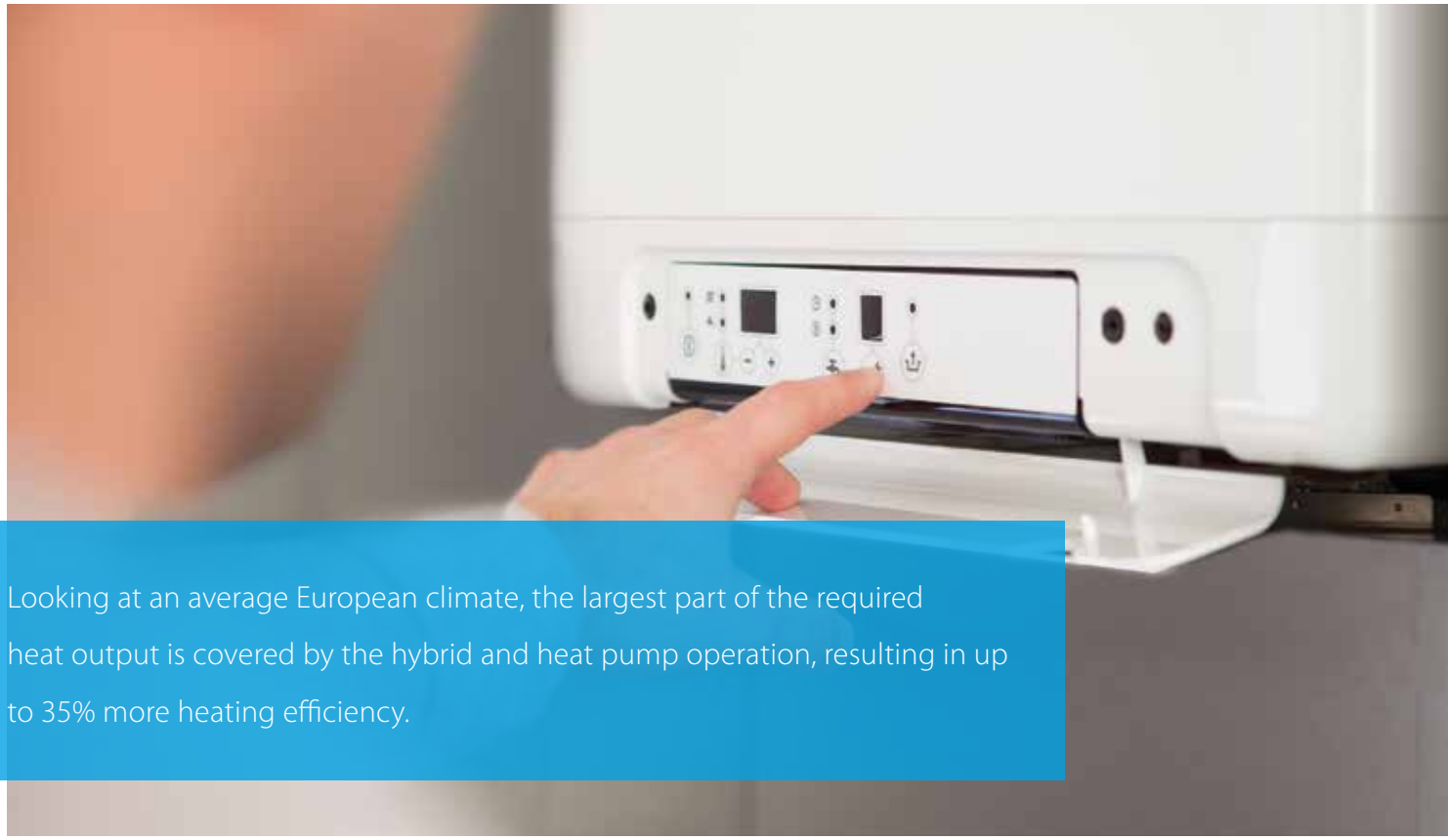
Condensing boiler technology converts the fuel used into usable heat, virtually without loss. This is both good for the environment and your wallet, since lower energy consumption means lower heating costs, less use of energy resources and a reduction in CO_2 emissions. During this process, flue gases are cooled to the extent that the steam they contain is condensed. The energy that is released by this process, is used as heating energy.

What is an air-to-water heat pump?

The Daikin Altherma air-to-water heat pump is a sustainable energy source: extracting heat from the outside air. In a closed loop containing a refrigerant, a thermodynamic cycle is created through evaporation, condensation, compression and expansion. This 'pumps' heat from a lower to a higher temperature level.

The heat gained is transferred to your home's central heating distribution system.





Looking at an average European climate, the largest part of the required heat output is covered by the hybrid and heat pump operation, resulting in up to 35% more heating efficiency.

Low running costs for heating and domestic hot water compared to traditional boilers

A. Space heating

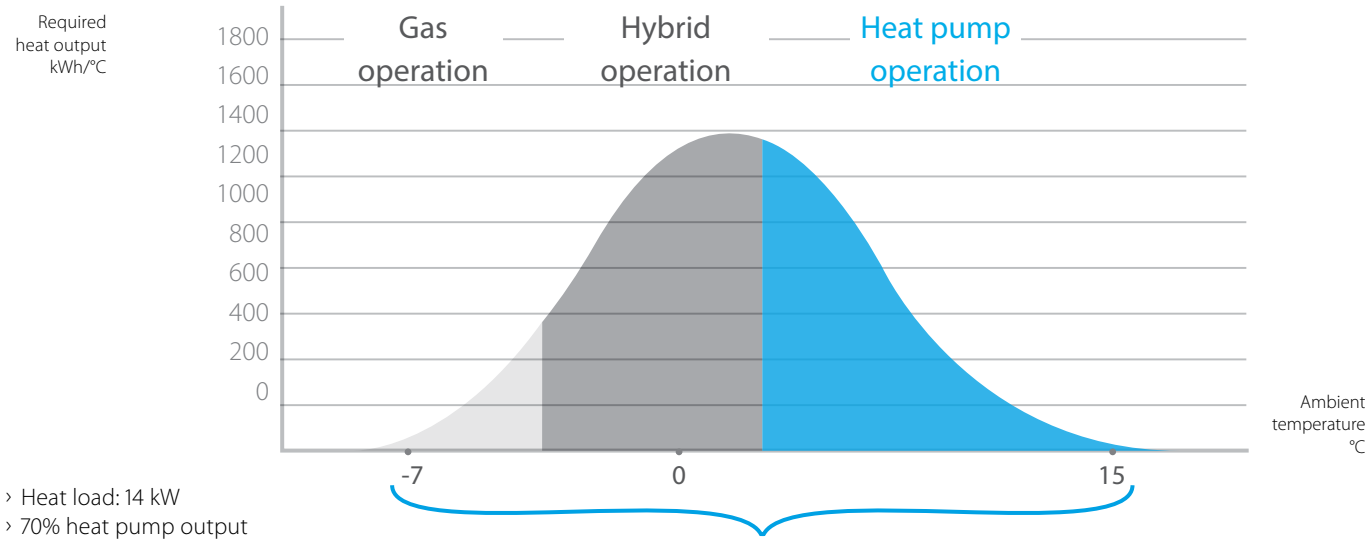
Most economical mode

› heat pump only
› hybrid mode
› gas only

Energy prices & Efficiency

Depending on the outdoor temperature, energy prices and the internal heat load, the Daikin Altherma hybrid heat pump smartly chooses between the heat pump and/or the gas boiler, possibly in simultaneous operation, always selecting the most economical mode to operate.

Illustration of an average European climate



› Heat load: 14 kW
› 70% heat pump output
› 30% gas boiler output

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

Heat load = the capacity of the space heating system required to maintain comfortable indoor temperatures at any time.

Required heat output =
heat load x n° of occuring hours per year

Heat pump operation

The heat pump integrated in the Daikin Altherma hybrid heat pump is the best available technology for optimizing running costs at moderate outdoor temperatures, resulting in a coefficient of performance of 5.04[1]!

Hybrid operation

If a high heat load is required, or to achieve the highest efficiencies at the current conditions, both the gas boiler and heat pump operate at the same time in the most economical way.
The water flow rate will be automatically regulated, in order to have the possibility of lowering the temperature of the water flowing from the radiators to the heat pump and so maximizing the heat pump efficiency.
The exact time the switch-over is made from heat pump operation to hybrid opertion depends on the house characteristics, energy prices, the requested indoor temperature setting and the outdoor temperature.

Gas operation

When outdoor temperatures are dropping drastically, it is no longer efficient to operate in hybrid mode.
At that point, the unit will switch automatically to gas operation only.

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

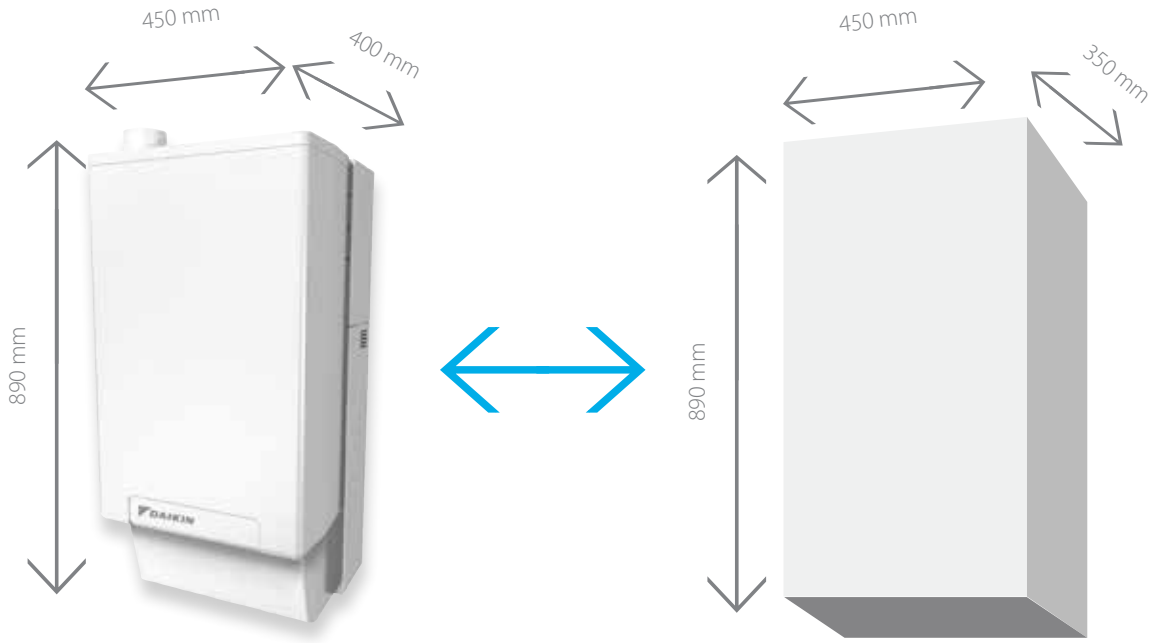
B. Domestic hot water

Hot water produced with gas condensing technology

Efficiency increase up to 10-15% compared to traditional gas condensing boilers thanks to a special dual heat exchanger:
› cold tap water flows directly into the heat exchanger
› optimal and continuous condensing of the flue gases during domestic hot water preparation.

Low investment benefits

There is no need to replace the existing radiators (up to 80°C) and pipe work as our Daikin Altherma hybrid heat pump connects directly to the existing heating system, thus reducing the cost and disruption of installation. Thanks to the compact dimensions, 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.



Daikin Altherma hybrid heat pump

Existing gas boiler

Ideal for renovation applicationss

Several applications are possible using the Daikin Altherma hybrid heat pump as all heat loads are covered up to 27 kW.
The gas boiler can be installed without the heat pump in the early stages, in order to quickly restart heating in the case of a breakdown of the existing gas boiler.

Easy and fast installation: 3 components

› Heat pump outdoor unit
› Heat pump indoor unit
› Gas condensing boiler

As the heat pump indoor unit and gas condensing boiler are delivered as separate units, they are easier to handle and manipulate, and easier to install.
The heat pump indoor unit is easily mounted on the wall with a standard back plate.
With the quick interconnections, the gas condensing boiler is easily attached to the heat pump indoor unit, resulting in a very compact unit. Similar to all wall mounted gas boilers, all the connections are at the bottom and all the components can be accessed from the front, which makes the unit easy to service and maintain.

Heat pump outdoor unit

Gas condensing boiler

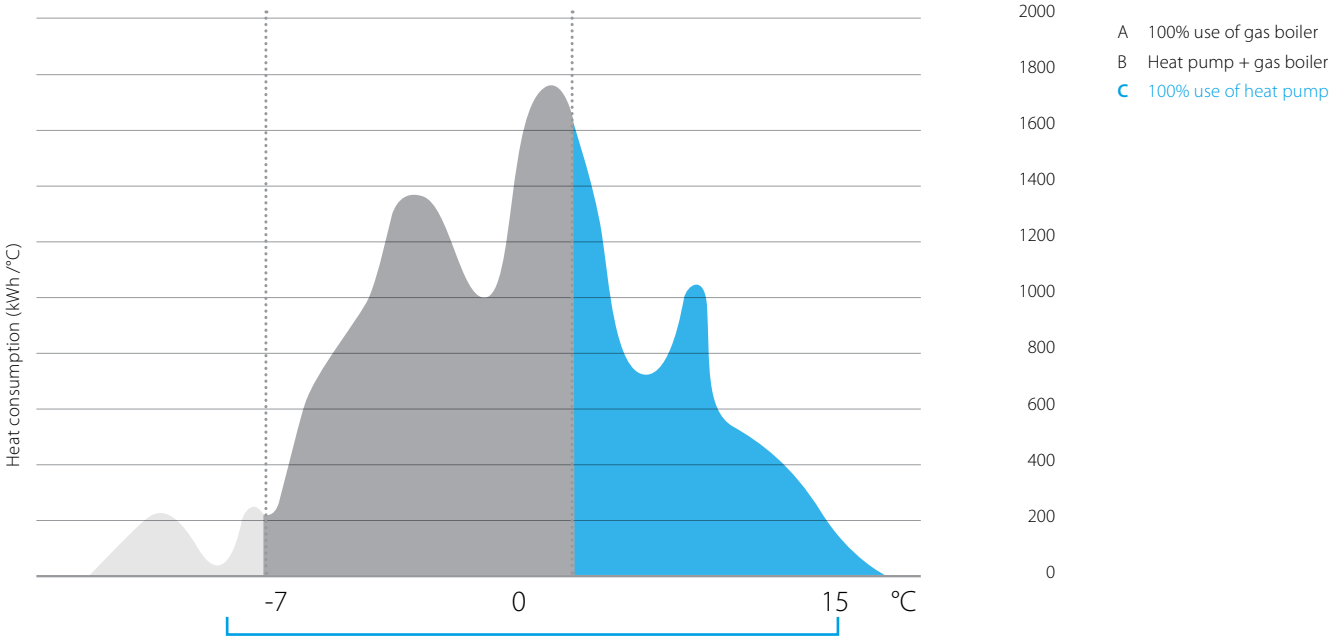
Heat pump indoor unit

Replacing a gas boiler with a Daikin Altherma hybrid heat pump means saving on running costs for both space heating and the domestic hot water supply.

Case Study

A running cost comparison is made based on below parameters for a typical Belgian winter.
Thanks to the hybrid principle, the most cost-efficient operation will be used no matter what the ambient outdoor temperature is.

