DAIKIN

altherma

The geothermal power

DAIKIN ALTHERMA

GROUND SOURCE HEAT PUMP

HEATING & DOMESTIC HOT WATER

END USER LEAFLET

Ground source

Even in the coldest places in winter, **geothermal heat** is present in the ground resulting in a fairly constant temperature of 10°C at depth below 15 metres. This heat is a free source of energy that the **ground source heat pump** at the heart of our system can tap into to heat your home and domestic hot water as well as delivering you enormous **cost savings** even in the coldest climates.


heat pump

Why choose a Daikin Altherma ground source heat pump?

The simple answer is because it is the most efficient solution

…for example in the Oslo region of Norway where more than 70% of heating occurs when the outdoor temperature is below 3°C. This is where the ground source heat pump uses a stable geothermal energy source that is unaffected by the outside temperature resulting in the highest efficiencies at low ambient temperatures.

A difference

Due to the high performance and efficiencies of the inverter technology, the Daikin Altherma ground source heat pump provides a leading edge performance in comparison to the on/off units.

The geothermal probe is connected to the heat pump unit inside the house. This, in turn, is connected to the space heat emitters throughout your home and to the domestic hot water system.

4 benefits

- ✓ High efficiency heating technology optimised for all seasons
  thanks to our inverter heat pump technology
- ✓ Easy installation
  including a domestic hot water tank
- ✓ Compact, elegantly designed unit
- ✓ Easy-to-use controller

✓ High efficiency heating technology optimised for all seasons

thanks to our inverter heat pump technology

Our highly efficient inverter heat pump technology has been shown to provide up to 20% greater seasonal efficiency when compared to traditional on/off ground source heat pumps. In our system:

- 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 thus reducing the heat pump's energy demand.
- The boosting effect of the inverter compressor reduces the usage of the back-up heater resulting in reduced energy consumption.
- The high operating efficiencies of the inverter compressor are reached at partial load operation, i.e. when the full capacity of the unit is not required. As 70 to 80% of the total heat output is being delivered during partial load conditions, energy consumption is reduced to a minimum.

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

✓ Easy installation

including a domestic hot water tank

To reduce the amount of time needed for installation in your home, the domestic hot water tank is factory-fitted to the top of the heat pump module to simplify the installation. Additionally, thanks to the small footprint, the unit is about the same size as a normal household appliance and at 1732mm high, it fits neatly in any standard room.

✓ Easy-to-use controller

- Thermostat function: water temperatures are automatically put in relation to the actual room temperature, resulting in a more stable performance and higher comfort levels.
- Energy management function: the controller displays both the output and input energy of the unit allowing you to manage your energy consumption more accurately and so control your costs.

✓ Compact, elegantly designed indoor unit

- By integrating the heat pump module and the domestic hot water tank, the space needed is kept to a minimum.
- The elegant design helps the unit blend in with other household units

The floorspace needed for the indoor unit is just 728mm x 600mm - about the same as a normal household appliance - and at 1732 mm high, it fits neatly in any standard room. With the connections all on the top of the heat pump module very little space is needed around the unit.

Technical specifications

Heating only

Indoor unit					**EGSQH10S18A9W**
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) / 65 (heat pump + back up heater)
	Domestic hot water	Water side	Min.~Max.	°C	24~60 (heat pump) / 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				9W
	Phase				3~
	Frequency			Hz	50
	Voltage			V	400
Current	Recommended fuses			A	32

(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)

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

Daikin products are distributed by:

FSC

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