NØRDIS

HEAT PUMPS
AIR-TO-WATER

FOR SMART HOME HEATING

2025

CONTENT

Air-to-water
heat pumps

Air-to-water heat pumps, known for their high eco-friendliness and efficiency, are increasingly becoming the main equipment for maintaining a comfortable home climate.

NØRDIS, combining reliable Nordic technologies with affordability, continuously improves and expands its high-quality heat pump range. The product lineup includes two air-to-water heat pump series: Ultima and Optimus Pro. These modern systems effectively heat, cool, and provide hot water, working successfully even at -25°C temperatures. As a result, the equipment is well-suited to the climate conditions of northern countries.

NØRDIS ULTIMA SERIES AIR-TO-WATER HEAT PUMPS

The most advanced NØRDIS air-to-water heat pump series, utilizing the eco-friendly R290 refrigerant, which has minimal negative impact on the environment. These units feature high efficiency and can maintain water temperatures up to 75°C, making them ideal for radiator systems. The modern design with a color touchscreen and versatility, allowing them to be used in both new and renovated buildings, makes the NØRDIS ULTIMA series both attractive and effective.

NØRDIS OPTIMUS PRO SERIES AIR-TO-WATER HEAT PUMPS

The versatile heat pumps feature high efficiency, durability, and convenient control. The most compact model of the series, the monoblock, allows for easy integration of the unit, saving space in utility rooms. It is perfect for heating, cooling, and hot water production in both new and renovated buildings. The heat pump system is compatible with underfloor heating, radiator, fan convector, and domestic hot water heater systems. The Optimus Pro series heat pumps use the R32 refrigerant.

NØRDIS
Ultima series

An efficient solution for controlling your home's climate, providing heating, cooling, and hot water supply, while allowing you to choose a more eco-friendly lifestyle and reduce energy consumption. The advanced Ultima heat pump technology delivers unmatched performance, supplying hot water at temperatures up to 75°C, making it an ideal choice for both newly built and renovated properties.

75 °C
Maximum supplied water temperature

-25 °C
Lowest ambient temperature

R290
99.6% lower carbon dioxide emissions compared to R32.

STANDARDS

Energy efficiency
Inverter technology provides the highest A+++ energy rating.

Eco-friendly R290 refrigerant
It has zero ozone depletion potential and an extremely low global warming potential (GWP 3).

SG-Ready readiness
The control technology can respond to external control signals from the network.

Smart control
A 7-inch easy-to-use color touchscreen supports advanced features.

Silent mode
Quiet operation guarantees a peaceful environment and quality sleep.

Timer setting
It operates automatically based on usage habits.

Holiday mode
It operates in heating mode and/or DHW mode, maintaining a minimum water temperature.

Control of electric heaters
Smart and economical two-stage electric heater control.

Real-time COP
View energy consumption and COP values in real-time.

Smart defrosting
The algorithms take into account the ambient temperature, heat exchanger temperature, and defrosting time.

Heating/cooling curves
For economical operation.

Hot water maintenance
Timer and priority hot water control with a disinfection function.

Cascade operation
One control panel manages up to 10 units in a single cascade system.

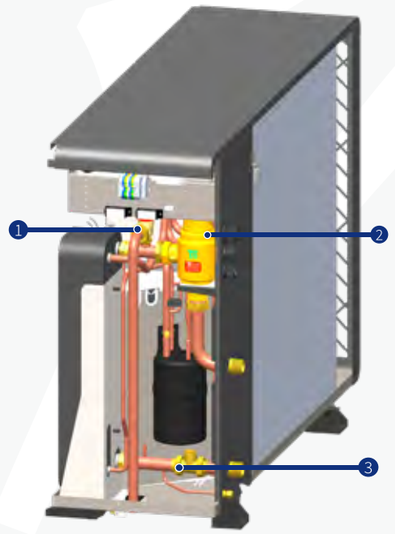
Various configurations
Power range from 6 to 16 kW, suitable for both renovated and large new buildings.

Leak protection system

To ensure CE compliance and user safety, the heat pump system using the flammable R290 refrigerant strictly limits its amount in indoor spaces. This requirement ensures that even in the case of an unexpected leak, no explosive gas concentrations will form indoors. NØRDIS Ultima heat pumps are equipped with three independent safety systems that mechanically prevent gas leakage and provide the highest level of safety.

System operation logic:

Upon detecting a refrigerant leak in the plate heat exchanger, the safety valve automatically releases the leaked refrigerant through the refrigerant discharge pipe. The gas separator sends a signal to the main control board, activating the leak protection logic, causing the compressor and water pump to shut down. The fan continues to operate to accelerate the ventilation of the leaked refrigerant, ensuring guaranteed system safety.



Key system safety components

Pressure release valve (1)

When the pressure in the water system exceeds 2.5 bar, gas and water are released from the system.

Gas separator (2)

Removes gases detected in the water system.

