



•E|S[®] ENERGY SAVE

**Cost reducing
energy solutions
for your building
climate**

REDUCED ENERGY COSTS – INCREASED ENVIRONMENTAL BENEFITS

ENERGY SAVE PREFABRICATES AND INDUSTRIALISES THE ENERGY MARKET





A green path towards reduced energy costs

Energy Save supplies renewable energy through air-to-water heat pump technology. In addition, we add a new way for the real estate industry to manage and capitalize on thoroughly tested technology.

The basis of our innovation are the prefabricated energy modules in ready-made modular systems: customized and ready to install on or adjacent to your building

With simplified installation and maintenance results in shorter lead times and reduced investment costs.

Energy Save delivers flexible, fixed or temporary, mobile heating pump systems with lower energy costs, which contributes to an increased property value and greener profile.



Enhanced and proven energy tech

Air-to-water heat pumps from Energy Save use the stored solar energy in the air to create heat, cooling and domestic hot water. Air-to-water heat pump technology is predicted to have the largest growth among the various heat pump technologies.

It is extremely energy efficient and at the same time it does not require any major ground work during installation compared to, for example, geothermal heat pumps.

With our innovative and customized, factory produced module we enhance technology further. We add scalability, mobility and an energy performance that provides a significant reduction of energy consumption and CO₂ emissions.

“Take control of your building’s climate with a energy solution that addresses your specific challenges”

High market demand

Our innovative energy modules have been well received by property owners, building contractors and property developers and opened completely new markets.

Mobility provides unique opportunities for temporary installations with cost-effective and environmentally friendly heating and cooling solutions even during the construction phase.

*Heat pumps are among the most environmentally friendly energy solutions.
Our prefabricated systems are also the most cost-effective*

For all types properties and needs

Residential housing: For apartment buildings, current and new.

Commercial Properties: For light and medium-sized industry, offices, modular buildings, warehouses and schools.

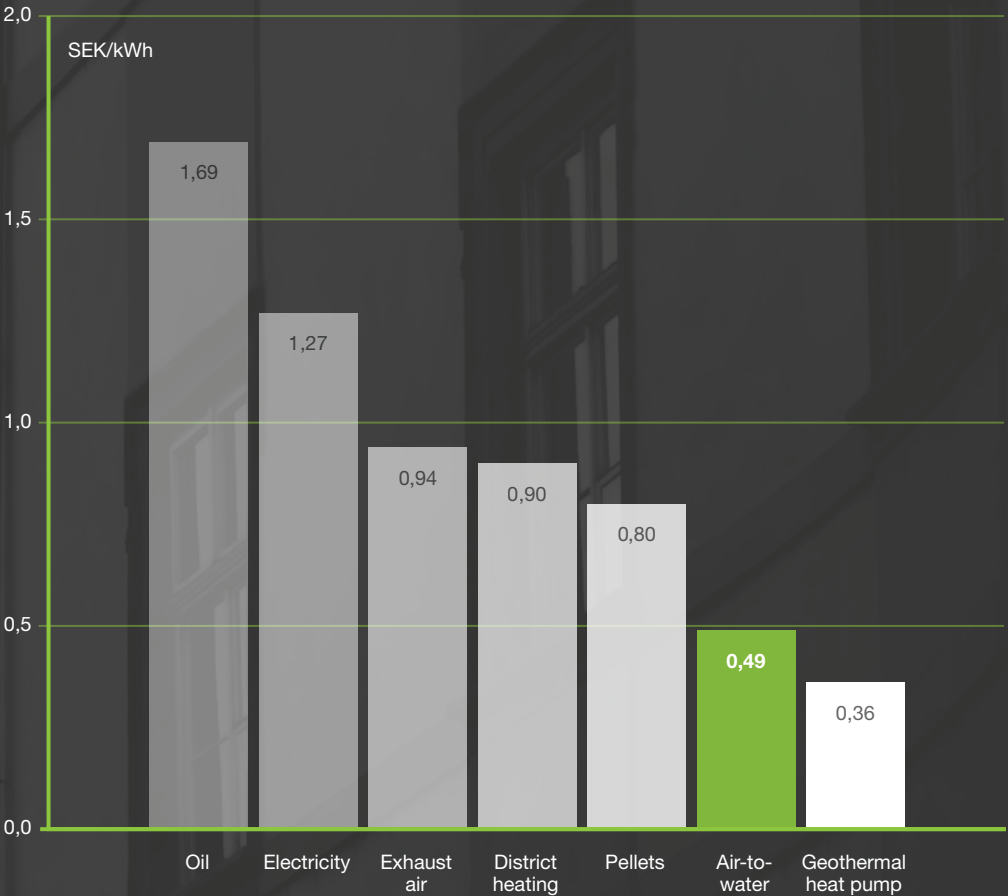
Historic properties: For churches, cultural buildings with antiquarian conditions for remodeling.