Heat consumption during winter



+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

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

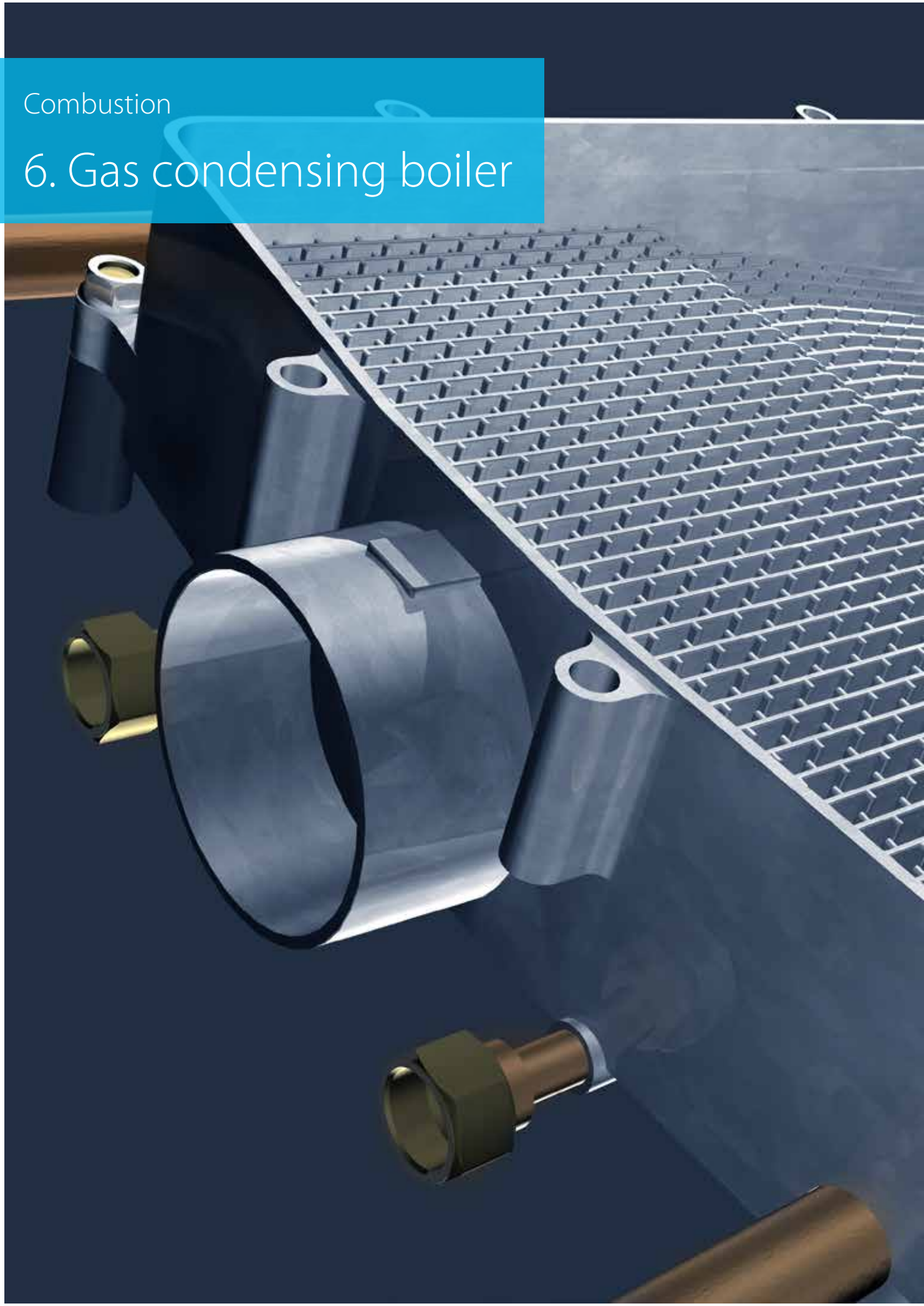
-32% versus existing gas condensing boiler **690 €/year**

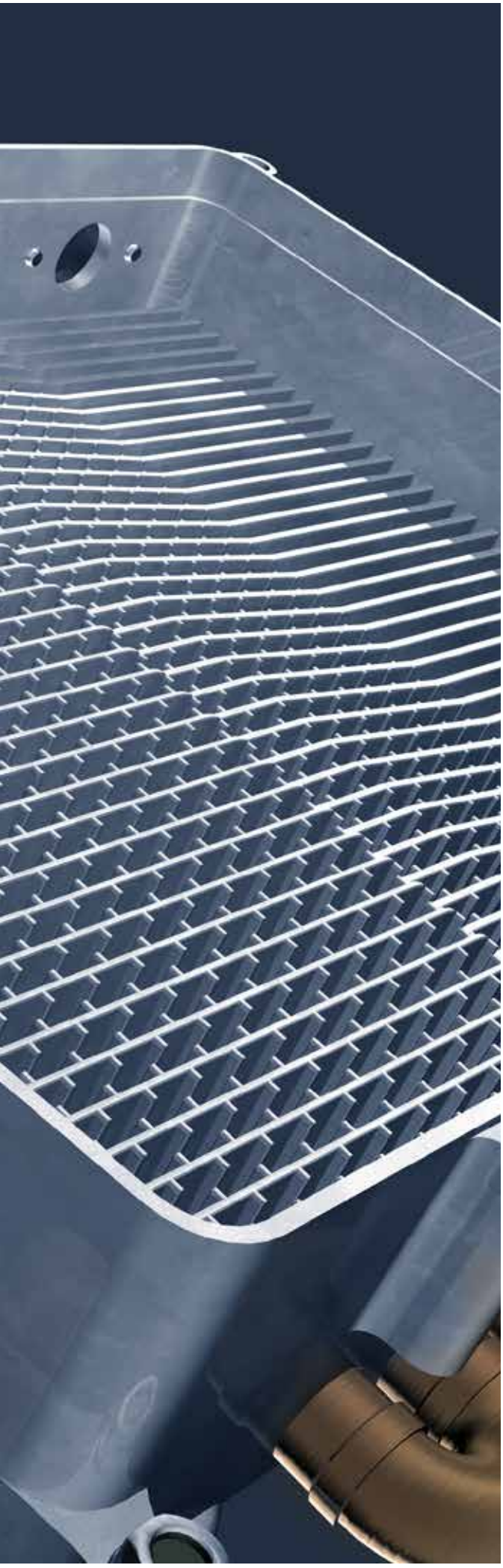
Conditions

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

Combustion

6. Gas condensing boiler





Why choose the Daikin gas condensing boiler?

Customer requirement: a new wall mounted boiler
- must simply replace the existing boiler
- must provide heating and domestic hot water
- increased efficiency and lower operating costs

Your solution: the Daikin gas condensing boiler
- dual heat exchanger giving lower operating costs
- small size and easy connections makes for easy installation

Customer benefits:
- simple and fast installation
- low operating costs due to high efficiencies
- high quality touch and feel

Your gains:
- plug-and-play replacement

Result: win-win for you AND the customer

A new generation of high-efficiency boilers

for top comfort and low costs

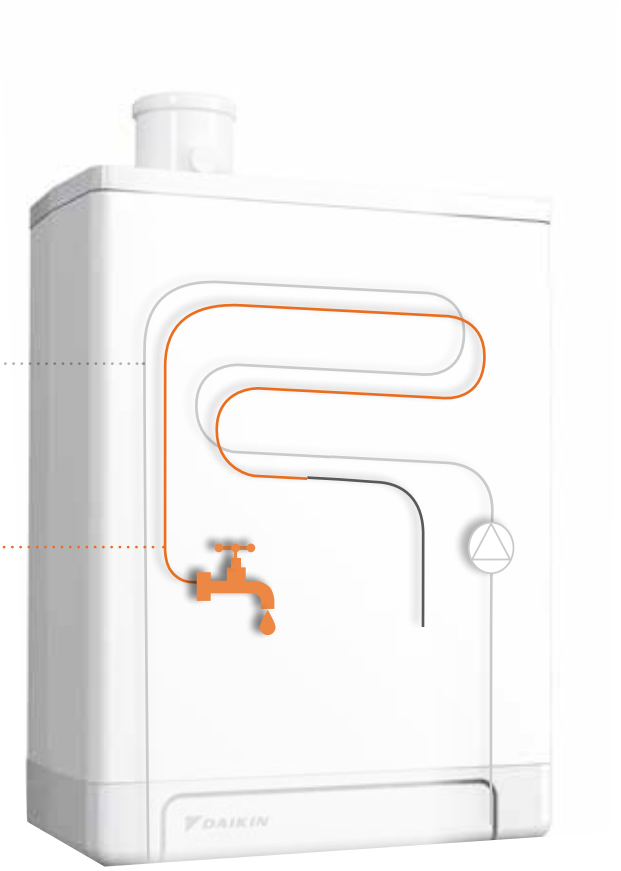
☑ Low costs for both heating and hot water thanks to new dual heat exchanger

Unique in the market:
double condensation, not only
for heating but also
for domestic hot water
resulting in low running costs

1. With the heat exchanger for space heating, maximum efficiency is reached by removing excess heat from flue gases, the condensation effect.the flue gases

[Unique Daikin feature]

2. Thanks to the dedicated heat exchanger for instantaneous domestic hot water production, the condensation effect is used for outstanding domestic hot water efficiency



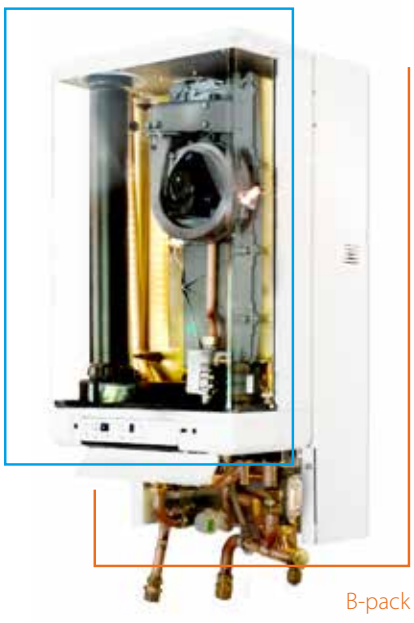
Top comfort

You expect Daikin to deliver maximum heating comfort and the domestic hot water needed in your customer's home. Our innovative gas-fired condensing boiler provides it all, exactly as required.

Modulating high-efficiency boiler: low running costs at all times

The Daikin gas condensing boiler is fitted with an advanced modulating controller that automatically adjusts the heat output of the boiler to maintain the correct temperature within the home and to optimise the efficiency of the heat exchanger. In addition, an **ECO comfort switch** is fitted so that in **ECO mode** the domestic hot water is quickly heated and made available in line with your consumption history whilst in **Comfort mode** it is available at all times.

Gas condensing boiler



Easy installation in minimum space

Installation time can be reduced to the minimum by using our optional pre-assembled B-pack which contains all the components for the functional installation in one module and fits behind the boiler. And as there are fewer parts, the Daikin condensing gas boiler is more reliable and easier to service

Beyond the ordinary Daikin total solutions

As the market leader in heating systems that use renewable or recovered heat, we have a very extensive product range that has been designed for optimal performance and provides a flexible and **total solution in almost every possible circumstance**. Whether you are looking for heating, cooling or domestic hot water production, Daikin has a system to suit.
Well known for our innovative Daikin Altherma air-to-water heat pumps, we also have hybrid heat pumps, ground source heat pumps. solar systems and air-to-air heat pumps.

At your service, with the Daikin selection tools

Daikin worked out three selection tools for an accurate estimation of your specific project and doing so Daikin provides a maximum of comfort, even in the early stage of choosing! / even when considering the options!

Make a quick estimation of savings on running costs and savings on CO_2 emissions thanks to the Energy Savings Calculator.

The Daikin Altherma simulation software provides for every specific application an appropriate heat pump selection based on the specific house and location details. And for new houses or renovations the Daikin Altherma selection and simulation software allows quick and easy identification of the optimal mix of components.

To select your flue gas system, please visit http://fluegas.daikin.eu

Energy savings calculator

Daikin provides a web-based tool to give a quick estimation of savings on running costs and savings on CO_2 emissions. Based on a few inputs from the customer (location, house type, floor area, number of people), a comparison is made between the Daikin Altherma heat pump system and traditional heating systems. This comparison includes the space heating and domestic hot water heating. This is available for both new builds and refurbishment applications.
http://ecocalc.daikin.eu

Simulation software

The Daikin Altherma simulation software provides for every specific application an appropriate heat pump selection, taking into account the needs of the building and specific climate data. An installer can provide the following data:

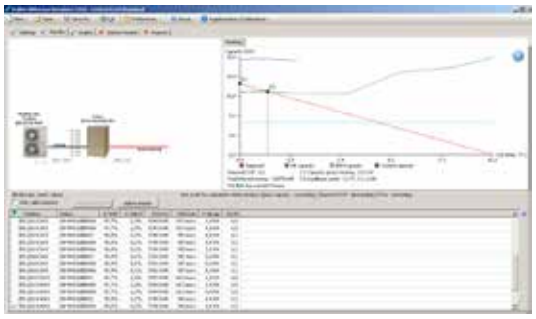
› house application: heat/cool load, water temperatures, power supply
› climate conditions: location, design temperature
› domestic hot water requirements: tank volume, material, solar connection
› preferences: "heating off" temperature, night setback function.

Based on the specific house and location details, the software provides a full dimensioning assuring a correct material selection.

As well as a full material selection, the software provides detailed information for the installer and the end-user, on the expected outcome of the specified Daikin Altherma unit for its specific application and climate:

› seasonal efficiency of the heat pump system
› amount of back-up heater operation
› energy consumption and energy cost per month
› savings on running costs compared to traditional heating systems

All this information will be summarised in a detailed report.



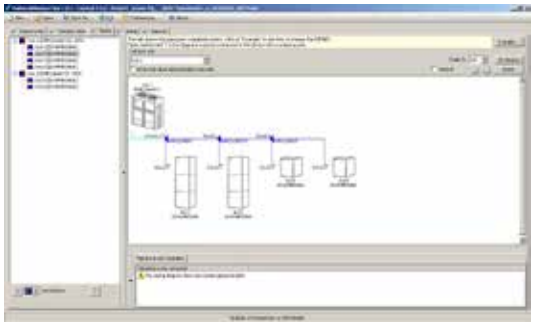
Check your local Daikin website for availability of this simulation software.

Selection and design software for Daikin Altherma Flex Type

The Daikin Altherma selection and simulation software for new houses or renovations allows quick and easy identification of the optimal mix of components. It automatically selects indoor and outdoor units based on the required heat loads per housing unit and calculates the required refrigerant piping dimensions.

The software also features:

› automatic or manual selection of indoor units
› automatic selection of outdoor units
› calculation of refrigerant piping diameters
› automatic selection of refnet headers and joints
› creation of piping and wiring diagrams with the possibility to export them as DXF file
› creation of extensive selection report.



Technical specifications

1. Daikin Altherma ground source heat pump

EGSQH-A9W

Daikin Altherma ground source heat pump

EGSQH-A9W

Indoor Unit				EGSQH	10S18A9W
Heating capacity	Min.			kW	3.11 (1) / 2.47 (2)
	Nom.			kW	10.2 (1) / 9.29 (2)
	Max.			kW	13.0 (1) / 11.9 (2)
Power input	Nom.			kW	2.34 (1) / 2.82 (2)
COP					4.35 (1) / 3.29 (2)
Casing	Colour				White
	Material				Precoated sheet metal
Dimensions	Unit	HeightxWidthxDepth		mm	1,732x600x728
Weight	Unit			kg	210
Tank	Water volume			l	180
	Insulation	Heat loss		kWh/24h	1.36
	Corrosion protection				Anode
Operation range	Installation space	Min.~Max.		°C	5~30
	Brine side	Min.~Max.		°C	-5~20
	Heating	Water side	Min.~Max.	°C	24~60 (heat pump)/24-65 (heat pump + back up heater)
	Domestic hot water	Water side	Min.~Max.	°C	(25~55 (heatpump)/25~60 (back up heater)
Refrigerant	Type				R-410A
	Charge			kg	1.8
Sound power level	Nom.			dBA	46
Sound pressure level	Nom.			dBA	32
Power supply	Name/Phase/Frequency/Voltage			Hz/V	9W/3~/50/400
Current	Recommended fuses			A	25

(1) EWB/LWB 0°C/-3°C - LWC 35°C (DT=5°C) (2) EWB/LWB 0°C/-3°C - LWC 45°C (DT=5°C)

EHVH-CB + ERLQ-CV3/CW1

Daikin Altherma low temperature split

ERLQ004CV3

EHVH-CB

Efficiency data				EHVH + ERLQ	04S18CB3V + 004CV3	08S18CB3V / 08S26CB9W + 006CV3	08S18CB3V / 08S26CB9W + 008CV3	11S18CB3V / 11S26CB9W + 011CV3	16S18CB3V / 16S26CB9W + 014CV3	16S18CB3V / 16S26CB9W + 016CV3	11S18CB3V / 11S26CB9W + 011CW1	16S18CB3V / 16S26CB9W + 014CW1	16S18CB3V / 16S26CB9W + 016CW1
Heating capacity	Min.		kW		1.80 (1) / 1.80 (2)			-					
	Nom.		kW		4.40 (1) / 4.03 (2)	6.00 (1) / 5.67 (2)	7.40 (1) / 6.89 (2)	11.2 (1) / 11.00 (2)	14.5 (1) / 13.60 (2)	16 (1) / 15.20 (2)	11.2 (1) / 11.00 (2)	14.5 (1) / 13.60 (2)	16 (1) / 15.20 (2)
	Max.		kW		5.12 (1) / 4.90 (2)	8.35 (1) / 7.95 (2)	10.02 (1) / 9.53 (2)	8.6 (3) / 8.60 (4)	10.6 (3) / 10.80 (4)	11.4 (3) / 10.90 (4)	8.6 (3) / 8.60 (4)	10.6 (3) / 10.80 (4)	11.4 (3) / 10.90 (4)
Power input	Heating	Nom.	kW		0.87 (1) / 1.13 (2)	1.27 (1) / 1.59 (2)	1.66 (1) / 2.01 (2)	2.43 (1) / 3.10 (2)	3.37 (1) / 4.10 (2)	3.76 (1) / 4.66 (2)	2.43 (1) / 3.10 (2)	3.37 (1) / 4.10 (2)	3.76 (1) / 4.66 (2)
		Max.	kW		-			3.13 (3) / 4.10 (4)	4.00 (3) / 5.19 (4)	4.32 (3) / 5.22 (4)	3.13 (3) / 4.10 (4)	4.00 (3) / 5.19 (4)	4.32 (3) / 5.22 (4)
Nominal efficiency	COP				5.04 (1) / 3.58 (2)	4.74 (1) / 3.56 (2)	4.45 (1) / 3.42 (2)	4.6 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)	4.3 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)	4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)	4.6 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)	4.3 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)	4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)

