

AIR-TO-WATER
HEAT PUMPS



2024

**SMART HOME HEATING FOR
OPTIMAL COMFORT**



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Air-to-water heat pumps

More and more people are choosing air-to-water heat pumps as the primary appliance for a comfortable living climate. It is an ecological and economical solution for heating your home.

Experience Nordic technology at an affordable price with NØRDIS presenting the Optimus Pro series of high-quality air-to-water heat pumps. This modern heating, cooling, and hot water production system operates efficiently in outdoor temperatures ranging from -25 to +43 degrees. The units are optimally adapted to the climate in the Nordic countries.

NØRDIS OPTIMUS PRO SPLIT AIR-TO-WATER HEAT PUMPS WITHOUT DHW TANK

Air-to-water heat pumps without an integrated hot water tank have indoor units with three output levels. The heat pump system is compatible with underfloor heating, radiators, fan coil units and domestic hot water tanks. Therefore, you do not have to invest in redesigning the entire system.

NØRDIS OPTIMUS PRO SPLIT AIR-TO-WATER HEAT PUMPS WITH DHW TANK

Air-to-water heat pumps can be combined with two sizes of indoor units with built-in DHW tanks. The latest technologies integrated in the devices ensure high performance and the lowest operating costs. The combination of heat pump units offers optimal options for heating, cooling and domestic hot water.

NØRDIS OPTIMUS PRO MONO INTEGRATED AIR-TO-WATER HEAT PUMPS

The cost-effective Monoblock is a highly efficient system in a universal unit that is installed outdoors. The unit is simple and quick to install. It is compatible with any other heating or hot water system in the house.

NØRDIS STANDARDS FOR AIR-TO-WATER HEAT PUMPS

ECONOMY



ENERGY SAVING

NØRDIS Optimus Pro heat pumps are an ecological and environmentally friendly solution for heating and hot water production with renewable energy sources.

Energy efficiency class A+++.



ECOLOGICAL R32 REFRIGERANT

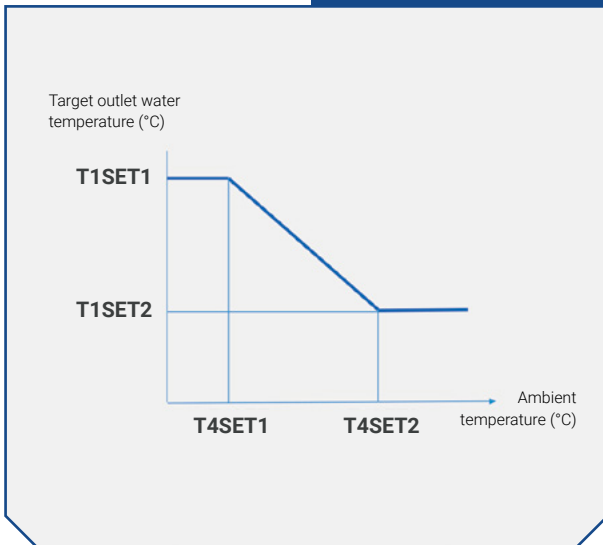
R-32 is an environmentally friendly refrigerant used in modern equipment.

Advantages over its predecessor R410A:

- Low global warming potential (GWP) refrigerant.
- Higher heat transfer coefficient for better performance.
- The system requires less refrigerant.

CERTIFICATES





WEATHER TEMPERATURE CURVE

The weather temperature curve function adjusts water temperature based on outdoor air temperature changes. As outdoor temperature rises, heating load decreases, and water temperature rises; conversely, as outdoor temperature falls, heating load increases and water temperature decreases. The same principle applies to cooling load changes. A total of 32 fixed weather temperature curves and one user-defined curve are available to meet different temperature requirements.



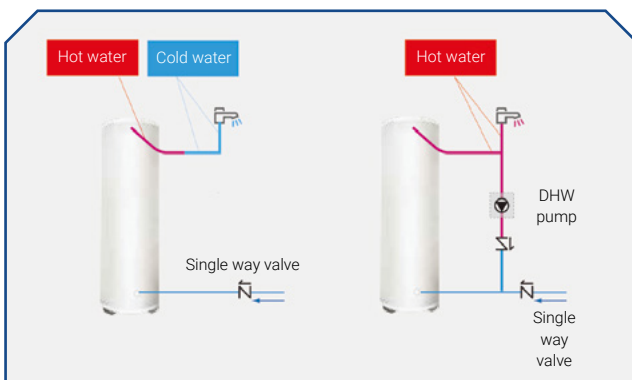
SMART GRID

The heat pump adjusts operation according to various electrical signals. The power consumption of the system can be automatically adjusted according to the peak and valley power to reduce the power consumption as much as possible.

- Cheap electrical signal: Hot water is effectively produced in DHW mode.
- Normal electrical signal: Operates according to the user's needs.
- Expensive electrical signal: Set the maximum operating time for heating and cooling mode.

CONVENIENT CONTROLLER OR CONTROL VIA MOBILE APP (WIFI)

The NØRDIS heat pumps are controlled by an advanced multifunction controller or an app on a smart device. The app constantly provides optimal system settings to achieve maximum energy savings.



DHW PUMP FUNCTION

The DHW pump function is used to return the water in the water pipe network to the hot water tank according to the set timer. A total of 12 timers can be set for a day so that the user can adapt the operating time of the domestic hot water pump to his habits to ensure that the hot water can be used without long waiting times.

