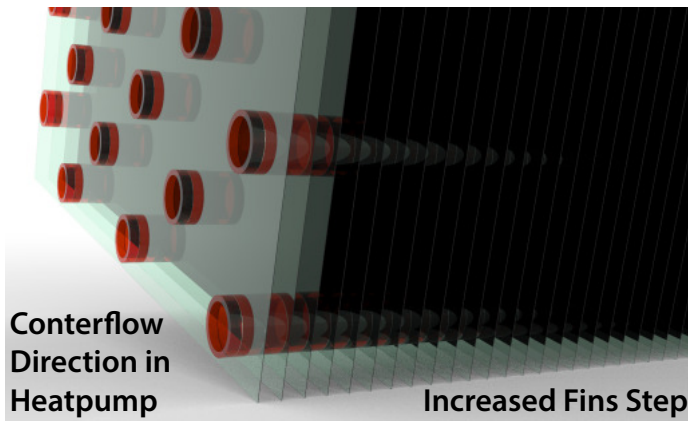




# NordicLIGHT Air-to-Water Heatpumps

## Features

// Air Heat Exchanger: specially designed for extracting heat from air



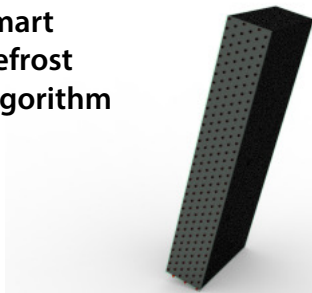
Air Heat Exchanger is the main part of air heatpump. NordicLIGHT is equipped with industrial grade air evaporator, similar to the one used in refrigeration industry.

\\ Increased distance between fins decrease frosting of ice and increase the time between defrosts.

\\ The unit may operate as a chiller, but it's an original heatpump. The air and the refrigerant is in counterflow in heatpump mode. And in parallel flow in chiller mode. So the air heat exchanger is more efficient in heatpump mode.

// Defrost: in time and fast

**Smart Defrost Algorithm**

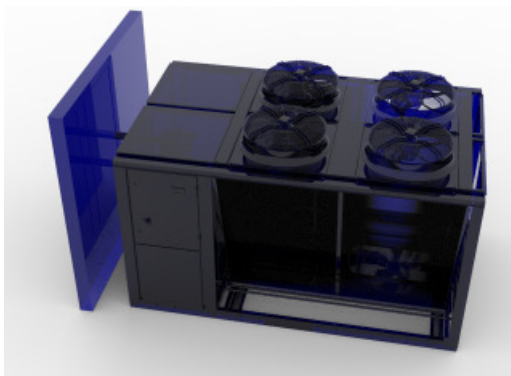


**Backward Angled Coil**

\\ The heat exchanger is angled backward 15 degrees. It is an optimal angle to remove water from the coil.

\\ Defrost is started in time thanks to smart algorithm. No energy loss due to unnecessary defrosts. And no energy caused by work in not optimal conditions due to late defrosts.

// Near the wall installation



The units are designed to be installed right near the wall from the side of water connections. This allows to reduce space for installation. And also allows to fill the unit with water using optional pipe-in-pipe water connection.

// High efficiency in low ambient temperature operation.

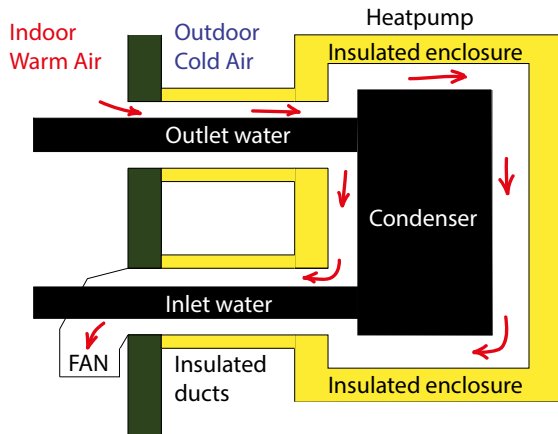
// Advanced control of the unit and external devices from heatpump controller.