Construction site heating: During all phases of construction and can also be converted for permanent heating.

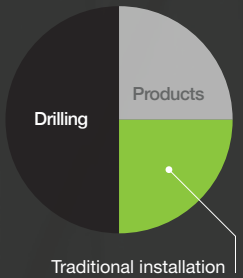
An increasingly effective technology

The graphs below are based on figures from 2015. Since then air-to-water technology has been developed further and is currently even more energyefficient. In terms of cost per kWh it is therefor a very cost efficient energy solution. The investment for an air-to-water heat pump installation

from Energy Save built on-site is approximately 50 percent lower than the cost of installing a geothermal heat pump. If you choose a prefabricated solution from Energy Save, a customized plug-in module, the savings will be even higher. Source: Värmepumpsguiden 2015.



GEO THERMAL HEAT PUMP




AIR-TO-WATER HEAT PUMP



PLUG-IN-MODULE





Think inside the box!
– Flexible energy solutions
that can be integrated with
existing architecture.

EcoStation with brick
facade and contem-
porary rooftiles

Matches the environment and cost conscious property owners and builders

With a customized heat pump system from Energy Save you reduce energy costs and save up to two thirds of the installation costs.

With Energy Save you avoid the permit application process with an uncertain end, which still costs time and money as well as expensive drilling if permit is granted.

Our solutions are perfect if you ...

- ... want to lower energy costs in existing properties
- ... want to replace the heating system in an older property
- ... want to maintain or obtain an environmental certification
- ... are seeking greener heating for new construction
- ... currently have a geothermal solution but foresee an increased heat demand upon expansion
- ... have temporary energy needs
- ... are seeking a compatible solution for existing heating systems and heating sources

Permanent solutions



INSIDE THE BUILDING

Tailor-made systems for small and mid-sized buildings

NordFlex – scalable, modular systems that make your property's energy supply more efficient and produces heat, domestic hot water and cooling.

HeatStar DX delivers energy and climate control in balanced ventilation systems.

Both solutions offer property owners energy savings of up to 70% compared to, for example, oil, electricity or district heating. They thus become tools for future environmental certifications.

The Energy Save solution:

ES NordFlex och HeatStar DX



CONNECTED TO THE BUILDING

Prefabricated systems for small and mid-sized buildings

A solution that frees utility areas in all types of buildings. An energy saving and cost-reducing solution that can also be situated apart from the building.

The module can be encased and adapted to existing buildings, allowing it to be aesthetically integrated into most environments.

The Energy Save solution:

EcoStation

Temporary solutions – adjacent to buildings



CONNECTED TO THE BUILDING

Temporary energy supply

Developed for temporary buildings such as refugee camps, temporary school buildings, care facilities and student housing, where the technical life span of the heat pumps outlasts that of the building. A solution that can be moved from place to place and also customized to integrate into the surroundings

The Energy Save solution:

EcoStation



CONNECTED TO THE BUILDING

Mobile energy supply

Adapted for heat supply at construction sites, events and field hospitals. Thanks to the compact design that enables mobility, the energy- and cost saving heat pump technology can be used for heating or cooling where the needs are short-term.

The Energy Save solution:

HeatBox Hydro and HeatBox Air

The foundation for your security



Save both energy and the environment and reach your climate goals. Climate-smart heat pump technology from Energy Save enables green building and environmental certifications. The solutions cover all needs, from heating of construction sites to a fixed energy solution for your property.



Scandinavian design

Our energy solutions are designed in Scandinavia with top class power and efficiency.

We combine Scandinavian state of the art competence and product development with efficient Chinese production capacity.

In this way, we are industrializing the complicated installation industry while digitalizing the Swedish engineering knowledge through a web based configuration tool.