NØRDIS STANDARDS FOR AIR-TO-WATER HEAT PUMPS

COMFORT



SILENT MODE

Due to the high degree of optimisation of the technical solutions, the sound pressure level of the NØRDIS Optimus Pro 4 kW units is only 35 dB (A) at a distance of 3 metres.

Test condition:

1. Evaporator air in 7°C, 85% R.H., Condenser water in/out 30/35°
2. Condenser air in 35°C. Evaporator water in/out 23/18°C



SCHEDULE

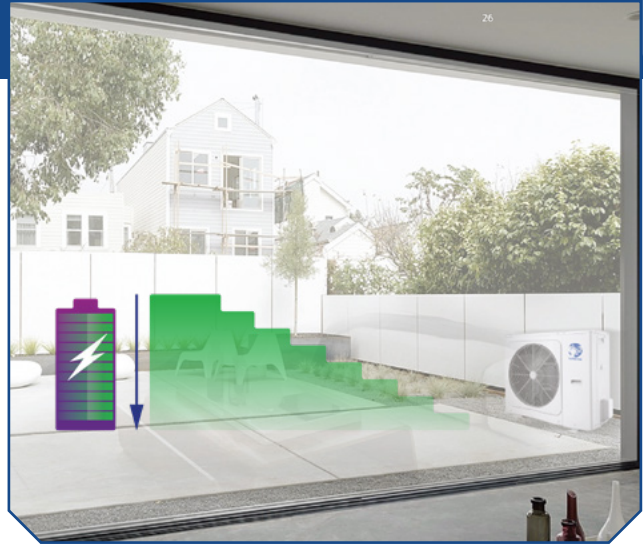
NØRDIS air-to-water heat pumps operate automatically according to consumer habits. Maximum user-friendliness is ensured by setting the indoor climate and hot water preparation (with the integrated DHW tank in the unit) using scheduling.

FEATURES FOR EQUIPMENT HIGH RELIABILITY



PREHEATING AND DRYING UP FOR FLOOR

NØRDIS air-to-water heat pumps feature two floor heating modes to prevent cracks and deformations. The first is a safe drying mode for the floor slab post underfloor heating system installation, before floor covering is added. The second is a heating mode for the system's initial start-up. Both modes gradually increase water temperature to protect the floor slab and covering.

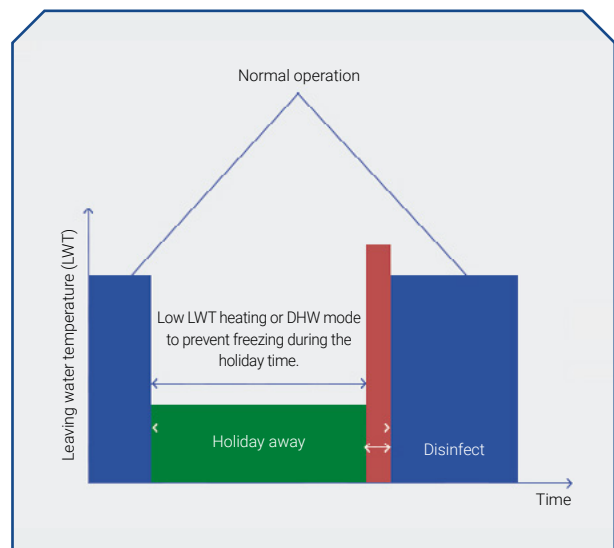


POWER LIMITATION FUNCTION

The power limiting function makes the unit suitable for a wide range of power supplies. There are 8 configurations from which the user can choose depending on the maximum access current allowed. Only one simple setting is required on the wired controller, making the units suitable for a wide range of applications.

HOLIDAY FUNCTION

The holiday away function is a mode to improve system reliability and save energy. The unit operates in heating mode and/or DHW mode with low water temperature to prevent the water from freezing during the holiday. The user can set the disinfection mode before returning home to ensure that germ-free water is available upon return.





NØRDIS Optimus Pro Split

DC Inverter



AIR TO WATER HEAT PUMPS

The NØRDIS Optimus Pro Split series is based on DC technology. This technology optimises the motor speed and ensures a comfortable amount of heat in the room with the lowest electricity consumption, even when the outdoor temperature drops to -25°C.

