DAIKIN

altherma

# Daikin Altherma H Hybrid

## Gas hybrid heat pump

The right balance

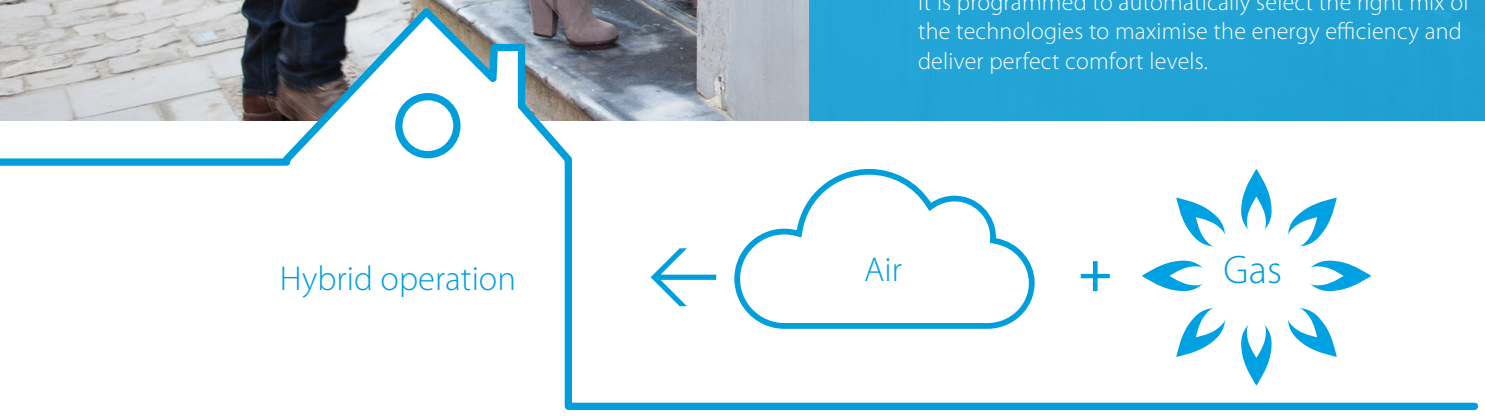
# Why choose Daikin Altherma Hybrid heat pump?

## TIME TO RETHINK HEATING

- **Automatic switch** between heat pump, gas boiler or hybrid operations - always selecting the most economical mode.
- **Low running costs** for heating and hot water compared to traditional boilers
- Heat your existing home with **up to 60% renewable energy** without changing your radiators
- Ideal for **renovation** applications
- **Easy and fast** installation
- Secure for future changes in gas and electricity prices
- **Low cost of investment** and a **higher return** than a typical savings account

It's simple really – the Daikin Altherma Hybrid heat pump, with its use of a gas condensing boiler to deliver superior performance, offers a high level of all-year-round comfort with optimal use of the different technologies.

It is programmed to automatically select the right mix of the technologies to maximise the energy efficiency and deliver perfect comfort levels.




## What is an air-to-water heat pump?

The Daikin Altherma air-to-water heat pump uses a sustainable and renewable energy source. It extracts free heat from the outside air. In a closed loop containing a refrigerant, a thermodynamic cycle is created through evaporation, condensation, compression and expansion. This thermodynamic process will bring free heat from outside to the inside of your house.

## What is condensing boiler technology?

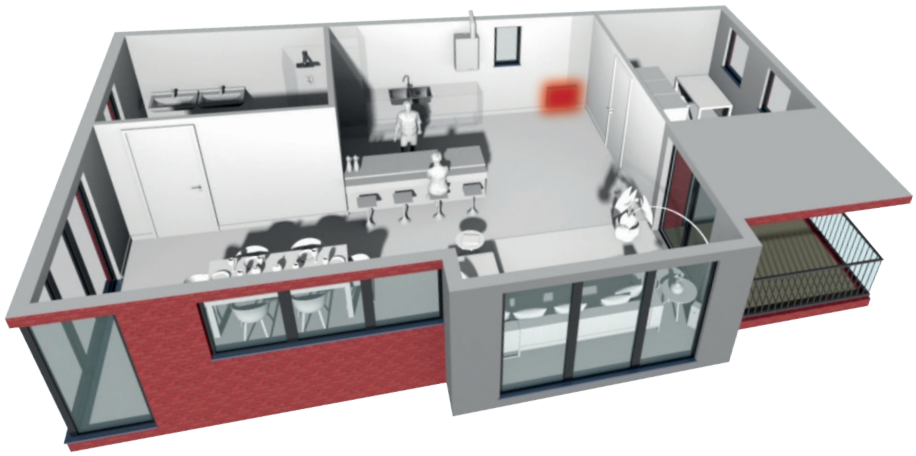
Condensing boiler technology converts waste energy from the flue gases into usable heat, virtually without loss. This is good for both the environment and your wallet. Lower energy consumption means lower heating costs, less use of energy resources and a reduction in $CO_2$ emissions.