// Totally independent defrost on 2 circuit units.

// High quality scroll compressors, heat exchangers and controllers.

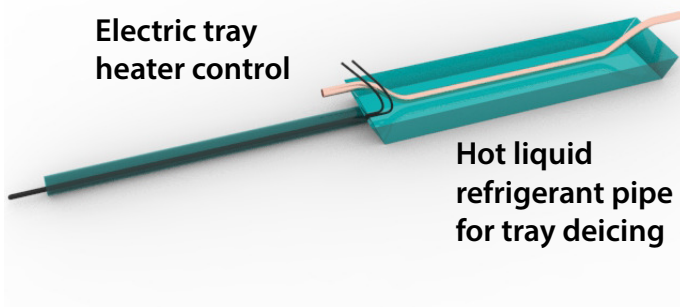
// No exclusives: only components available on your local market.

## // Pipe-in-pipe water connection for outdoor installation



Optionally the condenser of the unit can be placed in insulated enclosure. Also emergency electrical heater will be installed. Local installer shall place the water pipes inside the insulated ducts. And factory supplied fan kit shall be installed indoor on the bottom pipe connection. Thus all the water piping will be in the air jacket. Warm air from the indoor will move to the enclosure due to convection and will prevent pipes from freezing. If the temperature in enclosure falls too much the fan will be started and will blow new warm indoor air to enclosure. So water without brine may be used in condenser without risk of freezing. With no energy waste for electric heating.

## // Defrost collection tray with smart antifrost protection



In the nordic climates the unit may work for weeks with subzero outdoor temperatures. Optionally the water tray will be installed and hot refrigerant pipe will be layed in it. Also electrical heater cable may be connected to the unit controller. Water from defrost will be collected in the tray and removed via the sewer pipes. Hot refrigerant pipe will protect water in the tray from freezing. And the heating cable, that can be layed inside the pipe, will be energized for some time after defrost. So you will never have problems with defrosted water icing using this option. Also the option can be used in warm climates to remove defrost water to the right place.

## // Select compressors and refrigerant that you need

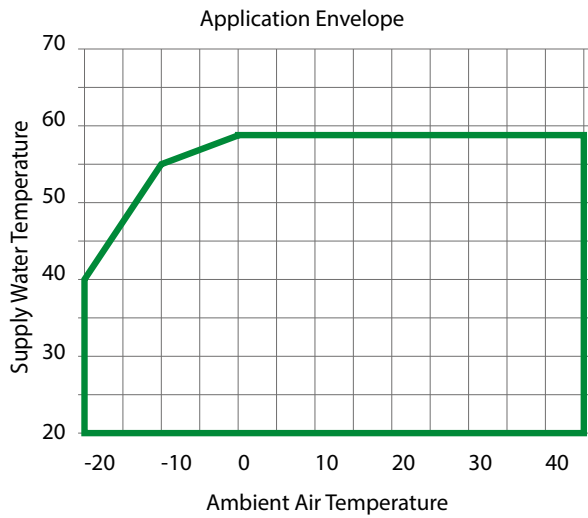
**NordicLIGHT** // R410a with on/off scrolls: basic solution for space heating.

**NordicLIGHT EVI** // R407C with EVI on/off scrolls: advanced solution for space and DHW (domestic hot water) heating. Upto 65°C outlet water temperature.

**NordicLIGHT iNVi** // R410a with inverter scrolls: advanced solution for space heating.

**NordicGREEN** // R290 Propane (GWP=3) with scroll or reciprocating compressors: green solution for space and DHW heating. Green refrigerant with low global warming potential.

# Product range // NordicLIGHT



// Each circuit is equipped with tandem scroll compressors.