| Outdoor unit model | | | HOP6W ODU | HOP8W ODU | HOP10W ODU | HOP12W ODU3 | HOP16W ODU3 |
|--|----------------------|-------|-----------------------------------|-----------------------------|------------|----------------|-------------|
| Compatible indoor units without DHW tank | | | HOP60WIDU | HOP100WIDU arba HOP100WIDU3 | | HOP160WIDU3 | |
| Compatible indoor units with DHW tank | | | HOP100/190IDU arba HOP100/190IDU3 | | | HOP160/240IDU3 | |
| Heating A7W35 ¹ | Capacity | kW | 6,20 | 8,30 | 10,00 | 12,10 | 16,00 |
| | Rated input | kW | 1,24 | 1,60 | 2,00 | 2,44 | 3,56 |
| | COP | | 5,00 | 5,20 | 5,00 | 4,95 | 4,50 |
| Heating A7W45 ² | Capacity | kW | 6,35 | 8,20 | 10,00 | 12,30 | 16,00 |
| | Rated input | kW | 1,69 | 2,08 | 2,63 | 3,24 | 4,44 |
| | COP | | 3,75 | 3,95 | 3,80 | 3,80 | 3,60 |
| Heating A7W55 ³ | Capacity | kW | 6,00 | 7,50 | 9,50 | 12,00 | 16,00 |
| | Rated input | kW | 2,00 | 2,36 | 3,06 | 3,87 | 5,52 |
| | COP | | 3,00 | 3,18 | 3,10 | 3,10 | 2,90 |
| Heating A-7W35 ⁹ | Capacity | kW | 6,10 | 7,10 | 8,25 | 10,00 | 13,30 |
| | Rated input | kW | 2,00 | 2,18 | 2,62 | 3,33 | 4,93 |
| | COP | | 3,05 | 3,25 | 3,15 | 3,00 | 2,70 |
| Cooling A35W18 ⁴ | Capacity | kW | 6,55 | 8,40 | 10,00 | 12,00 | 14,90 |
| | Rated input | kW | 1,34 | 1,66 | 2,08 | 3,00 | 4,38 |
| | EER | | 4,90 | 5,05 | 4,80 | 4,00 | 3,40 |
| Cooling A35W7 ⁵ | Capacity | kW | 7,00 | 7,40 | 8,20 | 11,60 | 14,00 |
| | Rated input | kW | 2,33 | 2,19 | 2,48 | 4,22 | 5,71 |
| | EER | | 3,00 | 3,38 | 3,30 | 2,75 | 2,45 |
| Energy efficiency class ⁶ | Water outlet at 35°C | class | A+++ | | | | |
| | Water outlet at 55°C | class | A++ | | | | |
| SCOP ⁶ | 35°C | | 4,95 | 5,22 | 5,2 | 4,81 | 4,62 |
| | 55°C | | 3,52 | 3,37 | 3,47 | 3,45 | 3,41 |
| SEER ⁶ | 7°C | | 5,37 | 5,83 | 5,98 | 4,86 | 4,67 |
| | 18°C | | 8,21 | 8,95 | 8,78 | 7,04 | 6,71 |

FEATURES

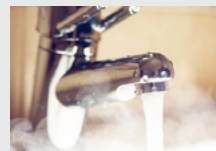
- High energy efficiency class A+++ for energy saving;
- Refrigerant R32 75% less impact on global warming;
- DC Inverter technology enables precise consumption at actual load;
- Minimum operation ambient temperature down to -25°C;
- Extremely quiet - two silent modes;
- Smart Grid certification.



| Outdoor unit model | | | HOP6WODU | HOP8WODU | HOP10WODU | HOP12WODU3 | HOP16WODU3 |
|--------------------------------------|-------------------------|--------------|--------------|-------------|--------------|------------|------------|
| Power supply | V/Ph/Hz | 220-240/1/50 | | | 380-415/3/50 | | |
| Rated power | W | 2600 | 3300 | 3600 | 5400 | 6100 | |
| Rated current | A | 12,0 | 14,5 | 16,0 | 9,0 | 11,0 | |
| Power cable | mm ² | 3x2,5 | | | 5x2,5 | | |
| Automatic switch | A | C16 | | C20 | C16~3 | | |
| Refrigerant | Type (GWP) | R32 (675) | | | | | |
| | Quantity in the device | kg | 1,5 | 1,65 | | 1,84 | |
| Refrigerant pipes | Liquid phase | mm (col) | 6,35 (1/4") | 9,52 (3/8") | | | |
| | Gas phase | mm (col) | 15,88 (5/8") | | | | |
| Between the indoor and outdoor units | Height difference, max. | m | 20 | | | | |
| | Pipe length, min. | m | 3 | | | | |
| | Pipe length, max. | m | 30 | | | | |
| Additional refrigerant charge | Quantity | g/m | 20 | 38 | | | |
| | Pipe length | m | maks.15 | | | | |
| Compressor | DC two rotor inverter | | | | | | |
| Fan | DC electric motor | | | | | | |
| Sound power level ⁷ | dB(A) | 58 | 59 | 60 | 64 | 68 | |
| Sound pressure 1 m | dB(A) | 45 | 46 | 49 | 50 | 55 | |
| Sound pressure (2 silent mode) | dB(A) | 40 | 41 | 41 | 43 | 43 | |
| Dimension (W x H x D) | mm | 1008x712x426 | 1118x865x523 | | | | |
| Dimension of Package (W x H x D) | mm | 1065x810x485 | 1190x970x560 | | | | |
| Net / Gross weight | kg | 58 / 63.5 | 75 / 89 | | 97 / 110.5 | | |
| Operation ambient temperature range | Heating | °C | -25 ~ +35 | | | | |
| | Cooling | °C | -5 ~ +43 | | | | |
| | DHW | °C | -25 ~ +43 | | | | |



Ambient temperature down to **-25°C**



Water temperature up to **65°C**

NØRDIS Optimus Pro Split without DHW tank



FEATURES

- Modern wired controller for easy operation;
- Integrated WiFi module for unit control by smartphone;
- *Electronic* circulation pump;
- *Alfa Laval* heat exchanger;
- Weather temperature curve function;
- DHW disinfection;
- Integrated additional electric water heater.

Air-to-water heat pumps without an integrated hot water tank have three indoor units with different power. The heat pump system is compatible with underfloor heating, radiators, fan coil systems and hot water tanks. So you do not have to invest in redesigning the entire system.

MULTIFUNCTIONALITY



DHW
Operation Priority



AUTO mode



Disinfect mode



ECO mode



Preset water
temperature



Fast DHW



Daily shedule



Weekly shedule

PRELIMINARY HEAT PUMP CALCULATOR

With just a few clicks, you can find out the Nordis heat pump that is right for your home.