Indoor unit				EHVH	04S18CB3V	08S18CB3V / 08S26CB9W	11S18CB3V 11S26CB9W	16S18CB3V / 16S26CB9W	11S18CB3V / 11S26CB9W	16S18CB3V / 16S26CB9W
Casing	Colour				White					
	Material				Precoated sheet metal					
Dimensions	Unit	HeightxWidthxDepth	mm		1,732x600x728					
Weight	Unit		kg		116	117/126	117/126	118/127	117/126	118/127
Tank	Water volume		l		180	180/260				
	Insulation	Heat loss	kWh/24h		1.4	1.4/1.9				
	Corrosion protection				Anode					
Sound power level	Cooling		dBA		42		-			
Sound pressure level	Cooling	Nom.	dBA		28		-			

Outdoor unit				ERLQ	004CV3	006CV3	008CV3	011CV3	014CV3	016CV3	011CW1	014CW1	016CW1
Dimensions	Unit	HeightxWidthxDepth	mm		735x832x307			1,345x900x320					
Weight	Unit		kg		54	56		113			114		
Operation range	Heating	Ambient	Min.~Max. °CDB		-25~25			-25~35					
	Domestic hot water	Ambient	Min.~Max. °CWB		-25~35			-20~35					
Refrigerant	Type				R-410A								
	Charge		kg		1.45	1.60		3.4					
Sound power level	Heating		dBA		61		62	64		66	64		66
Sound pressure level	Heating	Nom.	dBA		48		49	51		52	51		52
Power supply	Phase / Frequency / Voltage		Hz / V		V3/1~/50/230						W1/3N~/50/400		
Current - 50Hz	Maximum fuse amps (MFA)		A		20			40			20		

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
(3) Condition 3: heating Ta DB -7°C (RH85%) - LWC 35°C (4) Condition 4: heating Ta DB -7°C (RH85%) - LWC 45°C

EHVH-CB + ERHQ-BV3/BW1

Daikin Altherma low temperature split

EHVH-CB

ERHQ-BV3

Efficiency data				EHVH + ERHQ	11S18CB3V / 11S26CB9W + 011BV3	16S18CB3V / 16S26CB9W + 014BV3	16S18CB3V / 16S26CB9W + 016BV3	11S18CB3V / 11S26CB9W + 011BW1	16S18CB3V / 16S26CB9W + 014BW1	16S18CB3V / 16S26CB9W + 016BW1
Heating capacity	Nom.			kW	11.2 (1) / 10.3 (2)	14.0 (1) / 13.1 (2)	16.0 (1) / 15.2 (2)	11.32 (1) / 10.98 (2)	14.50 (1) / 13.57 (2)	16.05 (1) / 15.11 (2)
Power input	Heating	Nom.		kW	2.55 (1) / 3.17 (2)	3.26 (1) / 4.04 (2)	3.92 (1) / 4.75 (2)	2.63 (1) / 3.24 (2)	3.42 (1) / 4.21 (2)	3.82 (1) / 4.69 (2)
Nominal efficiency	COP				4.39 (1) / 3.25 (2)	4.29 (1) / 3.24 (2)	4.08 (1) / 3.20 (2)	4.30 (1) / 3.39 (2)	4.24 (1) / 3.22 (2)	4.20 (1) / 3.22 (2)

Indoor unit				EHVH	11S18CB3V / 11S26CB9W	16S18CB3V / 16S26CB9W	11S18CB3V / 11S26CB9W	16S18CB3V / 16S26CB9W
Casing	Colour				White			
	Material				Precoated sheet metal			
Dimensions	Unit	HeightxWidthxDepth		mm	1,732x600x728			
Weight	Unit			kg	117/126	118/127	117/126	118/127
Sound power level	Cooling			dBA	-			
Sound pressure level	Cooling	Nom.		dBA	-			

Outdoor unit				ERHQ	011BV3	014BV3	016BV3	011BW1	014BW1	016BW1
Dimensions	Unit	HeightxWidthxDepth		mm	1,170x900x320			1,345x900x320		
Weight	Unit			kg	103			108		
Operation range	Heating	Ambient	Min.~Max.	°CDB	-20~35					
	Domestic hot water	Ambient	Min.~Max.	°CWB	-20~35					
Refrigerant	Type				R-410A					
	Charge			kg	2.7			2.95		
Sound power level	Heating			dBA	64		66	64		66
Sound pressure level	Heating	Nom.		dBA	49	51	53	51		52
Power supply	Phase / Frequency / Voltage			Hz / V	V3/1~/50/230			W1/3N~/50/400		
Current - 50Hz	Maximum fuse amps (MFA)			A	32			20		

(1) DB/WB 7°C/6°C - LWC 35°C (DT=5°C) - (2) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

EHVX-CB + ERLQ-CV3/CW1

Daikin Altherma low temperature split

EHVX-CB

ERLQ004CV3

Efficiency data				EHVX + ERLQ	04S18CB3V + 004CV3	08S18CB3V / 08S26CB9W + 006CV3	08S18CB3V / 08S26CB9W + 008CV3	11S18CB3V / 11S26CB9W + 011CV3	16S18CB3V / 16S26CB9W + 014CV3	16S18CB3V / 16S26CB9W + 016CV3	11S18CB3V / 11S26CB9W + 011CW1	16S18CB3V / 16S26CB9W + 014CW1	16S18CB3V / 16S26CB9W + 016CW1
Heating capacity	Min.		kW		1.80 (1) / 1.80 (2)			-					
	Nom.		kW		4.40 (1) / 4.03 (2)	6.00 (1) / 5.67 (2)	7.40 (1) / 6.89 (2)	11.2 (1) / 11.00 (2)	14.5 (1) / 13.60 (2)	16 (1) / 15.20 (2)	11.2 (1) / 11.00 (2)	14.5 (1) / 13.60 (2)	16 (1) / 15.20 (2)
	Max.		kW		5.12 (1) / 4.90 (2)	8.35 (1) / 7.95 (2)	10.02 (1) / 9.53 (2)	8.6 (3) / 8.60 (4)	10.6 (3) / 10.80 (4)	11.4 (3) / 10.90 (4)	8.6 (3) / 8.60 (4)	10.6 (3) / 10.80 (4)	11.4 (3) / 10.90 (4)
Cooling capacity	Min.				2.00 (1) / 2.00 (2)	2.50 (1) / 2.50 (2)		-					
	Nom.				4.08 (1) / 4.17 (2)	5.88 (1) / 4.84 (2)	6.20 (1) / 5.36 (2)	12.13 (1) / 11.72 (2)	12.72 (1) / 12.55 (2)	13.79 (1) / 13.12 (2)	12.13 (1) / 11.72 (2)	12.72 (1) / 12.55 (2)	13.79 (1) / 13.12 (2)
Power input	Heating	Nom.	kW		0.87 (1) / 1.13 (2)	1.27 (1) / 1.59 (2)	1.66 (1) / 2.01 (2)	2.43 (1) / 3.10 (2)	3.37 (1) / 4.10 (2)	3.76 (1) / 4.66 (2)	2.43 (1) / 3.10 (2)	3.37 (1) / 4.10 (2)	3.76 (1) / 4.66 (2)
		Max.	kW			-		3.13 (3) / 4.10 (4)	4.00 (3) / 5.19 (4)	4.32 (3) / 5.22 (4)	3.13 (3) / 4.10 (4)	4.00 (3) / 5.19 (4)	4.32 (3) / 5.22 (4)
	Cooling	Nom.	kW		0.90 (1) / 1.80 (2)	1.51 (1) / 2.07 (2)	1.64 (1) / 2.34 (2)	3.05 (1) / 4.31 (2)	3.21 (1) / 5.08 (2)	3.74 (1) / 5.73 (2)	3.05 (1) / 4.31 (2)	3.21 (1) / 5.08 (2)	3.74 (1) / 5.73 (2)
Nominal efficiency	COP				5.04 (1) / 3.58 (2)	4.74 (1) / 3.56 (2)	4.45 (1) / 3.42 (2)	4.6 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)	4.3 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)	4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)	4.6 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)	4.3 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)	4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)
	EER				4.55 (1) / 2.32 (2)	3.89 (1) / 2.34 (2)	3.79 (1) / 2.29 (2)	3.98 (1) / 2.72 (2)	3.96 (1) / 2.47 (2)	3.69 (1) / 2.29 (2)	3.98 (1) / 2.72 (2)	3.96 (1) / 2.47 (2)	3.69 (1) / 2.29 (2)

Indoor unit				EHVX	04S18CB3V	08S18CB3V / 08S26CB9W	11S18CB3V / 11S26CB9W	16S18CB3V / 16S26CB9W	11S18CB3V / 11S26CB9W	16S18CB3V / 16S26CB9W
Casing	Colour				White					
	Material				Precoated sheet metal					
Dimensions	Unit	HeightxWidthxDepth	mm		1,732x600x728					
Weight	Unit		kg		117	119/128		120/129	119/128	120/129
Tank	Water volume		l		180	180/260				
	Insulation	Heat loss	kWh/24h		1.4	1.4/1.9				
	Corrosion protection				Anode					
Sound power level	Cooling		dBA		42		-			
Sound pressure level	Cooling	Nom.	dBA		28		-			

Outdoor unit					ERLQ	004CV3	006CV3	008CV3	011CV3	014CV3	016CV3	011CW1	014CW1	016CW1
Dimensions	Unit	HeightxWidthxDepth		mm		735x832x307			1,345x900x320					
Weight	Unit			kg		54	56		113			114		
Operation range	Heating	Ambient	Min.~Max.	°CDB		-25~25			-25~35					
	Cooling	Ambient	Min.~Max.	°CWB		10~43			10~46					
	Domestic hot water	Ambient	Min.~Max.	°CWB		-25~35			-20~35					
Refrigerant	Type					R-410A								
	Charge			kg		1.45	1.60		3.4					
Sound power level	Cooling			dBA		61		62	64		66	64		66
	Heating			dBA		63			64	66	69	64	66	69
Sound pressure level	Cooling	Nom./Silent operation		dBA		48		49	51		52	51		52
	Heating	Nom.		dBA		48	49	50	50	52	54	50	52	54
Power supply	Phase / Frequency / Voltage			Hz / V		V3/1~/50/230						W1/3N~/50/400		
Current - 50Hz	Maximum fuse amps (MFA)			A		20			40			20		

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
(3) Condition 3: heating Ta DB -7°C (RH85%) - LWC 35°C (4) Condition 4: heating Ta DB -7°C (RH85%) - LWC 45°C

EHVX-CB + ERHQ-BV3/BW1

Daikin Altherma low temperature split

ERLQ004CV3 EHVX-CB ERHQ-BV3

Efficiency data				EHVX + ERHQ	11S18CB3V / 11S26CB9W + 011BV3	16S18CB3V / 16S26CB9W + 014BV3	16S18CB3V / 16S26CB9W + 016BV3	11S18CB3V / 11S26CB9W + 011BW1	16S18CB3V / 16S26CB9W + 014BW1	16S18CB3V / 16S26CB9W + 016BW1
Heating capacity	Nom.			kW	11.2 (1) / 10.30 (2)	14.0 (1) / 13.1 (2)	16.0 (1) / 15.2 (2)	11.32 (1) / 10.98 (2)	14.50 (1) / 13.57 (2)	16.05 (1) / 15.11 (2)
Cooling capacity	Nom.			kW	13.9 (1) / 10.0 (2)	17.3 (1) / 12.5 (2)	17.8 (1) / 13.1 (2)	15.05 (1) / 11.72 (2)	16.06 (1) / 12.55 (2)	16.76 (1) / 13.12 (2)
Power input	Heating	Nom.		kW	2.55 (1) / 3.17 (2)	3.26 (1) / 4.04 (2)	3.92 (1) / 4.75 (2)	2.63 (1) / 3.24 (2)	3.42 (1) / 4.21 (2)	3.82 (1) / 4.69 (2)
	Cooling	Nom.		kW	3.86 (1) / 3.69 (2)	5.86 (1) / 5.39 (2)	6.87 (1) / 5.95 (2)	4.53 (1) / 4.31 (2)	5.43 (1) / 5.08 (2)	6.16 (1) / 5.73 (2)
Nominal efficiency	COP				4.39 (1) / 3.25 (2)	4.29 (1) / 3.24 (2)	4.08 (1) / 3.20 (2)	4.30 (1) / 3.39 (2)	4.24 (1) / 3.22 (2)	4.20 (1) / 3.22 (2)
	EER				3.60 (1) / 2.71 (2)	2.95 (1) / 2.32 (2)	2.59 (1) / 2.20 (2)	3.32 (1) / 2.72 (2)	2.96 (1) / 2.47 (2)	2.72 (1) / 2.29 (2)

Indoor unit				EHVX	11S18CB3V / 11S26CB9W	16S18CB3V / 16S26CB9W	11S18CB3V / 11S26CB9W	16S18CB3V / 16S26CB9W
Casing	Colour				White			
	Material				Precoated sheet metal			
Dimensions	Unit	HeightxWidthxDepth		mm	1,732x600x728			
Weight	Unit			kg	119/128	120/129	119/128	120/129
Sound power level	Cooling	Nom.		dBA	-			
Sound pressure level	Cooling	Nom.		dBA	-			

Outdoor unit				ERHQ	011BV3	014BV3	016BV3	011BW1	014BW1	016BW1
Dimensions	Unit	HeightxWidthxDepth		mm	1,170x900x320			1,345x900x320		
Weight	Unit			kg	103			108		
Operation range	Heating	Ambient	Min.~Max.	°CDB	-20~35			-25~35		
	Cooling	Ambient	Min.~Max.	°CDB	10~46					
	Domestic hot water	Ambient	Min.~Max.	°CWB	-20~35					
Refrigerant	Type				R-410A					
	Charge			kg	2.7			2.95		
Sound power level	Heating			dBA	64		66	64		66
	Cooling			dBA	64	66	69	64	66	69
Sound pressure level	Heating	Nom.		dBA	49	51	53	51		52
	Cooling	Nom.		dBA	50	52	54	50	52	54
Power supply	Phase / Frequency / Voltage			Hz / V	V3/1~/50/230			W1/3N~/50/400		
Current - 50Hz	Maximum fuse amps (MFA)			A	32			20		

(1)DB/WB 7°C/6°C - LWC 35°C (DT=5°C) - (2) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

EHSH-A + ERLQ-CV3/CW1

Daikin Altherma low temperature split

EHSH04-08P30A

EHSH08-16P50A

ERLQ004-008CV3

Efficiency data				EHSH + ERLQ	04P30A + 004CV3	08P50A + 006CV3	08P30A + 006CV3	08P30A + 008CV3	08P50A + 008CV3	16P50A + 011CV3	16P50A + 011CW1	16P50A + 014CV3	16P50A + 014CW1	16P50A + 016CV3	16P50A + 016CW1
Heating capacity	Min.		kW	1.80 / 1.81	1.80 / 1.81	1.80 / 1.81	1.80 / 1.81	1.80 / 1.81	1.80 / 1.81	-					
	Nom.		kW	4.53 / 3.98 / 4.26 / 3.47	6.06 / 5.78 / 5.14 / 4.60	6.06 / 5.78 / 5.14 / 4.60	7.78 / 7.27 / 5.53 / 5.51	7.78 / 7.27 / 5.53 / 5.51	11.80 / 10.40 / 5.95 / 7.74	11.80 / 10.40 / 5.95 / 7.74	14.81 / 13.73 / 8.28 / 9.57	14.81 / 13.73 / 8.28 / 9.57	15.34 / 14.86 / 8.04 / 10.05	15.34 / 14.86 / 8.04 / 10.05
	Max.		kW	5.12 / 4.90	8.35 / 7.95	8.35 / 7.95	10.02 / 9.53	10.02 / 9.53	11.38 / 11.00	11.38 / 11.00	14.55 / 13.59	14.55 / 13.59	16.10 / 15.22	16.10 / 15.22
Power input	Heating	Nom.	kW	0.87 / 1.04 / 1.49 / 0.85	1.30 / 1.58 / 1.88 / 1.26	1.30 / 1.58 / 1.88 / 1.26	1.69 / 2.04 / 1.98 / 1.56	1.69 / 2.04 / 1.98 / 1.56	2.57 / 3.13 / 2.43 / 2.35	2.57 / 3.13 / 2.43 / 2.35	3.42 / 4.07 / 3.17 / 2.93	3.42 / 4.07 / 3.17 / 2.93	3.42 / 4.07 / 3.17 / 2.93	3.42 / 4.07 / 3.17 / 2.93
		Max.	kW	1.12 / 1.44	1.99 / 2.32	1.99 / 2.32	2.54 / 2.96	2.54 / 2.96	2.64 / 3.25	2.64 / 3.25	3.43 / 4.22	3.43 / 4.22	3.83 / 4.71	3.83 / 4.71
COP				5.23 / 3.84 / 2.85 / 4.07	4.65 / 3.66 / 2.73 / 3.64	4.65 / 3.66 / 2.73 / 3.64	4.60 / 3.57 / 2.78 / 3.54	4.60 / 3.57 / 2.78 / 3.54	4.38 / 3.32 / 2.45 / 3.29	4.38 / 3.32 / 2.45 / 3.29	4.27 / 3.34 / 2.58 / 3.22	4.27 / 3.34 / 2.58 / 3.22	4.10 / 3.22 / 2.44 / 3.15	4.10 / 3.22 / 2.44 / 3.15

