

Heat Pump Product Guide





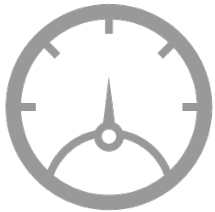
About Maritime Geothermal

Maritime Geothermal has been manufacturing the Nordic line of geothermal and air source heat pumps for over 40 years. We're committed to manufacturing reliable, competitively priced heat pumps that meet customer 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 the best 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



Test Lab

We have the only full performance test lab in Canada, which helps us design high performance machines.



Unique Designs

Our ATW, EMW and High Temp 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 in a timely manner.



Canadian Quality

Designed and built in Canada means we use the best components and take pride in our work 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**.



ATW Series

Certification

Features & Benefits

Indoor Unit - A 28" x 28" footprint.

Outdoor Unit - Has a hinge mounted door, true variable speed with ECM-style hub motor for maximum energy efficiency. Mounting leg kits are available.

Compressor - Copeland two-stage scroll, with double isolation for quiet operation. Located in the indoor unit for ease of cold-weather service and better refrigerant/oil management.

Hard Start Kit - standard on all models.

EEV (Electronic Expansion Valve) - Maintains an accurate and efficient flow of refrigerant.

Filter-Dryer & Sight Glass - Standard on all units.

Accumulator - Protects compressor against liquid slugging.

Coaxial Heat Exchanger - Enhanced surface coaxial style heat exchangers (CuNi available).

Domestic Hot Water - double wall heat exchanger and bronze head ECM circulator factory installed.

Intelligent Defrost Logic - Minimizes energy required to defrost the outdoor coil.

Outdoor Ice Channeling Design - Angled outdoor coil with no bottom tray to reduce ice build-up.

Gen2 Board - Includes built-in aquastat functionality, BACnet, data logging, electronic readout of refrigerant pressures and water in/out temperatures.

Refrigerant Pressure Sensors - electronic high and low, displayed by user interface.

Service Ports - High and low service ports for quick connection to a manifold gauge set.

Cabinet - Satin galvanized with powder coat finish. Acoustically insulated for quiet operation.

Doors - All 4 side panels can be removed, electrical box swings out for unobstructed 4-side servicing.

Available Sizes - 2 - 6 nominal tons.

Distribution Type - Radiant in-floor heating and cooling via hydronic air handlers.



The ATW Series can heat water up to 120°F (49°C) and can operate in temperatures as low as -7°F (-22°C). At that point, the electronic backup via a buffer tank with elements would take over.

Standard Capacity Ratings for Heating Mode (60Hz)

LLT 105°F (41°C)			Outdoor Air 17°F (- 8°C)					Outdoor Air 47°F (8°C)				
Model	Loop Flow		Input Energy	Capacity		ΔP	COPh	Input Energy	Capacity		ΔP	COPh
	GPM	L/s	Watts	Btu/hr	W	psi		Watts	Btu/hr	W	kPa	
25	8.0	0.50	1,860	14,800	4,350	3.0	2.35	1,690	22,700	6,640	21	3.93
45	10.0	0.63	2,600	22,200	6,510	3.8	2.51	2,340	33,700	9,890	26	4.23
55	12.0	0.76	3,430	28,800	8,430	3.4	2.46	3,030	43,700	12,800	23	4.23
65	14.0	0.88	4,070	33,900	9,940	4.7	2.44	3,600	51,500	15,100	32	4.19
75	16.0	1.00	4,640	38,500	11,300	3.8	2.44	4,100	59,100	17,300	26	4.23

Standard Capacity Ratings for Cooling Mode (60Hz)

ELT 54°F (12°C)			Outdoor Air 95°F					Outdoor Air 35°C (Metric)				
Model	Loop Flow		Input Energy	Capacity	ΔP	EER	COPc	Input Energy	Capacity	ΔP	EER	COPc
	GPM	L/s	Watts	Btu/hr	psi			Watts	W	kPa		
25	8.0	0.50	1,930	22,400	3.2	9.1	2.66	1,930	5,100	22	9.1	2.66
45	10.0	0.63	2,590	34,100	4.0	10.2	2.99	2,590	7,700	28	10.2	2.99
55	12.0	0.76	3,320	44,000	3.7	10.1	2.94	3,320	9,720	26	10.1	2.94
65	14.0	0.88	4,080	55,400	5.0	10.1	2.96	4,080	12,000	34	10.1	2.96
75	16.0	1.00	4,770	64,600	4.0	10.0	2.93	4,770	13,900	28	10.0	2.93

ATF Series Air to Air & Water Heat Pump

Certification



Features & Benefits

- Footprint** - A 24" x 28" footprint.
- 4-Fan Outdoor Unit** - For more efficient heating and cooling in extreme conditions.
- Fans** - Indoor and outdoor unit fans are variable speed ECM motors for energy efficiency.
- Intelligent Defrost Logic** - Minimizes energy required to defrost the outdoor coil.
- Outdoor Ice Channeling Design** - Less ice build-up with no bottom tray and angled outdoor coil.
- Compressor** - Copeland two-stage scroll with double isolation. Located in the indoor unit for service convenience and better refrigerant/oil management.
- Hydronic Heat Coil** - Heavy duty coaxial type, for excellent solids tolerance and resistance to freezing. Also available in CuNi.
- Refrigerant Pressure Sensors** - Electronic high and low, displayed by user interface.
- Electronic Expansion Valves (EEV's)** - For precise refrigerant control.
- Start Capacitor Kit** - Standard equipment.
- Domestic Hot Water** - Double wall heat exchanger and factory installed ECM bronze head circulator.
- Gen2 Electronic Control Board** - With built-in digital user interface. Includes outdoor reset function, data logging, laptop USB connection, and BACnet interface.
- Available Sizes** - 3 - 6.5 nominal tons.
- Distribution Type** - Heating and cooling via central forced air, hydronic in-floor heating and domestic hot water heating.

