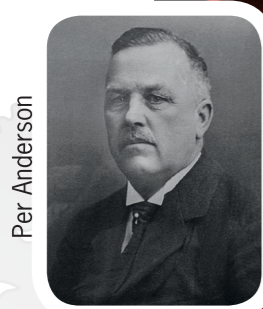


1923



Per Anderson

From great history...

Pioneers in heating solutions

Thermia's history starts back in 1889, in Sweden, when its founder, Per Anderson (1861-1942) began developing some of the first energy efficient heating solutions: kitchen stoves for cooking, heating and hot water. Some of the first products can be seen at the Thermia Museum in Arvika, Sweden. A key driving force behind the business was the desire to always develop better and better products. As said in his own words: "The products one releases must be not only the best of their time, but before their time, over time."

Reliability for decades

Ever since the establishment in 1923, Thermia has been part of driving the evolution within its technical areas, moving over time from fuel and electrical systems to renewable energy solutions. In 1973 Thermia launched the very first heat pump with integrated hot water tank. For the past four decades the Swedish producer Thermia has been continuously revolutionizing the heating industry by creating better and more efficient heat pumps. Many European customers are still using the first generations of Thermia heat pumps and do not want to give them up since they are stable and reliable even today.



Hans Wreifält

...to future innovations

Next step towards sustainable innovation

Today Thermia is one of the leading heat pump producers, operating one of the most modern Research & Development centers in Europe. "Nowadays, Thermia offers some of the best heating solutions in the world, which not only decrease heating costs, but are also comfortable to use and at the same time environmentally friendly. Long-term we will work continuously to take the heat pump technology to the next level of excellence in innovation," emphasizes Mr. Hans Wreifält, International Sales Director.

THERMIA ATEC

Your complete climate solution

Thermia Online

Control your heat pump remotely, wherever you are in the world.

Thermia Online is an accessory that connects your heat pump to your existing home broadband connection. This way you can control and monitor your heat pump from any smart phone, computer or tablet device from anywhere in the world. In addition you get complete peace of mind.

If an alarm would occur on your heat pump, you and/or your installer will get a notification via Thermia Online and action can be taken immediately. Many times the installer can correct the alarm remotely without having to come to your home.



Cooling function

Enjoy a perfect indoor climate all year round with the built-in cooling function.

A Thermia heat pump is designed to provide a perfect indoor temperature and climate all year round. The Atec air/water heat pump has a built-in cooling function which is easily configured in the control unit.

Cooling your home with this method is usually more cost-efficient than traditional air conditioning units and there is no need for separate cooling equipment using extra space.



Pool heating

Let the Atec heat pump also heat your swimming pool.

Heat your swimming pool all year round using the Atec heat pump. Whether you have an indoor or outdoor swimming pool a Thermia heat pump can significantly lower your heating costs for the pool compared to traditional pool heating systems.



Thermia Atec

the best performing air/water heat pump on the market



Thermia Heat Pumps reserves the right to make any changes to our product range and technical solutions after publication of this brochure.



HEAT PUMPS



HEAT PUMPS

2013

THERMIA ATEC

The best performing air/water heat pump on the market

Save up to 75% on your heating costs

Thermia's 90 years of experience in heating and hot water production ensures that you get the latest technology with the highest level of quality. A Thermia heat pump will give you a reliable and cost efficient heating solution providing great comfort for many years to come. Thermia Atec has been proven to be the best performing air/water heat pump on the market in a recent test by the Swedish Energy Agency.

- Reduces heating costs by up to 75% thanks to the best seasonal performance* on the market
- Ensures hot water at all times and provides 15% more hot water than conventional heaters at no extra operational cost.
- Always works under ideal conditions and guarantees perfect indoor climate at all times even at temperatures as low as -20°C.
- Requires a minimum of maintenance and attention.
- A complete climate solution that supports heating, hot water, cooling, pool heating and secondary heat sources such as solar panels.
- The unique acoustic design gives you extremely low noise levels and guarantees quiet operation.
- Made in Sweden – reliable and proven technology from an innovation leader with 90 years of experience in Nordic climates.