Indoor Unit				EHSH	04P30A	08P50A	08P30A	08P50A	16P50A
Casing	Colour				Traffic white (RAL9016) / Dark grey (RAL7011)				
	Material				Impact resistant polypropylene				
Dimensions	Unit	HeightxWidthxDepth	mm		1,945x615x595	1,945x790x790	1,945x615x595	1,945x790x790	
Weight	Unit		kg		87	114	87	114	116
Tank	Water volume		l		300	500	300	500	
	Maximum water temperature		°C		85				
Sound power level	Nom.		dBA		40				
Sound pressure level	Nom.		dBA		28				

Outdoor Unit				ERLQ	004CV3	006CV3	008CV3	011CV3	011CW1	014CV3	014CW1	016CV3	016CW1
Dimensions	Unit	HeightxWidthxDepth	mm		735x832x307			1,345x900x320					
Weight	Unit		kg		54	56		113	114	113	114	113	114
Compressor	Quantity				1								
	Type				Hermetically sealed swing compressor			Hermetically sealed scroll compressor					
Operation range	Heating	Min.~Max.	°CWB		-25~25			-25~35					
	Domestic hot water	Min.~Max.	°CDB		-25~35			-20~35					
Refrigerant	Type				R-410A								
	Charge		kg		1.45	1.60		3.4					
Sound power level	Heating	Nom.	dBA		61		62	64				66	
Sound pressure level	Heating	Nom.	dBA		48		49	51				52	
Power supply	Name/Phase/Frequency/Voltage		Hz/V		V3/1~/50/230				W1/3N~/ 50/400	V3/1~/ 50/230	W1/3N~/ 50/400	V3/1~/ 50/230	W1/3N~/ 50/400
Current	Recommended fuses		A		20			40	20	40	20	40	20

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C) (3) EW 30°C; LW 35°C; ambient conditions: -7°CDB/-8°CWB (4) EW 30°C; LW 35°C; ambient conditions: 2°CDB/1°CWB

EHSHB-A + ERLQ-CV3/CW1

Daikin Altherma low temperature split

EHSHB04-08P30A

EHSHB08-16P50A

ERLQ004-008CV3

Efficiency data				EHSHB + ERLQ	04P30A + 004CV3	08P30A + 006CV3	08P50A + 006CV3	08P30A + 008CV3	08P50A + 008CV3	16P50A + 011CV3	16P50A + 011CW1	16P50A + 014CV3	16P50A + 014CW1	16P50A + 016CV3	16P50A + 016CW1
Heating capacity	Min.		kW		1.80 / 1.81	1.80 / 1.81	1.80 / 1.81	1.80 / 1.81	1.80 / 1.81	-					
	Nom.		kW		4.53 / 3.98 / 4.26 / 3.47	6.06 / 5.78 / 5.14 / 4.60	6.06 / 5.78 / 5.14 / 4.60	7.78 / 7.27 / 5.53 / 5.51	7.78 / 7.27 / 5.53 / 5.51	11.80 / 10.40 / 5.95 / 7.74	11.80 / 10.40 / 5.95 / 7.74	14.81 / 13.73 / 8.28 / 9.57	14.81 / 13.73 / 8.28 / 9.57	15.34 / 14.86 / 8.04 / 10.05	15.34 / 14.86 / 8.04 / 10.05
	Max.		kW		5.12 / 4.90	8.35 / 7.95	8.35 / 7.95	10.02 / 9.53	10.02 / 9.53	11.38 / 11.00	11.38 / 11.00	14.55 / 13.59	14.55 / 13.59	16.10 / 15.22	16.10 / 15.22
Power input	Heating	Nom.	kW		0.87 / 1.04 / 1.49 / 0.85	1.30 / 1.58 / 1.88 / 1.26	1.30 / 1.58 / 1.88 / 1.26	1.69 / 2.04 / 1.98 / 1.56	1.69 / 2.04 / 1.98 / 1.56	2.57 / 3.13 / 2.43 / 2.35	2.57 / 3.13 / 2.43 / 2.35	3.42 / 4.07 / 3.17 / 2.93	3.42 / 4.07 / 3.17 / 2.93	3.42 / 4.07 / 3.17 / 2.93	3.42 / 4.07 / 3.17 / 2.93
		Max.	kW		1.12 / 1.44	1.99 / 2.32	1.99 / 2.32	2.54 / 2.96	2.54 / 2.96	2.64 / 3.25	2.64 / 3.25	3.43 / 4.22	3.43 / 4.22	3.83 / 4.71	3.83 / 4.71
COP					5.23 / 3.84 / 2.85 / 4.07	4.65 / 3.66 / 2.73 / 3.64	4.65 / 3.66 / 2.73 / 3.64	4.60 / 3.57 / 2.78 / 3.54	4.60 / 3.57 / 2.78 / 3.54	4.38 / 3.32 / 2.45 / 3.29	4.38 / 3.32 / 2.45 / 3.29	4.27 / 3.34 / 2.58 / 3.22	4.27 / 3.34 / 2.58 / 3.22	4.10 / 3.22 / 2.44 / 3.15	4.10 / 3.22 / 2.44 / 3.15
EER					4.21 / 2.85	3.65 / 2.51	3.65 / 2.51	3.65 / 2.51	3.65 / 2.51	3.32 / 2.72	3.32 / 2.72	2.96 / 2.47	2.96 / 2.47	2.72 / 2.29	2.72 / 2.29

Indoor Unit				EHSHB	04P30A	08P30A	08P50A	08P30A	08P50A	16P50A
Casing	Colour				Traffic white (RAL9016) / Dark grey (RAL7011)					
	Material				Impact resistant polypropylene					
Dimensions	Unit	HeightxWidthxDepth	mm		1,945x615x595		1,945x790x790	1,945x615x595		1,945x790x790
Weight	Unit		kg		92		119	92	119	121
Tank	Water volume		l		300		500	300		500
	Maximum water temperature		°C				85			
Sound power level	Nom.		dBA				40			
Sound pressure level	Nom.		dBA				28			

Outdoor Unit				ERLQ	004CV3	006CV3	008CV3	011CV3	011CW1	014CV3	014CW1	016CV3	016CW1
Dimensions	Unit	HeightxWidthxDepth	mm		735x832x307			1,345x900x320					
Weight	Unit		kg		54	56		113	114	113	114	113	114
Compressor	Quantity							1					
	Type				Hermetically sealed swing compressor			Hermetically sealed scroll compressor					
Operation range	Heating	Min.~Max.	°CWB		-25~25			-25~35					
	Domestic hot water	Min.~Max.	°CDB		-25~35			-20~35					
Refrigerant	Type							R-410A					
	Charge		kg		1.45	1.60		3.4					
Sound power level	Heating	Nom.	dBA		61		62	64				66	
Sound pressure level	Heating	Nom.	dBA		48		49	51				52	
Power supply	Name/Phase/Frequency/Voltage		Hz/V		V3/1~/50/230				W1/3N~/ 50/400	V3/1~/ 50/230	W1/3N~/ 50/400	V3/1~/ 50/230	W1/3N~/ 50/400
Current	Recommended fuses		A		20			40	20	40	20	40	20

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C) (3) EW 30°C; LW 35°C; ambient conditions: -7°CDB/-8°CWB (4) EW 30°C; LW 35°C; ambient conditions: 2°CDB/1°CWB

EHSXB-A + ERLQ-CV3/CW1

Daikin Altherma low temperature split

EHSXB08-16P50A

EHSXB04-08P30A

ERLQ004-008CV3

Efficiency data			EHSXB + ERLQ	04P30A + 004CV3	08P30A + 006CV3	08P50A + 006CV3	08P30A + 008CV3	08P50A + 008CV3	16P50A + 011CV3	16P50A + 011CW1	16P50A + 014CV3	16P50A + 014CW1	16P50A + 016CV3	16P50A + 016CW1
Heating capacity	Min.		kW	1.80 (1) / 1.81 (2)	1.80 (1) / 1.81 (2)	1.80 (1) / 1.81 (2)	1.80 (1) / 1.81 (2)	1.80 (1) / 1.81 (2)	-					
	Nom.		kW	4.53 (1) / 3.98 (2) / 4.26 (3) / 3.47 (4)	6.06 (1) / 5.78 (2) / 5.14 (3) / 4.60 (4)	6.06 (1) / 5.78 (2) / 5.14 (3) / 4.60 (4)	7.78 (1) / 7.27 (2) / 5.53 (3) / 5.51 (4)	7.78 (1) / 7.27 (2) / 5.53 (3) / 5.51 (4)	11.80 (1) / 10.40 (2) / 5.95 (3) / 7.74 (4)	11.80 (1) / 10.40 (2) / 5.95 (3) / 7.74 (4)	14.81 (1) / 13.73 (2) / 8.28 (3) / 9.57 (4)	14.81 (1) / 13.73 (2) / 8.28 (3) / 9.57 (4)	15.34 (1) / 14.86 (2) / 8.04 (3) / 10.05 (4)	15.34 (1) / 14.86 (2) / 8.04 (3) / 10.05 (4)
	Max.		kW	5.12 (1) / 4.90 (2)	8.35 (1) / 7.95 (2)	8.35 (1) / 7.95 (2)	10.02 (1) / 9.53 (2)	10.02 (1) / 9.53 (2)	11.38 (1) / 11.00 (2)	11.38 (1) / 11.00 (2)	14.55 (1) / 13.59 (2)	14.55 (1) / 13.59 (2)	16.10 (1) / 15.22 (2)	16.10 (1) / 15.22 (2)
Cooling capacity	Min.		kW	2.0 (1) / 2.1 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	-	
	Nom.		kW	4.4 (1) / 4.0 (2)	5.2 (1) / 4.6 (2)	5.2 (1) / 4.6 (2)	5.2 (1) / 4.6 (2)	5.2 (1) / 4.6 (2)	15.1 (1) / 11.7 (2)	15.1 (1) / 11.7 (2)	16.1 (1) / 12.6 (2)	16.1 (1) / 12.6 (2)	16.8 (1) / 13.1 (2)	16.8 (1) / 13.1 (2)
	Max.		kW	5.9 (1) / 4.5 (2)	7.3 (1) / 5.5 (2)	7.3 (1) / 5.5 (2)	8.4 (1) / 6.4 (2)	8.4 (1) / 6.4 (2)	15.1 (1) / 11.7 (2)	15.1 (1) / 11.7 (2)	16.1 (1) / 12.6 (2)	16.1 (1) / 12.6 (2)	16.8 (1) / 13.1 (2)	16.8 (1) / 13.1 (2)
Power input	Heating	Nom.	kW	0.87 (1) / 1.04 (2) / 1.49 (3) / 0.85 (4)	1.30 (1) / 1.58 (2) / 1.88 (3) / 1.26 (4)	1.30 (1) / 1.58 (2) / 1.88 (3) / 1.26 (4)	1.69 (1) / 2.04 (2) / 1.98 (3) / 1.56 (4)	1.69 (1) / 2.04 (2) / 1.98 (3) / 1.56 (4)	2.57 (1) / 3.13 (2) / 2.43 (3) / 2.35 (4)	2.57 (1) / 3.13 (2) / 2.43 (3) / 2.35 (4)	3.42 (1) / 4.07 (2) / 3.17 (3) / 2.93 (4)	3.42 (1) / 4.07 (2) / 3.17 (3) / 2.93 (4)	3.42 (1) / 4.07 (2) / 3.17 (3) / 2.93 (4)	3.42 (1) / 4.07 (2) / 3.17 (3) / 2.93 (4)
		Max.	kW	1.12 (1) / 1.44 (2)	1.99 (1) / 2.32 (2)	1.99 (1) / 2.32 (2)	2.54 (1) / 2.96 (2)	2.54 (1) / 2.96 (2)	2.64 (1) / 3.25 (2)	2.64 (1) / 3.25 (2)	3.43 (1) / 4.22 (2)	3.43 (1) / 4.22 (2)	3.83 (1) / 4.71 (2)	3.83 (1) / 4.71 (2)
	Cooling	Nom.	kW	1.05 (1) / 1.41 (2)	1.43 (1) / 1.85 (2)	1.43 (1) / 1.85 (2)	1.43 (1) / 1.85 (2)	1.43 (1) / 1.85 (2)	4.55 (1) / 4.30 (2)	4.55 (1) / 4.30 (2)	5.44 (1) / 5.10 (2)	5.44 (1) / 5.10 (2)	6.18 (1) / 5.72 (2)	6.18 (1) / 5.72 (2)
		Max.	kW	1.86 (1) / 2.04 (2)	2.27 (1) / 2.51 (2)	2.27 (1) / 2.51 (2)	2.89 (1) / 3.20 (2)	2.89 (1) / 3.20 (2)	4.53 (1) / 4.31 (2)	4.53 (1) / 4.31 (2)	5.42 (1) / 5.09 (2)	5.42 (1) / 5.09 (2)	6.15 (1) / 5.74 (2)	6.15 (1) / 5.74 (2)
COP				5.23 (1) / 3.84 (2) / 2.85 (3) / 4.07 (4)	4.65 (1) / 3.66 (2) / 2.73 (3) / 3.64 (4)	4.65 (1) / 3.66 (2) / 2.73 (3) / 3.64 (4)	4.60 (1) / 3.57 (2) / 2.78 (3) / 3.54 (4)	4.60 (1) / 3.57 (2) / 2.78 (3) / 3.54 (4)	4.38 (1) / 3.32 (2) / 2.45 (3) / 3.29 (4)	4.38 (1) / 3.32 (2) / 2.45 (3) / 3.29 (4)	4.27 (1) / 3.34 (2) / 2.58 (3) / 3.22 (4)	4.27 (1) / 3.34 (2) / 2.58 (3) / 3.22 (4)	4.10 (1) / 3.22 (2) / 2.44 (3) / 3.15 (4)	4.10 (1) / 3.22 (2) / 2.44 (3) / 3.15 (4)
EER				4.21 (1) / 2.85 (2)	3.65 (1) / 2.51 (2)	3.65 (1) / 2.51 (2)	3.65 (1) / 2.51 (2)	3.65 (1) / 2.51 (2)	3.32 (1) / 2.72 (2)	3.32 (1) / 2.72 (2)	2.96 (1) / 2.47 (2)	2.96 (1) / 2.47 (2)	2.72 (1) / 2.29 (2)	2.72 (1) / 2.29 (2)

Indoor Unit				EHSXB	04P30A	08P30A	08P50A	08P30A	08P50A	16P50A
Casing	Colour				Traffic white (RAL9016) / Dark grey (RAL7011)					
	Material				Impact resistant polypropylene					
Dimensions	Unit	HeightxWidthxDepth	mm		1,945x615x595		1,945x790x790	1,945x615x595		1,945x790x790
Weight	Unit		kg		92		119	92	119	121
Tank	Water volume		l		300		500	300		500
	Maximum water temperature		°C				85			
Operation range	Domestic hot water	Water side Min.~Max.	°C				25~55			
Sound power level	Nom.		dBA				40			
Sound pressure level	Nom.		dBA				28			

Outdoor Unit				ERLQ	004CV3	006CV3	008CV3	011CV3	011CW1	014CV3	014CW1	016CV3	016CW1
Dimensions	Unit	HeightxWidthxDepth	mm		735x832x307			1,345x900x320					
Weight	Unit		kg		54	56		113	114	113	114	113	114
Compressor	Quantity				1								
	Type				Hermetically sealed swing compressor			Hermetically sealed scroll compressor					
Operation range	Heating	Min.~Max.	°CWB		-25~25			-25~35					
	Cooling	Min.~Max.	°CDB		10~43			10.0~46.0	10~46	10.0~46.0	10~46	10.0~46.0	10~46
	Domestic hot water	Min.~Max.	°CDB		-25~35			-20~35					
Refrigerant	Type				R-410A								
	Charge		kg		1.45	1.60		3.4					
Sound power level	Heating	Nom.	dBA		61		62	64				66	
	Cooling	Nom.	dBA		63			64		66		69	
Sound pressure level	Heating	Nom.	dBA		48		49	51				52	
	Cooling	Nom.	dBA		48	49	50	50		52		54	
Power supply	Name/Phase/Frequency/Voltage		Hz/V		V3/1~/50/230				W1/3N~/ 50/400	V3/1~/ 50/230	W1/3N~/ 50/400	V3/1~/5 0/230	W1/3N~/ 50/400
Current	Recommended fuses		A		20			40	20	40	20	40	20