Standard Capacity Ratings for Air Heating Mode (60Hz)

Indoor Air 70°F (21°C) db / 60°F (15.6°C) wb			H12 - Outdoor Air 47°F (8.3°C)				H22 - Outdoor Air 35°F (1.7°C)				H32 - Outdoor Air 17°F (-8.3°C)			
Model	Indoor Airflow		Input Energy	Capacity		COPh	Input Energy	Capacity		COPh	Input Energy	Capacity		COPh
	cfm	L/s	Watts	Btu/hr	kW	W/W	Watts	Btu/hr	kW	W/W	Watts	Btu/hr	kW	W/W
45	1200	566	2,290	30,100	8.8	3.85	2,240	25,500	7.5	3.34	2,100	19,600	5.8	2.74
55	1500	708	3,110	40,700	11.9	3.83	3,030	34,400	10.1	3.33	2,760	25,700	7.5	2.72
65	1900	897	3,955	51,800	15.2	3.84	3,810	43,200	12.7	3.32	3,560	32,800	9.6	2.70
75	2100	991	4,550	59,400	17.4	3.83	4,485	50,700	14.9	3.31	4,295	39,000	11.4	2.66

Standard Capacity Ratings for Air Cooling Mode (60Hz)

Indoor Air 80°F (26.7°C) db / 67°F (19°C) wb			H12 - Outdoor Air 82°F (27.8°C)				H22 - Outdoor Air 95°F (35°C)					
Model	Indoor Airflow		Input Energy	Capacity		EER	COPc	Input Energy	Capacity		EER	COPc
	cfm	L/s	Watts	Btu/hr	kW	Btu/W-hr	W/W	Watts	Btu/hr	kW	Btu/W-hr	W/W
45	1200	566	2,235	34,100	10.0	15.2	4.47	2,605	31,400	9.2	12.1	3.53
55	1500	708	2,925	44,000	12.9	15.0	4.41	3,410	40,600	11.9	11.9	3.49
65	1900	897	3,725	55,400	16.2	14.9	4.36	4,310	51,200	15.0	11.9	3.48
75	2100	991	4,385	64,600	18.9	14.7	4.31	5,010	59,200	17.4	11.8	3.46

Standard Capacity Ratings for Hydronic Heating Mode (60Hz)

Indoor Air 70°F (21°C) db / 60°F (15.6°C) wb					H12 - Outdoor Air 47°F (8.3°C)				H22 - Outdoor Air 35°F (1.7°C)				H32 - Outdoor Air 17°F (-8.3°C)			
Model	Indoor Liquid Flow		Pressure Drop		Input Energy	Capacity		COPh	Input Energy	Capacity		COPh	Input Energy	Capacity		COPh
	GPM	L/s	psi	kPa	Watts	Btu/hr	kW	W/W	Watts	Btu/hr	kW	W/W	Watts	Btu/hr	kW	W/W
45	10.0	0.63	3.8	26	2,518	33,600	9.9	3.91	2,581	29,200	8.6	3.32	2,742	22,000	6.5	2.35
55	12.0	0.76	4.1	28	3,270	43,400	12.7	3.89	3,320	37,400	11.0	3.30	3,615	28,700	8.4	2.32
65	14.0	0.88	5.0	34	3,866	51,000	14.9	3.86	3,837	43,400	12.7	3.31	4,272	33,900	9.9	2.33
75	16.0	1.01	4.0	36	4,417	58,600	17.2	3.88	4,527	50,200	14.7	3.25	4,893	38,400	11.2	2.30



ATA Series Air to Air Heat Pump

Certification

Features & Benefits

Indoor Unit - A 24" x 28" footprint. Air discharge is field changeable from top to side.

4-Fan Outdoor Unit - For superior heating in colder outdoor temperatures and ultra efficient cooling.

Fans - Both indoor and outdoor unit fans are true variable speed with ECM-style motors, for comfort and energy efficiency.

Intelligent Defrost Logic - Minimizes energy required to defrost the outdoor coil.

Outdoor Ice Channeling Design - Less ice build-up with no bottom tray and angled outdoor coil.

Compressor - Copeland two-stage scroll with double isolation for quiet operation. Located in the indoor unit for ease of cold-weather service, and better refrigerant/oil management.

Gen2 Electronic Control Board - With built-in digital user interface. Includes data logging, laptop USB connection, and BACnet interface.

Refrigerant Pressure Sensors - Electronic high and low, displayed by user interface.

Electronic Expansion Valves (EEV's) - For precise refrigerant control.

Domestic Hot Water - Double wall heat exchanger and ECM bronze head circulator factory installed, an exclusive feature in the air-source market.

Available Sizes - 2 - 6 nominal tons.

Distribution Type - Heating and cooling via central forced air, and domestic hot water heating.



Standard Capacity Ratings for Heating Mode (60Hz)

Indoor Air 70°F (21°C) db / 60°F (15.6°C) wb			H12 - Outdoor Air 47°F (8.3°C)				H22 - Outdoor Air 35°F (1.7°C)				H32 - Outdoor Air 17°F (-8.3°C)			
Model	Indoor Airflow		Input Energy Watts	Capacity		COPh W/W	Input Energy Watts	Capacity		COPh W/W	Input Energy Watts	Capacity		COPh W/W
	cfm	L/s		Btu/hr	kW			Btu/hr	kW			Btu/hr	kW	
25	800	378	1,520	19,900	5.8	3.84	1,485	16,800	4.9	3.32	1,395	13,100	3.8	2.74
45	1200	566	2,290	30,100	8.8	3.85	2,240	25,500	7.5	3.34	2,100	19,600	5.8	2.74
55	1500	708	3,110	40,700	11.9	3.83	3,030	34,400	10.1	3.33	2,760	25,700	7.5	2.72
65	1900	897	3,955	51,800	15.2	3.84	3,810	43,200	12.7	3.32	3,560	32,800	9.6	2.70
75	2100	991	4,550	59,400	17.4	3.83	4,485	50,700	14.9	3.31	4,295	39,000	11.4	2.66

Standard Capacity Ratings for Cooling Mode (60Hz)

Indoor Air 80°F (26.7°C) db / 67°F (19°C) wb			B2 - Outdoor Air 82°F (27.8°C)					A2 - Outdoor Air 95°F (35°C)				
Model	Indoor Airflow		Input Energy Watts	Capacity		EER Btu/W-hr	COPc W/W	Input Energy Watts	Capacity		EER Btu/W-hr	COPc W/W
	cfm	L/s		Btu/hr	kW				Btu/hr	kW		
25	800	378	1,510	22,400	6.6	14.9	4.35	1,740	20,600	6.0	11.9	3.47
45	1200	566	2,235	34,100	10.0	15.2	4.47	2,605	31,400	9.2	12.1	3.53
55	1500	708	2,925	44,000	12.9	15.0	4.41	3,410	40,600	11.9	11.9	3.49
65	1900	897	3,725	55,400	16.2	14.9	4.36	4,310	51,200	15.0	11.9	3.48
75	2100	991	4,385	64,600	18.9	14.7	4.31	5,010	59,200	17.4	11.8	3.46

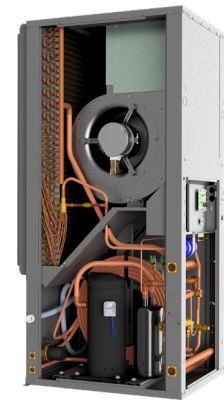
R Series Water to Air Heat Pump

Certifications



Features & Benefits

- Footprint** - A 24" x 28" footprint for the R-45 to R-75 and a 28" x 34" footprint for the R-80. Horizontal (RH) footprint is also available.
- Fan** - Oversized blower for quiet operation. Motor is a constant airflow variable speed ECM, serviceable from one side.
- Drip Tray** - Stainless steel with internally trapped clear vinyl drain.
- Compressor** - Copeland high efficiency two-stage scroll, with double isolation for quiet operation.
- Hard Start Kit** - Standard on all single phase units.
- TXV (Thermostatic Expansion Valve)** - Maintains refrigerant amount injected into the evaporator based on superheat.
- Filter-Dryer & Sight Glass** - Standard on all units.
- Accumulator** - Protects compressor against liquid slugging.
- Coaxial Heat Exchanger** - Enhanced surface and heavy duty for efficiency and reliability (CuNi available).
- Domestic Hot Water** - Double wall heat exchanger and bronze head ECM circulator factory installed.
- Electronic Control Board** - With safety and short cycle protection.
- Cabinet** - Satin galvanized with powder coat finish. Acoustically insulated for quiet operation.
- Doors** - 4 panels can be removed for maximum service access.
- Loop or Well** - Unit pre-wired for operation on a closed loop or a water well.
- Available Sizes** - 3 - 6.5 nominal tons.
- Distribution Type** - Heating and cooling via central forced air and domestic hot water heating.



