

NORD

## We have the solution

Best in PV usage with HEAT PUMP technology

# NORD brings smart solutions for environmentally friendly buildings

NORD

## **Introduction of NORD HT**

NORD HT AS is an association of technical companies and renowned prestigious universities from the EU. (NORD HT AS) were launched in 2014 with the support of funding from Norwegian funds.

The main vision of NORD HT AS is to connect the renewable energy, domestic heating, domestic hot water and electromobility sectors for residential and small industrial applications. The intelligent design allows maximum use of available green energy. As a result, savings are maximised and the return on investment is shortened.

NORD HT AS has a logistics base with strategic partners to be close to its customers in terms of supply and support.









## **Cooperation with NORD worldwide**

NORD HT AS has joined an international cluster for the transfer of know-how and further development of its products within European research institutions and global technology companies. The goal of this century is the most advanced renewable energy technologies that are in the interest of our future and the human population.

# NO RDIC E DGE

The Norwegian-Polish Foundation cooperates with the From Field To Energy programme.





Foundation Norwegian-Polish





## NORD's comprehensive solution for green buildings

NORD HT AS presents a comprehensive solution for the green building concept, based on the basic requirements for photovoltaic system, DHW and heating. Among the basic requirements in the development of the system, emphasis was placed on maximising the use of self-generated energy from the sun, self-sufficiency, unrivalled economic savings and, last but not least, environmental protection. The company motto "We have the solution" applies doubly to system variability. The revolutionary solution can be configured "turnkey" for the smallest apartment units, single-family homes or entire apartment buildings. The most comprehensive set-up offers a complete NORD PV system (panels, hybrid inverter, batteries), a monoblock air-to-water heat pump, EcoBoiler, EV charger and an intelligent control system for management and monitoring.









## The main advantages of the NORD solution







## **EcoMode** - efficient use of solar energy surpluses

- Storage of surplus in DHW
- Storage of surplus in the accumulation tanks
- Storage of surplus in underfloor heating

## **EcoCloud** - online access from anywhere in the world

- Remote control of the entire NORD system
- Graphs and history for service purposes
- Secure operation on Amazon Cloud

## **EcoControl** - unique whole-home control

- Real-time overview of PV performance
- Real-time overview heat pump performance
- Individual control of heating circuits in the house



Eco Cloud

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## The uniqueness of the NORD solution

• EcoMode - is a key function of the EcoControl control system, which optimises the use of the solar energy produced. It ensures that no energy is lost and distributes it where it is needed most. This feature allows you to set priorities for individual appliances or create a schedule for efficient energy use.

#### Individual EcoMode schedule



#### Individual heating circuit schedule Kitchen with EcoMode switched off



#### Individual heating circuit schedule Kitchen with EcoMode on



#### Rozhraní EcoCloud



♦ EcoCloud - is part of a unique control system with a secure backend on Amazon servers, ensuring maximum stability and security. The user can monitor and intuitively configure the complete system in detail. Installers and service technicians can take advantage of remote diagnostics of all components, allowing for quick and efficient solutions to any service interventions with minimal costs.

#### Patented water heating



♦ Patented DHW preparation - includes the innovative EcoBoiler water heater with a unique heating element for efficient use of solar energy. Featuring tri-zone technology with low-power heating elements, the EcoBoiler makes maximum use of green energy, making it the ideal choice for those who want to really reduce their DHW costs.

## The uniqueness of the NORD solution

Intelligent heating system - Heat smartly with an intelligent system using the EcoHeat monoblock heat pump. This technology provides controlled thermal comfort in every room and significant cost savings by integrating into a single NORD system with intelligent control (EcoControl) and use of self-generated energy (EcoMode).

#### Intelligent EcoHeat settings



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A comprehensive system for your home

Unified system - NORD HT AS offers a single comprehensive system for home energy independence, bringing unique efficiency and compatibility of all components from one manufacturer. Solar energy is stored in batteries and used for heat pumps, boiler, electric car charging and other appliances. This system facilitates management and monitoring with minimal service costs thanks to remote diagnostics and unified support.

(→ 10-year warranty - All NORD products with the Eco label carry a unique 10-year warranty. Thanks to many years of development and careful testing, we guarantee not only the longevity and reliability of our products, but also a completely exceptional level of care for our customers. Thanks to this guarantee, our customers can rely on the quality of our products and our consistent professional service, which is unrivalled in today's market.