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
(3) EW 30°C; LW 35°C; ambient conditions: -7°CDB/-8°CWB (4) EW 30°C; LW 35°C; ambient conditions: 2°CDB/1°CWB

EHSX-A + ERLQ-CV3/CW1

Daikin Altherma low temperature split

EHSX08-16P50A

EHSX04-08P30A

ERLQ004-008CV3

Efficiency data				EHSX + ERLQ	04P30A + 004CV3	08P30A + 006CV3	08P50A + 006CV3	08P30A + 008CV3	08P50A + 008CV3	16P50A + 011CV3	16P50A + 011CW1	16P50A + 014CV3	16P50A + 014CW1	16P50A + 016CV3	16P50A + 016CW1
Heating capacity	Min.			kW	1.80 (1) / 1.81 (2)	1.80 (1) / 1.81 (2)	1.80 (1) / 1.81 (2)	1.80 (1) / 1.81 (2)	1.80 (1) / 1.81 (2)	-					
	Nom.			kW	4.53 (1) / 3.98 (2) / 4.26 (3) / 3.47 (4)	6.06 (1) / 5.78 (2) / 5.14 (3) / 4.60 (4)	6.06 (1) / 5.78 (2) / 5.14 (3) / 4.60 (4)	7.78 (1) / 7.27 (2) / 5.53 (3) / 5.51 (4)	7.78 (1) / 7.27 (2) / 5.53 (3) / 5.51 (4)	11.80 (1) / 10.40 (2) / 5.95 (3) / 7.74 (4)	11.80 (1) / 10.40 (2) / 5.95 (3) / 7.74 (4)	14.81 (1) / 13.73 (2) / 8.28 (3) / 9.57 (4)	14.81 (1) / 13.73 (2) / 8.28 (3) / 9.57 (4)	15.34 (1) / 14.86 (2) / 8.04 (3) / 10.05 (4)	15.34 (1) / 14.86 (2) / 8.04 (3) / 10.05 (4)
	Max.			kW	5.12 (1) / 4.90 (2)	8.35 (1) / 7.95 (2)	8.35 (1) / 7.95 (2)	10.02 (1) / 9.53 (2)	10.02 (1) / 9.53 (2)	11.38 (1) / 11.00 (2)	11.38 (1) / 11.00 (2)	14.55 (1) / 13.59 (2)	14.55 (1) / 13.59 (2)	16.10 (1) / 15.22 (2)	16.10 (1) / 15.22 (2)
Cooling capacity	Min.			kW	2.0 (1) / 2.1 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	2.5 (1) / 2.6 (2)	-	
	Nom.			kW	4.4 (1) / 4.0 (2)	5.2 (1) / 4.6 (2)	5.2 (1) / 4.6 (2)	5.2 (1) / 4.6 (2)	5.2 (1) / 4.6 (2)	15.1 (1) / 11.7 (2)	15.1 (1) / 11.7 (2)	16.1 (1) / 12.6 (2)	16.1 (1) / 12.6 (2)	16.8 (1) / 13.1 (2)	16.8 (1) / 13.1 (2)
	Max.			kW	5.9 (1) / 4.5 (2)	7.3 (1) / 5.5 (2)	7.3 (1) / 5.5 (2)	8.4 (1) / 6.4 (2)	8.4 (1) / 6.4 (2)	15.1 (1) / 11.7 (2)	15.1 (1) / 11.7 (2)	16.1 (1) / 12.6 (2)	16.1 (1) / 12.6 (2)	16.8 (1) / 13.1 (2)	16.8 (1) / 13.1 (2)
Power input	Heating	Nom.		kW	0.87 / 1.04 / 1.49 / 0.85	1.30 / 1.58 / 1.88 / 1.26	1.30 / 1.58 / 1.88 / 1.26	1.69 / 2.04 / 1.98 / 1.56	1.69 / 2.04 / 1.98 / 1.56	2.57 / 3.13 / 2.43 / 2.35	2.57 / 3.13 / 2.43 / 2.35	3.42 / 4.07 / 3.17 / 2.93	3.42 / 4.07 / 3.17 / 2.93	3.42 / 4.07 / 3.17 / 2.93	3.42 / 4.07 / 3.17 / 2.93
		Max.		kW	1.12 (1) / 1.44 (2)	1.99 (1) / 2.32 (2)	1.99 (1) / 2.32 (2)	2.54 (1) / 2.96 (2)	2.54 (1) / 2.96 (2)	2.64 (1) / 3.25 (2)	2.64 (1) / 3.25 (2)	3.43 (1) / 4.22 (2)	3.43 (1) / 4.22 (2)	3.83 (1) / 4.71 (2)	3.83 (1) / 4.71 (2)
	Cooling	Nom.		kW	1.05 (1) / 1.41 (2)	1.43 (1) / 1.85 (2)	1.43 (1) / 1.85 (2)	1.43 (1) / 1.85 (2)	1.43 (1) / 1.85 (2)	4.55 (1) / 4.30 (2)	4.55 (1) / 4.30 (2)	5.44 (1) / 5.10 (2)	5.44 (1) / 5.10 (2)	6.18 (1) / 5.72 (2)	6.18 (1) / 5.72 (2)
		Max.		kW	1.86 (1) / 2.04 (2)	2.27 (1) / 2.51 (2)	2.27 (1) / 2.51 (2)	2.89 (1) / 3.20 (2)	2.89 (1) / 3.20 (2)	4.53 (1) / 4.31 (2)	4.53 (1) / 4.31 (2)	5.42 (1) / 5.09 (2)	5.42 (1) / 5.09 (2)	6.15 (1) / 5.74 (2)	6.15 (1) / 5.74 (2)
COP					5.23 (1) / 3.84 (2) / 2.85 (3) / 4.07 (4)	4.65 (1) / 3.66 (2) / 2.73 (3) / 3.64 (4)	4.65 (1) / 3.66 (2) / 2.73 (3) / 3.64 (4)	4.60 (1) / 3.57 (2) / 2.78 (3) / 3.54 (4)	4.60 (1) / 3.57 (2) / 2.78 (3) / 3.54 (4)	4.38 (1) / 3.32 (2) / 2.45 (3) / 3.29 (4)	4.38 (1) / 3.32 (2) / 2.45 (3) / 3.29 (4)	4.27 (1) / 3.34 (2) / 2.58 (3) / 3.22 (4)	4.27 (1) / 3.34 (2) / 2.58 (3) / 3.22 (4)	4.10 (1) / 3.22 (2) / 2.44 (3) / 3.15 (4)	4.10 (1) / 3.22 (2) / 2.44 (3) / 3.15 (4)
EER					4.21 (1) / 2.85 (2)	3.65 (1) / 2.51 (2)	3.65 (1) / 2.51 (2)	3.65 (1) / 2.51 (2)	3.65 (1) / 2.51 (2)	3.32 (1) / 2.72 (2)	3.32 (1) / 2.72 (2)	2.96 (1) / 2.47 (2)	2.96 (1) / 2.47 (2)	2.72 (1) / 2.29 (2)	2.72 (1) / 2.29 (2)

Indoor Unit				EHSX	04P30A	08P30A	08P50A	08P30A	08P50A	16P50A
Casing	Colour				Traffic white (RAL9016) / Dark grey (RAL7011)					
	Material				Impact resistant polypropylene					
Dimensions	Unit	HeightxWidthxDepth	mm		1,945x615x595		1,945x790x790	1,945x615x595		1,945x790x790
Weight	Unit		kg		87		114	87	114	116
Tank	Water volume		l		300		500	300		500
	Maximum water temperature		°C		85					
Sound power level	Nom.		dBA		40					
Sound pressure level	Nom.		dBA		28					

Outdoor Unit				ERLQ	004CV3	006CV3	008CV3	011CV3	011CW1	014CV3	014CW1	016CV3	016CW1
Dimensions	Unit	HeightxWidthxDepth	mm		735x832x307			1,345x900x320					
Weight	Unit		kg		54	56		113	114	113	114	113	114
Compressor	Quantity				1								
	Type				Hermetically sealed swing compressor			Hermetically sealed scroll compressor					
Operation range	Heating	Min.~Max.	°CWB		-25~25			-25~35					
	Cooling	Min.~Max.	°CDB		10~43			10.0~46.0	10~46	10.0~46.0	10~46	10.0~46.0	10~46
	Domestic hot water	Min.~Max.	°CDB		-25~35			-20~35					
Refrigerant	Type				R-410A								
	Charge		kg		1.45	1.60		3.4					
Sound power level	Heating	Nom.	dBA		61		62	64				66	
	Cooling	Nom.	dBA		63			64		66		69	
Sound pressure level	Heating	Nom.	dBA		48		49	51				52	
	Cooling	Nom.	dBA	48	49		50	50		52		54	
Power supply	Name/Phase/Frequency/Voltage		Hz/V		V3/1~/50/230				W1/3N~/ 50/400	V3/1~/ 50/230	W1/3N~/ 50/400	V3/1~/5 0/230	W1/3N~/ 50/400
Current	Recommended fuses		A		20			40	20	40	20	40	20

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C) (3) EW 30°C; LW 35°C; ambient conditions: -7°CDB/-8°CWB (4) EW 30°C; LW 35°C; ambient conditions: 2°CDB/1°CWB


DAIKIN

EHBH-CB + ERLQ-CV3/CW1

Daikin Altherma low temperature split

EHBH-CB

ERLQ004CV3

Efficiency data				EHBH + ERLQ	04CB3V + 004CV3	08CB3V / 08CB9W + 006CV3	08CB3V / 08CB9W + 008CV3	11CB3V / 11CB9W +011CV3	16CB3V / 16CB9W +014CV3	16CB3V / 16CB9W + 016CV3	11CB3V / 11CB9W + 011CW1	16CB3V / 16CB9W + 014CW1	16CB3V / 16CB9W + 016CW1
Heating capacity	Min.		kW		1.80 (1) / 1.80 (2)			-					
	Nom.		kW		4.40 (1) / 4.03 (2)	6.00 (1) / 5.67 (2)	7.40 (1) / 6.89 (2)	11.2 (1) / 11.00 (2)	14.5 (1) / 13.60 (2)	16 (1) / 15.20 (2)	11.2 (1) / 11.00 (2)	14.5 (1) / 13.60 (2)	16 (1) / 15.20 (2)
	Max.		kW		5.12 (1) / 4.90 (2)	8.35 (1) / 7.95 (2)	10.02 (1) / 9.53 (2)	8.6 (3) / 8.60 (4)	10.6 (3) / 10.80 (4)	11.4 (3) / 10.90 (4)	8.6 (3) / 8.60 (4)	10.6 (3) / 10.80 (4)	11.4 (3) / 10.90 (4)
Power input	Heating	Nom.	kW		0.87 (1) / 1.13 (2)	1.27 (1) / 1.59 (2)	1.66 (1) / 2.01 (2)	2.43 (1) / 3.10 (2)	3.37 (1) / 4.10 (2)	3.76 (1) / 4.66 (2)	2.43 (1) / 3.10 (2)	3.37 (1) / 4.10 (2)	3.76 (1) / 4.66 (2)
		Max.	kW		-			3.13 (3) / 4.10 (4)	4.00 (3) / 5.19 (4)	4.32 (3) / 5.22 (4)	3.13 (3) / 4.10 (4)	4.00 (3) / 5.19 (4)	4.32 (3) / 5.22 (4)
Nominal efficiency	COP				5.04 (1) / 3.58 (2)	4.74 (1) / 3.56 (2)	4.45 (1) / 3.42 (2)	4.6 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)	4.3 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)	4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)	4.6 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)	4.3 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)	4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)

Indoor unit				EHBH	04CB3V	08CB3V / 08CB9W	11CB3V / 11CB9W	16CB3V / 16CB9W	11CB3V / 11CB9W	16CB3V / 16CB9W
Casing	Colour				White					
	Material				Precoated sheet metal					
Dimensions	Unit	HeightxWidthxDepth	mm		890x480x344					
Weight	Unit		kg		41	43	43	44	43	44
Sound power level	Cooling		dBA		40		-			
Sound pressure level	Cooling	Nom.	dBA		26		-			

Outdoor unit				ERLQ	004CV3	006CV3	008CV3	011CV3	014CV3	016CV3	011CW1	014CW1	016CW1
Dimensions	Unit	HeightxWidthxDepth	mm		735x832x307			1,345x900x320					
Weight	Unit		kg		54	56		113			114		
Operation range	Heating	Ambient Min.~Max.	°CDB		-25~25			-25~35					
	Domestic hot water	Ambient Min.~Max.	°CWB		-25~35			-20~35					
Refrigerant	Type				R-410A								
	Charge		kg		1.45	1.60		3.4					
Sound power level	Heating		dBA		61		62	64		66	64		66
Sound pressure level	Heating	Nom./Silent operation	dBA		48		49	51		52	51		52
Power supply	Phase / Frequency / Voltage		Hz / V		V3/1~/50/230						W1/3N~/50/400		
Current - 50Hz	Maximum fuse amps (MFA)		A		20			40			20		

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C) (3) Condition 3: heating Ta DB -7°C (RH85%) - LWC 35°C (4) Condition 4: heating Ta DB -7°C (RH85%) - LWC 45°C

EHBH-CB + ERHQ-BV3/BW1

Daikin Altherma
low temperature split


EHBH-CB


ERHQ-BV3

Efficiency data				EHBH + ERHQ	11CB3V / 11CB9W + 011BV3	16CB3V / 16CB9W + 014BV3	16CB3V / 16CB9W + 016BV3	11CB3V / 11CB9W + 011BW1	16CB3V / 16CB9W + 014BW1	16CB3V / 16CB9W + 016BW1
Heating capacity	Nom.			kW	11.2 (1) / 10.3 (2)	14.0 (1) / 13.1 (2)	16.0 (1) / 15.2 (2)	11.32 (1) / 10.98 (2)	14.50 (1) / 13.57 (2)	16.05 (1) / 15.11 (2)
Power input	Heating	Nom.		kW	2.55 (1) / 3.17 (2)	3.26 (1) / 4.04 (2)	3.92 (1) / 4.75 (2)	2.63 (1) / 3.24 (2)	3.42 (1) / 4.21 (2)	3.82 (1) / 4.69 (2)
Nominal efficiency	COP				4.39 (1) / 3.25 (2)	4.29 (1) / 3.24 (2)	4.08 (1) / 3.20 (2)	4.30 (1) / 3.39 (2)	4.24 (1) / 3.22 (2)	4.20 (1) / 3.22 (2)

Indoor unit				EHBH	11CB3V / 11CB9W	16CB3V / 16CB9W	11CB3V / 11CB9W	16CB3V / 16CB9W
Casing	Colour				White			
	Material				Precoated sheet metal			
Dimensions	Unit	HeightxWidthxDepth		mm	890x480x344			
Weight	Unit			kg	43	44	43	44
Sound power level	Cooling			dBA	-			
Sound pressure level	Cooling	Nom.		dBA	-			

Outdoor unit				ERHQ	011BV3	014BV3	016BV3	011BW1	014BW1	016BW1
Dimensions	Unit	HeightxWidthxDepth		mm	1,170x900x320			1,345x900x320		
Weight	Unit			kg	103			108		
Operation range	Heating	Ambient	Min.~Max.	°CDB	-20~35			-25~35		
	Domestic hot water	Ambient	Min.~Max.	°CWB	-20~35					
Refrigerant	Type				R-410A					
	Charge			kg	2.7			2.95		
Sound power level	Heating			dBA	64		66	64		66
Sound pressure level	Heating	Nom.		dBA	49	51	53	51		52
Power supply	Phase / Frequency / Voltage			Hz / V	V3/1~/50/230			W1/3N~/50/400		
Current - 50Hz	Maximum fuse amps (MFA)			A	32			20		

(1)DB/WB 7°C/6°C - LWC 35°C (DT=5°C) - (2) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)