Standard Capacity Ratings for Open Loop (60Hz)

Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Mode	Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh (Heating)	Cooling Capacity (Btu/hr)	Input Energy (Watts)	COPc (Cooling)	EER
Open Loop Heating EWT 50°F Cooling EWT 59°F	45	3	10.0	4.0	Stage 1	25,500	1,625	4.5	29,500	1,080	8.0	27.3
					Stage 2	35,700	2,375	4.3	38,500	1,805	6.3	21.3
	55	4	12.0	3.5	Stage 1	34,500	2,075	4.8	37,300	1,315	8.4	28.5
					Stage 2	47,200	2,960	4.6	50,200	2,245	6.6	22.5
	65	5	14.0	4.3	Stage 1	42,800	2,670	4.6	47,200	1,705	8.0	27.1
					Stage 2	58,700	3,740	4.5	62,600	2,865	6.3	21.5
	75	6	16.0	3.6	Stage 1	52,000	3,540	4.3	54,300	2,305	7.2	24.4
					Stage 2	68,500	4,780	4.2	69,800	3,710	5.7	19.4
	80	6.5	17.0	4.1	Stage 1	77,500	5,315	4.1	86,500	4,130	5.8	19.6
					Stage 2							

Standard Capacity Ratings for Closed Loop (60Hz)

Closed Loop Heating EWT 32°F (Stg 1 EWT 41°F) Cooling EWT 77°F (Stg 1 EWT 68°F)	45	3	10.0	4.4	Stage 1	22,000	1,535	4.3	26,800	1,130	7.0	23.7
					Stage 2	27,200	2,155	3.6	35,100	2,155	4.8	16.3
	55	4	12.0	4.1	Stage 1	29,100	2,045	4.2	35,800	1,470	7.2	24.5
					Stage 2	35,600	2,700	3.8	45,400	2,640	5.1	17.3
	65	5	14.0	5.3	Stage 1	35,900	2,565	4.0	45,500	1,910	6.6	22.6
					Stage 2	44,000	3,390	3.7	57,600	3,445	4.9	16.8
	75	6	16.0	4.1	Stage 1	45,100	3,435	3.9	52,700	2,620	6.2	21.0
					Stage 2	53,200	4,355	3.6	66,400	4,300	4.6	15.7
	80	6.5	17.0	4.5	Stage 1	63,000	4,940	3.5	81,500	4,950	4.5	15.4
					Stage 2							



R Series Commercial Water to Air Heat Pump

Certification

Features & Benefits

- ECM Fan** - 5-speed motor is standard for energy efficiency over PSC type.
- Footprint** - R is a 19" x 19" footprint and 42" high, RH is a 21" x 21" footprint and 48" long
- Service Access** - Front side-only access for compact installations. Blower is removable from inside unit.
- Safety Lockout Board** - With status light visible without removing any doors.
- Condensate Overflow Sensor** - Standard on all units.
- Back-Up Plenum Heater** - Onboard control for externally mounted electric backup plenum heater.
- Compressor** - Dependable single-speed LG rotary compressor, with built-in accumulator.
- Low Noise** - Double grommet compressor isolation for low noise.
- Heat Exchanger** - Heavy duty coaxial heat exchanger.
- Air Coil** - Extra tubing wall thickness for durability.
- Available Sizes** - 0.75 - 2 nominal tons.
- Distribution Type** - Heating and cooling via central forced air.



Vertical Configuration

These units are also available as a heat recovery only unit using R134a refrigerant. Heat recovery units take heat from a hot mechanical room (minimum incoming temperature of 60°F) and heats water up to 160°F (71°C).



Horizontal Configuration

Standard Capacity Ratings for Open Loop (60Hz)

Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Heating Capacity (Btu/hr)	Input Energy (Watts)	COP _h (Heating)	Cooling Capacity (Btu/hr)	Input Energy (Watts)	COP _c (Cooling)	EER
Open Loop Heating ELT 50°F Cooling ELT 59°F	09	0.75	2.5	3.4	10,000	695	4.20	11,900	520	6.69	22.8
	12	1	3.0	3.2	13,500	945	4.18	13,600	600	6.64	22.7
	18	1.5	4.5	3.3	18,400	1,295	4.16	19,900	935	6.26	21.4
	24	2	8.0	4.4	25,500	1,507	4.20	23,600	931	5.75	19.6

Standard Capacity Ratings for Closed Loop (60Hz)

Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Heating Capacity (Btu/hr)	Input Energy (Watts)	COP _h (Heating)	Cooling Capacity (Btu/hr)	Input Energy (Watts)	COP _c (Cooling)	EER
Closed Loop Heating ELT 32°F Cooling ELT 77°F	09	0.75	2.5	3.7	8,700	645	3.94	10,400	600	5.08	17.3
	12	1	3.0	3.5	11,800	920	3.75	12,800	740	5.07	17.3
	18	1.5	4.5	3.6	14,700	1,175	3.66	18,200	1,060	5.05	17.2
	24	2	8.0	4.7	19,900	1,365	3.55	21,700	1,165	4.42	15.1



TF Series Water to Air & Water Heat Pump

Certifications



Features & Benefits

- Footprint** - A 28" x 34" footprint
- Fan** - Oversized blower for quiet operation. Motor is constant airflow variable speed ECM, serviceable from one side, field changeable top to side discharge.
- Gen2 Board** - Includes built-in aquastat functionality, BACnet, data logging, electronic readout of refrigerant pressures and water in/out temperatures
- Filter Rack** - Filter can be changed from either side.
- Drip Tray** - Stainless steel with internally trapped clear vinyl drain.
- Compressor** - Copeland high efficiency two-stage scroll, with double isolation for quiet operation.
- Hard Start Kit** - Standard on all single phase models.
- TXV (Thermostatic Expansion Valve)** - Expansion valve maintains maximum capacity under all operating conditions.
- Filter Dryer** - Standard on all units.
- Sight Glass** - Standard on all units.
- Accumulator** - Protects compressor against liquid slugging.
- Coaxial Heat Exchangers** - Heavy duty for reliability and enhanced surface for efficiency (CuNi available).
- Domestic Hot Water** - Double wall heat exchanger and bronze head circulator factory installed.
- Cabinet** - Satin galvanized with powder coat finish. Acoustically insulated for quiet operation.
- Loop or Well** - Unit pre-wired for operation on a closed loop or a water well.
- Available Sizes** - 3 - 6.5 nominal tons.
- Distribution Type** - Heating and cooling via central forced air, hydronic in-floor heating and domestic hot water heating.