Top quality for the nordic climate

Our products meet the high nordic requirements for functionality and power even at extreme outdoor temperatures.

Tests and certifications are therefore a very important tool. Our heat pumps are tested independently and certified by test institutes in accordance with applicable European standards and carry the necessary certificates to support this.



Safe installation & service

Complete delivery and installation.

Together with our professional partners we offer customers a safe delivery and installation at competitive prices.

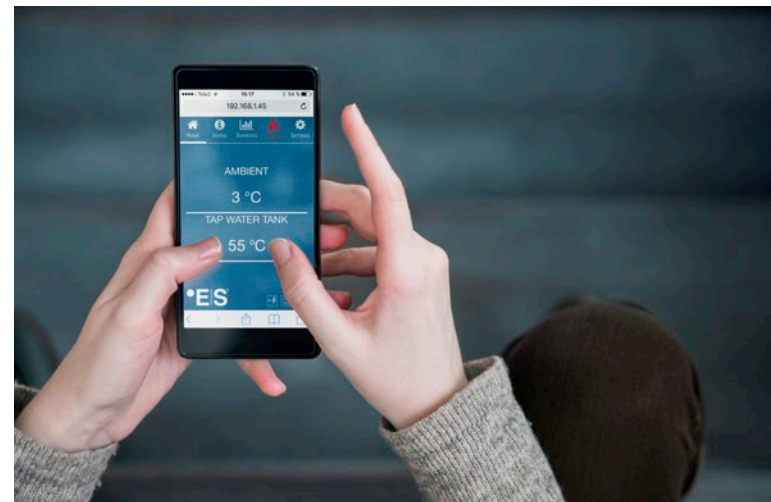
Installation can also be carried out during “the cold season” – i.e. the winter season.



The EcoStation provides a seamless integrated energy production combined with utility spaces.



The ES Heat Pumps are designed to withstand the harsh Nordic climate



Even when you are away, you have full control over the heating system – via web, smartphone and tablet. The control system is developed in collaboration with Jeff Electronics, which specializes in user-friendly control systems and is a leading player in the industry.



New integration possibilities

Our systems enable integration with your other heat sources.

Whether it is electricity, oil, firewood, pellets or district heating – Energy Save solutions are all hybrid heating systems. They are also compatible with other control systems in your building.

Architectural and building aesthetic needs can easily be met by embedding the plug-in module, which is then called EcoStation.



Green clean tech with massive savings

The importance of heat pumps are steadily increasing in energy conversion in Europe and around the world.

Our innovative scalable plug-in modules provide a massive environmental imprint with a drastic CO₂ reduction compared to other types of energy.

A system from Energy Save has an average of 80 kW of heating power and is developed for a typical commercial property with approximately 300,000 kWh in annual consumption.



The technical solution, investment and saving

Your chance to easily create a better property transaction.

It's easier than you think to achieve cost saving energy solutions for your property's climate.

Our custom-made solutions, designed using our digital tool, to a fully implemented solution addresses your fixed and temporary needs for heating and cooling for existing properties, new production, building heating and drying.

Discover new ways to save

Energy Save saves time, simplifies the process and offers secure design and installation of a customized energy solution for your building. Through prefabrication and digitalization as part of our process we are able to offer green and recyclable energy at reduced costs.

We make NordFlex, HeatStarDX and our plug-ins globally available through our Chinese production platform, a partner that supplements us with resource efficient factory production based on our detailed specification.

"We offer state of the art competence and energy technology through traditional on site construction and our new prefabricated modules."

Get an initial quote in one day

Our proprietary digital tool keeps costs down for planning, energy analysis and system design of your energy solution. The configurator reduces the workflow from several weeks to a single day and enables an individualized quote for you. In addition, it also creates qualified drawings for your building.

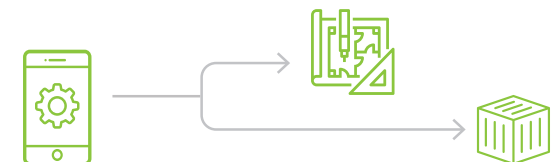
"of"?

Tailoring your solution

The ES configurator is based on our overall experience and Sweden's foremost energy analysts and tens of thousands system facilities.

By entering information about the building, the existing system, desired effect and geographical location you receive a customized system.