Check valve (3)

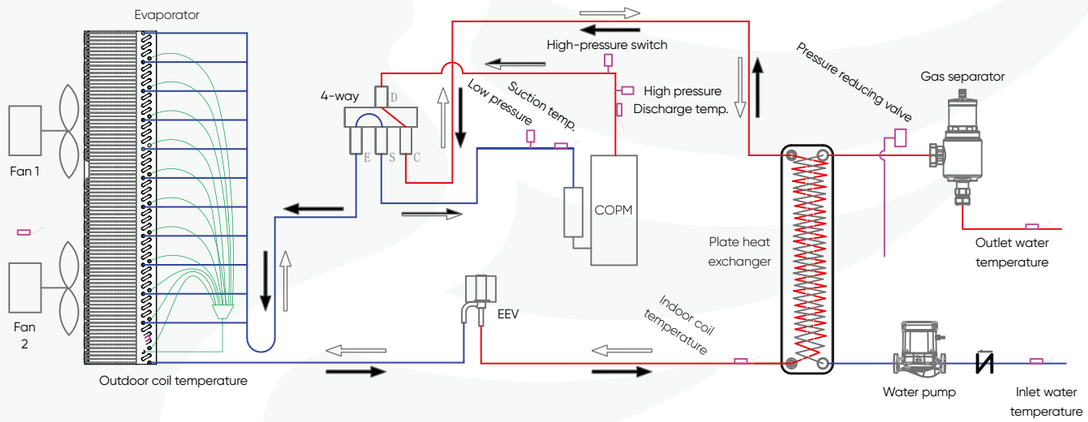
Prevents refrigerant or water from flowing back into the water system.

Functional control

The unique 7-inch touchscreen features high resolution and exceptionally smooth performance. A multilingual menu allows customization to individual preferences. Smart and advanced features ensure that controlling the heat pump is remarkably simple.

- A uniquely designed color display.
- Intuitive touchscreen interface.
- WiFi / 4G connectivity.
- Remote control via app.

System customization



Direction of heated refrigerant flow

Direction of cooled refrigerant flow

Direction of heated/cooled refrigerant flow

NØRDIS Ultima Mono Split type

AIR-TO-WATER HEAT PUMPS

Features

- Energy efficiency class A+++;
- Eco-friendly refrigerant R290;
- Supply water temperature up to 75°C;
- Operates in heating mode with outdoor temperatures down to -25°C;
- Unique, easy-to-use LCD screen;
- Extremely quiet;
- Smart network function integrated.

Indoor unit structure

By opening the front panel mounted on hinges and the control automation door, the hydraulic system is easily accessible. This ensures convenient access to any component of the hydraulic and control system.

Efficient operation with outdoor temperatures dropping to **-25°C**

Maximum prepared water temperature **75°C**

TECHNICAL DATA

Model				HLT6MONO-S / HLT-9-3S	HLT9MONO-S / HLT-9-3S	HLT12MONO-S / HLT-9-3S	HLT16MONO-3S / HLT-9-3S
Seasonal Energy-(Accordingto EN14825)							
ErP	Energy Class-Heating (35°C/55°C)			A+++/A++			
	SCOP (35°C/55°C)		W/W	4.81/3.59	4.85/3.65	4.76/3.56	4.74/3.50
	Rated Heat Output (Prated) (35 °C / 55 °C)		kW	4.91/4.55	6.93/6.40	8.97/8.21	12.55/11.01
	Seasonal Space Heating Efficiency (35°C/55°C)		%	189.3/140.6	190.9/143.l	187.5/139.4	186.5/136.9
	Annual Energy Consumption (35°C/55°C)		kWh	2111/2616	2953/3622	3889/4766	5475/6505
	Sound pressure level 1m (Indoor / Outdoor) *		dB(A)	19/40	20/39	21/41	23/40
	Sound Power Level (Indoor / Outdoor)		dB(A)	33/54	33/54	34/56	37/56
Nominal Capacity and Nominal Input							
Heating	Heating Capacity Min./Max.	A7/W35	kW	2.56/6.76	3.76/9.52	5.21/12.0	6.83/16.6
	Heating Power Input Min./Max.		kW	0.58/1.52	0.68/2.04	0.99/3.06	1.27/4.18
	C.O.P		W/W	4.44/ 4.83	4.67/5.57	3.93/5.31	3.98/5.38
	Heating Capacity Min./Max.	A7/W45	kW	2.42/6.57	3.00/9.09	4.38/11.7	6.17/15.5
	Heating Power Input Min./Max.		kW	0.67/1.82	0.86/2.40	I.11/3.55	1.58/4.76
	C.O.P		W/W	3.62/3.86	3.51/4.03	3.28/3.94	3.26/3.90
Cooling	Cooling Capacity Min./Max.	A35/WI8	kW	2.02/5.43	2.39/7.83	3.47/10.1	5.77/12.4
	Cooling Power Input Min./Max.		kW	0.51/1.31	0.57/2.08	0.94/2.97	1.23/3.70
	E.E.R		W/W	4.00/4.23	3.77/4.35	3.40/3.93	3.36/4.69
	Cooling Capacity Min./Max.	A35/W7	kW	1.27/3.71	1.83/5.61	2.16/7.19	4.05/10.1
	Cooling Power Input Min./Max.		kW	0.52/1.30	0.62/2.00	0.97/2.76	1.26/3.55
	E.E.R		W/W	2.46/2.95	2.46/2.99	2.23/2.64	2.84/3.22
General Info							
Power Supply			V/Hz/Ph	220-240/50/1	220-240/50/1	220-240/50/1	380-420/50/3
Operation Limits	Ambient Temperature Range Min./Max.		°C	-25 ~ +43			
	Heating Water Temperature Range Max./ Min.		°C	70/25			
	Cooling Water Temperature Range Max./ Min.		°C	20/7			
Refrigerant Side	Refrigerant	Type/ Amount	-/kg	R290 / 0.6kg	R290 /0.7kg	R290 / 0.9kg	R290 / 1.5kg
	Compressor	Type/Amount		Rotary			
	Four-way valve + EEV			Sanhua			
	Fan	Quantity		1	1	1	2
		Airflow	m3/h	3150	3150	3300	6300
		Rated Power	W	62	62	62	124
Water Side	Type of Heat Exchanger			Plate Heat Exchanger			
	Water Pressure Drop		kPa	23	23	23	23
	Piping Connection		Inch	G1"	G1"	G1"	G1-1/4"
	Allowable Water Flow - Min./Rated/Max.			0.20/0.29/0.37	0.27/0.38/0.50	0.40/0.57/0.75	0.50/0.72/0.93
Dimensions	Net Dimensions (L x D x H)	Indoor Unit	mm	550x260x650	550x260x650	550x260x650	550x260x650
		Outdoor Unit	mm	1255x440x885	1255x440x885	1255x440x985	1140x460x1490
	Net Weight	Indoor Unit	kg	34	34	34	34
		Outdoor Unit	kg	98	109	120	164