Standard Capacity Ratings for Open Loop (60Hz)

Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Mode	Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh (Heating)	Cooling Capacity (Btu/hr)	Input Energy (Watts)	COPc (Cooling)	EER
Open Loop Heating ELT 50°F Cooling ELT 59°F	45	3	10	4.9	Stage 1	24,200	1,500	4.50	28,900	895	7.98	27.2
					Stage 2	34,300	2,480	4.20	39,200	1,640	6.10	20.8
	55	4	12	4.6	Stage 1	33,400	2,315	4.70	40,100	1,525	7.92	27.0
					Stage 2	47,100	3,305	4.40	51,100	2,515	6.60	22.5
	65	5	14	5.6	Stage 1	42,600	2,645	4.60	46,900	1,760	8.01	27.3
					Stage 2	58,400	3,790	4.40	62,500	2,950	6.36	21.7
	75	6	16	5.0	Stage 1	51,200	3,610	4.20	53,800	2,485	7.07	24.1
					Stage 2	67,200	4,880	4.10	70,200	3,875	5.66	19.3
	80	6.5	17	5.0	Stage 1	77,100	5,600	4.04	84,100	4,350	5.66	19.3
					Stage 2							

Standard Capacity Ratings for Closed Loop (60Hz)

Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Mode	Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh (Heating)	Cooling Capacity (Btu/hr)	Input Energy (Watts)	COPc (Cooling)	EER
Closed Loop Heating ELT 32°F (Stg 1 ELT 41°F) Cooling ELT 77°F (Stag 1 ELT 68°F)	45	3	10	5.5	Stage 1	20,100	1,550	4.10	27,400	1,060	7.48	25.5
					Stage 2	25,200	2,290	3.60	36,200	1,965	4.75	16.2
	55	4	12	5.1	Stage 1	28,300	2,250	4.17	36,300	1,750	6.98	23.8
					Stage 2	35,400	3,000	3.80	45,400	3,015	5.01	17.1
	65	5	14	6.3	Stage 1	35,500	2,615	4.00	45,200	2,025	6.54	22.3
					Stage 2	43,800	3,510	3.70	57,400	3,500	4.87	16.6
	75	6	16	5.9	Stage 1	42,300	3,600	3.70	51,800	2,790	6.01	20.5
					Stage 2	52,600	4,465	3.50	65,800	4,460	4.43	15.1
	80	6.5	17	5.9	Stage 1	61,900	5,155	3.52	77,200	5,235	4.32	14.7
					Stage 2							

For hydronic heating performance data, please visit the TF Series manual

W Series Water to Water Heat Pump

Certifications



Features & Benefits

Unit Footprint - W-25 to W-55 has a 28" x 28" footprint and W-65 to W-80 has a 28" x 38.5" footprint.

Compressor - Copeland two-stage scroll, with double isolation for quiet operation.

Hard Start Kit - Standard on all models.

EEV (Electronic Expansion Valve) - Maintains an accurate and efficient flow of refrigerant.

Filter-Dryer & Sight Glass - Standard on all units.

Accumulator - Protects compressor against liquid slugging.

Coaxial Heat Exchanger - Enhanced surface coaxial style heat exchangers (CuNi available).

Domestic Hot Water - Double wall heat exchanger and bronze head ECM circulator factory installed.

Service Ports - High and low service ports for quick connection to a manifold gauge set.

Gen2 Board - Includes built-in aquastat functionality, BACnet, data logging, electronic readout of refrigerant pressures and water in/out temperatures.

Cabinet - Satin galvanized with powder coat finish. Acoustically insulated for quiet operation.

Doors - All 4 side panels can be removed, electrical box swings out for unobstructed 4-side servicing.

Loop or Well - Unit pre-wired for operation on a closed loop or a water well.

Available Sizes - 2 - 6.5 nominal tons.

Distribution Type - Radiant In-Floor Heating and Cooling via Hydronic Air Handlers.



Standard Capacity Ratings for Open Loop (60Hz)

Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Mode	Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh (Heating)	Cooling Capacity (Btu/hr)	Input Energy (Watts)	COPc (Cooling)	EER
Open Loop Heating EWT 104°F Cooling EWT 54°F	25	2	8.0	4.2	Stage 1	16,400	1,300	3.7	17,700	695	7.5	25.5
					Stage 2	22,600	1,740	3.8	23,200	1,105	6.2	21.0
	45	3	10.0	3.9	Stage 1	22,800	1,855	3.6	24,500	985	7.3	24.8
					Stage 2	32,700	2,455	3.9	34,000	1,665	6.0	20.4
	55	4	12.0	3.6	Stage 1	32,100	2,475	3.8	33,900	1,370	7.2	24.7
					Stage 2	45,000	3,565	3.7	44,700	2,180	6.0	20.5
	65	5	14.0	5.1	Stage 1	39,300	3,200	3.6	41,300	1,755	6.9	23.5
					Stage 2	54,900	4,345	3.7	54,800	2,710	5.9	20.2
	75	6	16.0	4.6	Stage 1	47,800	3,785	3.7	49,800	2,120	6.9	23.5
					Stage 2	64,500	4,845	3.9	62,400	3,105	5.9	20.1
	80	6.5	17.0	4.2	Stage 1	75,000	6,095	3.6	71,000	3,725	5.8	18.6
					Stage 2							

Standard Capacity Ratings for Closed Loop (60Hz)

Closed Loop Heating EWT 104°F (Stg 1 ELT 41°F) Cooling EWT 54°F (Stg 1 ELT 68°F)	25	2	8.0	4.9	Stage 1	14,100	1,290	3.2	17,100	800	5.3	18.5
					Stage 2	17,300	1,635	3.1	21,000	1,305	4.0	14.5
	45	3	10.0	4.5	Stage 1	19,000	1,760	3.1	23,000	1,205	5.6	19.1
					Stage 2	24,400	2,309	3.1	30,500	2,125	4.3	14.6
	55	4	12.0	4.1	Stage 1	27,500	2,740	3.1	31,500	1,615	5.7	19.5
					Stage 2	34,600	3,270	3.1	40,300	2,685	4.4	15.0
	65	5	14.0	6.3	Stage 1	34,100	3,120	3.1	39,100	1,975	5.8	19.8
					Stage 2	42,600	4,025	3.1	49,600	3,305	4.4	15.0
	75	6	16.0	4.9	Stage 1	41,100	3,765	3.2	45,600	2,535	5.3	18.0
					Stage 2	49,000	4,630	3.1	55,900	3,750	4.4	14.9
	80	6.5	17.0	4.5	Stage 1	57,500	5,860	3.0	64,800	4,460	4.3	14.5
					Stage 2							