EHBX-CB + ERLQ-CV3/CW1

Daikin Altherma low temperature split

EHBX-CB

ERLQ004-008CV3

Efficiency data				EHBX + ERLQ	04CB3V + 004CV3	08CB3V / 08CB9W + 006CV3	08CB3V / 08CB9W + 008CV3	11CB3V / 11CB9W + 011CV3	14CB3V / 14CB9W + 014CV3	16CB3V / 16CB9W + 016CV3	11CB3V / 11CB9W + 011CW1	16CB3V / 16CB9W + 014CW1	16CB3V / 16CB9W + 016CW1
Heating capacity	Min.		kW		1.80 (1) / 1.80 (2)			-					
	Nom.		kW		4.40 (1) / 4.03 (2)	6.00 (1) / 5.67 (2)	7.40 (1) / 6.89 (2)	11.2 (1) / 11.00 (2)	14.5 (1) / 13.60 (2)	16 (1) / 15.20 (2)	11.2 (1) / 11.00 (2)	14.5 (1) / 13.60 (2)	16 (1) / 15.20 (2)
	Max.		kW		5.12 (1) / 4.90 (2)	8.35 (1) / 7.95 (2)	10.02 (1) / 9.53 (2)	8.6 (3) / 8.60 (4)	10.6 (3) / 10.80 (4)	11.4 (3) / 10.90 (4)	8.6 (3) / 8.60 (4)	10.6 (3) / 10.80 (4)	11.4 (3) / 10.90 (4)
Cooling capacity	Min.				2.00 (1) / 2.00 (2)	2.50 (1) / 2.50 (2)		-					
	Nom.				4.08 (1) / 4.17 (2)	5.88 (1) / 4.84 (2)	6.20 (1) / 5.36 (2)	12.13 (1) / 11.72 (2)	12.72 (1) / 12.55 (2)	13.79 (1) / 13.12 (2)	12.13 (1) / 11.72 (2)	12.72 (1) / 12.55 (2)	13.79 (1) / 13.12 (2)
Power input	Heating	Nom.	kW		0.87 (1) / 1.13 (2)	1.27 (1) / 1.59 (2)	1.66 (1) / 2.01 (2)	2.43 (1) / 3.10 (2)	3.37 (1) / 4.10 (2)	3.76 (1) / 4.66 (2)	2.43 (1) / 3.10 (2)	3.37 (1) / 4.10 (2)	3.76 (1) / 4.66 (2)
		Max.	kW		-			3.13 (3) / 4.10 (4)	4.00 (3) / 5.19 (4)	4.32 (3) / 5.22 (4)	3.13 (3) / 4.10 (4)	4.00 (3) / 5.19 (4)	4.32 (3) / 5.22 (4)
	Cooling	Nom.	kW		0.90 (1) / 1.80 (2)	1.51 (1) / 2.07 (2)	1.64 (1) / 2.34 (2)	3.05 (1) / 4.31 (2)	3.21 (1) / 5.08 (2)	3.74 (1) / 5.73 (2)	3.05 (1) / 4.31 (2)	3.21 (1) / 5.08 (2)	3.74 (1) / 5.73 (2)
Nominal efficiency	COP				5.04 (1) / 3.58 (2)	4.74 (1) / 3.56 (2)	4.45 (1) / 3.42 (2)	4.6 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)	4.3 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)	4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)	4.6 (1) / 2.75 (3) / 3.55 (2) / 2.10 (4)	4.3 (1) / 2.65 (3) / 3.32 (2) / 2.08 (4)	4.25 (1) / 2.64 (3) / 3.26 (2) / 2.09 (4)
	EER				4.55 (1) / 2.32 (2)	3.89 (1) / 2.34 (2)	3.79 (1) / 2.29 (2)	3.98 (1) / 2.72 (2)	3.96 (1) / 2.47 (2)	3.69 (1) / 2.29 (2)	3.98 (1) / 2.72 (2)	3.96 (1) / 2.47 (2)	3.69 (1) / 2.29 (2)

Indoor unit				EHBX	04CB3V	08CB3V / 08CB9W	11CB3V / 11CB9W	16CB3V / 16CB9W	11CB3V / 11CB9W	16CB3V / 16CB9W
Casing	Colour				White					
	Material				Precoated sheet metal					
Dimensions	Unit	HeightxWidthxDepth	mm		890x480x344					
Weight	Unit		kg		42	44	43	44	43	44
Sound power level	Cooling		dBA		40		-			
Sound pressure level	Cooling	Nom.	dBA		26		-			

Outdoor unit				ERLQ	004CV3	006CV3	008CV3	011CV3	014CV3	016CV3	011CW1	014CW1	016CW1
Dimensions	Unit	HeightxWidthxDepth	mm		735x832x307			1,345x900x320					
Weight	Unit		kg		54	56		113			114		
Operation range	Heating	Ambient Min.~Max.	°CDB		-25~25			-25~35					
	Cooling	Ambient Min.~Max.	°CWB		10~43			10.0~46.0			10~46		
	Domestic hot water	Ambient Min.~Max.	°CWB		-25~35			-20~35					
Refrigerant	Type				R-410A								
	Charge		kg		1.45	1.60		3.4					
Sound power level	Cooling		dBA		61		62	64		66	64		66
	Heating		dBA		63			64	66	69	64	66	69
Sound pressure level	Cooling	Nom./Silent operation	dBA		48		49	51		52	51		52
	Heating	Nom.	dBA		48	49	50	50	52	54	50	52	54
Power supply	Phase / Frequency / Voltage		Hz / V		V3/1~/50/230						W1/3N~/50/400		
Current - 50Hz	Maximum fuse amps (MFA)		A		20			40			20		

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C) (3) Condition 3: heating Ta DB -7°C (RH85%) - LWC 35°C (4) Condition 4: heating Ta DB -7°C (RH85%) - LWC 45°C

EHBX-CB + ERHQ-BV3/BW1

Daikin Altherma
low temperature split

EHBX-CB

ERHQ-BV3

Efficiency data				EHBX + ERHQ	11CB3V / 11CB9W + 011BV3	16CB3V / 16CB9W + 014BV3	16CB3V / 16CB9W + 016BV3	11CB3V / 11CB9W + 011BW1	16CB3V / 16CB9W + 014BW1	16CB3V / 16CB9W + 016BW1
Heating capacity	Nom.			kW	11.2 (3) / 10.30 (4)	14.0 (3) / 13.1 (4)	16.0 (3) / 15.2 (4)	11.32 (1) / 10.98 (2)	14.50 (1) / 13.57 (2)	16.05 (1) / 15.11 (2)
Cooling capacity	Nom.			kW	13.9 (2) / 10.0 (1)	17.3 (2) / 12.5 (1)	17.8 (2) / 13.1 (1)	15.05 (1) / 11.72 (2)	16.06 (1) / 12.55 (2)	16.76 (1) / 13.12 (2)
Power input	Heating	Nom.		kW	2.55 (3) / 3.17 (4)	3.26 (3) / 4.04 (4)	3.92 (3) / 4.75 (4)	2.63 (1) / 3.24 (2)	3.42 (1) / 4.21 (2)	3.82 (1) / 4.69 (2)
	Cooling	Nom.		kW	3.86 (2) / 3.69 (1)	5.86 (2) / 5.39 (1)	6.87 (2) / 5.95 (1)	4.53 (1) / 4.31 (2)	5.43 (1) / 5.08 (2)	6.16 (1) / 5.73 (2)
Nominal efficiency	COP				4.39 (3) / 3.25 (4)	4.29 (3) / 3.24 (4)	4.08 (3) / 3.20 (4)	4.30 (1) / 3.39 (2)	4.24 (1) / 3.22 (2)	4.20 (1) / 3.22 (2)
	EER				3.60 (2) / 2.71 (1)	2.95 (2) / 2.32 (1)	2.59 (2) / 2.20 (1)	3.32 (1) / 2.72 (2)	2.96 (1) / 2.47 (2)	2.72 (1) / 2.29 (2)

Indoor unit				EHBX	11CB3V / 11CB9W	16CB3V / 16CB9W	11CB3V / 11CB9W	16CB3V / 16CB9W
Casing	Colour				White			
	Material				Precoated sheet metal			
Dimensions	Unit	HeightxWidthxDepth		mm	890x480x344			
Weight	Unit			kg	43	44	43	44
Sound power level	Cooling			dBA	-			
Sound pressure level	Cooling	Nom.		dBA	-			

Outdoor unit				ERHQ	011BV3	014BV3	016BV3	011BW1	014BW1	016BW1
Dimensions	Unit	HeightxWidthxDepth		mm	1,170x900x320			1,345x900x320		
Weight	Unit			kg	103			108		
Operation range	Heating	Ambient	Min.~Max.	°CDB	-20~35			-25~35		
	Cooling	Ambient	Min.~Max.	°CDB	10~46					
	Domestic hot water	Ambient	Min.~Max.	°CWB	-20~35					
Refrigerant	Type				R-410A					
	Charge			kg	2.7			2.95		
Sound power level	Heating			dBA	64		66	64		66
	Cooling			dBA	64	66	69	64	66	69
Sound pressure level	Heating	Nom.		dBA	49	51	53	51		52
	Cooling	Nom.		dBA	50	52	54	50	52	54
Power supply	Phase / Frequency / Voltage			Hz / V	V3/1~/50/230			W1/3N~/50/400		
Current - 50Hz	Maximum fuse amps (MFA)			A	32			20		

(1)DB/WB 7°C/6°C - LWC 35°C (DT=5°C) - (2) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C) (3) Condition 3: heating Ta DB -7°C (RH85%) - LWC 35°C (4) Condition 4: heating Ta DB -7°C (RH85%) - LWC 45°C

EKCB(H/X)-BC+EBHQ-BBV3

Daikin Altherma
low temperature monobloc

EKCB(H/X)-BCV3

EBHQ-BBV3

Single Unit				EBHQ	006BBV3	008BBV3	EKCB(H/X) 008BCV3
Heating capacity	Nom.			kW	6.00 (2) / 5.58 (4)	8.85 (2) / 8.15 (4)	-
Cooling capacity	Nom.			kW	7.00 (1) / 5.12 (3)	8.37 (1) / 6.08 (3)	-
Power input	Cooling	Nom.		kW	2.20 (1) / 2.16 (3)	2.97 (1) / 2.75 (3)	-
	Heating	Nom.		kW	1.41 (2) / 1.79 (4)	2.21 (2) / 2.72 (4)	-
COP					4.26 (2) / 3.11 (4)	4.00 (2) / 3.00 (4)	-
EER					3.18 (1) / 2.37 (3)	2.82 (1) / 2.21 (3)	-
Dimensions	Unit	Height		mm	805		390
		Width		mm	1,190		412
		Depth		mm	360		100
		Depth with remocon mounted on front plate		mm	-		120
Weight	Unit			kg	95		6
Operation range	Heating	Ambient	Min.~Max.	°CWB	-15~25		-~-
		Water side	Min.~Max.	°C	15~50 (5)		-~-
	Cooling	Ambient	Min.~Max.	°CDB	10~43		-~-
		Water side	Min.~Max.	°C	5~22		-~-
	Domestic hot water	Ambient	Min.~Max.	°CDB	-15~35		-~-
		Water side	Min.~Max.	°C	25~80		-~-
	Indoor installation	Ambient	Min.	°CDB	-		4
			Max.	°CDB	-		35
Refrigerant	Type				R-410A		-
	Charge			kg	1.7		-
Sound power level	Heating	Nom.		dBA	61	62	-
	Cooling	Nom.		dBA	63		-
Sound pressure level	Heating	Nom.		dBA	48	49	-
	Cooling	Nom.		dBA	48	50	-
Compressor component	Main power supply	Name			V3		-
		Phase			1~		-
		Frequency		Hz	50		-
		Voltage		V	230		-

(1) Tamb 35°C - LWE 18°C (DT=5°C) (2) DB/WB 7°C/6°C - LWC 35°C (DT=5°C) (3) Tamb 35°C - LWE 7°C (DT=5°C) (4) DB/WB 7°C/6°C - LWC 45°C (Dt=5°C)
(5) 15°C-25°C: BUH only, no heat pump operation = during commisioning

EB(L/H)Q-BB6V3/W1

Daikin Altherma
low temperature monobloc

EB(L/H)Q-BB

Single Unit				EBLQ/EBHQ	011BB6V3	014BB6V3	016BB6V3	011BB6W1	014BB6W1	016BB6W1
Heating capacity	Nom.			kW	11.20 (1) / 10.87 (2)	14.00 (1) / 13.10 (2)	16.00 (1) / 15.06 (2)	11.20 (1) / 10.87 (2)	14.00 (1) / 13.10 (2)	16.00 (1) / 15.06 (2)
Cooling capacity	Nom.			kW	12.85 (1) / 10.00 (2)	15.99 (1) / 12.50 (2)	16.73 (1) / 13.10 (2)	12.85 (1) / 10.00 (2)	15.99 (1) / 12.50 (2)	16.73 (1) / 13.10 (2)
Power input	Cooling	Nom.		kW	3.87 (1) / 3.69 (2)	5.75 (1) / 5.39 (2)	6.36 (1) / 5.93 (2)	3.87 (1) / 3.69 (2)	5.40 (1) / 5.06 (2)	6.15 (1) / 5.75 (2)
	Heating	Nom.		kW	2.56 (1) / 3.31 (2)	3.29 (1) / 4.01 (2)	3.88 (1) / 4.71 (2)	2.60 (1) / 3.21 (2)	3.30 (1) / 4.07 (2)	3.81 (1) / 4.66 (2)
COP					4.38 (1) / 3.28 (2)	4.25 (1) / 3.27 (2)	4.12 (1) / 3.20 (2)	4.31 (1) / 3.38 (2)	4.24 (1) / 3.22 (2)	4.20 (1) / 3.23 (2)
EER					3.32 (1) / 2.71 (2)	2.78 (1) / 2.32 (2)	2.63 (1) / 2.21 (2)	3.32 (1) / 2.71 (2)	2.96 (1) / 2.47 (2)	2.72 (1) / 2.28 (2)
Dimensions	Unit	Height		mm	1,418					
		Width		mm	1,435					
		Depth		mm	382					
Weight	Unit			kg	180					
Hydraulic component	Back-up heater	Type			6V3			6W1		
	current	Power supply	Phase/Frequency/Voltage	Hz/V	1~/50/230			3~/50/400		
Operation range	Heating	Ambient	Min.~Max.	°CWB	-20~35 (EBLQ)/-15~35 (EBHQ)			-25~35 (EBLQ)/-15~35 (EBHQ)		
		Water side	Min.~Max.	°C	15~55 (3)					
	Cooling	Ambient	Min.~Max.	°CDB	10~46					
		Water side	Min.~Max.	°C	5~22					
	Domestic hot water	Ambient	Min.~Max.	°CDB	-20~43 (EBLQ)/-15~43 (EBHQ)			-25~43 (EBLQ)/-15~43 (EBHQ)		
		Water side	Min.~Max.	°C	25~80					
Refrigerant	Type				R-410A					
	Charge			kg	2.95					
Sound power level	Heating	Nom.		dBA	64	65	66	64	65	66
	Cooling	Nom.		dBA	65	66	69	65	66	69
Sound pressure level	Heating	Nom.		dBA	51		52	49	51	53
	Cooling	Nom.		dBA	50	52	54	50	52	54
Compressor component	Main power supply	Name			V3			W1		
		Phase			1~			3N~		
		Frequency		Hz	50					
		Voltage		V	230			400		

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
(3) 15°C-25°C: BUH only, no heat pump operation = during commisioning

ED(L/H)Q-BB6V3/W1

Daikin Altherma
low temperature monobloc

ED(L/H)Q-BB

Single Unit				EDLQ/EDHQ	011BB6V3	014BB6V3	016BB6V3	011BB6W1	014BB6W1	016BB6W1
Heating capacity	Nom.			kW	11.20 / 10.87	14.00 / 13.10	16.00 / 15.06	11.20 / 10.87	14.00 / 13.10	16.00 / 15.06
Power input	Heating	Nom.		kW	2.56 / 3.31	3.29 / 4.01	3.88 / 4.71	2.60 / 3.21	3.30 / 4.07	3.81 / 4.66
COP					4.38 / 3.28	4.25 / 3.27	4.12 / 3.20	4.31 / 3.38	4.24 / 3.22	4.20 / 3.23
Dimensions	Unit	Height		mm	1,418					
		Width		mm	1,435					
		Depth		mm	382					
Weight	Unit			kg	180					
Hydraulic component	Back-up heater	Type			6V3			6W1		
	current	Power supply	Phase/Frequency/Voltage	Hz/V	1~/50/230			3~/50/400		
Operation range	Heating	Ambient	Min.~Max.	°CWB	-20~35 (EDLQ)/-15~35 (EDHQ)			-25~35 (EDLQ)/-15~35 (EDHQ)		
		Water side	Min.~Max.	°C	15~55					
	Domestic hot water	Ambient	Min.~Max.	°CDB	-20~43 (EDLQ)/-15~43 (EDHQ)			-25~43 (EDLQ)/-15~43 (EDHQ)		
		Water side	Min.~Max.	°C	25~80					
Refrigerant	Type				R-410A					
	Charge			kg	2.95					
Sound power level	Heating	Nom.		dBA	64	65	66	64	65	66
Sound pressure level	Heating	Nom.		dBA	51		52	49	51	53
Compressor component	Main power supply	Name			V3			W1		
		Phase			1~			3N~		
		Frequency		Hz	50					
		Voltage		V	230			400		

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
(3) 15°C-25°C: BUH only, no heat pump operation = during commisioning