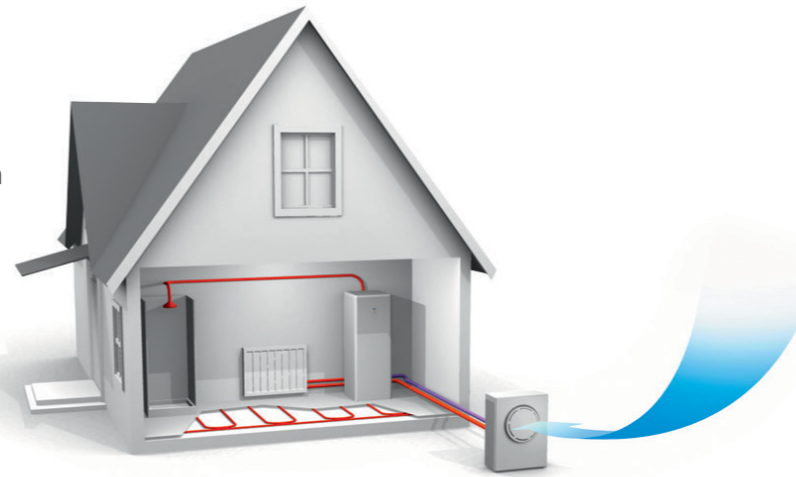
*SPF (Seasonal Performance Factor), also named annual efficiency, is a measure that describes how efficiently a heat pump works over a full year, including both warm and cold periods, and hot water production. SPF is the best way of measuring the true savings a heat pump provides. Our tests show that Thermia Atec has a 17–38% better annual efficiency than the leading competitors.

Why an air/water heat pump from Thermia

With a Thermia air/water heat pump you retrieve the energy directly from the surrounding air.

Key benefits:

- Best performing air/water heat pump on the market
- Low investment costs
- Fast and easy installation that requires no excavation work
- Modern design that blends in perfectly with all surroundings
- Requires minimal space with no impact on your garden
- In most areas there's no requirement to report installation to the municipal environmental health boards



Use cold air to heat your home

An environmentally friendly solution

Make your contribution to sustainable living on Earth.

Thermia heating solutions are environmentally friendly alternatives to traditional heating systems. The heat pump uses cost-effective and clean renewable energy, which significantly reduces CO₂ emissions into the atmosphere. By choosing a heat pump you are choosing to be a part of the solution for a better climate!



Reduce your CO₂ footprint

THERMIA ATEC

The result of 90 years of innovation

Choose control package

Best in test

Case study

Thermia Atec is a modern heat pump, built using the latest technologies, and includes features such as:

Intelligent control system
Unique control system that coordinates and continually optimizes the three key parameters in the product: the airflow (energy efficient EC fan), the refrigerant circuit flow (EEV) and the heat distribution (Optimum technology).

Optimum technology
A unique technology that constantly monitors your system and adjusts the pump's performance to ensure the heat pump is always running at its most efficient level.

EEV
The electronic expansion valve is able to adjust and control the flow of refrigerant at different outdoor temperatures. This ensures better energy efficiency on the cold side of the heat pump and maximum performance at any given temperature, even at -20°C.

Rpm-controlled fan
An energy-efficient fan (EC technology) that regulates the air flow through the heat pump as required, and guarantees maximum performance, regardless of temperature. It also allows you to use silent mode, when extremely low noise levels are required.

Thermia Atec is a flexible solution that is easy to adapt to existing equipment – and you don't need to buy more than you need. We have designed three different indoor solutions – choose the one that best meets the needs of your specific requirements.