Specialty W Series Water to Water Heat Pump

These units are able to heat indoor loop water up to **130°F / 54°C** at typical geothermal ground loop temperatures. Direct domestic hot water heating with the double wall exchanger can heat up to **140°F / 60°C**

Certification



W 120/140/180/235 Features & Benefits

- Footprint** - A 20" x 41" footprint.
- Compressor** - Single stage scroll with crankcase heater.
- Suction Accumulator** - For compressor liquid protection.
- EEV (Electronic Expansion Valve)** - Maintains an accurate and efficient flow of refrigerant.
- Filter-Dryer & Sight Glass** - Standard on all units.
- 316SS Single Wall Brazed Plate Heat Exchanger** - For regular space heating and cooling needs.
- 316SS Double Wall Brazed Plate Heat Exchanger** - For dedicated domestic hot water heating.
- 316SS Water Lines** - To meet building codes applicable to potable water.
- Refrigerant** - Contains R410a refrigerant.
- Access Ports** - Standard on all units.
- Sight Glass** - Standard on all units.
- Gen2 Control Board** - With external digital user interface, and BACnet communications. USB port for laptop connection using free provided software.
- Cabinet** - Satin galvanized with powder coat finish for corrosion resistance. Acoustically insulated for quiet operation.
- LCD Display** - For control and data access via USB port.
- Loop or Well** - Unit pre-wired for operation on a closed loop or a water well.
- Available Sizes** - 10 - 20 nominal tons.
- Distribution Type** - Space heating and cooling or domestic hot water heating.
- Multiple Unit Installation** - Set units side-by-side with minimal clearance as all service can be performed from ends of units.



W Series performance data can be found in the manual on our website.

nordicghp.com/product/water-to-water/w-series-commercial



W Series Commercial Water to Water Heat Pump

Certification

Features & Benefits

- Unit Footprint** - W-150 to W- 400 has about a 25" x 49" footprint and the W-500 to W-1000 has about a 29" x 60" footprint with vertical configuration.
- Frame** - Welded and reinforced for industrial strength, can be lifted with a forklift from end or side.
- Enclosure** - Removable with full 1" acoustic insulation.
- Multiple Unit Installations** - Set units side-by-side with minimal clearance; all service can be performed from ends of units.
- Dual Circuit** - Two separate R410a circuits with common water circuit, for best part and full load efficiency and best oil management.
- Pipe Routing** - Dual refrigerant circuits are clearly separated for ease of service.
- Dual Shell Scroll Compressors** - High tolerance for flooded starts and next-generation PVE oil, for increased reliability and efficiency.
- Electronic Expansion Valves (EEV's)** - For precise refrigerant superheat control.
- Suction Accumulators** - Standard; protects compressor from liquid slugging.
- Reversing** - Available up to 65 tons
- Gen2 Control Board** - With external digital user interface, and BACnet communications. USB port for laptop connection using free provided software.
- Full 3-Phase Protection** - On both compressors.
- Water Circuit** - Stainless steel, for open or closed loop operation.
- Available Sizes** - 12 - 81 nominal tons.
- Distribution Type** - Radiant In-Floor Heating and Cooling via Hydronic Air Handlers.



Standard Capacity Ratings for Open Loop (60Hz)

Performance Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh (Heating)	Cooling Capacity (Btu/hr)	Input Energy (Watts)	COPc (Cooling)	EER
Open Loop Heating EWT 104°F Cooling EWT 54°F	W-150	12	36	2.0	153,800	10,386	4.34	156,300	7,242	6.33	21.6
	W-185	15	48	2.3	207,300	13,871	4.38	188,800	8,711	6.36	21.7
	W-240	20	60	2.7	274,500	17,625	4.56	253,900	11,890	6.26	21.4
	W-300	23	72	2.7	316,900	19,360	4.80	297,700	13,330	6.54	22.3
	W-400	30	100	2.8	408,600	25,970	4.61	393,000	18,190	6.33	21.6
	W-500	40	120	4.0	569,800	36,465	4.58	493,500	23,005	6.28	21.4
	W-600	50	150	4.4	683,400	42,630	4.70	620,000	29,055	6.25	21.3
	W-800	65	190	4.6	850,600	54,885	4.54	796,400	37,335	6.25	21.3
	W-900	70	210	4.7	914,800	59,500	4.51	872,500	41,600	6.15	21.0
	W-1000	81	225	4.6	1,076,100	74,774	4.22	981,700	47,213	6.10	20.8

Standard Capacity Ratings for Closed Loop (60Hz)

Closed Loop Heating EWT 104°F Cooling EWT 54°F	W-150	12	36	2.7	115,100	10,067	3.35	140,700	9,085	4.55	15.5
	W-185	15	48	2.9	155,400	13,308	3.42	172,300	11,054	4.57	15.6
	W-240	20	60	3.3	197,900	16,790	3.45	224,600	14,635	4.50	15.4
	W-300	23	72	3.7	231,000	18,650	3.66	272,500	15,960	5.00	17.1
	W-400	30	100	3.5	291,700	24,915	3.43	365,300	22,070	4.85	16.6
	W-500	40	120	5.5	423,900	36,400	3.41	474,600	29,055	4.79	15.5
	W-600	50	150	5.9	478,900	41,150	3.41	578,000	36,415	4.65	15.9
	W-800	65	190	6.0	612,500	52,910	3.39	743,800	47,030	4.63	15.8
	W-900	70	210	6.2	683,500	57,600	3.48	802,000	52,300	4.50	15.3
	W-1000	81	225	5.9	808,900	72,771	3.26	900,300	58,812	4.49	15.3



WH Series High-Temperature Water to Water Heat Pump

This high-temperature heat pump is capable of producing hot water up to **160°F (71°C)**. The source side liquid temperature can not be lower than **45°F (7°C)**. The source could be the buffer tank on the indoor side of the heat pump, a cooling loop from an industrial process, or well water.

Certification



WH 25-80 Features & Benefits

Distribution Type - This unit is designed for space heating via hot water baseboards and cooling via hydronic air handlers.

Electronic Expansion Valve - Ensures precise refrigerant control and maximizes system capacity.

Refrigerant - R134a refrigerant, for higher temperature range than otherwise possible.

Domestic Hot Water - Double wall heat exchanger and bronze head ECM circulator factory installed.

Suction Accumulator - Ensures liquid refrigerant cannot get back to compressor, for maximum compressor longevity.

Cabinet - Powder coated satin galvanized steel for corrosion resistance.

Gen2 Control Board - Built-in aquastat functionality, BACnet, laptop connectivity, data logging, electronic refrigerant pressures readout and water in/out temperatures.