Heated area: m²

Enter the heat demand for heating: W/m²

Or choose the energy class of your home:

A++ A+ A B C D

Will the heat pump prepare domestic hot water? Yes No

Calculate

NORDIS-AC.COM/CALCULATOR-PAGE/

Quickly and easily calculate the air-to-water heat pump from the NØRDIS Optimus Pro series that is suitable for your needs.

| Indoor units without DHW tank | | | HOP60W IDU | HOP100W IDU | | HOP100W IDU3 | | HOP160W IDU3 | | |
|-------------------------------------|------------------------|----------------|--------------|-------------|------------------------|--------------|------------|--------------|-------------|--|
| Compatible outdoor models | | | HOP6W ODU | HOP8W ODU | HOP10W ODU | HOP8W ODU | HOP10W ODU | HOP12W ODU3 | HOP16W ODU3 | |
| Built-in electric heater | kW | 3 | | | 9 (3+3+3) ^B | | | | | |
| Power supply | V/Ph/Hz | 220-240/1/50 | | | 380-415/3/50 | | | | | |
| Rated power | W | 3095 | | | 9095 | | | | | |
| Rated current | A | 13,5 | | | 13,3 | | | | | |
| Power cable | mm ² | 3x2,5 | | | 5x2,5 | | | | | |
| Communication cable, AWG18 shielded | mm ² | 2x0,75 | | | | | | | | |
| Automatic switch | A | C16 | | | C16~3 | | | | | |
| Sound power level ⁷ | dB(A) | 38 | 42 | | | 43 | | | | |
| Sound pressure | dB(A) | 28 | 30 | | | 32 | | | | |
| Dimension (W x H x D) | mm | 420x790x270 | | | | | | | | |
| Dimension of Package (W x H x D) | mm | 525x1050x360 | | | | | | | | |
| Circulation Pump | Type | DC, electronic | | | | | | | | |
| | Maximum lifting height | m | 9 | | | | | | | |
| | Power | W | 5~90 | | | | | | | |
| Minimum water flow | m ³ /h | 0,36 | | | 0,6 | | | | | |
| Operating limits for water flow | m ³ /h | 0,4 ~ 1,25 | 0,4 ~ 2,1 | | | 0,7 ~ 3,0 | | | | |
| Heat exchanger | Plate, soldered | | | | | | | | | |
| Expansion tank | l | 8 | | | | | | | | |
| Refrigerant pipes | Liquid phase | mm (col) | 6,35 (1/4") | 9,52 (3/8") | | | | | | |
| | Gas phase | mm (col) | 15,88 (5/8") | | | | | | | |
| Water pipe connection | R1" | | | | | | | | | |
| Net / Gross weight | kg | 43 / 49 | | | 45 / 51 | | | | | |
| Supply water temperature | Heating | °C | +25 ~ +65 | | | | | | | |
| | Cooling | °C | +5 ~ +25 | | | | | | | |
| | DHW | °C | +20 ~ +60 | | | | | | | |
| Ambient temperature | °C | 0 ~ +35 | | | | | | | | |
| Water pressure in the system | bar | 1 ~ 3 | | | | | | | | |



NØRDIS Optimus Pro Split with DHW tank



FEATURES

- Integrated stainless steel water tank with 190 l or 240 l capacity;
- Modern wired controller for easy operation;
- Integrated WiFi module for device control by smartphone;
- *Electronic* circulation pump;
- *Alfa Laval* heat exchanger;
- Weather temperature curve function;
- DHW disinfection;
- Integrated additional electric water heater.

Air-to-water heat pumps with integrated hot water tank have two units with different power and volume. The latest technologies integrated in the units ensure high performance and the lowest operating costs. The combination of heat pump units offers optimal options for heating, cooling and hot water.

MULTIFUNCTIONALITY



DHW
Operation Priority



AUTO mode



Disinfect mode



ECO mode



Preset water
temperature



Fast DHW



Daily shedule



Water heater
190 / 240 l



NORDIS-AC.COM/COMMISSIONING

After purchasing the NØRDIS air-to-water heat pump, please contact one of the companies listed on the nordis-ac.com website that employ certified NØRDIS equipment service and commissioning specialists. Upon inspection and evaluation of the equipment assembly, system installation, and unit operation, the specialist will:

- Program the parameters of the heat pump.
- Start up the heating system and provide operating instructions.
- Instruct the customer on the correct operation of the device.
- Explain the terms of the warranty.