Specifications may be changed without prior notice. For the actual device specifications, refer to the labels on the device.
* - low-temperature applications

NØRDIS Ultima Mono Split type

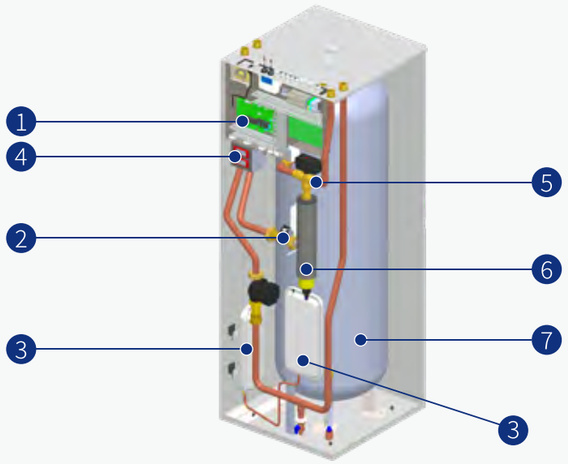
AIR-TO-WATER HEAT PUMPS WITH DHW TANK

The latest "all-in-one" system is a monoblock design that maximizes installation simplicity and space efficiency, making the system more convenient to use.

Features

- Energy efficiency class A+++;
- Eco-friendly refrigerant R290;
- Supply water temperature up to 75°C;
- Operates in heating mode at outdoor temperatures down to -25°C.
- Unique, easy-to-use LCD screen;
- Exceptionally quiet;
- Smart grid function integrated.

Indoor unit structure



1. Control unit
2. Flow meter
3. 2 x 5 L expansion tanks
4. Digital thermostats
5. Three-way valve
6. 9 kW electric heater
7. 250 L hot water tank