// R410a refrigerant

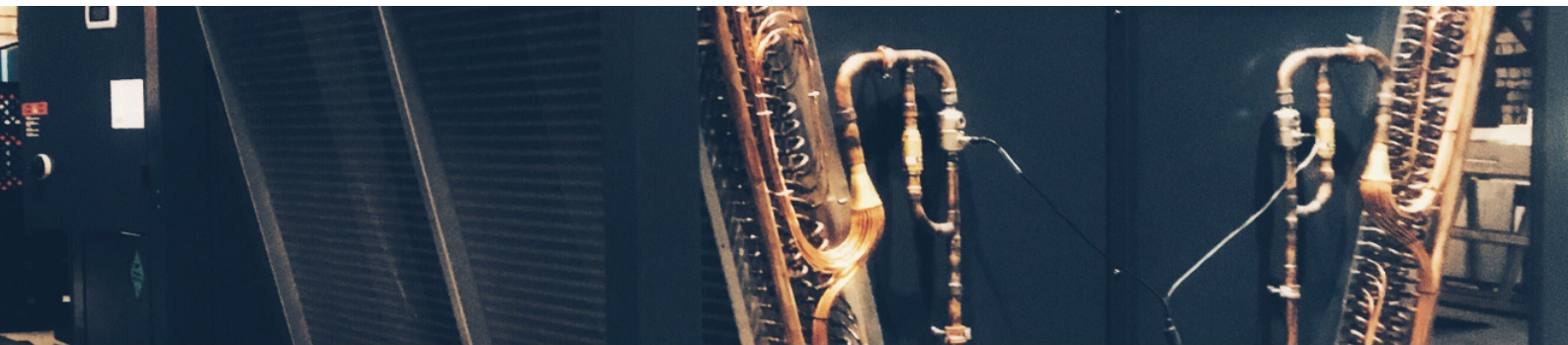
	10.2	12.2	15.2	16.2	18.2	20.2	24.2	26.2	30.2	20.4	24.4
<b>Heat pump capacities. User water 30/35°C, Ambient air temperature +2°C</b>											
Heating capacity, kW	23,5	27,7	35,3	39,0	44,4	55,1	64,8	68,8	80,5	46,2	57,0
Power input, kW	6,3	7,4	10,0	10,7	12,2	14,6	16,7	18,4	21,3	12,9	15,2
COP	3,72	3,74	3,54	3,64	3,64	3,77	3,88	3,74	3,78	3,58	3,75
<b>Product data</b>											
Number of circuits	1	1	1	1	1	1	1	1	1	2	2
Number of compressors	2	2	2	2	2	2	2	2	2	4	4
Compressor type	Scroll										
Number of fans	1	1	1	2	2	3	3	4	4	2	2
Length, m	1,26	1,26	1,26	1,6	1,6	2,25	2,25	2,9	2,9	2,0	2,0
Width, m	0,85	0,85	0,85	1,0	1,0	1,0	1,0	1,0	1,0	1,4	1,4
Hight, m	1,8	1,8	2,1	1,8	1,8	1,8	1,8	1,8	1,8	1,8	1,8

	32.4	36.4	40.4	48.4	52.4	60.4	80.4	100.4	120.4	160.4
<b>Heat pump capacities. User water 30/35°C, Ambient air temperature +2°C</b>										
Heating capacity, kW	78,1	88,8	110,2	129,5	137,7	161,1	204,8	248,4	335,6	408,0
Power input, kW	21,4	24,4	29,3	33,4	36,8	42,6	53,2	66,4	88,0	108,4
COP	3,64	3,64	3,77	3,88	3,74	3,78	3,85	3,74	3,81	3,76
<b>Product data</b>										
Number of circuits	2	2	2	2	2	2	2	2	2	2
Number of compressors	4	4	4	4	4	4	4	4	4	4
Compressor type	Scroll									
Number of fans	4	4	6	6	8	8	4	4	6	6
Length, m	2,65	2,65	3,3	3,3	3,95	3,95	3,7	3,7	4,9	4,9
Width, m	1,4	1,4	1,4	1,4	1,4	1,4	2,2	2,2	2,2	2,2
Hight, m	1,8	1,8	1,8	1,8	1,8	1,8	2,3	2,3	2,3	2,3









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