How does it work? Flue gas is cooled, condensing the steam it contains. The energy released in this process is used as heating energy.

## Heating demand

The Daikin Altherma H Hybrid provides space heating as well as domestic hot water.

May the demand vary in quantity due to the family size or in temperature to fit your comfort, the unit will always operate in the most efficient way to provide the required heat load and temperature.

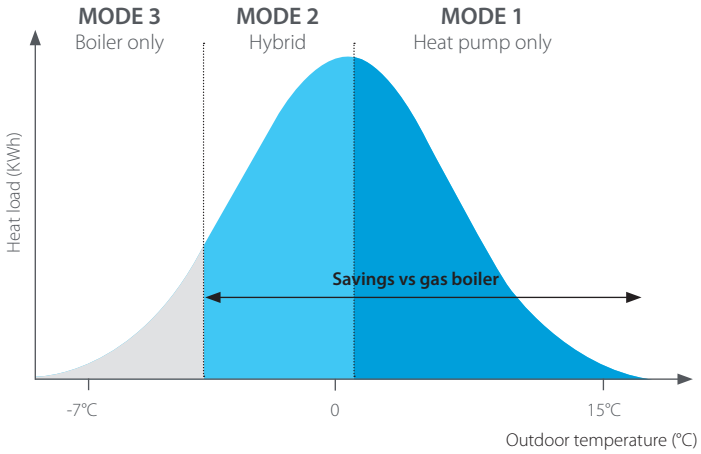


## Energy Prices

Managing the energy prices are crucial to ensure a lower energy bill. That's why the Daikin Altherma H Hybrid does it for you. By comparing the energy prices and making it match with your needs, the unit will make the right balance between the usage of gas or electricity. Therefore, you always use and pay the price of the most
cost-efficient energy as showed by the blue line:


## Outside Temperature

The last factor that will modify the way your hybrid solution will operate is the outside temperature on which you have naturally no power. The heat pump is a green solution that will help you heat your house and your domestic water most of the year. This is mainly during winter conditions that the boiler enters in action to support the system.

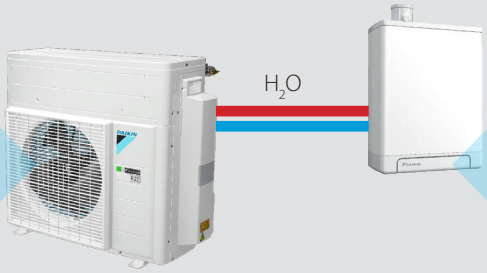


# The hydrosplit concept,

## The best of 2 worlds

**Heat pump**

**Condensing Boiler**



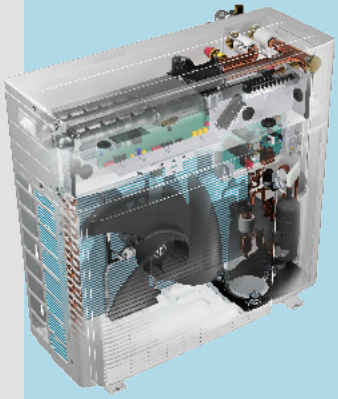

### Environmentally friendly

› Reduced environmental impact thanks to the usage of **R-32 refrigerant**

› Outdoor unit with **sealed refrigerant circuit**, which greatly reduces the risk of refrigerant leakage

### Easy & Quick installation

All hydraulics components are outside.



### No F-gas licence required

Only water connections between outdoor and indoor unit. Therefore no F-gas certification is needed for the installer.