TECHNICAL DATA

Model				HLT6MONO-S / HLT-9-250-3S	HLT9MONO-S / HLT-9-250-3S	HLT12MONO-S / HLT-9-250-3S	HLT16MONO-3S / HLT-9-250-3S
Seasonal Energy-(Accordingto EN14825)							
ErP	Energy Class-Heating (35°C/55°C)			A+++/A++			
	SCOP (35°C/55°C)		W/W	4.81/3.59	4.85/3.65	4.76/3.56	4.74/3.50
	Rated Heat Output (Prated) (35 °C / 55 °C)		kW	4.91/4.55	6.93/6.40	8.97/8.21	12.55/11.01
	Seasonal Space Heating Efficiency (35°C/55°C)		%	189.3/140.6	190.9/143.l	187.5/139.4	186.5/136.9
	Annual Energy Consumption (35°C/55°C)		kWh	2111/2616	2953/3622	3889/4766	5475/6505
	Sound pressure level 1m (Indoor / Outdoor) *		dB(A)	19/40	20/39	21/41	23/40
	Sound Power Level (Indoor / Outdoor)		dB(A)	33/54	33/54	34/56	37/56
Nominal Capacity and Nominal Input							
Heating	Heating Capacity Min./Max.	A7/W35	kW	2.56/6.76	3.76/9.52	5.21/12.0	6.83/16.6
	Heating Power Input Min./Max.		kW	0.58/1.52	0.68/2.04	0.99/3.06	1.27/4.18
	C.O.P		W/W	4.44/ 4.83	4.67/5.57	3.93/5.31	3.98/5.38
	Heating Capacity Min./Max.	A7/W45	kW	2.42/6.57	3.00/9.09	4.38/11.7	6.17/15.5
	Heating Power Input Min./Max.		kW	0.67/1.82	0.86/2.40	l.11/3.55	1.58/4.76
	C.O.P		W/W	3.62/3.86	3.51/4.03	3.28/3.94	3.26/3.90
Cooling	Cooling Capacity Min./Max.	A35/ Wl8	kW	2.02/5.43	2.39/7.83	3.47/10.1	5.77/12.4
	Cooling Power Input Min./Max.		kW	0.51/1.31	0.57/2.08	0.94/2.97	1.23/3.70
	E.E.R		W/W	4.00/4.23	3.77/4.35	3.40/3.93	3.36/4.69
	Cooling Capacity Min./Max.	A35/W7	kW	1.27/3.71	1.83/5.61	2.16/7.19	4.05/10.1
	Cooling Power Input Min./Max.		kW	0.52/1.30	0.62/2.00	0.97/2.76	1.26/3.55
	E.E.R		W/W	2.46/2.95	2.46/2.99	2.23/2.64	2.84/3.22
General Info							
Power Supply			V/Hz/Ph	220-240/50/1	220-240/50/1	220-240/50/1	380-420/50/3
Operation Limits	Ambient Temperature Range Min./Max.		°C	-25 ~ +43			
	Heating Water Temperature Range Max./Min.		°C	70/25			
	Cooling Water Temperature Range Max./Min.		°C	20/7			
Refrigerant Side	Refrigerant	Type/ Amount	-/kg	R290 / 0.6kg	R290 /0.7kg	R290 / 0.9kg	R290 / 1.5kg
	Compressor	Type/Amount		Rotary			
	Four-Way Valve + EEV			Sanhua			
	Fan	Quantity		1	1	1	2
		Airflow	m3/h	3150	3150	3300	6300
		Rated Power	W	62	62	62	124
Water Side	Type of Heat Exchanger			Plate Heat Exchanger			
	Water Pressure Drop		kPa	23	23	23	23
	Piping Connection		Inch	G1"	G1"	G1"	G1-1/4"
	Allowable Water Flow - Min./Rated/Max.		l/s	0.20/0.29/0.37	0.27/0.38/0.50	0.40/0.57/0.75	0.50/0.72/0.93
Dimensions	Net Dimensions (L x D x H)	Indoor Unit	mm	600x710x1720	600x710x1720	600x710x1720	600x710x1720
		Outdoor Unit	mm	1255x440x885	1255x440x885	1255x440x985	1140x460x1490
	Net Weight	Indoor Unit	kg	115	115	115	115
		Outdoor Unit	kg	98	109	120	164

Specifications may be changed without prior notice. For the actual device specifications, refer to the labels on the device.
* - low-temperature applications

NØRDIS Ultima Mono for Commercial Use

AIR-TO-WATER HEAT PUMPS

Features

- Energy efficiency class A+++;
- Eco-friendly refrigerant R290;
- Supply water temperature up to 75°C;
- Operates in heating mode at outdoor temperatures down to -25°C;
- Unique, easy-to-use LCD screen;
- Smart grid function integrated.

Due to its power and wide range of applications, the NØRDIS Ultima commercial series ensures comfortable heating, cooling, and domestic hot water supply even in the largest commercial projects—hotels, offices, factories, and other industrial sectors. The optimized cascade system allows the NØRDIS Ultima series to adapt to a variety of needs.

When designing the NØRDIS Ultima, safety is just as important as comfort. The advanced safety control system ensures efficient and secure enjoyment of continuous comfort.

Smart control

Integrated Wi-Fi module for smartphone control.

Low consumption

High energy efficiency reaches the A+++ energy level.

High water temperature.

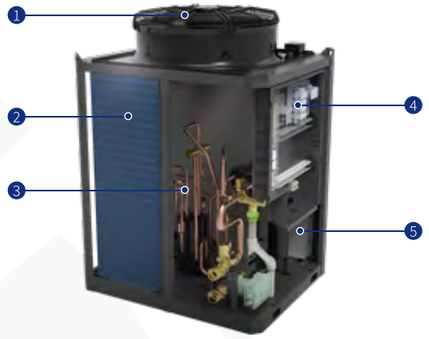
75°C

Supplied water temperature up to 75 °C.

Cascade operation

One control panel manages up to 10 units in a single cascade system.