A system drawing and component list are also generated for ES NordFlex.



Through prefabrication and digitizing we can offer you renewable energy at reduced investment and energy costs.

Our process

System development

1

THE ES CONFIGURATOR
A digital tool that handles:

- Energy analysis
- System configuration
- Component specification
- Costs/tender

Up to 80% cost and time reduction

Construction

2

INDUSTRIALIZED PRODUCTION
Replaces:

- Builders
- Installer
- Plumber
- Electrician
- Cooling technician
- Control engineer

40– 60% cost and time reduction

Installing

3

PLUG-AND-PLAY
Efficient and simplified installation of prefabricated energy modules.

OPTIMIZED SYSTEMS BUILT ON SITE*
Modular NordFlex and HeatStar DX

Quality assured construction and installation

The prefabrication replaces several steps and simplifies the process of construction and installation. For you the industrialization and rational serial production leads to significantly lower costs – and with better quality assurance than the conventional built on site solutions. You get a smooth “Plug and play” installation with a complete, tailor-made heat pump system.



Operational system

Traditional process

1

Energy analysis

2

System dimensioning

3

Component specification

4

Investment analysis

5

Tender

5

Builder

6

Installer

7

Plumber

8

Electrician

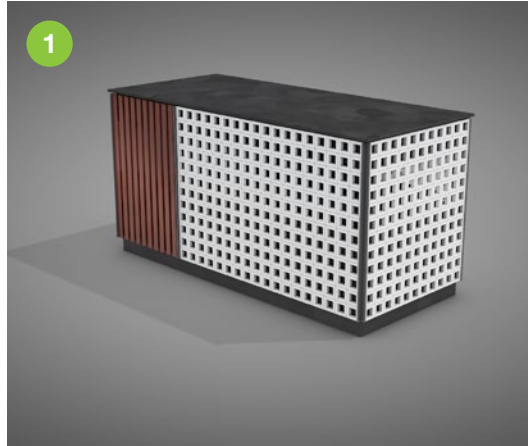
9

Refrigeration technician

10

Control engineer

**Traditional installation process*



ES Plug-in modules



- 1 To maximize the energy recovery the EcoStation can be placed in connection with the buildings exhaust air, usually on the roof.
- 2 EcoStation is perfect when connecting to all kinds of cultural buildings and churches for energy efficiency.
- 3 An EcoStation can be custom made and easily be complemented with a variety of utility features, like this with bicycle parking.
- 4 The plug-in module is perfect for temporary needs to save energy and reduce costs. A simple and efficient installation for a limited time and then transferable to other buildings and sites.
- 5 Thanks to its mobility, HeatBox can be used for temporary heating or cooling needs, such as construction sites.

Our plug-in modules are innovative, flexible and complete – a custom-made, prefabricated energy module available in three different product versions. A stable industrial quality is guaranteed through series production in the factory. For temporary use during the construction phase the solution delivers inexpensive and environmentally friendly heating with simple installation.

The building's energy performance and operating costs are improved which in conjunction with the better environmental profile, increases the value of the property.

Flexible placement – permanent and temporary

A plug-in module can be placed nearby or on the roof of the building to be heated, but it does not need to be placed in direct connection to it. This creates space and utility areas inside the building resulting in a direct value to you.

Benefits for property owners, managers and society

- Lower energy consumption
- Higher direct yield
- Increased property value
- Smoother installation
- Better monitoring
- Switching to greener energy delivery
- Increased utility space

Benefits for new production projects

- Shorter construction time
- Reduced costs during the construction phase
- Better profitability in projects
- Reduced environmental impact during the construction phase
- Increased property value
- Reduced environmental impact for the property
- Reduced energy consumption and better monitoring
- Increased utility space

SWEDISH INDUSTRIALIZED
CLEAN-TECH

Think inside the box

Plug-in modules

The flexible, prefabricated energy modules are available in three product versions:

• ES EcoStation

When the plug-in module is customized to match the existing surroundings, it's called EcoStation.

It's equally useful for connecting to cultural buildings as innovative new architecture. An EcoStation can also easily be complemented with utility functions to match the environment.

• ES HeatBox Hydro

A mobile heat pump module that supplies energy to fans through hot water for temporary heating of all kinds of spaces such as, construction sites and warehouses

• ES HeatBox Air

A mobile heat pump module with the same features such as HeatBox Hydro but where the heating or cooling is instead distributed directly to the ventilation in your building.