### Safety in every conditions

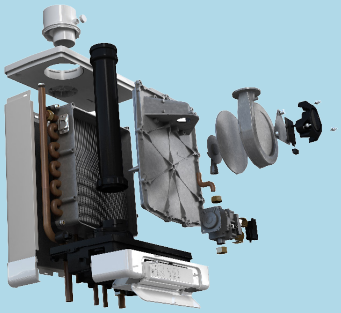
The unit can work down to -15°C outside thanks to multiple freeze-up protections

### Flexible installation

Compact indoor unit can be installed in a cupboard.

### Condensing technology

The condensing technology uses optimum fuel efficiency, with reduced emissions of NOx and CO, to ensure high cost savings and environmentally-friendly operation.



### Plug & play

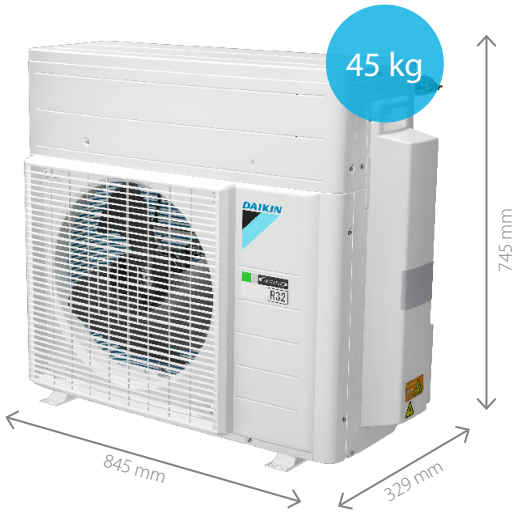
No need of other parts, the pump group is integrated inside.

### BLUEVOLUTION

The Bluevolution technology combines very high efficient compressors developed by Daikin with the future of refrigerants: R-32.

# Installation possibilities

The Daikin Altherma H Hybrid is made of an outdoor unit of 4 kW:




The Daikin Altherma Hybrid is made of a boiler of 28 or 32 kW:


**For more domestic hot water production, you can combine the Daikin Altherma H Hybrid with multiple tank options:**

## Pressureless tanks with solar support

Connect your unit to a ECH$_2$O thermal store and take advantage of the energy of the sun.

EKHWP-(P)B
300 LT or 500 LT

EKS(H/V)-P

## Pressurized tanks

Connect your unit with our full range of stainless steel tanks to answer all needs

EKHWS-D3V3
from 150 LT up to 300 LT

# Controls

## EKRUHML1/2

### Control

› Manage space heating, cooling, domestic hot water and among others, booster mode
› User-friendly remote control with contemporary design
› Easy to use with direct accessibility to all main functions

### Comfort

› An additional user interface can include a room thermostat in the space to be heated
› Easy commissioning: intuitive interface for advanced menu settings


## Daikin Residential Controller

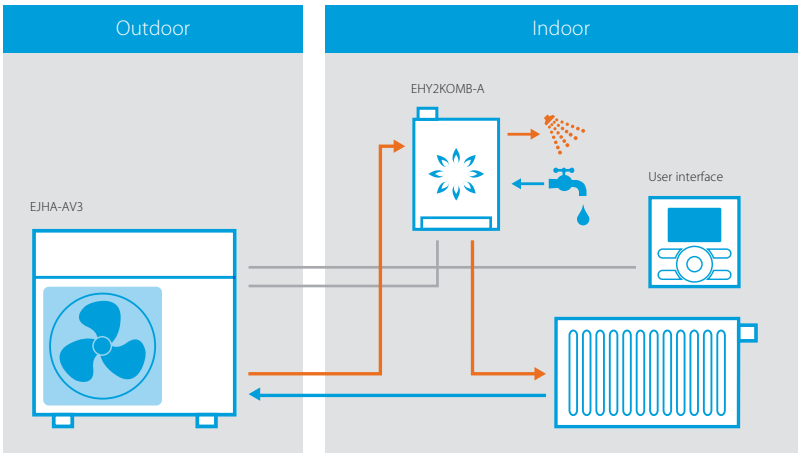
The Daikin Residential Controller app is a multifaceted programme that allows customers to control and monitor the status of their heating system.

The installation of the LAN Adapter BRP069A61/62 is required.