Available Sizes - 2 - 6 nominal tons.



WH 85 Features & Benefits

Domestic Hot Water Heating - This unit is designed for domestic hot water heating.

Electronic Expansion Valve - Ensures precise refrigerant control and maximizes system capacity.

Refrigerant - R134a refrigerant, for higher temperature range than otherwise possible.

Refrigerant Receiver - Means 100% of condenser is available for use at all times, maximizing system capacity.

Suction Accumulator - Ensures liquid refrigerant cannot get back to compressor, for maximum compressor longevity.

Cabinet - Powder coated satin galvanized steel for corrosion resistance.

316SS Double Walled Brazed Plate Condenser - To meet building codes applicable to potable water.

316 Brazed Plate Evaporator - For maximum efficiency.

Gen2 Control Board - Built-in aquastat functionality, BACnet, laptop connectivity, data logging, electronic refrigerant pressures readout and water in/out temperatures.



For performance data, please visit the WH Series manuals found on our website.

nordicghp.com/product/high-temp-water-to-water/wh-series



Specialty WH Series Water to Water Heat Pump

This high-temperature heat pump is capable of producing hot water up to **160°F(71°C)**. The source side liquid temperature can not be lower than **45°F (7°C)**. The source could be the buffer tank on the indoor side of the heat pump, a cooling loop from an industrial process, or well water.

Certification



WH 120/140/180/235 Features & Benefits

Footprint - A 20" x 41" footprint.

Compressor - Single stage scroll with crankcase heater.

Suction Accumulator - For compressor liquid protection.

EEV (Electronic Expansion Valve) - Maintains an accurate and efficient flow of refrigerant.

Filter-Dryer & Sight Glass - Standard on all units.

316SS Single Wall Brazed Plate Heat Exchanger - For regular space heating and cooling needs.

316SS Double Wall Brazed Plate Heat Exchanger - For dedicated domestic hot water heating.

316SS Water Lines - To meet building codes applicable to potable water.

Refrigerant - Contains R134a refrigerant for higher temperature reach.

Access Ports - Standard on all units.

Sight Glass - Standard on all units.

Gen2 Control Board - With external digital user interface, and BACnet communications. USB port for laptop connection using free provided software.

Cabinet - Satin galvanized with powder coat finish for corrosion resistance. Acoustically insulated for quiet operation.

LCD Display - For control and data access via USB port.

Loop or Well - Unit pre-wired for operation on a closed loop or a water well.

Available Sizes - 10 - 20 nominal tons.

Distribution Type - Space heating and cooling or domestic hot water heating.

Multiple Unit Installation - Set units side-by-side with minimal clearance as all service can be performed from ends of units.



WH Series performance data can be found in the manual on our website.

nordicghp.com/product/high-temp-water-to-water/wh-series



WH Series High-Temperature Commercial Heat Pump

This high-temperature heat pump is capable of producing hot water up to **160°F (71°C)**. The source side liquid temperature can not be lower than **45°F (7°C)**. The source could be the buffer tank on the indoor side of the heat pump, a cooling loop from an industrial process, or well water.

Certification



WH 90/100 Features & Benefits

Distribution Type - Space heating only unit via hot water baseboards or radiators.

Gen2 Control Board - Built-in aquastat functionality, BACnet, laptop connectivity, data logging, electronic refrigerant pressures readout and water in/out temperatures.

Electronic Expansion Valve - Ensures precise refrigerant control and maximizes system capacity.

Refrigerant - Contains R134a refrigerant for higher temperature reach.

Suction Accumulator - Ensures liquid refrigerant cannot get back to compressor, for maximum compressor longevity.

Cabinet - Powder coated satin galvanized steel for corrosion resistance.



WH 150-400 Features & Benefits

Distribution Type - Space Heating and cooling.

Size - About a 25" x 50" footprint

Frame - Welded and reinforced for industrial strength, can be lifted with a forklift from end or side.

Enclosure - Removable with full 1" acoustic insulation.

Multiple Unit Installations - Set units side-by-side with minimal clearance; all service can be performed from ends of units.

Dual Circuit - Two separate R134a circuits with common water circuit, for best part and full load efficiency and best oil management.

Pipe Routing - Dual refrigerant circuits are clearly separated for ease of service.

Dual Scroll Compressors - With double isolation for quiet operation.

Electronic Expansion Valves (EEV's) - For precise refrigerant superheat control.

Suction Accumulators - Protects compressor from liquid slugging.

Reversing Valve - Available

Gen2 Control Board - With external digital user interface, and BACnet communications. USB port for laptop connection using free provided software.

Full 3-Phase Protection - On both compressors.

316SS Brazed Plate Heat Exchangers - For maximum efficiency.

316SS Water Lines - For outdoor and indoor loops.



For performance data, please visit the WH Series manuals found on our website.

nordicghp.com/product/high-temp-water-to-water/wh-series



WC Series High-Temperature Cascade Heat Pump

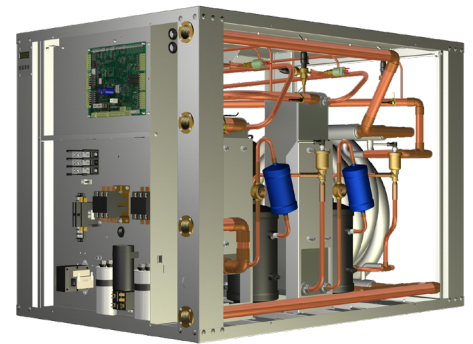
This high-temperature water to water heat pump that can produce up to **160°F(71°C)** of hot water on a standard ground loop system.

Certification



Features & Benefits

- Dual Refrigerant** - R410a circuit on ground side and R134a circuit on hot side, for wide temperature spread without stressing either circuit.
- Compressor** - Two high-efficiency single-speed Copeland scroll compressors, each with double grommet isolation for low noise.
- Intelligent Design** - Piping and wiring for the two refrigerant circuits are clearly laid out, separated, and labeled for easy service.
- Heat Exchanger** - Coaxial copper or CuNi ground loop heat exchanger, for maximum strength and particle tolerance.
- Distribution Type** - Single wall heat exchanger for hydronic heating via hot water baseboards or radiators. A double wall heat exchanger is also available for dedicated domestic hot water heating.
- Electronic Expansion Valves** - For precise refrigerant control and maximum capacity.
- Outdoor Reset** - Maximizes COP by matching output temperature to outside air temperature.
- Gen2 Control Board** - Includes BACnet/USB laptop connectivity, data logging, built-in aquastat functionality, electronic readout of all water in/out temperatures and refrigerant pressures.
- Filter-Dryer & Sight Glass** - On each refrigerant circuit.
- Available Sizes** - 1.5 - 6.5 nominal tons.