| Indoor units with DHW tank | | | HOP100/190 IDU | | | HOP100/190 IDU3 | | | HOP160/240 IDU3 | | |
|--|------------------------|-------------------|---------------------------|-------------|-------------|------------------------|-----------|------------|-----------------|-------------|--|
| Compatible outdoor models | | | HOP6W ODU | HOP8W ODU | HOP10W ODU | HOP6W ODU | HOP8W ODU | HOP10W ODU | HOP12W ODU3 | HOP16W ODU3 | |
| Efficiency class for hot water production (temperate climate zone) | | class | A+ | | | | | | | | |
| | | COP | 3,10 | 3,02 | 3,10 | 3,02 | 3,00 | | | | |
| Water tank capacity | Capacity | l | 190 | | | | | | 240 | | |
| | Material | | Stainless steel, SUS 316L | | | | | | | | |
| | Max water temperature | °C | 70 | | | | | | | | |
| | Isolation | | Polyurethane | | | | | | | | |
| Built-in electric heater | | kW | 3 | | | 9 (3+3+3) ⁸ | | | | | |
| Power supply | | V/Ph/Hz | 220-240/1/50 | | | 380-415/3/50 | | | | | |
| Rated power | | W | 3095 | | | 9095 | | | | | |
| Rated current | | A | 13,5 | | | 13,5 | | | | | |
| Power cable | | mm ² | 3x2,5 | | | 5x2,5 | | | | | |
| Communication cable, AWG18 shielded | | mm ² | 2x0,75 | | | | | | | | |
| Automatic switch | | A | C16 | | | C16~3 | | | | | |
| Sound power level ⁷ | | dB | 38 | 40 | 38 | 40 | 44 | | | | |
| Dimension (W x H x D) | | mm | 600x1683x600 | | | | | | 600x1943x600 | | |
| Dimension of Package (W x H x D) | | mm | 730x1920x730 | | | | | | 730x2182x730 | | |
| Circulation Pump | Type | | DC, electronic | | | | | | | | |
| | Maximum lifting height | m | 9 | | | | | | | | |
| | Power | W | 5~90 | | | | | | | | |
| Minimum water flow | | m ³ /h | 0,36 | | | | | | 0,6 | | |
| Operating limits for water flow | | m ³ /h | 0,4 ~ 1,25 | 0,4 ~ 2,1 | 0,4 ~ 1,25 | 0,4 ~ 2,1 | 0,7 ~ 3,0 | | | | |
| Heat exchanger | | | Plate, soldered | | | | | | | | |
| Expansion tank | | l | 8 | | | | | | | | |
| Refrigerant pipes | Liquid phase | mm (col) | 6,35 (1/4") | 9,52 (3/8") | 6,35 (1/4") | 9,52 (3/8") | | | | | |
| | Gas phase | mm (col) | 15,88 (5/8") | | | | | | | | |
| Water pipe connection | Heating/cooling | | R1" | | | | | | | | |
| | Hot water preparation | | R3/4" | | | | | | | | |
| Net / Gross weight | | kg | 140 / 161 | | | | | | 159 / 180 | | |
| Supply water temperature | Heating | °C | +25 ~ +65 | | | | | | | | |
| | Cooling | °C | +5 ~ +25 | | | | | | | | |
| | DHW | °C | +30 ~ +60 | | | | | | | | |
| Ambient temperature | | °C | +5 ~ +35 | | | | | | | | |
| Water pressure in the heating/cooling systemsistemoje | | bar | 1 ~ 2,5 | | | | | | | | |
| Water pressure in the hot water system (cold water) | | bar | 1,5 ~ 3 | | | | | | | | |



NØRDIS Optimus Pro Mono

INTEGRATED AIR-TO-WATER HEAT PUMPS

DC Inverter



The NØRDIS Optimus Pro monoblocks are highly efficient air-to-water heat pumps with low energy consumption. The entire heating system is housed in a universal unit that is installed outdoors. This makes it ideal for homes that do not have adjoining rooms for additional heat pump units. The unit is easy and quick to install.

The NØRDIS Optimus Pro monoblocks are perfectly compatible with any other heating or hot water system already installed in your home. The units ensure low energy consumption, a high energy rating and excellent heating and cooling performance.



OUTDOOR MODULES

FEATURES

- High energy efficiency class A+++ for energy saving;
- Refrigerant R32 75% less impact on global warming;
- DC inverter technology enables precise consumption under real load;
- Minimum operation ambient temperature down to -25°C;
- Extremely quiet - two silent modes;
- Smart Grid certification;
- Advanced wired controller for easy operation;
- Integrated WiFi module for unit control by smart-phone.