Tanks and solar for Daikin Altherma low temperature

EKHWP300B

EKHWP-B

Plastic domestic hot water tank with solar support

Accessory				EKHWP	300B	500B
Dimensions	Unit	Width	mm		595	790
		Depth	mm		615	790
Weight	Unit	Empty	kg		59	93
Tank	Water volume			l	300	500
	Maximum water temperature			°C	85	
	Insulation	Heat loss		kWh/24h	1.3	1.4
Heat exchanger	Domestic hot water	Tube material			Stainless steel	
		Face area		m^2	5.8	6
		Internal coil volume		l	27.9	29
		Operating pressure		bar	6	
		Average specifc thermal output		W/K	2,790	2,900
	Charging	Tube material			Stainless steel	
		Face area		m^2	2.7	3.8
		Internal coil volume		l	13.2	18.5
		Operating pressure		bar	3	
		Average specifc thermal output		W/K	1,300	1,800
	Auxiliary solar heating	Tube material			Stainless steel	
		Face area		m^2	-	0.5
		Internal coil volume		l	-	2.3
		Operating pressure		bar	3	
		Average specifc thermal output		W/K	-	280

EKHWS-B

EKHWS-B

Stainless steel domestic hot water tank

Accessory				EKHWS	150B3V3	200B3V3	300B3V3	200B3Z2	300B3Z2
Casing	Colour				Neutral white				
	Material				Epoxy-coated mild steel				
Dimensions	Unit	Width		mm	580				
		Depth		mm	580				
Weight	Unit	Empty		kg	37	45	59	45	59
Tank	Water volume			l	150	200	300	200	300
	Material				Stainless steel (DIN 1.4521)				
	Maximum water temperature			°C	85				
	Insulation	Heat loss		kWh/24h	1.55	1.77	2.19	1.77	2.19
Heat exchanger	Quantity				1				
	Tube material				Duplex steel LDX 2101				
Booster heater	Capacity			kW	3				
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/230			2~/50/400	

EKHWE-A

Enameled domestic hot water tank

EKHWE200A

Accessory				EKHWE	150A3V3	200A3V3	300A3V3	200A3Z2	300A3Z2
Casing	Colour				RAL9010				
	Material				Epoxy coated steel				
Dimensions	Unit	Diameter	mm		545		660	545	660
Weight	Unit	Empty	kg		80	104	140	104	140
Tank	Water volume		l		150	200	300	200	300
	Material				Enamel coated steel acc. DIN4753TL2	-			
	Maximum water temperature		°C		75				
	Insulation	Heat loss	kWh/24h		1.7	1.9	2.5	1.9	2.5
Booster heater	Capacity		kW		3.0				
Power supply	Phase/Frequency/Voltage		Hz/V		1~/50/230			2~/50/400	

EKSRPS

Pump station

EKSRPS3

Accessory				EKSRPS3
Mounting				On side of tank
Dimensions	Unit	HeightxWidthxDepth	mm	815x230x142
Control	Type			Digital temperature difference controller with plain text display
	Power consumption		W	2
Power supply	Voltage		V	230
Sensor	Solar panel temperature sensor			Pt1000
	Storage tank sensor			PTC
	Return flow sensor			PTC
	Feed temperature and flow sensor			Voltage signal (3.5V DC)

EKSOLHW

Solar connection

EKSOLHW

Accessory				EKSOLHW
Dimensions	Unit	HeightxWidthxDepth	mm	770x305x270
Weight	Unit		kg	8
Operation range	Ambient temperature	Min.~Max.	°C	1~35
Sound pressure level	Nom.		dBA	27
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/220-240
Power supply intake				Indoor unit

EKSR3P

Wired remote control for pump station EKSRDS1A

Accessory				EKSR3PA
Mounting				On wall
Dimensions	Unit	HeightxWidthxDepth	mm	332x230x145
Control	Type			Digital temperature difference controller with plain text display
	Power consumption		W	2
Power supply	Voltage		V	230
Sensor	Solar panel temperature sensor			Pt1000
	Storage tank sensor			PTC
	Return flow sensor			PTC
	Feed temperature and flow sensor			Voltage signal (3.5V DC)

EKS(H/V)-P

Solar collector

EKSH-P

Accessory				EKSV21P	EKSV26P	EKSH26P
Dimensions	Unit	HeightxWidthxDepth	mm	2,000x1,006x85	2,000x1,300x85	1,300x2,000x85
Weight	Unit		kg	35	42	
Volume			l	1.3	1.7	2.1
Surface	Outer		m^2	2.01	2.6	
	Aperture		m^2	1.79	2.35	
	Absorber		m^2	1.8	2.36	
Coating				Micro-therm (absorption max. 96%, Emission ca. 5% +/-2%)		
Absorber				Harp-shaped copper pipe register with laser-welded highly selective coated aluminium plate		
Glazing				Single pane safety glass, transmission +/- 92%		
Allowed roof angle	Min.~Max.		°	15~80		
Operating pressure	Max.		bar	6		
Stand still temperature	Max.		°C	200		

Options for Daikin Altherma low temperature

EKRTR/EKRTW

Wired and wireless remote control

EKRTWA

EKRTR

Accessory				EKRTR 1	EKRTWA
	Thermostat	HeightxWidthxDepth	mm	87x125x34	
	Receiver	HeightxWidthxDepth	mm	170x50x28	-x-x-
Weight	Thermostat		g	210	215
	Receiver		g	125	-
Ambient	Storage	Min./Max.	°C	-20/60	
temperature	Operation	Min./Max.	°C	0/50	
Temperature	Heating	Min./Max.	°C	4/37	
setting range	Cooling	Min./Max.	°C	4/37	
Clock				Yes	
Regulation function				Proportional band	
Power supply	Thermostat	Voltage	V	Battery powered 3x AA-LRG (alkaline)	Battery powered 3* AA-LR6 (alkaline)
	Receiver	Voltage	V	230	-
	Frequency		Hz	50	-
	Phase			1~	-
Connection	Thermostat			Wireless	Wired
	Receiver			Wired	-
Maximum distance	Indoor		m	approx.30m	-
to receiver	Outdoor		m	approx.100m	-

FWXV-A

Heat pump convector

ARC452A15

FWXV-A

Indoor Unit			FWXV	15A	20A
Heating capacity	Total capacity	Nom.	kW	1.5	2.0
Cooling capacity	Total capacity	Nom.	kW	1.2	1.7
	Sensible capacity	Nom.	kW	0.98	1.4
Power input	Heating	Nom.	kW	0.013	0.015
	Cooling	Nom.	kW	0.013	0.015
Dimensions	Unit	HeightxWidthxDepth	mm	600x700x210	
Weight	Unit		kg	15	
Piping connections	Drain/OD/Inlet/Outlet		mm/inch	18/G 1/2/G 1/2	
Sound pressure level	Heating	Nom.	dBA	19	29
	Cooling	Nom.	dBA	19	29
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220	

EKHBRD-ACV1/Y1 +
ER(R/S)Q-AV1/AY1/EMRQ-A

Daikin Altherma high temperature split

ER(R/S)Q-AV1/Y1

EKHBRD_ACV1/Y1

EMRQ14-16A

Efficiency data				EKHBRD	011ACV1 + ERSQ 011AV1	014ACV1 + ERSQ 014AV1	016ACV1 + ERSQ 016AV1	011ACV1 + ERRQ 011AV1	014ACV1 + ERRQ 014AV1	016ACV1 + ERRQ 016AV1	011ACY1 + ERSQ 011AY1	014ACY1 + ERSQ 014AY1	016ACY1 + ERSQ 016AY1	011ACY1 + ERRQ 011AY1	014ACY1 + ERRQ 014AY1	016ACY1 + ERRQ 016AY1
Heating capacity	Nom.			kW	11 (3) / 11 (4) / 11 (5)	14 (3) / 14 (4) / 14 (5)	16 (3) / 16 (4) / 16 (5)	11 (3) / 11 (4)	14 (3) / 14 (4)	16 (3) / 16 (4)	11 (3) / 11 (4) / 11 (5)	14 (3) / 14 (4) / 14 (5)	16 (3) / 16 (4) / 16 (5)	11 (3) / 11 (4)	14 (3) / 14 (4)	16 (3) / 16 (4)
Power input	Heating	Nom.		kW	3.57 (3) / 4.40 (4) / 2.61 (5)	4.66 (3) / 5.65 (4) / 3.55 (5)	5.57 (3) / 6.65 (4) / 4.31 (5)	3.57 (3) / 4.40 (4)	4.66 (3) / 5.65 (4)	5.57 (3) / 6.65 (4)	3.57 (3) / 4.40 (4) / 2.61 (5)	4.66 (3) / 5.65 (4) / 3.55 (5)	5.57 (3) / 6.65 (4) / 4.31 (5)	3.57 (3) / 4.40 (4)	4.66 (3) / 5.65 (4)	5.57 (3) / 6.65 (4)
COP					3.08 (3) / 2.50 (4) / 4.22 (5)	3.00 (3) / 2.48 (4) / 3.94 (5)	2.88 (3) / 2.41 (4) / 3.72 (5)	3.08 (3) / 2.50 (4)	3.00 (3) / 2.48 (4)	2.88 (3) / 2.41 (4)	3.08 (3) / 2.50 (4) / 4.22 (5)	3.00 (3) / 2.48 (4) / 3.94 (5)	2.88 (3) / 2.41 (4) / 3.72 (5)	3.08 (3) / 2.50 (4)	3.00 (3) / 2.48 (4)	2.88 (3) / 2.41 (4)

Indoor Unit				EKHBRD	011ACV1	014ACV1	016ACV1	011ACY1	014ACY1	016ACY1	011ACY1	014ACY1	016ACY1	011ACY1	014ACY1	016ACY1
Casing	Colour				Metallic grey											
	Material				Precoated sheet metal											
Dimensions	Unit	HeightxWidthxDepth		mm	705x600x695											
Weight	Unit			kg	144						147					
Operation range	Heating	Ambient	Min.~Max.	°C	-20~20											
		Water side	Min.~Max.	°C	25~80											
	Domestic hot water	Ambient	Min.~Max.	°CDB	-20~35											
		Water side	Min.~Max.	°C	25~80											
Sound pressure level	Nom.			dBA	43 (1) / 46 (2)	45 (1) / 46 (2)	46 (1) / 46 (2)	43 (1) / 46 (2)	45 (1) / 46 (2)	46 (1) / 46 (2)	43 (1) / 46 (2)	45 (1) / 46 (2)	46 (1) / 46 (2)	43 (1) / 46 (2)	45 (1) / 46 (2)	46 (1) / 46 (2)
	Night quiet mode	Level 1		dBA	40 (1)	43 (1)	45 (1)	40 (1)	43 (1)	45 (1)	40 (1)	43 (1)	45 (1)	40 (1)	43 (1)	45 (1)

					ERSQ			ERRQ			ERSQ			ERRQ		
Outdoor Unit				ERSQ/ERRQ	011AV1	014AV1	016AV1	011AV1	014AV1	016AV1	011AY1	014AY1	016AY1	011AY1	014AY1	016AY1
Dimensions	Unit	HeightxWidthxDepth		mm	1,345x900x320											
Weight	Unit			kg	120											
Compressor	Quantity				1											
	Type				Hermetically sealed scroll compressor											
Operation range	Heating	Min.~Max.		°CWB	-20~20											
	Domestic hot water	Min.~Max.		°CDB	-20~35											
Refrigerant	Type				R-410A											
	Charge			kg	4.5											
Sound power level	Heating	Nom.		dBA	68	69	71	68	69	71	68	69	71	68	69	71
Sound pressure level	Heating	Nom.		dBA	52	53	55	52	53	55	52	53	55	52	53	55
Power supply	Name/Phase/Frequency/Voltage			Hz/V	V1/1~/50/220-440			V1/1~/50/220-240			Y1/3~/50/380-415					
Current	Recommended fuses			A	25						16					

Outdoor Unit				EMRQ	8A	10A	12A	14A	16A
Heating capacity	Nom.			kW	22.4	28	33.6	39.2	44.8
Dimensions	Unit	HeightxWidthxDepth		mm	1,680x1,300x765				
Weight	Unit			kg	331			339	
Operation range	Heating	Min.~Max.		°CWB	-15~20				
	Domestic hot water	Ambient	Min.~Max.	°CDB	-15~35				
Refrigerant	Type				R-410A				
Piping connections	Liquid	OD		mm	9.52		12.7	13	12.7
	Suction	OD		mm	19.1	22.2	28.6		
	High and low pressure gas	OD		mm	15.9	19.1		22.2	
	Piping length	OU - IU	Max.	m	100				
		System	Equivalent	m	120				
	Total piping length	System	Actual	m	300				
Sound power level	Heating	Nom.		dBA	78		80	83	84
Sound pressure level	Heating	Nom.		dBA	58		60	62	63
Power supply	Phase/Voltage			V	3~/380-415				

(1) Sound levels are measured at: EW 55°C; LW 65°C; Dt 10°C; ambient conditions 7°CDB/6°CWB (2) Sound levels are measured at: EW 70°C; LW 80°C; Dt 10°C; ambient conditions 7°CDB/6°CWB
(3) EW 55°C; LW 65°C; Dt 10°C; ambient conditions 7°CDB/6°CWB (4) EW 70°C; LW 80°C; Dt 10°C; ambient conditions 7°CDB/6°CWB (5)EW 30°C; LW 35°C; Dt 5°C; ambient conditions 7°CDB/6°CWB (ERSQ only)

Tanks and solar for Daikin Altherma high temperature

EKHTS260AC

EKHTS200AC

EKHTS-AC

Domestic hot water tank

Accessory				EKHTS	200AC	260AC
Casing	Colour				Metallic grey	
	Material				Galvanised steel (precoated sheet metal)	
Dimensions	Unit	Height	Integrated on indoor unit	mm	2,010	2,285
		Width		mm	600	
		Depth		mm	695	
Weight	Unit	Empty		kg	70	78
Tank	Water volume			l	200	260
	Material				Stainless steel (EN 1.4521)	
	Maximum water temperature			°C	75	
	Insulation	Heat loss		kWh/24h	1.2	1.5
Heat exchanger	Quantity				1	
	Tube material				Duplex steel (EN 1.4162)	
	Face area			m^2	1.56	
	Internal coil volume			l	7.5	

EKHWP300B

EKHWP-B

Plastic domestic hot water tank with solar support

Accessory			EKHWP	300B	500B
Dimensions	Unit	Width	mm	595	790
		Depth	mm	615	790
Weight	Unit	Empty	kg	59	93
Tank	Water volume		l	300	500
	Maximum water temperature		°C	85	
	Insulation	Heat loss	kWh/24h	1.3	1.4
Heat exchanger	Domestic hot water	Tube material		Stainless steel	
		Face area	m^2	5.8	6
		Internal coil volume	l	27.9	29
		Operating pressure	bar	6	
		Average specifc thermal output	W/K	2,790	2,900
	Charging	Tube material		Stainless steel	
		Face area	m^2	2.7	3.8
		Internal coil volume	l	13.2	18.5
		Operating pressure	bar	3	
		Average specifc thermal output	W/K	1,300	1,800
	Auxiliary solar heating	Tube material		Stainless steel	
		Face area	m^2	-	0.5
		Internal coil volume	l	-	2.3
		Operating pressure	bar	3	
		Average specifc thermal output	W/K	-	280

EKS(H/V)-P

Solar collector

EKSH-P

Accessory				EKSV21P	EKSV26P	EKSH26P
Dimensions	Unit	HeightxWidthxDepth	mm	2,000x1,006x85	2,000x1,300x85	1,300x2,000x85
Weight	Unit		kg	35	42	
Volume			l	1.3	1.7	2.1
Surface	Outer		m^2	2.01	2.6	
	Aperture		m^2	1.79	2.35	
	Absorber		m^2	1.8	2.36	
Coating				Micro-therm (absorption max. 96%, Emission ca. 5% +/-2%)		
Absorber				Harp-shaped copper pipe register with laser-welded highly selective coated aluminium plate		
Glazing				Single pane safety glass, transmission +/- 92%		
Allowed roof angle	Min.~Max.		°	15~80		
Operating pressure	Max.		bar	6		
Stand still temperature	Max.		°C	200		

EKSRPS3

EKSRPS

Pump station

Accessory				EKSRPS3
Mounting				On side of tank
Dimensions	Unit	HeightxWidthxDepth	mm	815x230x142
Control	Type			Digital temperature difference controller with plain text display
	Power consumption		W	2
Power supply	Voltage		V	230
Sensor	Solar panel temperature sensor			Pt1000
	Storage tank sensor			PTC
	Return flow sensor			PTC
	Feed temperature and flow sensor			Voltage signal (3.5V DC)

