



GEOTHERMAL ENERGY
**SUPERIOR COMFORT
AND SAVINGS
POWERED BY NATURE**

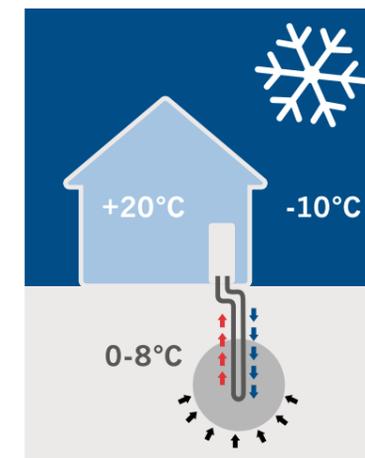
Thermia Diplomat Inverter

RENEWABLE ENERGY ECO-FRIENDLY HEATING AND COOLING

More than a quarter of Europe's CO₂ emissions come from heating, lighting, and running appliances in our homes. 80% of this is attributed to our space heating and hot water alone. Clearly, we must find alternatives and more efficient means of heating our homes and water.

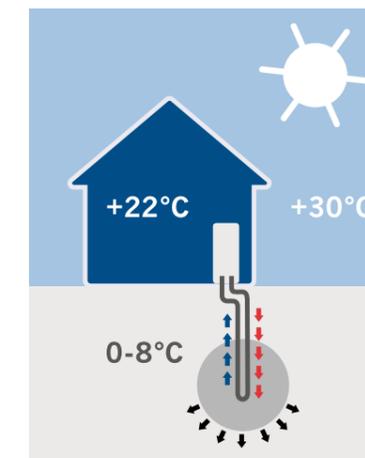
By installing a ground source heat pump, you are playing a significant part in improving the climate, with sustainable reductions in CO₂ emissions – while benefitting from superior indoor climate and great savings.

Geothermal heat pumps operate on a simple principal: they move heat from one place to another via a refrigeration process. The energy stored in the ground or ground water is simply extracted and transferred to the heat pump via the bore hole – and vice versa – and can be used for heating, hot water, and cooling. In this way, nature provides us with superior indoor comfort in an economical way with nearly zero negative impact on the environment.



Warm in the winter

The heat pump concentrates low-grade heat from the underground and raises its temperature. Then the heat is transferred to the house energy distribution system – usually radiators, hydronic floor heating or fan coils.



Cool in the summer

In the summer, the process might be simply reversed. The heat pump collects heat from the house and deposits it into the ground bore hole, providing cooling. That is more cost efficient than traditional air conditioning.

SIMPLY BRILLIANT



The basic principle is as simple as it is brilliant: take the free energy that exists in the air and ground – and convert it into heating for your house.

At Thermia, we make heat pumps and nothing else. In our R&D center in Sweden, we work continuously to take the heat pump technology to the next level. All our resources, expertise, and experience are invested in what we believe is the future of renewable energy – for domestic and commercial use alike.

With this booklet, we want to present our latest generation of ground source heat pump powered by inverter technology – the Thermia Diplomat Inverter – a cutting-edge energy solution for heating, cooling, and hot water designed for homeowners.

Hans Wreifält
Sales Director, Export
Thermia Heat Pumps



OUR BRAND STORY BORN IN SWEDEN

Thermia started as one man's passion. Way back in 1889, Per Anderson began developing some of the world's first energy-efficient stoves for cooking, heating, and hot water.

By 1923, his business had matured sufficiently for him to found Thermia. Ever since, we have been guided by Per's original vision: "The products one releases must be not only the best of their time, but before their time, over time."

In 1973, at the height of the global fuel crisis, Thermia launched the world's first heat pump with its own integrated hot water tank. Since then, we have been 100% dedicated to developing, refining, manufacturing, and pioneering superior heat pumps.

Read our story at story.thermia.com

PRESENTING THE NEW GENERATION

We are proud to present the next generation of ground source heat pumps: **Thermia Diplomat Inverter.**

Our new heat pump is designed to provide excellent indoor climate, maximum reliability, and optimum cost efficiency. While supplying you with heating, hot water, and cooling, you can benefit from a staggering reduction in energy consumption by up to 75%.

From great to superior

Diplomat Inverter is built on 40 years of experience in developing and supplying heat pumps for the European markets. Its predecessor, the Thermia Diplomat G3, has been a European bestseller for years thanks to its significant savings, efficiency, and reliability.

However, the Diplomat Inverter takes everything one step further. The newly developed inverter-controlled compressor is one of the secrets behind its superior performance. It adjusts the heat load constantly according to the current heat demand – making it one of the ground source heat pumps with the highest SCOP* in the world.

* Seasonal Coefficient of Performance measure annual energy consumption and efficiency.

TAKING COMFORT TO THE NEXT LEVEL



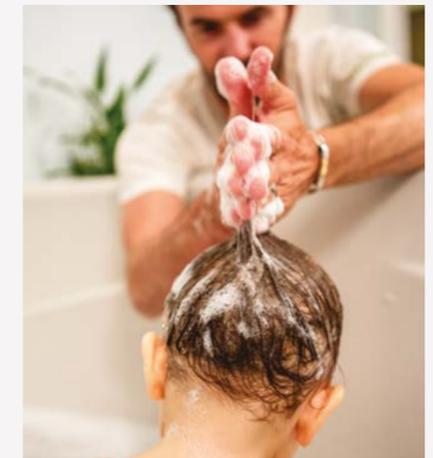
Adjusting to your demand

Our superior inverter technology continuously adjusts the heat pump's output to your current demand. This means that the heat pump can supply 100% of your energy requirements without the need for auxiliary heating.



