

# Nordic Heat Pump Product Guide







Maritime Geothermal is a privately owned, Canadian based manufacturer of geothermal heat pumps. We began manufacturing the Nordic line of heat pumps over 30 years ago, and have been raising the bar for the geothermal industry ever since. We're committed to manufacturing reliable, competitively priced heat pumps that meet all consumer expectations, and exceed industry guidelines.

From our inception in 1983 to our modern manufacturing facility and testing lab, we've been a pioneer in innovative geothermal technology for decades, while also ensuring that product quality, attention to detail and customer support remain our top priority.

Our company believes that renewable heating and cooling is a way to combat rising energy costs and the environmental challenges we face in the future, and we're committed to being part of the solution.

#### **The Nordic Difference**



CSA Test Lab We have the only CSA Certified Test Lab in Canada, which helps us design the best performing machines.



Unique Designs Our ATW, EMW, High Temp and DX heat pumps are unique designs you won't find with any other manufacturer.



**Customer Service** 

With decades of experience, our customer service team will get you the help you need, no waiting required.



Canadian Quality Designed and built in Canada means we use the best components and take care in the assembly plant.

## Want more information?

Visit our website at **nordicghp.com** for information on our manufacturing process, take a video plant tour, or download product information. You can also contact us at **506-756-8135**.





#### Nordic Air-to-Water Series

The ATW Series heats water for an in-floor radiant heating system, and chills water for air conditioning via a hydronic air handler. This system uses heat transfer from the outdoor air, and can operate in temperatures as low as 5°F(-15°C). At that point, electronic backup via a buffer tank would make up the deficit.

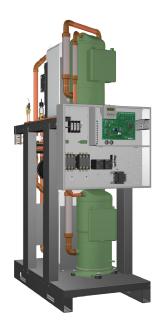
The ATW Series has been specially designed to work in Canadian climates. Design features like locating the compressor indoors, our unique intelligent defrost logic, and a fan design that reduces ice build-up all allow our air-to-water heat pump to perform well in cold weather.

Air-to-Water Information	
Available Sizes	2.5 to 6 nominal tons
Distribution Type	Radiant in-floor heat, cooling via hydronic fan coils
Capabilities	Heating, cooling and domestic hot water
COP	3.5
Certifications	CSA, UL

## **Product Features**

- Oversized outdoor unit for superior heating in colder outdoor temperatures.
- Intelligent defrost logic minimizes energy required to defrost the outdoor coil.
- Outdoor ice channeling designed to prevent ice build-up.
- Compressor is located inside the indoor unit or ease of cold-weather service.
- Domestic hot water available via double walled heat exchanger and ECM bronze heat circulator (factory installed).
- Electronic control board has external digital user interface and is located in indoor unit for protection from the weather.







## Nordic Commercial Water-to-Water Series

Our next generation Commercial W Series has been completely redesigned. This unit features an upright configuration with two compressors and separate refrigerant circuits. The vertical configuration of this unit means it can be installed in single or multi-unit configurations and is available in sizes up to 65 nominal tons. This heat pump is available in either hot water only, hot water and domestic hot water, reversible (hot and chilled water) or reversible with domestic hot water.

The Commercial W Series heat pump is designed for large-scale heating and cooling and waste heat recovery systems.

Commercial Water-to-Water Information		
Available Sizes	9 to 65 tons.	
Distribution Type	Radiant in-floor heat, cooling via hydronic fan coils	
Capabilities	Heating, cooling and domestic hot water	
COP	4.1	
Certifications	ETL	

## **Product Features**

- The small footprint and vertical configuration allows this machine to fit through standard single doors.
- The welded and reinforced frame can be lifted with a forklift from end or side.
- The enclosure is optional and entirely removable.
- The unit is designed to be set side by side with minimal clearance, all service can be performed from ends of units.
- Two separate R410a circuits have a common water circuit, allowing best part and full load efficiency. The dual refrigerant circuits are separated for ease of service.