| Model | | HOP6W MONO | HOP8W MONO | HOP10W MONO | HOP12W MONO3 | HOP16W MONO3 |
|---|---------------------------------|-------------------|-----------------------|--------------------|--------------------|---|
| Built-in electric heater | | kW | 3 | | 9 | |
| Power supply | | V/Ph/Hz | 220-240/1/50 | | 380-415/3/50 | |
| Rated power | | W | 5700 ¹¹ | 6400 ¹¹ | 6700 ¹¹ | 14500 ¹¹ 15200 ¹¹ |
| Rated current | | A | 27 | 29 | 30 | 23 25 |
| Power cable | | mm ² | 3x4,0 | 3x6,0 | | 5x6,0 |
| Communication cable, AWG18 shielded | | mm ² | 5x0,75 | | | |
| Automatic switch | | A | C32 | | | |
| Heating A7W35 ¹ | Capacity | kW | 6,35 | 8,40 | 10,00 | 12,10 15,90 |
| | Rated input | kW | 1,28 | 1,63 | 2,02 | 2,44 3,53 |
| | COP | | 4,95 | 5,15 | 4,95 | 4,95 4,50 |
| Heating A7W45 ² | Capacity | kW | 6,30 | 8,10 | 10,00 | 12,30 16,00 |
| | Rated input | kW | 1,70 | 2,10 | 2,67 | 3,32 4,57 |
| | COP | | 3,70 | 3,85 | 3,75 | 3,70 3,50 |
| Heating A7W55 ³ | Capacity | kW | 6,00 | 7,50 | 9,50 | 11,90 16,00 |
| | Rated input | kW | 2,03 | 2,36 | 3,06 | 3,90 5,61 |
| | COP | | 2,95 | 3,18 | 3,10 | 3,05 2,85 |
| Heating A-7W35 ⁹ | Capacity | kW | 6,00 | 7,00 | 8,00 | 10,00 13,10 |
| | Rated input | kW | 2,00 | 2,19 | 2,62 | 3,33 4,85 |
| | COP | | 3,00 | 3,20 | 3,05 | 3,00 2,70 |
| Cooling A35W18 ⁴ | Capacity | kW | 6,50 | 8,30 | 9,90 | 12,00 14,90 |
| | Rated input | kW | 1,35 | 1,64 | 2,18 | 3,04 4,38 |
| | EER | | 4,80 | 5,05 | 4,55 | 3,95 3,40 |
| Cooling A35W7 ⁵ | Capacity | kW | 7,00 | 7,45 | 8,20 | 11,50 14,00 |
| | Rated input | kW | 2,33 | 2,22 | 2,52 | 4,18 5,60 |
| | EER | | 3,00 | 3,35 | 3,25 | 2,75 2,50 |
| Seasonal space heating energy efficiency class ⁶ | Water outlet at 35°C | class | A+++ | | | |
| | Water outlet at 55°C | class | A++ | | | |
| SCOP ⁶ | 35°C | | 4,95 | 5,22 | 5,2 | 4,81 4,62 |
| | 55°C | | 3,52 | 3,37 | 3,47 | 3,45 3,41 |
| Refrigerant | Type (GWP) / Charged volume, kg | | R32 (675) / 1,4 | | R32 (675) / 1,75 | |
| Compressor | | | DC two rotor inverter | | | |
| Heat exchanger | | | Plate, soldered | | | |
| Fan | | | DC electric motor | | | |
| Number of fans | | | 1 | | | |
| Circulation pump | Type | | DC, electronic | | | |
| | Max. lifting height | m | 9 | | | |
| | Capacity | W | 5~90 | | | |
| Nominal water flow | | m ³ /h | 1,09 | 1,44 | 1,72 | 2,08 2,73 |
| Operating limits for water flow | | m ³ /h | 0,4 ~ 1,25 | 0,4 ~ 1,65 | 0,4 ~ 2,1 | 0,7 ~ 2,5 0,7 ~ 3,0 |
| Water piping connection | | | R1" | R1 1/4" | | |
| Sound power level ⁷ | | dB (A) | 58 | 59 | 60 | 65 68 |
| Sound pressure level (1m) | | dB (A) | 47 | 48 | 50 | 53 58 |
| Dimensions (W x H x D) | | mm | 1295x792x429 | 1385x945x526 | | |
| Packing dimensions (W x H x D) | | mm | 1375x965x475 | 1465x1120x560 | | |
| Net / Gross weight | | kg | 103/ 126 | 126 / 153 | | 149 / 175 |
| Ambient temperature range | Heating | °C | -25 ~ +35 | | | |
| | Cooling | °C | -5 ~ +43 | | | |
| | DHW | °C | -25 ~ +43 | | | |
| LWT setting range | Heating | °C | +25 ~ +65 | | | |
| | Cooling | °C | +5 ~ +25 | | | |
| | DHW ¹⁰ | °C | +30 ~ +60 | | | |

| Model | | HOP18WMON03 | HOP22WMON03 | HOP26WMON03 | HOP30WMON03 |
|---|---------------------------------|-----------------------|-------------|-------------|-------------|
| Built-in electric heater | | kW | | | |
| Power supply | | V/Ph/Hz | | | |
| Rated power | | W | | | |
| Rated current | | A | | | |
| Power cable | | mm ² | | | |
| Communication cable, AWG18 shielded | | mm ² | | | |
| Automatic switch | | A | | | |
| Heating A7W35 ¹ | Capacity | kW | | | |
| | Rated input | kW | | | |
| | COP | | | | |
| Heating A7W45 ² | Capacity | kW | | | |
| | Rated input | kW | | | |
| | COP | | | | |
| Heating A7W55 ³ | Capacity | kW | | | |
| | Rated input | kW | | | |
| | COP | | | | |
| Heating A-7W35 ⁹ | Capacity | kW | | | |
| | Rated input | kW | | | |
| | COP | | | | |
| Cooling A35W18 ⁴ | Capacity | kW | | | |
| | Rated input | kW | | | |
| | EER | | | | |
| Cooling A35W7 ⁵ | Capacity | kW | | | |
| | Rated input | kW | | | |
| | EER | | | | |
| Seasonal space heating energy efficiency class ⁶ | Water outlet at 35°C | class | | | |
| | Water outlet at 55°C | class | | | |
| SCOP ⁶ | | 35°C | | | |
| | | 55°C | | | |
| SEER ⁶ | | 7°C | | | |
| | | 18°C | | | |
| Refrigerant | Type (GWP) / Charged volume, kg | R32 (675) / 5,0 | | | |
| Compressor | | DC two rotor inverter | | | |
| Heat exchanger | | Plate, soldered | | | |
| Fan | | DC electric motor | | | |
| Number of fans | | 2 | | | |
| Circulation pump | Type | DC, electronic | | | |
| | Max. lifting height | m | | | |
| | Capacity | W | | | |
| Nominal water flow | | m ³ /h | | | |
| Operating limits for water flow | | m ³ /h | | | |
| Water piping connection | | R1 1/4" | | | |
| Sound power level ⁷ | | dB | | | |
| Sound pressure level (1m) | | dB | | | |
| Dimensions (W x H x D) | | mm | | | |
| Packing dimensions (W x H x D) | | mm | | | |
| Net / Gross weight | | kg | | | |
| Ambient temperature range | Heating | °C | | | |
| | Cooling | °C | | | |
| | DHW | °C | | | |
| LWT setting range | Heating | °C | | | |
| | Cooling | °C | | | |
| | DHW ¹⁰ | °C | | | |