Perfect performance all year round

The unique Hot Gas Water (HGW) heater increases the annual efficiency of hot water production by about 20%. The unique HGW technology means that you get a significantly enhanced seasonal performance over the heating season.



More and quicker hot water

The integrated Tap Water Stratification (TWS) provides 15% more hot water – significantly quicker and at higher temperatures than traditional alternatives. This means, that up to 9 people can shower at the same time.



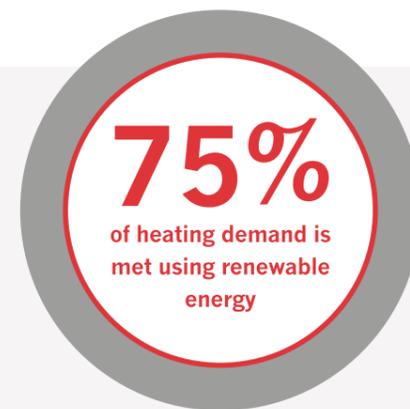
THERMIA DIPLOMAT INVERTER

Energy class according to Eco-design Directive 811/2013:

- A+++** When the heat pump is part of an integrated system
- A++** When the heat pump is the sole heat generator

• • • **Thermia Diplomat Inverter L**
Built-in 180 liters hot water tank
Available in output sizes: 5–17 kW
Electrical connections: 400V 3N

Thermia Diplomat Inverter M
Built-in 180 liters hot water tank
Available in output sizes: 3–12 kW
Electrical connections: 400V 3N; 230V 1N



• • • The Diplomat Inverter is also available with a separate hot water tank, perfect if you need that extra amount of volume.



CONTROL YOUR HEAT PUMP FROM ANYWHERE

Monitor and control your heat pump from any smartphone, computer or tablet – wherever you are in the world!

With the Thermia Online accessory and the 'Thermia Online' app, you can e.g. check that your heating system is working properly, lower the temperature when you are on holiday or get a notification if anything unexpected comes up.

The 'Thermia Online' app is available for both Android and iPhone.

THERMIA DIPLOMAT INVERTER

The new Diplomat Inverter has been designed to deliver optimum performance across all climate zones in Europe – with an unrivalled focus on minimizing energy consumption and providing maximum comfort through state-of-the-art technologies.

Inverter-controlled compressor

At the heart of the Thermia heat pump, is an inverter-controlled compressor, which continuously adjusts the heat pump's output to the current heat demand.

Touchscreen controller

The new controller in the inverter heat pump boasts a color touchscreen display and user-friendly icons that are easily understandable.

Hot Gas Water technology (HGW)

HGW technology extracts a percentage of the high temperature gas after the compressor and before the condenser – delivering enhanced domestic hot water temperature, fewer domestic hot water start cycles, more hot water volume, and significantly enhanced seasonal performance over the heating season.



180 liters unvented hot water tank

The integrated Tap Water Stratification (TWS) technology enables hot water production significantly quicker and at higher temperatures than traditional alternatives. The large surface area and orientation of the TWS coil ensures the fastest recovery time available.

Silent cabinet

Acoustical engineered design ensures one of the lowest sound levels on the market.

Adaptive performance

Inverter-controlled compressor and speed controlled circulation pumps guarantee that daily operation is always adjusted according to the user's requirements and conditions.



INTELLIGENT CONTROL SYSTEM WITH EASY MENU AND INTUITIVE ICONS

The new designed controller boasts a color touchscreen display and user-friendly icons that are easily understandable.

The system uses an algorithm that ensures the lowest possible running cost – while maintaining the desired indoor temperature.

New features:

- Color touchscreen and intuitive menu
- Full overview of temperatures and curves
- Plug-and-play software update via USB slot
- Interface to BMS (Building Management System) - the Smart House

LET THE HEAT PUMP DO THE COOLING

Use your heat pump to produce heat during the cold season and get comfort cooling when it is hot outside.

By adding a cooling unit to your heat pump you get a comprehensive climate comfort system that gives you a perfect indoor climate all year round. It's also more economical both in terms of investment and running costs, compared to traditional solutions.

Passive cooling

By taking advantage of the cool brine in the ground loop, cooling is created at a cost corresponding to the energy consumption of a couple of light bulbs. At Thermia, Inverter passive cooling is available by adding a separate module.

Active cooling

If necessary, extra cooling can be achieved by using active cooling where cooling is produced using the compressor system. With this method, cooling produced by a ground source heat pump is still more cost efficient than traditional air conditioning.





Thermia Heat pumps reserves the right to make any changes to our range and technical solutions after the publication of this brochure. Photo: Thermia, Danfoss, iStockphoto, Shutterstock. | ver 1.0 EN Aug 2016

THERMIA THE ULTIMATE ENERGY PROVIDER SINCE 1923



Pioneering heat pumps

For the last 50 years, we have dedicated all our resources and knowledge to developing and endlessly refining one product: the heat pump. Our focus on geothermal energy has given us world leading knowledge in heat pump technology.



Engineered with passion

Developing truly sustainable renewable energy solutions can only be achieved with passionate, dedicated, and uncompromising experts. Some of Europe's most highly qualified engineers can be found in our own R&D center.



Born in Sweden

All our products are designed, manufactured, and tested in Sweden using the latest technology and the highest quality components. We are proud to count world-leading industry specialist, Danfoss, among our technology partners.