\*for all "Eco" products

## **NORD products - photovoltaics**



#### NORD EcoSeries

NORD's designer all-black panels feature an exceptional 25-year product warranty, double glazing, use of the back side to collect even more sunlight, and Topcon's most powerful N-TYPE cells.



#### NORD EcoMaster

You won't find a more reliable and efficient option than the EcoMaster on the asymmetrical hybrid inverter market. Combine it with EcoControl or Power Genius 3000 for intelligent management and monitoring to ensure maximum yield from your own power plant.

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#### NORD EcoStorage

LiFePO<sub>4</sub> battery storage with exceptional lifetime, 10-year warranty and safety meeting the highest standards is another link in the NORD compatible solution.

NORD Power Genius 3000 (incl. Solid State Relay)



The intelligent energy manager is suitable for configurations in houses where only NORD photovoltaic systems are integrated. It sophisticatedly distributes the energy produced in the home so that it is used maximally and efficiently to ensure an even faster payback.

#### NORD EcoCharge

Intelligent EV/plug-in hybrid charger with the ability to charge with 100% green energy and integration into the NORD system.



## **NORD products - heating and hot water**

NORD Ecoheat (version with two fans)



(single fan version)



The excellent monobloc air-to-water heat pump is appreciated by the installer for its simple installation, but especially by the end user for its exceptional efficiency, low consumption (energy label A+++), low noise and integration into the NORD system. Comfort is ensured by the possibility of adjusting the heating by individual rooms and by the substantial savings in operating costs in conjunction with the EcoMode function (up to 60% if the components are sized appropriately).





The brain of the NORD total solution connects all NORD components from photovoltaics to heating. With the EcoMode function, you maximize the benefits of photovoltaics and increase the efficiency of the entire NORD system. Everything works on the EcoCloud platform for intuitive management and monitoring. Make the most of your own photovoltaics and minimise heating and DHW costs!



Floor regulator EcoFloor heating controller

NORD

up to 8x



Designed specifically for operation with photovoltaic energy. The division of the tank into 3 heated layers allows the use of patented heating elements that are capable of heating even with low power outputs. In this way, the boiler allows the DHW to be heated even at lower photovoltaic power outputs, for example at lower illuminance, thus maximising its use, significantly better than a conventional boiler. There is a standard version of the wall-mounted boiler as well as a minimalist Flat design variant with the option of recessing the boiler into the wall.

The EcoFloor module supports thermoelectric drives for 8 heating zones and obtains information about the current temperature in the zones from the touch panels and thermostat and from temperature sensors located in each zone. The module enables significant savings in thermal energy consumption through precise temperature control in individual rooms of the building's heating zones. Configuration and control of the heating zones is done from the panel menu or the mobile app. The module works with the EcoControl base module and EcoTherm temperature sensors.

## NORD EcoCloud & EcoDirect - everything at your fingertips from anywhere

For efficient configuration and real-time management of the entire system, NORD provides a web-based system based on the EcoCloud cloud solution and the EcoDirect mobile app for controlling and configuring the EcoControl system via the EcoCloud web module using a BT connection. EcoDirect can also be used to manage EcoFloor modules.

#### **EcoCloud advantages:**

- Overview of the entire system
- Real-time diagnostic graphs
- User settings
- Service/installation settings
- Changing the operating mode

$( \mathbf{O} )$	Operating schedules
$(\mathbf{O})$	Online manufacturer service support
$( \mathbf{O} )$	Online software upgrade
$( \mathbf{O} )$	Reduced service costs (remote acces

Alarms

#### **EcoDirect advantages:**

- EcoCloud registration
- For IOS and Android
- Local service settings
- e access to installation) 🜔 Local installation settings
  - Change operating mode







Mobile app NORD EcoDirect

## NORD EcoCloud & EcoDirect - easy work for service and maintenance



NORD EcoCloud



A great advantage of the NORD system is the possibility of real-time monitoring of the installation thanks to EcoCloud operation graphs. In the menu of this EcoCloud section, it is possible to select the parameters that we want to display in a given period of time (day/week/month). This allows us to customize the graphs and accurately evaluate up to 33 parameters at a time, and thus perform an accurate diagnosis of the situation. This feature saves you time and money and greatly facilitates the work of diagnosing fault conditions but also serves as a convenient overview tool for the user.



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