HEATING, COOLING AND DOMESTIC HOT WATER IN ONE SYSTEM

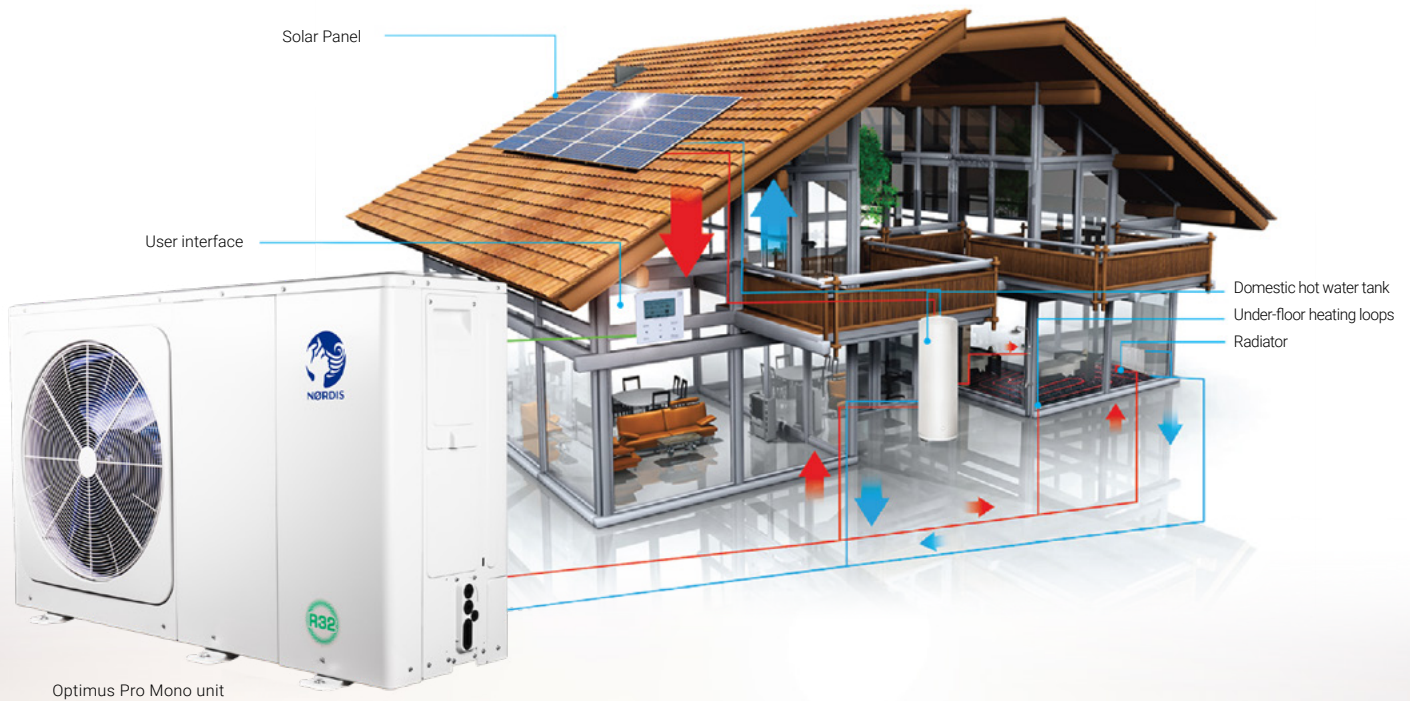
FOR AN INTEGRATED HOME SYSTEM

ONE-STOP SOLUTION - HEATING, COOLING AND DOMESTIC HOT WATER IN ONE SYSTEM

NORDIS Optimus Pro is an integrated system that provides space heating and cooling as well as domestic hot water. It offers a complete, year-round solution that eliminates the need for, or works in conjunction with, conventional gas or oil boilers. NORDIS Optimus Pro can be combined with underfloor heating systems, fan coil units, radiators and domestic hot water tanks. It can also be connected to solar collectors, gas stoves, boilers and other heat sources.



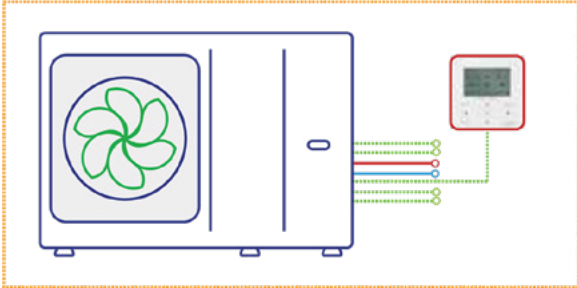
The Smart Grid certification indicates that Optimus Pro systems can fully utilise electricity from different sources or different price levels, such as photovoltaic and Peak Valley of urban electricity supply, to meet different operating modes, which has a positive impact on cost savings.



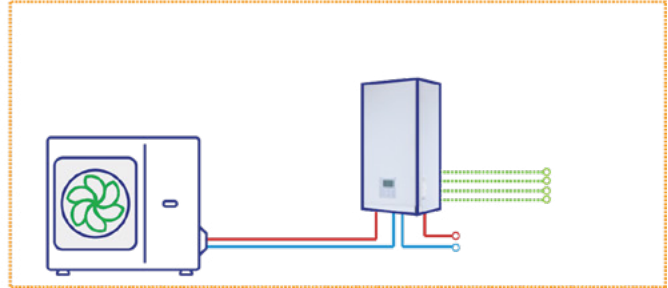
TYPICAL APPLICATION

The practical applications are many, including but not limited to the following. The examples of application below are for illustrative purposes only.