Outdoor unit components



1. EC fan motor
2. High-quality heat exchanger
3. Electronic expansion valve
4. Control system
5. Stable and efficient DC inverter compressor

TECHNICAL DATA

Model				HLT40MONO-3
Seasonal Energy-(Accordingto EN14825)				
ErP	Energy Class-Heating (35°C/55°C)			A+++/A++
	SCOP (35°C/55°C)		W/W	4.87/3.72
	Rated Heat Output (Prated) (35 °C / 55 °C)		kW	29/28
	Seasonal Space Heating Efficiency (35°C/55°C)		%	191/146
	Annual Energy Consumption (35°C/55°C)		kWh	12166/15641
	Sound pressure level 1m (Indoor / Outdoor) *		dB(A)	- / 54
	Sound Power Level (Indoor / Outdoor)**		dB(A)	-/65*
Nominal Capacity and Nominal Input				
Heating	Heating Capacity Min./Max.	A7/W35	kW	13.5/39.6
	Heating Power Input Min./Max.		kW	3.18/11.3
	C.O.P		W/W	3.51/4.42
	Heating Capacity Min./Max.	A7/W45	kW	13.5/38.2
	Heating Power Input Min./Max.		kW	3.5/12.3
	C.O.P		W/W	3.09/3.83
Cooling	Cooling Capacity Min./Max.	A35/Wl8	kW	13.4/36.2
	Cooling Power Input Min./Max.		kW	2.88/9.87
	E.E.R		W/W	3.66/4.92
	Cooling Capacity Min./Max.	A35/W7	kW	6.4/25.8
	Cooling Power Input Min./Max.		kW	2.87/9.38
	E.E.R		W/W	2.23/2.75
General Info				
Power Supply			V/Hz/Ph	380/50/3
Operation Limits	Ambient Temperature Range		°C	-25 ~ +43
	Heating Water Temperature Range Max./Min.		°C	75/20
	Cooling Water Temperature Range Max./Min.		°C	25/7
Refrigerant Side	Refrigerant	Type/ Amount	-/kg	R290 / 4.2
	Compressor	Type/ Amount		Scroll / 1
	Four-Way Valve + EEV			Sanhua
	Fan	Quantity		1
		Airflow	m^3/h	12500
		Rated power	W	1100
Water Side	Type of Heat Exchanger			Plate Heat Exchanger
	Water Pressure Drop		kPa	140
	Piping Connection		Inch	G2"
	Allowable Water Flow-Min./Rated./Max.		l/s	1.3/1.9/2.5
Dimensions	Net Dimension (L x D x H)	Indoor Unit	mm	380x135x480
		Outdoor Unit	mm	1050x1170x1690
	Net Weight	Indoor Unit	kg	10
		Outdoor Unit	kg	348

The specifications are subject to change without prior notice. For actual specifications of unit, please refer to the stickers on the unit.
* - low-temperature applications
** - In low-temperature systems. In medium-temperature systems – 71 dB.

NØRDIS
Optimus Pro series

NØRDIS Optimus Pro Split air-to-water heat pumps are designed for space heating, cooling, and domestic hot water preparation, utilizing energy from outdoor air. The NØRDIS Optimus Pro Split series is built on direct current (DC) technology.

65 °C
Supply water temperature

-25 °C
Lowest ambient temperature

STANDARDS

Energy efficiency
Heat pumps meet the highest A+++ energy efficiency class.

Eco-friendly R32 refrigerant.
Higher heat transfer coefficient ensuring better performance.

Smart power grid utilization
The heat pump's operating time can be automatically adjusted based on the power grid load.

Convenient controller / remote control
Advanced multifunctional controller or app on a smart device.

Silent mode
The sound pressure level of NØRDIS Optimus Pro units is as low as 35 dB(A) at a distance of 3 meters.

Schedule setting
NØRDIS Optimus Pro operates automatically based on user habits to meet various usage needs.

Holiday mode
The device operates in heating and/or hot water preparation mode, maintaining the minimum water temperature required to prevent the system from freezing during winter.

Temperature curves
The water temperature prepared by the heat pump automatically adjusts based on changes in outdoor air temperature.

Hot water recirculation
The hot water recirculation function is used to return water from the pipeline to the hot water tank according to a set timer.

Power limitation function
The function allows the heat pump to be adapted to the available input power.

Sertificates

NØRDIS Optimus Pro Split type

AIR-TO-WATER HEAT PUMPS

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

NØRDIS Optimus Pro Split
outdoor units

TECHNICAL DATA

Features

- Energy efficiency class A+++;
- Eco-friendly refrigerant R32;
- Dual-rotor inverter compressor with permanent magnets;
- Operates in heating mode at outdoor temperatures as low as -25°C;
- Exceptionally quiet – two silent operation modes;
- Smart grid functionality implemented.

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 (Inch)	6,35 (1/4")	9,52 (3/8")			
	Gas Phase	mm (Inch)	15,88 (5/8")				
Between the Indoor and Outdoor Units	Height Difference, Max.	m	20				
	Pipe Lenght, Min.	m	w3				
	Pipe Lenght, Max.	m	30				
Additional Refrigerant Charge	Quantity	g/m	20	38			
	Pipe Length without Additional Charge	m	Max.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	1008×712×426	1118×865×523			
Dimension of Package (W x H x D)		mm	1065×810×485	1190×970×560			
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				

Efficient operation at outdoor temperatures as low as **-25°C**

Maximum prepared water temperature **65°C**

NØRDIS Optimus Pro Split

Indoor units without integrated DHW tank

Features

- Touch-sensitive control panel;
- Integrated Wi-Fi module for device control via smartphone;
- Electronic circulation pump;
- Alfa Laval heat exchanger;
- Temperature curves implemented for device control based on outdoor temperature;
- Hot water disinfection function;
- Integrated auxiliary electric water heater.