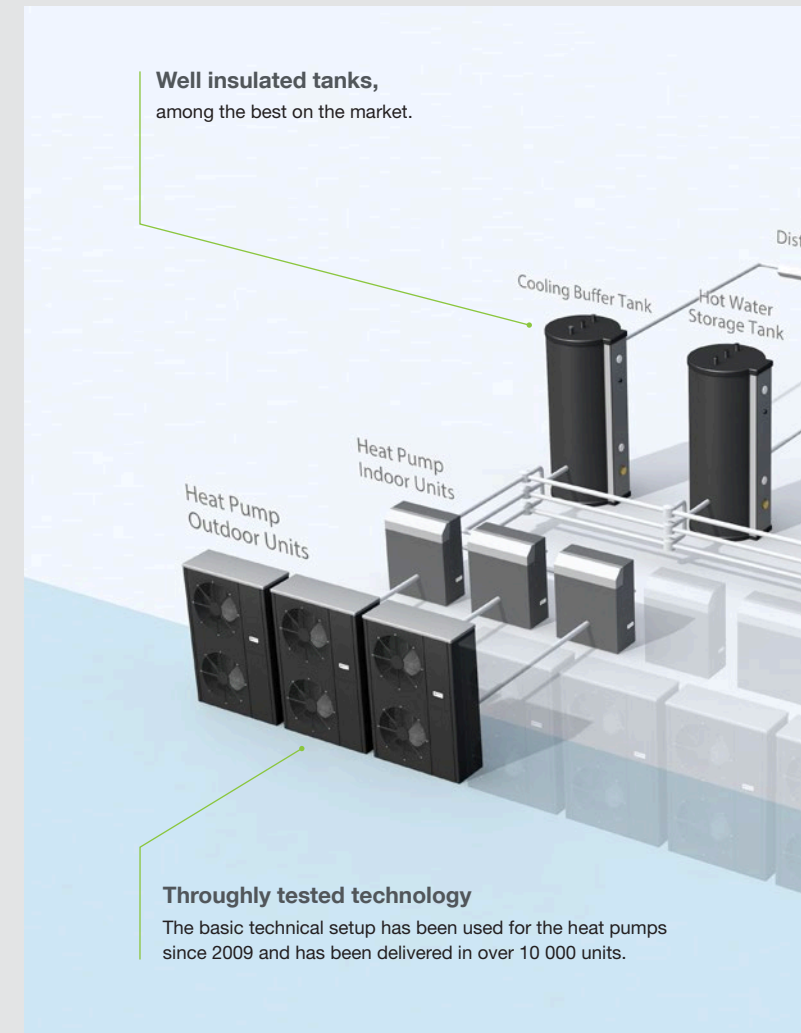
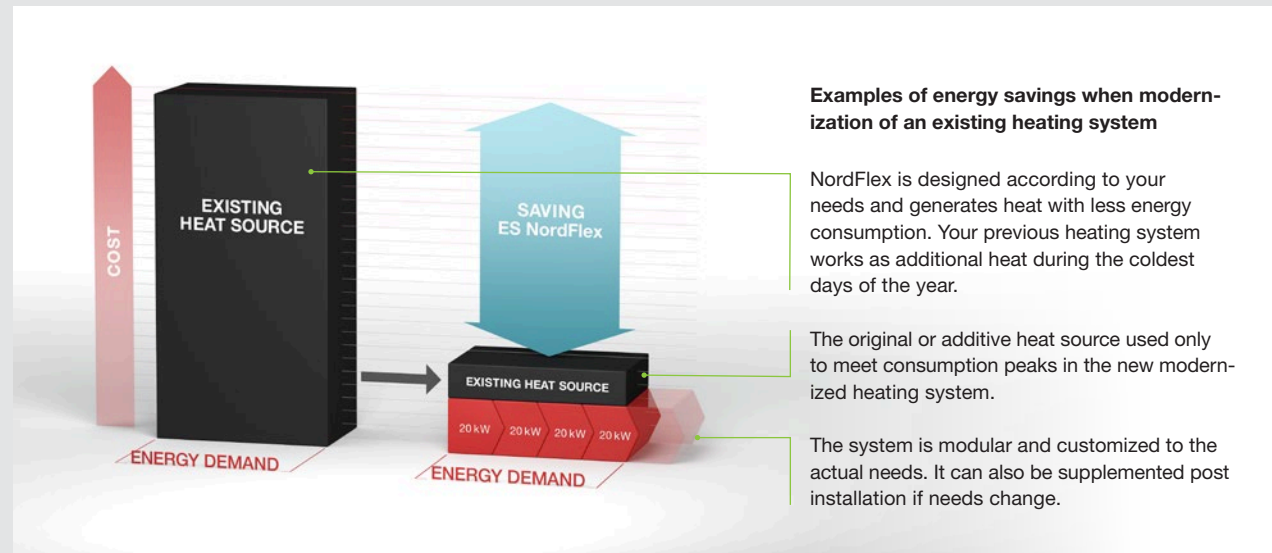
•E|S® NordFlex