Mono

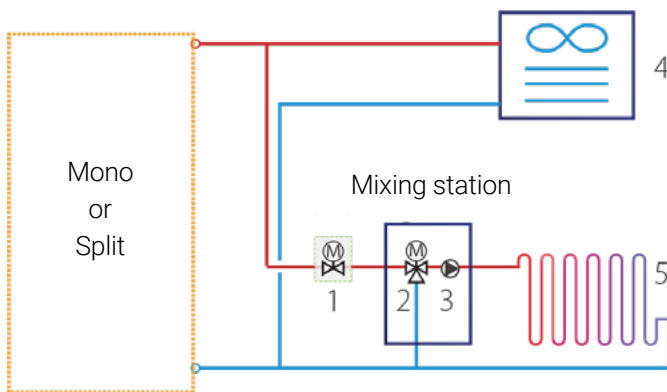


Split



HEATING AND COOLING

Underfloor heating is used for space heating and a fan coil unit is used for both space heating and cooling. For heating mode, underfloor heating and fan coils require different operating water temperatures. To achieve these two temperatures, a mixing station (provided by the customer) consisting of a 3-way valve and a water pump is used to adjust the water temperature to the requirements of the underfloor heating loops. The mixing station is controlled by the unit. For cooling mode, a 2-way valve is used to prevent cool water from entering the underfloor heating loops, which causes condensation during cooling.

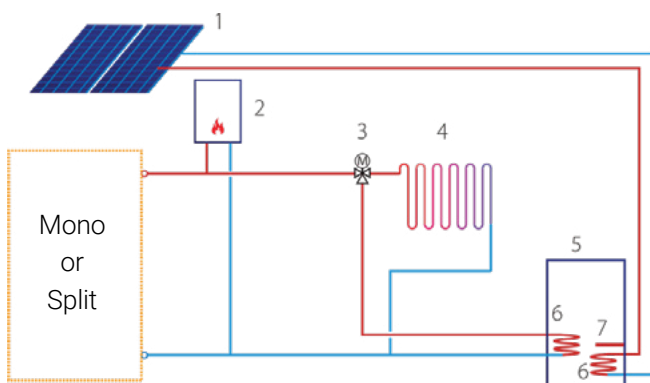


Notes:

1. 2-way valve (field supplied)
2. 3-way valve (field supplied)
3. Water pump (field supplied)
4. Fan coil unit (field supplied)
5. Floor heating loop (field supplied)

HEATING, DHW AND HYBRID HEAT SOURCE

Electric auxiliary heating (customised) and AHS provide additional heat to raise the water temperature for the outlet temperature of the unit. TBH and solar systems provide additional heat to raise the hot water temperature. A 3-way valve is used to switch between heating and DHW mode.



Notes:

1. Solar panel (field supplied)
2. AHS: Additional heating source (field supplied)
3. 3-way valve (field supplied)
4. Floor heating loop (field supplied)
5. Water tank (field supplied)
6. Heat exchanger coil (field supplied)
7. TBH: Tank booster heater (field supplied)

DOUBLE ZONES CONTROL

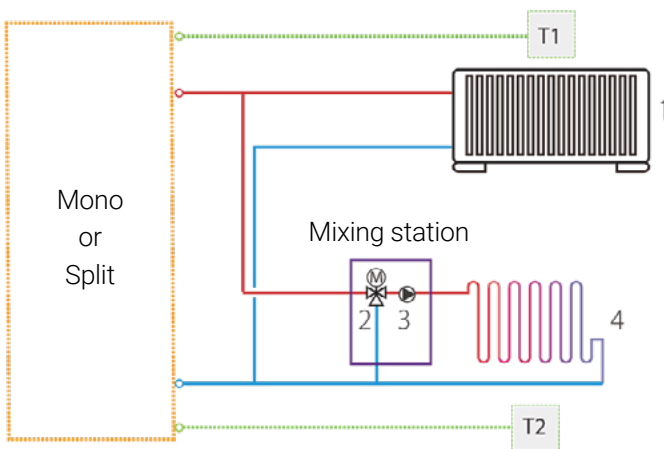
Double zones control is only available for heating mode. This allows you to set different zones to different temperatures to meet the different requirements of daily use.

1. Using wired controller only

The wired controller sets the mode, temperature and on/off. Zone 1 is controlled based on the water outlet temperature. Zone 2 is controlled based on the water outlet temperature or the sensor integrated in the wired control.

2. Using wired controller and thermostat

The wired control sets the mode and water temperature. Both zone 1 and zone 2 are controlled by the thermostat.



Notes:

1. Radiator (field supplied)
2. 3-way valve (field supplied)
3. Water pump (field supplied)
4. Floor heating loop (field supplied)

Abbreviation

T: Room thermostat (field supplied)



INDEX

¹ Evaporator air in 7°C, 85% R.H., Condenser water in/out 30/35°C.

² Evaporator air in 7°C, 85% R.H., Condenser water in/out 40/45°C.

³ Evaporator air in 7°C, 85% R.H., Condenser water in/out 47/55°C.

⁴ Condenser air in 35°C. Evaporator water in/out 23/18°C.

⁵ Condenser air in 35°C. Evaporator water in/out 12/7°C.

⁶ Seasonal space heating energy efficiency class testes in average climate general conditions.

⁷ Testing standard: EN12102-1.

⁸ For three phase type backup electric heater, 3/6kW can be achieved by changing DIP switch when heat pump is equipped with 9kW. In this case, three phase power supply is needed.

⁹ Evaporator air in -7°C, 85% R.H., Condenser water in/out 30/35°C.

¹⁰ In the MONO unit, the maximum hot water temperature of 60 ° C can only be reached by using an additional electric heater.

¹¹ The rated power is specified together with the built-in electric heater.



REPRESENTATIVES

www.nordis-ac.com