RENEWABLE ENERGY

LET THE SUN WARM YOUR HOUSE FOR YOUR COMFORT ALL YEAR ROUND

Thermia iTec

thermia.com

LOW-CARBON HEATING IS THE KEY TO SUSTAINABLE DEVELOPMENT

With the twin goals of reducing costs and maximizing sustainability, pressures on building design, operation and performance continue to grow. Today's trend towards low-energy building or so called nearly zero energy buildings reflects radical changes in the way buildings are being designed and constructed to reduce their environmental impact.

More than a quarter of Europe's CO_2 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.

Heat pumps harvest energy stored in the ground, air or water and convert it into an environmentally sustainable indoor climate for the building. Because no fossil fuels are burnt, heat pumps are extremely environmentally friendly and help you achieve your emissions targets.

Air and ground source heat pumps have the potential to reduce your home's CO_2 emissions by up to 50% and can act as your individual contribution to the commitment to source 20% of European energy from renewable sources by 2020.

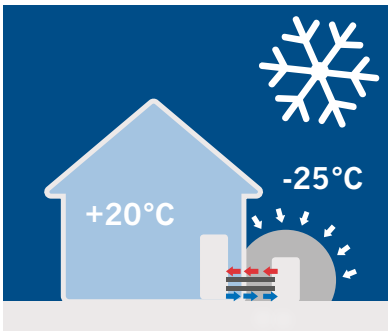
RENEWABLE ENERGY

ECO-FRIENDLY HEATING AND COOLING

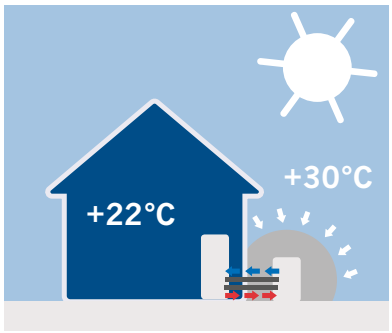
As an endlessly renewable energy source for any home, heat pumps should be considered at the earliest design stage. Incorporating renewable heating and cooling into your project will significantly reduce annual energy consumption, operating costs and your carbon footprint.

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 home.

Air source heat pumps operate on a simple principal: they move energy from ambient air to water in your heating system via a refrigeration process. The energy stored in the air is simply extracted and can be used for heating, hot water and cooling. In this way, nature provides us with perfect 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 air and raises its temperature. The heat is then transferred to the house's energy distribution system – usually radiators, hydronic floor heating or fan coils.



Cool in the summer
In the summer, the process can be simply reversed. The heat pump collects heat from the house and – via a refrigeration process and compressor, the same technology used in your refrigerator – removes it to provide cooling.

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

YOUR FUTURE ENERGY SUPPLY COMES FROM THE SUN

We are proud to present the new air source heat pump: Thermia iTec

As air is in abundant supply all around us, air source heat pumps have the advantage of low installation costs and minimal space requirements. Thermia iTec is a domestic heating and hot water system based on air source heat pump technology. It represents a flexible and cost-effective alternative to a fossil fuel boiler.

Our new heat pump is designed to provide an 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 of up to 75%.

Efficient performance in all seasons
Thermia iTec is built on 40 years of experience in developing and supplying heat pumps for the European markets. The inverter-controlled compressor is one of the secrets behind its superior performance. It constantly adjusts the heat load, according to current heat demand.

Inverter-driven iTec with four types of indoor kit offers a low-carbon alternative to traditional boilers in modern buildings, whether they are new-builds or refurbishments.

Thermia iTec

Thermia iTec 5
Available in output sizes: 1 - 5 kW
Electrical connections: 230V 1N

Thermia iTec 9
Available in output sizes: 2 - 9 kW
Electrical connections: 400V 3N; 230V 1N

Thermia iTec 16
Available in output sizes: 4 - 16 kW
Electrical connections: 400V 3N; 230V 1N

75%
of heating demand is met using renewable energy

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

A+++ When the heat pump is part of an integrated system

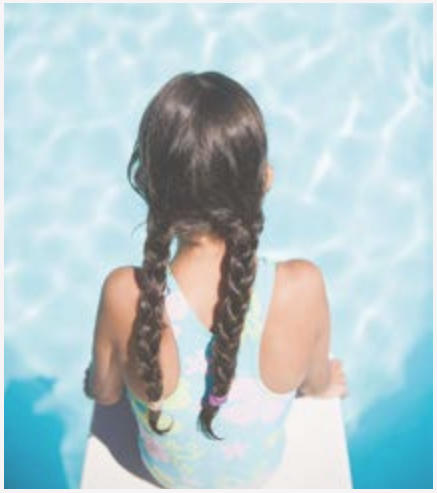
A++ When the heat pump is the sole heat generator

Thermia iTec is available with four types of indoor kit: Standard, Plus and Total Compact and Total.

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 extra power at peak times and highly efficient standard operation.

More hot water, faster
The integrated Tap Water Stratification (TWS) system – a patented Thermia technology that ensures extremely fast production of hot tap water – provides 15% more hot water significantly faster and at higher temperatures than traditional alternatives. It also lowers the cost of hot water and improves the heat pump's seasonal performance.



Heat your swimming pool or cool your house
iTec can easily be supplemented to heat your pool, all year round. In this way, you can enjoy your pool in all seasons while substantially reducing the cost of heating it. iTec can also provide efficient cooling for your home during the summer.

Thermia Online

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 for example check that your heating system is working properly, reduce the temperature when you are on holiday or receive a notification if anything unexpected comes up.

Our online system provides your installers with comprehensive diagnostics data and also enables them to respond promptly to notifications or access a live feed on system performance.

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

Thermia
iTec

The new Thermia iTec air source heat pump 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 match current heat demand.