Air-to-water heat pumps without an integrated hot water tank come with three power capacity indoor units. The heat pump system is compatible with underfloor heating, radiators, fan coil units, and domestic water heating systems. This eliminates the need to invest in a complete system overhaul.

Series multifunctionality

- Hot water preparation priority
- Automatic mode
- Disinfection mode
- Economy mode
- Weekly schedule
- Daily schedule
- Temperature curves
- Quick DHW preparation mode

TECHNICAL DATA

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)[8]			
Power Supply		V/Ph/Hz	220-240/1/50			380-415/3/50			
Rated Power		W	3095			9095			
Nominal 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 (1 m)		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 (Inch)	6,35 (1/4")	9,52 (3/8")					
	Gas Phase	mm (Inch)	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

Indoor units with integrated DHW tank

Features

- Integrated 190 L or 240 L stainless steel water heater;
- Touch-sensitive control panel;
- Integrated Wi-Fi module for device control via smartphone;
- Electronic circulation pump;
- Alfa Laval heat exchanger;
- Temperature curves implemented for device control based on outdoor temperature;
- Hot water disinfection function;
- Integrated auxiliary electric water heater.

Air-to-water heat pumps with an integrated hot water tank come with two power capacities and tank sizes for indoor units. These units incorporate the latest technologies to ensure high performance and minimal operating costs. The combination of heat pump equipment provides optimal solutions for heating, cooling, and hot water preparation processes.

Series multifunctionality

Hot water preparation priority

Automatic mode

Disinfection mode

Economy mode

Iki 240 l talpos vandens šildytuvas

Daily schedule

Temperature curves

Quick DHW preparation mode

TECHNICAL DATA

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 (Inch)	6,35 (1/4")	9,52 (3/8")		6,35 (1/4")	9,52 (3/8")			
	Gas Phase	mm (Inch)	15,88 (5/8")							
Water Pipe Connection	Heating/Cooling		R1"							
	Hot Water Preparation		R3/4"							
Ne / 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 System		bar	1 ~ 2,5							
Water Pressure in the Hot Water System (Cold Water)		bar	1,5 ~ 3							

NØRDIS Optimus Pro Mono

AIR-TO-WATER HEAT PUMPS

Features

- Energy efficiency class A+++;
- Eco-friendly refrigerant R32;
- Dual-rotor inverter compressor with permanent magnets;
- Operates in heating mode at outdoor temperatures as low as -25°C;
- Exceptionally quiet – two silent operation modes;
- Smart grid functionality implemented;
- Touch-sensitive control panel;
- Integrated Wi-Fi module for device control via smartphone.

NØRDIS Optimus Pro monoblocks are high-efficiency, low-energy-consumption air-to-water heat pumps. The entire heating system is integrated into a single, universal outdoor unit, making it an ideal solution for homes without auxiliary rooms for additional heat pump equipment. The installation is simple and quick.

NØRDIS Optimus Pro monoblocks are fully compatible with any existing home heating or hot water preparation system. These units ensure low energy consumption, a high energy efficiency class, and excellent seasonal performance indicators.

Outdoor Units			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
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	5,31	5,82	5,95	4,40	4,85
		18°C	8,22	8,94	8,73	7,07	6,89
Refrigerant	Type (GWP) / Quantity, 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				

Outdoor Units			HOP18WMONO3	HOP22WMONO3	HOP26WMONO3	HOP30WMONO3
Built-in Electric Heater		kW	-			
Power Supply		V/Ph/Hz	380-415/3/50			
Rated Power		W	10600	12500	13800	14500
Rated Current		A	21	24,5	27	28,5
Power Cable		mm²	5x6,0			
Communication Cable, AWG18 Shielded		mm²	5x0,75			
Automatic Switch		A	C25		C32	
Heating A7W35 [1]	Capacity	kW	18,00	22,00	26,00	30,10
	Rated Input	kW	3,83	5,00	6,37	7,70
	COP		4,70	4,40	4,08	3,91
Heating A7W45 [2]	Capacity	kW	18,00	22,00	26,00	30,00
	Rated Input	kW	5,14	6,47	8,39	10,35
	COP		3,50	3,40	3,10	2,90
Heating A7W55 [3]	Capacity	kW	18,00	22,00	26,00	30,00
	Rated Input	kW	6,55	8,30	10,61	13,04
	COP		2,75	2,65	2,45	2,30
Heating A-7W35 [9]	Capacity	kW	18,00	21,00	22,00	23,00
	Rated Input	kW	6,67	8,08	8,80	9,39
	COP		2,70	2,60	2,50	2,45
Cooling A35W18 [4]	Capacity	kW	18,50	23,00	27,00	31,00
	Rated Input	kW	3,90	5,00	6,30	7,75
	EER		4,75	4,60	4,30	4,00
Cooling A35W7 [5]	Capacity	kW	17,00	21,00	26,00	29,50
	Rated Input	kW	5,57	7,12	9,63	11,57
	EER		3,05	2,95	2,70	2,55
Energy Efficiency Class [6]	Water Outlet at 35°C	Class	A+++			
	Water Outlet at 55°C	Class	A++		A+	
SCOP [6]		35°C	4,6	4,53	4,5	4,2
		55°C	3,2	3,23	3,15	3,15
SEER [6]		7°C	4,7	4,7	4,66	4,49
		18°C	5,48	5,67	5,88	5,71
Refrigerant	Type (GWP) / Quantity, 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	12			
	Capacity	W	10 ~ 305			
Nominal Water Flow		m³/h	3,1	3,78	4,47	5,18
Operating Limits for Water Flow		m³/h				
Water Piping Connection			R1 1/4"	R1 1/4"	R1 1/4"	R1 1/4"
Sound Power Level [7]		dB (A)	71	73	75	77
Sound Pressure Level (1m)		dB (A)	58	60	61	63
Dimensions (W x H x D)		mm	1129x1558x440			
Packing Dimensions (W x H x D)		mm	1220x1735x565			
Net / Gross Weight		kg	177 / 206			
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			