Standard Capacity Ratings for Heating (60Hz)

Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	120°F (49°C) Output			140°F (60°C) Output			160°F (71°C) Output		
					Heating Capacity (Btu/hr)	Input Energy (Watts)	COP _h (Heating)	Heating Capacity (Btu/hr)	Input Energy (Watts)	COP _h (Heating)	Heating Capacity (Btu/hr)	Input Energy (Watts)	COP _h (Heating)
Heating ELT 30°F (-1°C)	16	1.25	6.0	2.1	16,000	1,870	2.50	17,000	2,150	2.31	18,000	2,500	2.11
	25	2	8.0	3.2	19,700	2,300	2.50	20,800	2,640	2.31	22,100	3,070	2.11
	45	3	10.0	4.0	29,700	3,460	2.52	31,400	3,960	2.32	33,400	4,620	2.12
	55	4	12.0	3.7	41,700	4,970	2.46	44,100	5,700	2.27	46,900	6,640	2.07
	65	5	14.0	5.0	49,500	5,910	2.46	52,400	6,740	2.28	55,700	7,850	2.08
	75	6	16.0	4.0	59,900	7,010	2.50	63,400	8,030	2.31	67,400	9,360	2.11
	80	6.5	17.0	4.1	67,900	8,020	2.48	71,800	9,190	2.29	76,400	10,710	2.09
Heating ELT 50°F (10°C)	16	1.25	6.0	2.1	19,900	2,100	2.77	20,500	2,410	2.49	21,700	2,790	2.28
	25	2	8.0	3.2	24,400	2,470	2.90	25,100	2,830	2.60	26,700	3,280	2.38
	45	3	10.0	4.0	37,200	3,900	2.80	38,300	4,460	2.52	40,700	5,180	2.30
	55	4	12.0	3.7	51,000	5,410	2.76	52,500	6,200	2.48	55,700	7,190	2.27
	65	5	14.0	5.0	62,700	6,730	2.73	64,600	7,670	2.47	68,500	8,890	2.26
	75	6	16.0	4.0	74,400	7,820	2.79	76,600	8,960	2.50	81,300	10,390	2.29
	80	6.5	17.0	4.1	84,300	8,950	2.76	86,800	10,250	2.48	92,100	11,890	2.27



PC Series Pool Conditioner Heat Pump

Certification

Features & Benefits

Indoor Unit - A 32" x 60" footprint with options of top, bottom or side discharge upon ordering.

Optional Outdoor Unit - To enable air cooling when pool is already heated to desired setpoint.

Blower - Galvanized, full size ECM blower for constant airflow regardless of external static pressure.

Heat Exchanger - Titanium/PVC coaxial pool water heat exchanger, corrosion resistance superior to copper or CuNi.

Compressor - Scroll compressor with start capacitor on single phase models, dual grommet-mounted for reduced noise.

Suction Accumulator - Protects compressor from liquid slugging.

Gen2 Electronic Control Board - With built-in digital user interface. Includes data logging, laptop USB connection, and BACnet interface.

Two 4-Way Reversing Valves - For refrigerant routing.

Electronic Expansion Valves (EEV's) - For precise refrigerant control.

Cabinet - Acoustically insulated satin galvanized with powder coat finish for corrosion resistance.

Service Access - Four access panels for service ease.

Thermostat - Communicating air thermostat with temperature and humidity, wiring included.

Onboard Water Temperature Control - No external sensor or aquastat required.

Available Sizes - 3 - 6.5 nominal tons

Distribution Type - Air re-heating and cooling, dehumidification, pool water heating.

Plenum Heater - Available from 5 kW - 20kW.



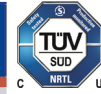
Standard Capacity Ratings (60Hz)

Rating Conditions	Model	Tons	Loop Flow		Indoor Pool Pressure Drop psi (kPa)	Airflow CFM (L/s)	Input Energy Watts	Capacity Btu/hr (kW)	Moisture Removal @ 50% RH lb(kg)/hr	Moisture Removal @ 60% RH lb(kg)/hr	Typical Pool Surface Area ft ² (m ²)
			GPM	L/s							
EWT 80°F (27 °C)	45	3	21	1.3	1.6 (11)	1200 (570)	2020	46,000 (13.5)	14 (6)	18 (8)	600 (56)
	55	4	28	1.8	2.6 (18)	1500 (710)	3000	64,000 (18.8)	19 (9)	23 (10)	800 (74)
EAT 82°F (28 °C)	65	5	35	2.2	3.8 (26)	1900 (900)	4050	77,000 (22.6)	24 (11)	30 (14)	1050 (98)
	75	6	40	2.5	4.7 (32)	2100 (990)	4570	87,000 (25.5)	28 (13)	33 (15)	1200 (110)
	80	6.5	45	2.8	5.8 (40)	2400 (1130)	5790	103,300 (30.3)	32 (14.5)	38 (17)	1350 (130)



WP Series Water to Water Pool Heat Pump

Certifications



Features & Benefits

Footprint - A 28" x 41" footprint

Compressor - Single stage scroll, with double isolation for quiet operation.

Hard Start Kit - Standard on all models.

EEV (Electronic Expansion Valve) - Maintains an accurate and efficient flow of refrigerant.

Filter-Dryer & Sight Glass - Standard on all units.

Accumulator - Protects compressor against liquid slugging.

Heat Exchanger - Titanium/PVC coaxial pool water heat exchanger, corrosion resistance superior to copper or CuNi.

Service Ports - High and low service ports for quick connection to a manifold gauge set.

Refrigerant - Standard R410a.

Gen2 Board - Includes built-in aquastat functionality, BACnet, data logging, electronic readout of refrigerant pressures and water in/out temperatures.

Cabinet - Satin galvanized with powder coat finish for corrosion resistance. Acoustically insulated for quiet operation.

Doors - All 4 side panels can be removed, electrical box swings out for unobstructed 4-side servicing.

Loop or Well - Unit pre-wired for operation on a closed loop or a water well.

Available Sizes - 2 - 6.5 nominal tons.

Distribution Type - Pool water heating, ability to heat up to 105°F (41°C) which can also be suitable for a hot tub or spa.



Standard Capacity Ratings (60Hz)

Rating Conditions	Model	Tons	Loop Flow		Indoor Pool Pressure Drop	Pool Water Loop Flow	Input Energy	Capacity	COPh
			GPM	L/s	psi (kPa)	GPM (L/s)	Watts	Btu/hr (kW)	
Pool Water LWT 80°F (27°C)	45	3	10	0.63	1.6 (11)	21 (1.3)	1700	28,300 (8.3)	4.9
	55	4	12	0.76	2.6 (18)	28 (1.8)	2410	40,100 (11.8)	4.9
	65	5	14	0.88	3.8 (26)	35 (2.2)	2953	49,400 (14.5)	4.9
ELT 32°F (0°C)	75	6	16	1.0	4.7 (32)	40 (2.5)	3410	56,800 (16.6)	4.9
	80	6.5	17	1.1	5.8 (40)	45 (2.8)	4320	66,700 (19.5)	4.8



EMW Series Energy Module Hydronic Heat Pump

The EMW Series is an all-in-one geothermal solution for residential and light commercial in-floor heating systems. Within a single cabinet is a water to water heat pump with a 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. This unit 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.