ES NordFlex is a highly efficient, heat pump system developed by Swedish engineers offering maximum energy efficiency. It's a secure total solution for heating, cooling and tap water which is equally suitable for modernizing an existing heating system or for new installation.

NordFlex is developed for small and medium-sized commercial buildings and provides you, as a property owner, with an overview and control of the indoor climate. It also provides full control of the heating system through browser or smartphone even when you are not present in the building.

NordFlex creates a customized heating system with heat pumps that makes energy supply in your building much more efficient. The system can be combined with other supplementary and additive heat sources regardless if it is electricity, oil, wood, pellets or district heating.

You get a modern and reliable heating and cooling system and tap water production with capacity up to 140 kW. NordFlex is easy to install and it's modular concept with heat pumps makes it suitable for all needs. It can also be supplemented post installation if needs change.



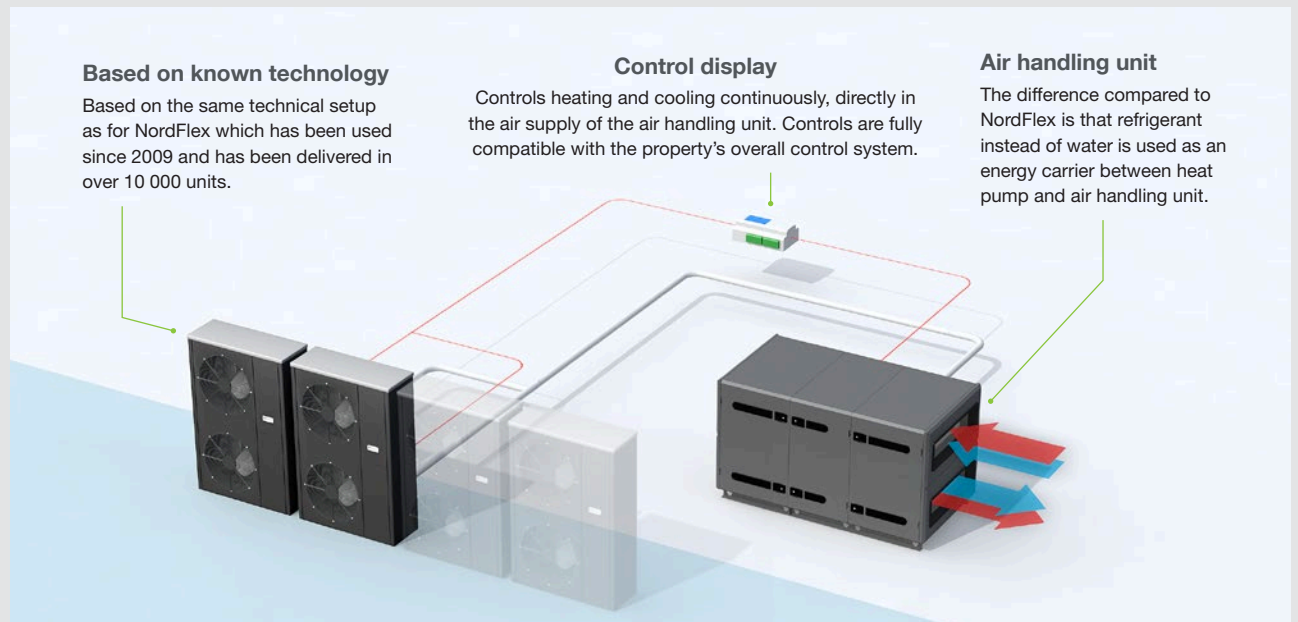
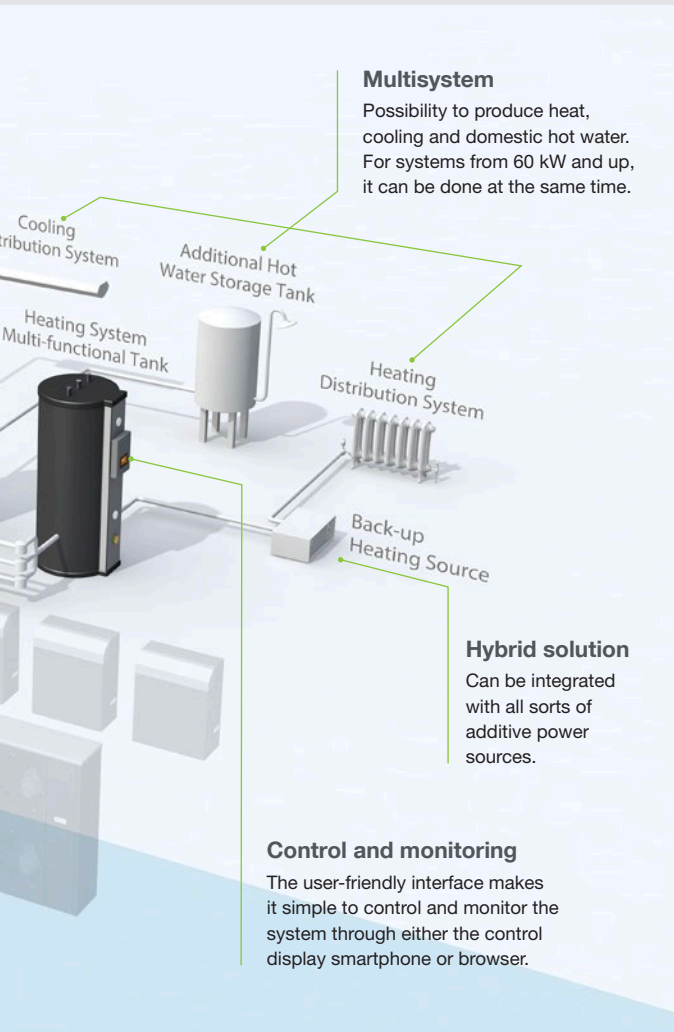
• E|S[®] HeatStarDX