# Applications

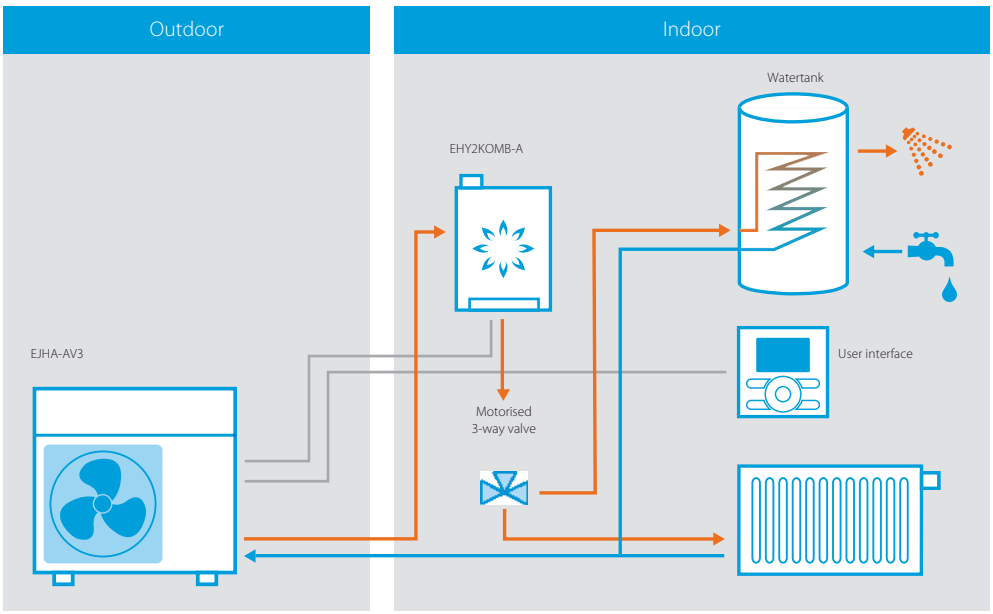
## 1. Standard hybrid operation

With this application, the system works in a perfect balance between the gas boiler and the heat pump to provide space heating and domestic hot water. Here, the boiler is able to heat directly the water without a tank.



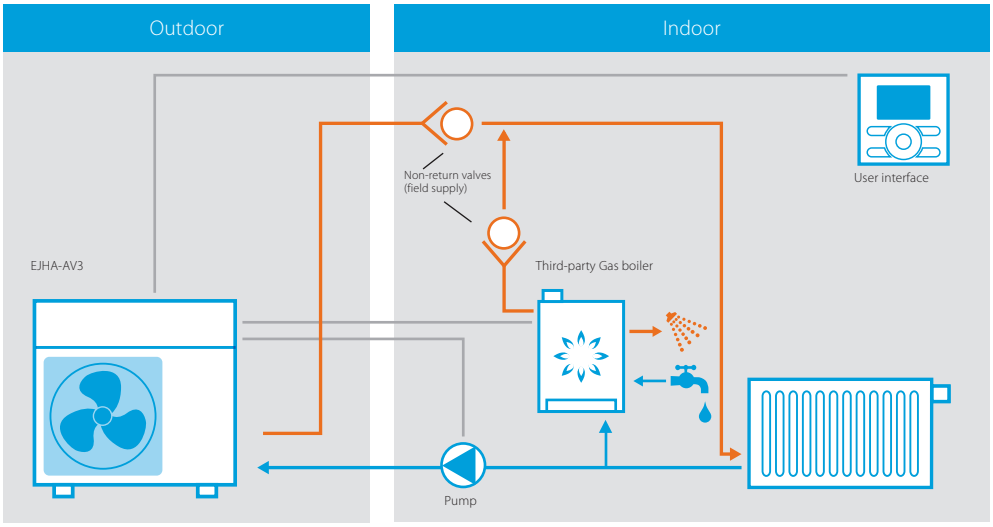

## 1.1 Standard hybrid operation with a tank

In this application, a domestic hot water tank can be added if the system needs to provide high quantity of domestic hot water produced either by the heat pump or by the boiler.




## 2. Add-on operation

The Daikin Altherma H Hybrid outdoor unit can be combined with an existing boiler. In such application, the system works in bivalent operation, meaning that this is strictly the heat pump or the boiler that is providing the required heat while in the standard applications, both can work at the same time.