Certification



Features & Benefits

Footprint - A 28.5 x 61 footprint.

Start Capacitor Kit - Standard on all single phase models.

Electronic Expansion Valve (EEV) - Maintains an accurate and efficient flow of refrigerant.

Heat Exchangers - Enhanced surface coaxial style (CuNi available).

Filter Dryer - Standard on all units.

Sight Glass - Standard on all units.

Accumulator - Protects compressor against liquid slugging.

50 Gallon Buffer Tank - Foam insulated and installed with 12kW electric heating elements for auxiliary/backup heat.

Desuperheater - For domestic hot water. Bronze head circulator factory installed.

Compressor - Copeland high-efficiency two-stage scroll.

Expansion Tank - Pre-charged with air.

Service Ports - High and low service ports for quick connection to a manifold gauge set.

Gen2 Board - Includes built-in aquastat functionality, BACnet, data logging, electronic readout of refrigerant pressures and water in/out temperatures.

In-Floor Circulator Pump - Standard equipment.

Cabinet - Satin galvanized with powder coat finish.

Doors - 6 side panels can be removed for maximum service access.

Open or Closed Loop - Unit pre-wired for operation on either style.

Standard Capacity Ratings for Open Loop (60Hz)

Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Mode	HEATING MODE			COOLING MODE		
						Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh (Heating)	Cooling Capacity (Btu/hr)	Input Energy (Watts)	EER (Cooling)
Open Loop Heating: EWT 104°F ELT 50°F Cooling: EWT 53.6°F ELT 59°F	45	3	10.0	4.0	Stage 1	22,800	1,855	3.6	24,500	985	24.8
					Stage 2	32,700	2,455	3.9	34,000	1,665	20.4
	55	4	12.0	3.7	Stage 1	32,100	2,475	3.8	33,900	1,370	24.7
					Stage 2	45,000	3,565	3.7	44,700	2,180	20.5
	65	5	14.0	5.0	Stage 1	39,300	3,200	3.6	41,300	1,755	23.5
					Stage 2	54,900	4,345	3.7	54,800	2,710	20.2
	75	6	16.0	4.0	Stage 1	47,800	3,785	3.7	49,800	2,120	23.5
					Stage 2	64,500	4,845	3.9	62,400	3,105	20.1
	80	6.5	17.0	4.1	Stage 1	77,000	6,095	3.7	73,000	3,725	19.6

Standard Capacity Ratings for Closed Loop (60Hz)

Closed Loop Heating: EWT 104°F Stage 1 ELT 41°F Stage 2 ELT 32°F Cooling: EWT 53.6°F Stage 1 ELT 68°F Stage 2 ELT 77°F	45	3	10.0	4.7	Stage 1	19,200	1,760	3.2	23,000	1,205	19.1
					Stage 2	26,000	2,455	3.1	31,000	2,125	14.6
	55	4	12.0	4.4	Stage 1	29,000	2,740	3.1	31,500	1,615	19.5
					Stage 2	34,600	3,270	3.1	40,300	2,685	15.0
	65	5	14.0	5.8	Stage 1	34,100	3,120	3.2	39,100	1,975	19.8
					Stage 2	42,600	4,025	3.1	49,600	3,305	15.0
	75	6	16.0	4.7	Stage 1	41,100	3,765	3.2	45,600	2,535	18.0
					Stage 2	49,000	4,630	3.1	55,900	3,750	14.9
	80	6.5	17.0	4.6	Stage 1	58,000	5,860	2.9	66,000	4,460	14.8

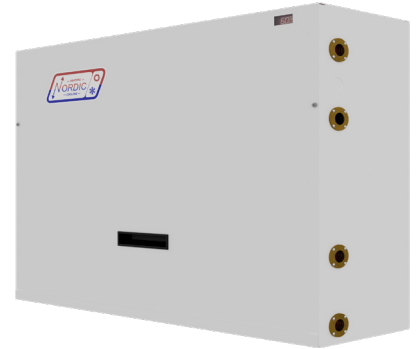


WD Series Water Source Domestic Hot Water Heat Pump

Certification

Features & Benefits

- Footprint** - A 11" x 32" footprint
- Compressor** - Single stage scroll, with double isolation for quiet operation.
- Hard Start Kit** - Standard on all models.
- TXV (Thermostatic Expansion Valve)** - Maintains refrigerant amount injected into the evaporator based on superheat.
- Filter-Dryer & Sight Glass** - Standard on all units.
- Outdoor Source Heat Exchanger** - Enhanced surface coaxial style heat exchangers (CuNi available).
- DHW Condenser** - Double wall condenser for dedicated domestic hot water application.
- Refrigerant** - Contains R134a refrigerant to reach higher temperatures.
- Electronic Control Board** - With safety and short cycle protection.
- Cabinet** - Satin galvanized with powder coat finish for corrosion resistance. Acoustically insulated for quiet operation.
- Built-In Aquastat** - Domestic hot water aquastat with digital display factory installed.
- Loop or Well** - Unit pre-wired for operation on a closed loop or a water well.
- Available Sizes** - One size.
- Distribution Type** - Domestic hot water heating.



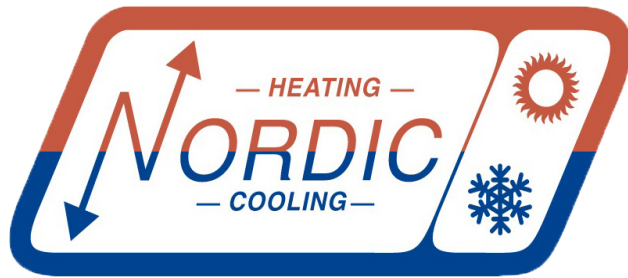
Note: Source water temperatures need to be at least **45°F (7°C)** year-round.

Standard Capacity Ratings 120°F (49°C) Output (60Hz)

Rating Conditions	Model	Loop Flow		Pressure Drop	Input Energy		Capacity	Delta T	COPh
		GPM	L/s	psi (kPa)	Watts	Amps	Btu/hr (W)	°F (°C)	
ELT 50°F (10°C)	16	4	0.25	2.4 (17)	932	6.0	9,413 (2,758)	4.7 (2.6)	2.96

Standard Capacity Ratings 140°F (60°C) Output (60Hz)

Rating Conditions	Model	Loop Flow		Pressure Drop	Input Energy		Capacity	Delta T	COPh
		GPM	L/s	psi (kPa)	Watts	Amps	Btu/hr (W)	°F (°C)	
ELT 50°F (10°C)	16	4	0.25	2.4 (17)	1170	7.9	8,718 (2,554)	2.2 (1.2)	2.18



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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