NØRDIS AIR-TO-WATER HEAT PUMP APPLICATION
FOR AN INTEGRATED HOME SYSTEM

Series multifunctionality

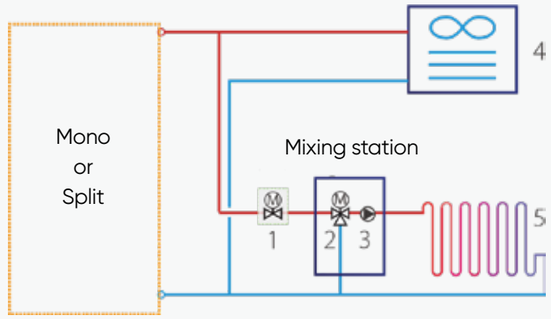
NØRDIS heat pumps are integrated systems designed for year-round space heating, cooling, and domestic hot water preparation. They can replace traditional gas or solid fuel heating systems or operate alongside them. Heat pumps are compatible with underfloor heating, radiators, fan coil units, and domestic hot water systems. They can also be connected to solar panels and other heat sources.

The "Smart Grid" certification indicates that NØRDIS heat pumps can optimally utilize electricity from various sources (at different price levels), such as solar photovoltaic systems or municipal power grids, to meet the demands of various operating modes and significantly contribute to cost savings.

NØRDIS Optimus Pro Mono outdoor unit

HEATING AND
COOLING

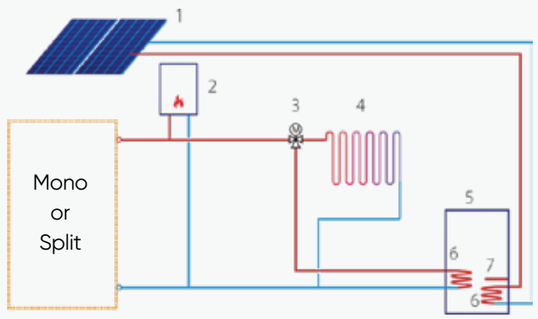
Grindinis šildymas naudojamas patalpų šildymui, o ventiliatoriniai konvektoriai - šildymui ir vėsinimui. Šildymo režimu, grindų šildymo sistemai ir ventiliatoriniams konvektoriams reikia skirtingų darbinių tiekiamo vandens temperatūrų. Vandens pamaišymo mazgas (tiekiamas atskirai), kurį sudaro 3-jų eigų vožtuvas ir cirkuliacinis siurblys, naudojamas vandens temperatūrai pritaikyti grindų šildymo sistemai. Pamaišymo mazgą valdo šilumos siurblys. Vėsinimo režime naudojamas 2-jų eigų vožtuvas, kad būtų išvengta šalto vandens patekimo į grindų šildymo kontūrus ir nesusidarytų kondensatas.



Notes:
1. 2-way valve (supplied separately).
2. 3-way valve (supplied separately).
3. Circulation pump (supplied separately).
4. Fan coil unit (supplied separately).
5. Underfloor heating system (supplied separately).

HEATING, DOMESTIC HOT WATER PREPARATION (DHW),
AND EXTERNAL HEAT SOURCES

The backup electric heater (integrated into the unit) and an external heat source (e.g., gas boiler) provide additional heat to the water prepared by the heat pump. The auxiliary electric heater in the DHW tank and solar panels supply additional heat to the hot water system. A 3-way valve is used to switch between the heating system and domestic hot water preparation.



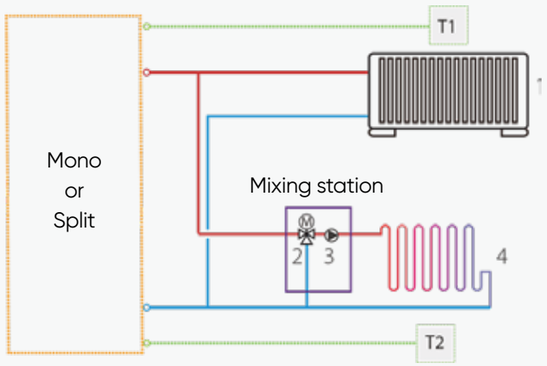
Notes:
1. Solar panels (supplied separately)
2. External heat source (supplied separately or existing in a renovated system)
3. 3-way valve (supplied separately)
4. Underfloor heating system (supplied separately)
5. Domestic hot water (DHW) tank (supplied separately)
6. DHW tank heat exchanger (supplied separately)
7. DHW tank auxiliary electric heater (supplied separately)

TWO-ZONE
CONTROL

Two-zone control is available only in heating mode. The unit can manage different zones to deliver varying temperatures, meeting diverse daily usage needs.