STANDARD Control

PLUS Control

- Electric heater cartridge, stepped settings from 3–15 kW
- Class-A circulation pump
- 3-way valve prepared for external hot water production

TOTAL Control

- Electric heater cartridge, stepped settings from 3–15 kW
- Hot water tank, 200 litre
- Class-A circulation pump
- 3-way valve for internal hot water production
- also available with built-in expansion vessel and 60 litres volume tank

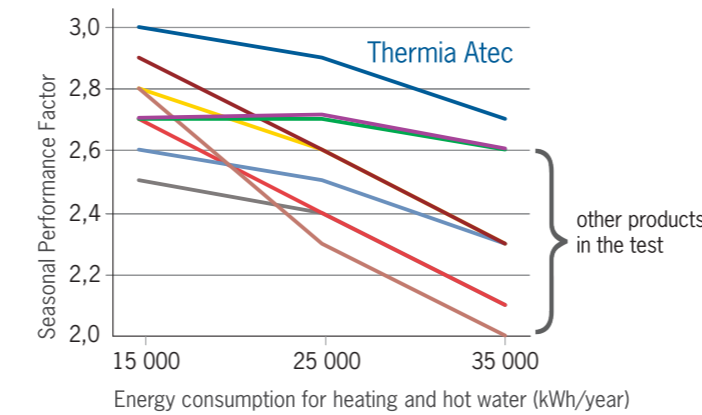
(Not an option for Atec 16 and Atec 18)



The Swedish Energy Agency, a government organization, recently conducted a thorough test of air/water heat pumps, available on the market. The tests were carried out as per the European standard EN 14511. The results show top scores for Thermia Atec: greatest overall energy savings, the highest COP, the best results in heating hot water, the second lowest noise and lowest heat loss among the tested devices.

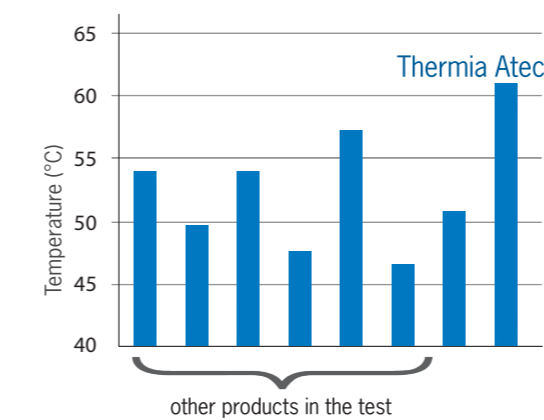


Seasonal Performance Factor (Annual Coefficient of Performance)



Thermia Atec reaches up to 38% higher SPF (annual coefficient of performance) of the competitors.

The water temperature in the tank



The hot water temperature is up to 33% higher than the competitors (61°C). This ensures an excellent hot water comfort without requiring a large space for the water heater. A 300 litre hot water tank can provide up to 500 litres of 40°C hot water when needed.

With Thermia Atec you can cut your energy costs by up to 75% and that is not only a laboratory assumption, but a proven fact from real life!

Below you will find actual figures from a case study of a Thermia Atec, installed in a single 160 m² family house in Slovenia. The climate in this part of Europe is characterized by hot summers and long, cold winters (with temperature drops down to -20°C). The Atec heat pump was installed in November 2011 and after a year of operation the home owners have reported improved living conditions with a higher average indoor temperature and plenty of hot water, while decreasing their heating cost by 72%.



Family house description	
Construction year of the building	1982
Occupancy - number of persons	2
Building's total energy requirement (kWh/ year)	23 550
Performance of the heating solution	
Energy consumption for heating and hot water (kWh/ year)	7 864
Energy saving for heating and hot water (kWh/ year)	15 686 (67%)
Economic savings (EUR)	
Energy cost before installation of heat pump/ year (EUR) (oil price 1359 €/m ³)	2 616
Energy cost after installation of heat pump/ year (EUR) (electricity price: 0,13 EUR/ kWh)	742
Economic savings/ year (EUR)	1 874 (72%)
Total savings for 10 years (EUR) (annual price increase of 2%)	20 520
CO ₂ emissions* (kg)	
Total CO ₂ saving for 10 years compared with the previous heating solution i.e. oil*	65 752 (79%)

*Source of CO₂ emissions calculations: http://www.nottenergy.com/energy_cost_comparison/

For information about our complete heating solutions, including ground sourced heat pumps, visit www.thermia.com.