Plug and play

Two pipes and four cables are all that is needed for a complete installation. iTec comes in the form of a compact, lightweight outdoor unit. Its unique frame considerably reduces installation labor and costs, satisfying both installers and customers.

Controller – the brain of the heat pump

The Thermia controller uses an algorithm that ensures the lowest possible running cost – while maintaining the desired indoor temperature. Using the Thermia control system reduces the number of thermostats needed and means that no pumps, valves, zone valves or time clocks are required.

High-quality components

Hydrophobic coating on the evaporator protects against corrosion, salt, acid and moisture build up, making the pump tough enough to work in the most challenging locations. The hot water tank is made from stainless steel to ensure hygiene. Unlike enamel tanks, it doesn't require anodes. The quality of the components we use ensures many years of trouble-free operation.

Flexibility

iTec offers a versatile system that is compatible with a wide range of additional products such as solar panels, back-up boilers or a swimming pool. iTec is compatible with many different types of heat emitters such as floor heating, radiators or heat convectors. It safely meets the requirements of both low and high temperature applications, whether in renovations or new-builds.

Hot Water

Hot Water iTec Total Compact and Total indoor kits have an 180 liter build-in hot water tank with integrated Tap Water Stratification (TWS) technology which produces hot water significantly faster and at higher temperatures than traditional alternatives. The large surface area and orientation of the TWS coil ensures the fastest possible recovery time.

Silent cabinet

Acoustically engineered design ensures one of the lowest sound levels on the market. Sound levels can be as low as just 45 dB(A).

High performance at low temperature

Operation range as low as -25°C.

INTELLIGENT CONTROL SYSTEM WITH EASY MENU

The controller coordinates and controls the heating system. Thermia heat pumps work with complete precision to give your home the best possible indoor climate at the lowest possible cost.

Our controller is very easy to use. The controller displays visualized heat curves and, once it is set, you never need to think about it again. Raising or lowering the temperature can be achieved at the touch of a button.

CHOOSING YOUR SYSTEM

With a choice of four different indoor kits, we are able to meet all the requirements of both new-build and refurbishment projects. Pre-fabricated indoor kits ensure quick, aesthetic and high-quality installation with no individual parts placed outside the cabinet.

iTec 5 (1 - 5 kW)

iTec 9 (2 - 9 kW)

iTec 16 (4 - 16 kW)

Thermia iTec STANDARD

- Intelligent Controller

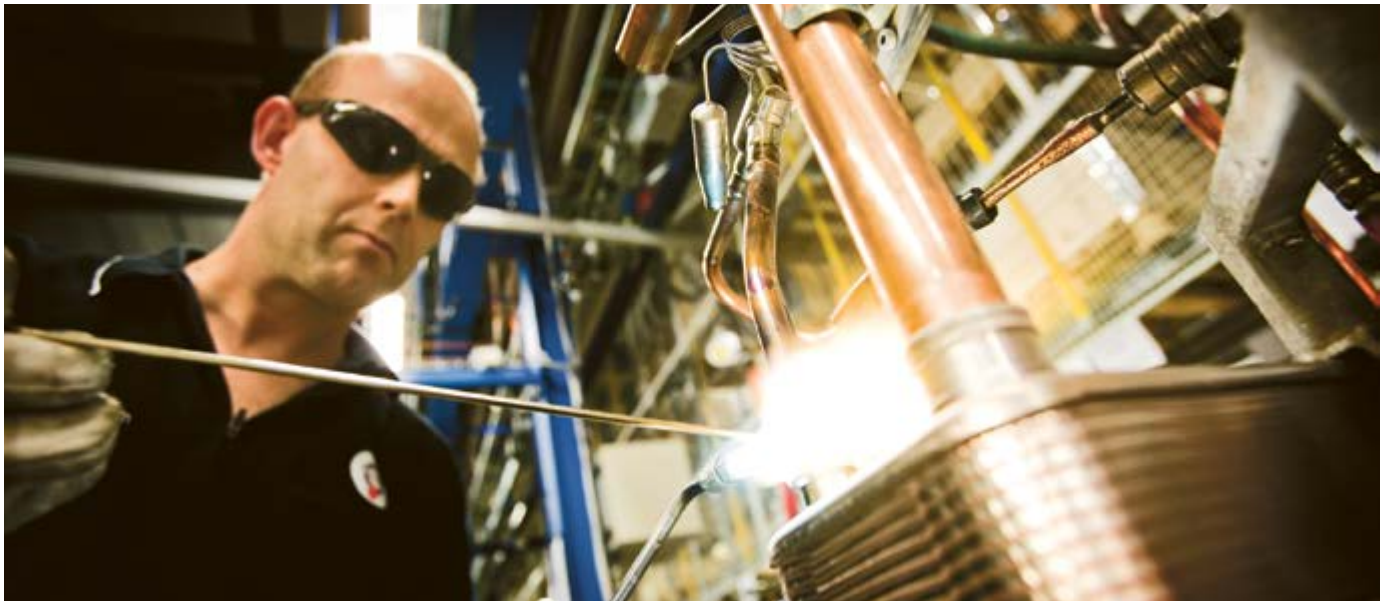
Thermia iTec PLUS

- Intelligent Controller
- Optimum controlled Class A circulation pump
- Immersion heater
- Three way valve for heating or hot water production

Thermia iTec TOTAL COMPACT/ TOTAL*

- Intelligent Controller
- Hot water tank 180 l
- Optimum controlled Class A circulation pump
- Immersion heater
- Three way valve for heating or hot water production

*iTec TOTAL: • Additional free space in the lower part of the unit might be used for the extra 60 liters volume tank (available as an accessory) or for the expansion vessel or/ and hydraulic connections.



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.