The HeatStar DX is a A NordFlex based development that offers property owners better comfort, lower costs and a tool for environmental certifications, such as LEED and Green Building together with increased property value.

HeatStar DX is a modular heat pump system for energy efficient cooling and heating supplied directly to air in ventilation systems. It is designed to create climate control in balanced ventilation systems and is based on standard NordFlex components. HeatStar

DX delivers heat and cooling directly through the condenser which is placed directly in the airflow of the unit, with a unique integrated control between the heat pump and the air handling unit.

The difference between HeatStar DX and NordFlex is that the refrigerant is used as an energy carrier between the heat pump and air handling unit instead of water. The control is fully compatible with the building's overall control system, which enables optimized climate control.



Want to know more?

We can help you take control of your property's climate and choose the right energy solution that meets your needs and challenges. Energy Save can be your consultant when it comes to optimizing your building energy systems to maintain or obtain an environmental certification and of course reduce both consumption and cost. You can also contact your local supplier directly among our distribution and installation partners.

Our energy efficient solutions are suitable for:

Existing properties, new production and all kinds of temporary and mobile solutions including construction site heating and drying.

Contact us today if you would like to:

- Reduce your energy costs
- Reduce investment costs
- Improve your indoor climate
- Invest in a sustainable energy solution

About Energy Save

Swedish ES Energy Save AB develops and offers cost-effective, smart and flexible products for maximum energy efficiency. We have many years of experience in developing heat pumps for the Nordic market with more than 10,000 units installed. We work with the industries best partners for your building. We package Scandinavian cutting-edge expertise and innovative energy technology through

prefabricated energy modules. We make them globally available through our Chinese production platform that complements us with resource efficient production capacity.

Our main target is to always be the market leader offering the best comparison of price to performance ratio to our customers.

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