4. Daikin Altherma Flex Type

EKHVM(R/Y)D-A

EKHVM(R/Y)D-A

Daikin Altherma Flex Type

Indoor Unit				EKHVMRD/EKHVMYD	50A	80A	50A	80A
Casing	Colour				Metallic grey			
	Material				Precoated sheet metal			
Dimensions	Unit	HeightxWidthxDepth		mm	705x600x695			
Weight	Unit			kg	92		120	
Operation range	Heating	Ambient	Min./Max.	°C	-15/20			
		Water side	Min./Max.	°C	25/80			
	Cooling	Ambient	Min./Max.	°CDB	-/-		10/43	
		Water side	Min./Max.	°C	-/-		5/20	
	Domestic hot water	Ambient	Min.~Max.	°CDB	-15~35			
		Water side	Min./Max.	°C	45/75			
Refrigerant	Type				R-134a			
	Charge			kg	2			
Sound pressure level	Nom.			dBA	40 (1) / 43 (2)	42 (1) / 43 (2)	40 (1) / 43 (2)	42 (1) / 43 (2)
	Night quiet mode	Level 1		dBA	38 (1)			
Power supply	Name/Phase/Frequency/Voltage			Hz/V	V1/1~/50/220-240			
Current	Recommended fuses			A	20			

(1) Sound levels are measured at: EW 55°C; LW 65°C (2) Sound levels are measured at: EW 70°C; LW 80°C

EKHBRD-ACV1/Y1

Daikin Altherma Flex Type

EKHBRD_ACV1/Y1

Indoor Unit					EKHBRD	011ACV1	014ACV1	016ACV1	011ACY1	014ACY1	016ACY1
Casing	Colour					Metallic grey					
	Material					Precoated sheet metal					
Dimensions	Unit	HeightxWidthxDepth			mm	705x600x695					
Weight	Unit				kg	144			147		
Operation range	Heating	Ambient	Min./Max.		°C	-20/20					
		Water side	Min./Max.		°C	25/80					
	Domestic hot water	Ambient	Min.~Max.		°CDB	-20~35					
		Water side	Min./Max (booster heater)/ Max.		°C	25/-/80					
Refrigerant	Type					R-134a					
	Charge				kg	2.6					
Sound pressure level	Nom.				dBA	43 (1) / 46 (2)	45 (1) / 46 (2)	46 (1) / 46 (2)	43 (1) / 46 (2)	45 (1) / 46 (2)	46 (1) / 46 (2)
	Night quiet mode	Level 1			dBA	40 (1)	43 (1)	45 (1)	40 (1)	43 (1)	45 (1)
Power supply	Name/Phase/Frequency/Voltage				Hz/V	V1/1~/50/220-240			Y1/3~/50/380-415		
Current	Recommended fuses				A	25			16		

(1) Sound levels are measured at: EW 55°C; LW 65°C; Dt 10°C; ambient conditions 7°CDB/6°CWB (2) Sound levels are measured at: EW 70°C; LW 80°C; Dt 10°C; ambient conditions 7°CDB/6°CWB

EMRQ-A

Daikin Altherma Flex Type

EMRQ-A

Outdoor Unit					EMRQ	8A	10A	12A	14A	16A
Heating capacity	Nom.				kW	22.4 (1)	28 (1)	33.6 (1)	39.2 (1)	44.8 (1)
Cooling capacity	Nom.				kW	20 (2)	25 (2)	30 (2)	35 (2)	40 (2)
Casing	Colour					Daikin White				
	Material					Painted galvanized steel plate				
Dimensions	Unit	HeightxWidthxDepth			mm	1,680x1,300x765				
Weight	Unit				kg	331			339	
Operation range	Heating	Min.			°CWB	-15				
		Max.			°CWB	20				
	Domestic hot water	Ambient	Min.~Max.		°CDB	-15~35				
	Cooling	Min.			°CDB	10				
		Max.			°CDB	43				
Refrigerant	Type					R-410A				
	Charge				kg	10.3	10.6	10.8	11.1	
Piping connections	Liquid	OD			mm	9.52		12.7	13	12.7
	Suction	OD			mm	19.1	22.2		28.6	
	High and low pressure gas	OD			mm	15.9	19.1		22.2	
	Piping length	OU - IU	Max.		m	100				
		System	Equivalent		m	120				
	Total piping length	System	Actual		m	300				
Sound power level	Heating	Nom.			dBA	78		80	83	84
Sound pressure level	Heating	Nom.			dBA	58		60	62	63
Power supply	Phase/Voltage				V	3~/380-415				
Current	Recommended fuses				A	20	25		40	

(1) Condition: Ta=7°CDB/6°CWB, 100% connection ratio (2) Condition: Ta=35°CDB, 100% connection ratio

Tanks for Daikin Altherma Flex Type

EKHTS260AC

EKHTS200AC

EKHTS-AC

Domestic hot water tank

Accessory				EKHTS	200AC	260AC
Casing	Colour				Metallic grey	
	Material				Galvanised steel (precoated sheet metal)	
Dimensions	Unit	Height	Integrated on indoor unit	mm	2,010	2,285
		Width		mm	600	
		Depth		mm	695	
Weight	Unit	Empty		kg	70	78
Tank	Water volume			l	200	260
	Material				Stainless steel (EN 1.4521)	
	Maximum water temperature			°C	75	
	Insulation	Heat loss		kWh/24h	1.2	1.5
Heat exchanger	Quantity				1	
	Tube material				Duplex steel (EN 1.4162)	
	Face area			m^2	1.56	
	Internal coil volume			l	7.5	

EKHWP300B

EKHWP-B

Plastic domestic hot water tank with solar support

Accessory			EKHWP	300B	500B
Dimensions	Unit	Width	mm	595	790
		Depth	mm	615	790
Weight	Unit	Empty	kg	59	93
Tank	Water volume		l	300	500
	Maximum water temperature		°C	85	
	Insulation	Heat loss	kWh/24h	1.3	1.4
Heat exchanger	Domestic hot water	Tube material		Stainless steel	
		Face area	m^2	5.8	6
		Internal coil volume	l	27.9	29
		Operating pressure	bar	6	
		Average specifc thermal output	W/K	2,790	2,900
	Charging	Tube material		Stainless steel	
		Face area	m^2	2.7	3.8
		Internal coil volume	l	13.2	18.5
		Operating pressure	bar	3	
		Average specifc thermal output	W/K	1,300	1,800
	Auxiliary solar heating	Tube material		Stainless steel	
		Face area	m^2	-	0.5
		Internal coil volume	l	-	2.3
		Operating pressure	bar	3	
		Average specifc thermal output	W/K	-	280

Options for Daikin Altherma Flex Type

ARC452A15

FWXV-A

FWXV-A

Heat pump convector

Indoor Unit			FWXV	15A	20A
Heating capacity	Total capacity	Nom.	kW	1.5	2.0
			Btu/h	5,100	6,800
Cooling capacity	Total capacity	Nom.	kW	1.2	1.7
	Sensible capacity	Nom.	kW	0.98	1.4
Power input	Heating	Nom.	kW	0.013	0.015
	Cooling	Nom.	kW	0.013	0.015
Dimensions	Unit	HeightxWidthxDepth	mm	600x700x210	
Weight	Unit		kg	15	
Piping connections	Drain/OD/Inlet/Outlet		mm/inch	18/G 1/2/G 1/2	
Sound pressure	Heating	Nom.	dBA	19	29
level	Cooling	Nom.	dBA	19	29
Power supply	Phase/Frequency/Voltage		Hz/V	1~/50/60/220-240/220	

EHYHBH-AV32/EHYKOMB-AA2/3 + EVLQ-CV3

Daikin Altherma hybrid heat pump

Efficiency data					EHYHBH + EVLQ	05AV32 + 05CV3	08AV32 + 08CV3
Heating capacity	Min.			kW		1.80 (1) / 1.80 (2)	
	Nom.			kW		4.40 (1) / 4.03 (2)	7.40 (1) / 6.89 (2)
	Max.			kW		5.12 (1) / 4.90 (2)	10.02 (1) / 9.53 (2)
Power input	Heating	Nom.		kW		0.87 (1) / 1.13 (2)	1.66 (1) / 2.01 (2)
COP						5.04 (1) / 3.58 (2)	4.45 (1) / 3.42 (2)

Indoor Unit					EHYHBH	05AV32	08AV32	EHYKOMB33A2/3
Gas	Consumption (G20)	Min-Max		m^3/h		-		0.78-3.39
	Consumption (G25)	Min-Max		m^3/h		-		0.90-3.93
	Consumption (G31)	Min-Max		m^3/h		-		0.30-1.29
	Connection	Diameter		mm		-		15
Central heating	Heat input Qn (net calorific value)	Nom	Min-Max	kW		-		7.6-27 (3)
	Output Pn at 80/60°C	Min-Nom		kW		-		8.2-26.6 (3)
	Efficiency	Net calorific value		%		-		98 (4) / 107 (5)
	Operation range	Min-Max		°C		-		15-80
Domestic hot water	Output	Min-Nom		kW		-		7.6-32.7
	Water flow	Rate	Nom	l/min		-		9.0 / 15.0
	Operation range	Min-Max		°C		-		40-65
Supply air	Connection			mm		-		100
	Concentric					-		Yes
Flue gas	Connection			mm		-		60
Casing	Colour					White		White - RAL9010
	Material					Precoated sheet metal		
Dimensions	Unit	HeightxWidthxDepth		mm		902x450x164		820x490x270
Weight	Unit			kg		30	31.2	36
Power supply	Phase/Frequency/Voltage			Hz/V		-		1~/50/230
Electrical power consumption	Max.			W		-		55
	Standby			W		-		2
Operation range	Heating	Ambient	Min.~Max.	°C		-25~25		-
		Water side	Min.~Max.	°C		25~55		-
Notes						-		For water circuit central heating, safety valve: refer to EHYHB*

Outdoor Unit				EVLQ	05CV3	08CV3
Dimensions	Unit	HeightxWidthxDepth	mm		735x832x307	
Weight	Unit		kg		54	56
Compressor	Quantity				1	
	Type				Hermetically sealed swing compressor	
Operation range	Heating	Min.~Max.	°CWB		-25~25	
Refrigerant	Type				R-410A	
	Charge		kg		1.45	1.60
Sound power level	Heating	Nom.	dBA		61	62
Sound pressure level	Heating	Nom.	dBA		48	49
Power supply	Name/Phase/Frequency/Voltage		Hz/V		V3/1~/50/230	
Current	Recommended fuses		A		20	

(1) Condition: Ta DB/WB 7°C/6°C - LWC 35°C (DT = 5°C) (2) Condition: Ta DB/WB 7°C/6°C - LWC 45°C (Dt=5°C) (3) Values according to G20 (4) 80/60 (5) 40/30 (30%)

EHYHBH/X-AV32 / EHYKOMB33A2/3

EVLQ-CV3

EHYHBX-AV3/EHYKOMB-AA2/3 + EVLQ-CV3

Daikin Altherma hybrid heat pump

Efficiency data					EHYHBX + EVLQ	08AV3 + 08CV3
Heating capacity	Min.				kW	1.80 (1) / 1.80 (2)
	Nom.				kW	7.40 (1) / 6.89 (2)
	Max.				kW	10.02 (1) / 9.53 (2)
Cooling capacity	Min.				kW	2.50 (1) / 2.50 (2)
	Nom.				kW	6.86 (1) / 5.36 (2)
Power input	Heating	Nom.			kW	1.66 (1) / 2.01 (2)
	Cooling	Nom.			kW	2.01 (1) / 2.34 (2)
COP						4.45 (1) / 3.42 (2)
EER						3.42 (1) / 2.29 (2)

Indoor Unit					EHYHBX	08AV3	EHYKOMB33A2/3
Gas	Consumption (G20)	Min-Max			m^3/h	-	0.78-3.39
	Consumption (G25)	Min-Max			m^3/h	-	0.90-3.93
	Consumption (G31)	Min-Max			m^3/h	-	0.30-1.29
	Connection	Diameter			mm	-	15
Central heating	Heat input Qn (net calorific value)	Nom	Min-Max		kW	-	7.6-27 (3)
	Output Pn at 80/60°C	Min-Nom			kW	-	8.2-26.6 (3)
	Efficiency	Net calorific value			%	-	98 (4) / 107 (5)
	Operation range	Min-Max			°C	-	15~80
Domestic hot water	Output	Min-Nom			kW	-	7.6-32.7
	Water flow	Rate	Nom		l/min	-	9.0 / 15.0
	Operation range	Min/Max			°C	-	40~65
Supply air	Connection				mm	-	100
	Concentric					-	Yes
Flue gas	Connection				mm	-	60
Casing	Colour					White	White - RAL9010
	Material					Precoated sheet metal	
Dimensions	Unit	HeightxWidthxDepth			mm	902x450x164	820x490x270
Weight	Unit				kg	31.2	36
Power supply	Phase/Frequency/Voltage				Hz/V	-	1~/50/230
Electrical power consumption	Max.				W	-	55
	Standby				W	-	2
Operation range	Heating	Ambient	Min.~Max.		°C	-25~25	-
		Water side	Min.~Max.		°C	25~55	-
	Cooling	Ambient	Min.~Max.		°CDB	10~43	-
		Water side	Min.~Max.		°C	5~22	-
Notes						-	For water circuit central heating, safety valve: refer to EHYHB*

Outdoor Unit				EVLQ	08CV3
Dimensions	Unit	HeightxWidthxDepth		mm	735x832x307
Weight	Unit			kg	56
Compressor	Quantity				1
	Type				Hermetically sealed swing compressor
Operation range	Heating	Min.~Max.		°CWB	-25~25
Refrigerant	Type				R-410A
	Charge			kg	1.60
Sound power level	Heating	Nom.		dBA	62
Sound pressure level	Heating	Nom.		dBA	49
Power supply	Name/Phase/Frequency/Voltage			Hz/V	V3/1~/50/230
Current	Recommended fuses			A	20

(1) Condition 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) (2) Condition 2: cooling Ta 35°C - LWE 7°C (DT = 5°C); heating Ta DB/WB 7°C/6°C - LWC 45°C (DT = 5°C)
(3) Values according to G20 (4) 80/60 (5) 40/30 (30%)

6. Gas condensing boiler

EKOMB(G)-A

Gas condensing boiler

EKOMB(G)-A

Indoor Unit					EKOMB			EKOMBG		
					22A	28A	33A	22A	28A	33A
Gas	Consumption (G20)	Min-Max		m^3/h	0.58-2.29	0.74-2.46	0.75-3.39	0.57-2.42	0.75-3.02	0.78-3.39
	Consumption (G31)	Min-Max		m^3/h	0.22-0.87	0.28-0.94	0.28-1.29	0.22-0.92	0.28-1.15	0.30-1.29
	Connection	Diameter		mm	15					
Central heating	Heat input Qn (net calorific value)	Nom	Min-Max	kW	5.6-18.7	7.1-23.7	7.2-27.3	5.5-23.3	7.2-29.1	7.5-32.7
	Heat input Qn (gross calorific value)	Nom	Min-Max	kW	6.2-20.8	7.9-26.3	8.0-30.3	6.1-25.9	8.0-32.3	8.3-36.3
	Output Pn at 80/60°C	Min-Nom		kW	5.4-17.8	6.9-22.8	7.1-26.3	5.4-22.7	7.1-28.4	7.4-32.1
	Output Pnc at 50/30°C	Min-Nom		kW	5.9-18.5	7.6-23.4	7.8-27.1	5.9-23.8	7.7-31.1	8.2-35.0
	Output at 40/30°C	Min		kW	6.0	7.6	7.7	5.9	7.7	8.2
	Water pressure (PMS)	Max		bar	3					
	Water temperature	Max		°C	90					
	Efficiency	Net calorific value		%	107					109
Domestic hot water	Heat input (net calorific value) Qnw	Nom	Min-Max	kW	5.6-22.1	7.1-28.0	7.2-32.7	5.5-23.3	7.2-29.1	7.5-32.7
	Heat input (gross calorific value) Qnw	Nom	Min-Max	kW	6.2-24.6	7.9-31.1	8.0-36.3	6.1-25.9	8.0-32.3	8.3-36.3
	Output	Min-Nom		kW	6.1-21.0	6.6-26.2	7.9-31.5	5.9-22.7	7.7-28.4	8.2-32.1
	Domestic hot water threshold			l/min	1.5					
	Water flow	Rate	Nom	l/min	10 (1)/ 6 (2)	12.5 (1)/ 7.5 (2)	15 (1)/ 9 (2)	10 (1)/ 6 (2)	12.5 (1)/ 7.5 (2)	15 (1)/ 9 (2)
	Temperature	Factory setting		°C	60					
	Operation range	Min/Max		°C	-/-					
Supply air	Connection			mm	100					
	Concentric				Yes					
Flue gas	Connection			mm	60 /100					
Casing	Colour				White - RAL9010					
	Material				Precoated sheet metal					
Dimensions	Unit	HeightxCasingxWidthxDepth		mm	590x450x240	650x450x240	710x450x240	590x450x240	650x450x240	710x450x240
Weight	Unit	weight		kg	30	33	36	30	33	36
Power supply	Phase/Frequency/Voltage			Hz/V	1~/50/230					
Electrical power consumption	Max.			W	105			80		
	Standby			W	2					

(1) Setpoint 40°C (2) Setpoint 60°C

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

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