## Nordic High Temperature Water-to-Water Heat Pump

The W Series High Temperature heat pump can utilize a **clean incoming source side liquid temperature in the range of 50°F (10°C) to 122°F(50°C)** to heat domestic hot water or any hydronic heating system that was designed for high temperature water from a boiler, such as hot water baseboards. This heat pump can heat water to as high as 160°F(71°C). Sources for this clean incoming liquid could be the buffer tank on the indoor side of a geothermal heat pump, or a cooling loop from an industrial process.

This heat pump may be used in parallel for larger applications.

High Temperature Water-to-Water Information		
Available Sizes	7.5 nominal tons	
Distribution Type	Domestic hot water or hot water baseboards	
Capabilities	Heating and domestic hot water	
COP	4.72	
Certifications	ETL	

#### **Product Features**

- This heat pump uses R134a refrigerant for a higher temperature range than would be possible with other refrigerants.
- 316SS double walled brazed plate condenser to meet building codes applicable to potable water.
- 316SS brazed plate evaporator for maximum efficiency.



## **Nordic R Series**

The R Series is a liquid-to-air heat pump providing full package heating and cooling. This heat pump will work on either an open or closed loop, and has optional domestic hot water in both heating and cooling modes. The R Series is available in vertical, horizontal, and split configurations.

This heat pump is available in sizes from 2 to 6.5 nominal tons, for whole home applications. It is ENERGY STAR certified and has the smallest footprint in the industry at 24" x 28". Cupro nickel heat exchangers are available on this unit.



Water-to-Air Information	
Available Sizes	2 to 6.5 nominal tons
Distribution Type	Forced air heating and cooling
Capabilities	Heating, cooling and domestic hot water
COP	3.7-4.9
Certifications	ENERGY STAR, AHRI, CSA, UL, CE

## **Nordic TF Series**

The TF Series is a triple function heat pump. It combines a traditional water-to-air and water-towater heat pump, and adds domestic hot water making capabilities. The result is a heat pump that can provide hot water for radiant in-floor heat, forced air heating and cooling, and domestic hot water, all in a single machine.

The TF Series works on an open or closed loop system and has a unique "call waiting" feature that allows the user to set water or air heating priority.





Water-to-Air & Water Information		
Available Sizes	3 to 6.5 nominal tons	
Distribution Type	Forced air and radiant in-floor	
Capabilities	Heating, cooling and domestic hot water	
COP	4.5	
Certifications	ENERGY STAR, AHRI, CSA, UL, CE	



## **Nordic EMW Series**

The EMW Series is an all-in-one solution for residential and light commercial in-floor heating systems. Within a single cabinet is a liquid-to-water heat pump with buffer tank, floor circulator, expansion tank and all control electronics.

The EMW saves many hours of plumbing and wiring by combining most mechanical room components into one unit. The EMW Series is also available in two-tank versions with separate hot and cold tanks, which allow it to switch from heating to cooling mode instantly with no efficiency loss or waiting.



Water-to-Water Information	
Available Sizes	3 to 6.5 nominal tons
Distribution Type	Hot water for in-floor heating
Capabilities	Heating, cooling and domestic hot water
COP	3.42 - 3.65
Certifications	CSA, UL

## **Nordic PC Series**

The PC Series is a high efficiency heat recovery heat pump. It cools and dehumidifies the pool area and rejects the heat back into the air stream, into the pool, or to an external outdoor condenser unit.

This heat pump is typically used in homes with large indoor swimming pools. It has coated air coils, a titanium exchanger and a stainless steel case specifically suited to the unique indoor pool environment. This unit has an included humidistat, front mounted refrigerant pressure gages and a filter dryer and sight glass as standard features.





PC Series Information	
Available Sizes	3 to 6.5 nominal tons
Distribution Type	Forced air, other
Capabilities	Cooling, dehumidification
Configuration	Horizontal
Certifications	CSA, UL



## **Find Out More Information**

Visit our website for complete product documentation at nordicghp.com or give us a call with your technical questions at 506-756-8135.

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