1. Using only the device's wired controller
The wired controller is used to set the operating mode, temperatures, and to turn the device on/off. Zone 1 is controlled based on the supply water temperature, while Zone 2 is controlled either by the supply water temperature or the room temperature sensor built into the wired controller.

2. Using the device's wired controller and a thermostat
The wired controller is used to set the operating mode and water temperature. Both zones are controlled via the thermostat.

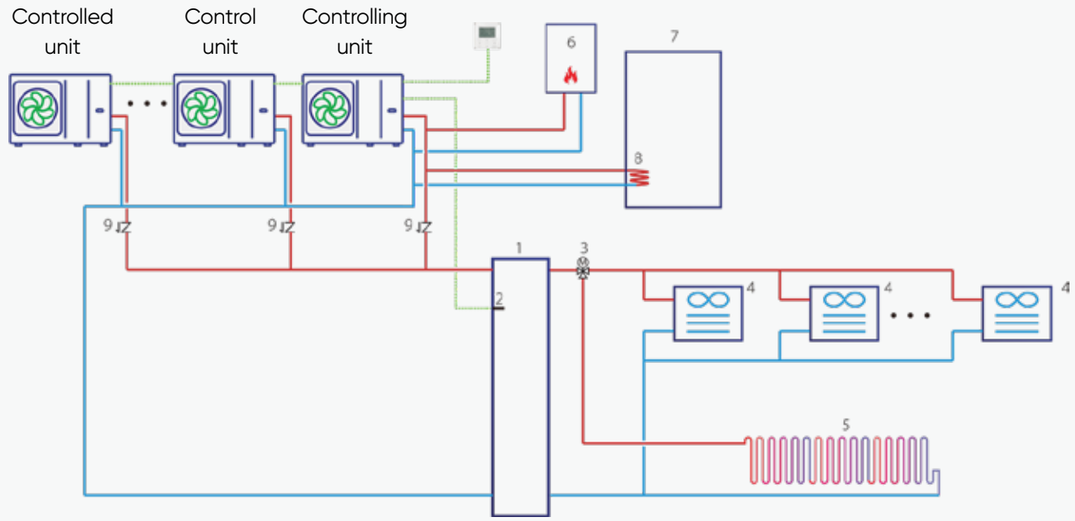


Notes:
1. Radiator (supplied separately)
2. 3-way valve (supplied separately)
3. Circulation pump (supplied separately)
4. Underfloor heating system (supplied separately)

T1, T2 – room thermostats (supplied separately)

PARALLEL MONO
UNIT CONNECTION (CASCADE)

Parallel Mono unit connection is an ideal solution for expanding system capacity when heating/cooling demands increase. Up to 6 units in a single system can be managed with one controller. The control of the water temperature in the accumulation (buffer) tank ensures optimal system performance.
The hot water preparation tank can only be connected to the primary unit's circulation system via a 3-way valve and is controlled by the primary unit.
An external heat source can also only be connected to the primary unit's circulation system and is managed by the primary unit.



Notes:
1. Accumulation (buffer) tank (supplied separately)
2. Accumulation (buffer) tank temperature sensor (supplied separately)
3. 3-way valve (supplied separately)
4. Fan coil unit (supplied separately)
5. Underfloor heating system (supplied separately)
6. External heat source (supplied separately or existing in a renovated system)
7. Domestic hot water (DHW) tank (supplied separately)
8. DHW tank heat exchanger (supplied separately)
9. Check valve (supplied separately)

NORDIS-AC.COM/CALCULATOR-PAGE

Quickly and easily calculate a preliminarily suitable NØRDIS series air-to-water heat pump for a specific property.

Comments

Index

[1] Air temperature +7°C, 85% RH, water temperature +30/35°C.
[2] Air temperature +7°C, 85% RH, water temperature +40/45°C.
[3] Air temperature +7°C, 85% RH, water temperature +47/55°C.
[4] Air temperature +35°C, water temperature +23/18°C.
[5] Air temperature +35°C, water temperature +12/7°C.
[6] Defined under moderate climate zone conditions.
[7] Tested according to the EN12102-1 standard.
[8] If a three-phase 9kW electric heater is installed, 3kW and 6kW power levels can be selected accordingly by switching DIP micro-switches on the board.
[9] Air temperature -7°C, 85% RH, water temperature +30/35°C.
[10] In the MONO unit, the maximum 60°C hot water temperature is achieved only with an additional electric heater.
[11] The nominal power is specified including the built-in electric heater.

NØRDIS REPRESENTATIVES:

www.nordis-ac.com