EHY2KOMB-A + EJHA-AV3

# Daikin Altherma H Hybrid

## Hybrid technology combining condensing gas and air to water heat pump for heating and hot water

› Heating only models
› Depending on outdoor temperature, energy prices and internal heat load, the Daikin Altherma H Hybrid always selects the most economical mode to operate
› Low investment cost: no need to replace the existing radiators (up to 80°C) and pipe work
› Provides sufficient heat in renovation applications as all heat loads are covered up to 32kW
› Easy and fast installation thanks to the compact dimensions and water connections


A++ A R-32

011-1W0293

| Efficiency data | | | | | EHY2KOMB28AA + EJHA04AAV3 | EHY2KOMB32AA + EJHA04AAV3 |
|---|---|---|---|---|---|---|
| Heating capacity | Nom. | | | kW | 3.83 (1) | |
| Power input | Heating | Nom. | | kW | 0.85 (1) | |
| COP | | | | | 4.49 (1) | |
| Space heating | Average climate water outlet 55°C | General | SCOP | | 3.26 | 3.28 |
| | | | ηs (Seasonal space heating efficiency) | % | 128 | |
| | | | Seasonal space heating eff. class | | A++ | |
| Space heating | Average climate water outlet 35°C | General | SCOP | | 4.14 | 4.15 |
| | | | ηs (Seasonal space heating efficiency) | % | 163 | |
| | | | Seasonal space heating eff. class | | A++ | |
| Domestic hot water heating | General | Declared load profile | | | XL | |
| | Average climate | ηwh (water heating efficiency) | | % | 87 | |
| | | Water heating energy efficiency class | | | A | |

| Indoor unit | | | | | EHY2KOMB28AA | EHY2KOMB32AA |
|---|---|---|---|---|---|---|
| Central heating | Heat input Qn (net calorific value) | Nom | Min/Max | kW | 7.1 / 23.7 | 7.6 / 27.0 |
| | Output Pn at 80/60°C | Nom | | kW | 23.1 | 26.6 |
| | Efficiency | Net calorific value 80/60 | | % | 98 | 99 |
| | Efficiency | Net calorific value 37/30 (30%) | | % | 108 | |
| | Operation range | Min/Max | | °C | 30 / 90 | |
| Domestic hot water | Output | Min/Nom | | kW | 7.2 / 29.1 | 7.6 / 32.7 |
| | Water flow | Rate 40°C | Nom | l/min | 12.5 | 15.0 |
| | Operation range | Min/Max | | °C | 40/65 | |
| Gas | Connection | Diameter | | mm | 15 | |
| | Consumption (G20) | Min/Max | | $m^3/h$ | 0.74 / 3.02 | 0.79 / 3.39 |
| | Consumption (G31) | Min/Max | | $m^3/h$ | 0.28 / 1.15 | 0.30 / 1.29 |
| Supply air | Connection | | | mm | 100 | |
| | Concentric | | | | 1 | |
| Flue gas | Connection | | | mm | 60 | |
| Casing | Colour | | | | White - RAL9010 | |
| | Material | | | | Precoated sheet metal | |
| Dimensions | Unit | HxWxD | Casing | mm | 650x450x240 | 710x450x240 |
| Weight | Unit | Empty | | kg | 33 | 36 |
| Power supply | Phase/Frequency/Voltage | | | Hz/V | 1~/50/230 | |
| Electrical power consumption | Max. | | | W | 110 | |
| | Standby | | | W | 2 | |

| Outdoor unit | | | | EJHA04AAV3 |
|---|---|---|---|---|
| Dimensions | Unit | HxWxD | mm | 745x845x329 |
| Weight | Unit | | kg | 45 |
| Compressor | Quantity | | | 1 |
| | Type | | | Hermetically sealed swing compressor |
| Operation range | Heating | Min.~Max. | °CWB | -15~25 |
| Refrigerant | Type | | | R-32 |
| | GWP | | | 675 |
| | Charge | | kg | 0.56 |
| | Charge | | TCO2Eq | 0.38 |
| Sound power level | Heating | Nom. | dBA | 58.7 |
| Sound pressure level | Heating | Nom. | dBA | 37 |
| Power supply | Name/Phase/Frequency/Voltage | | Hz/V | V3/1~/50/220-240 |
| Current | Recommended fuses | | A | 20 |

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

# Trust Daikin

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ECPEN20-731 05/20