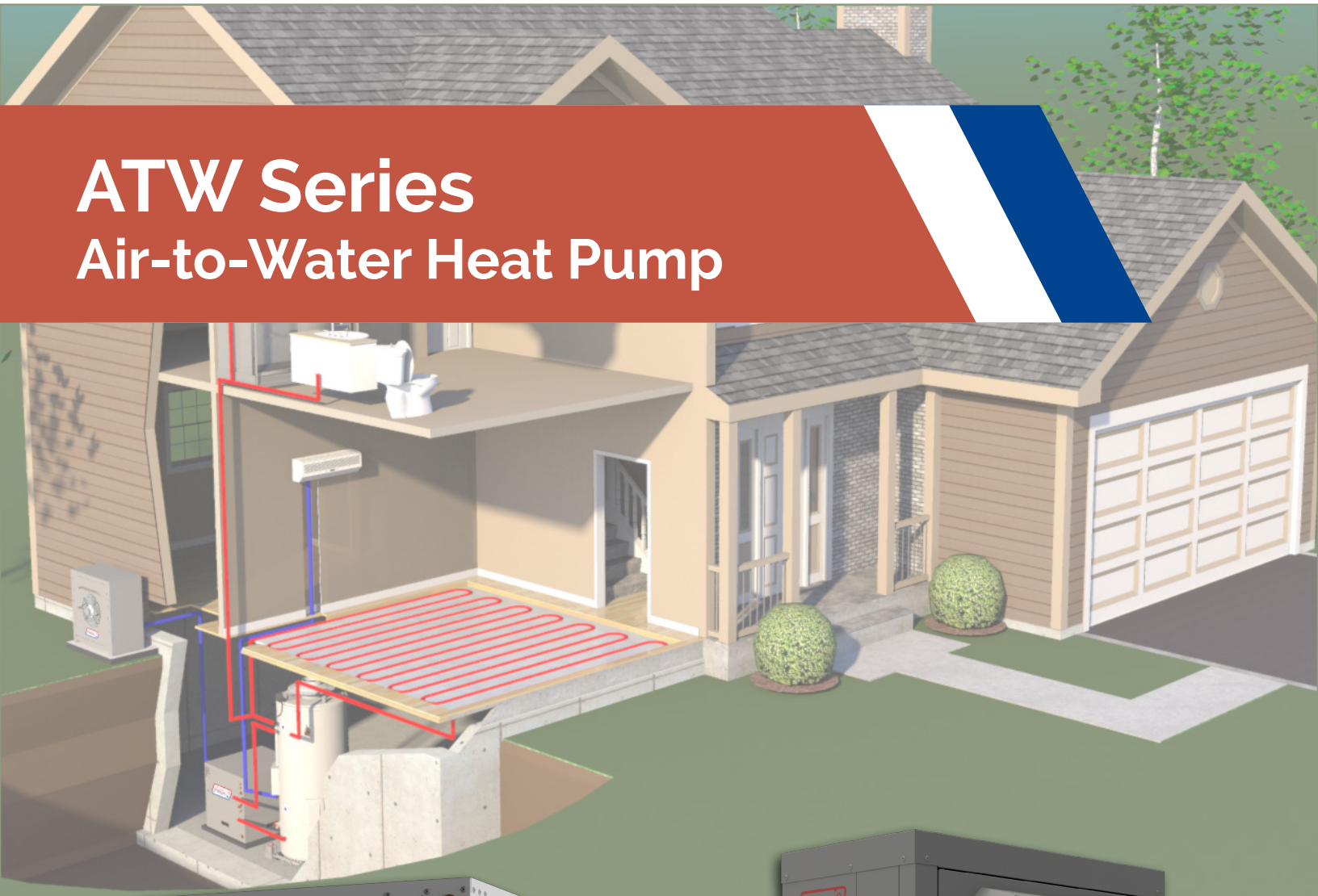
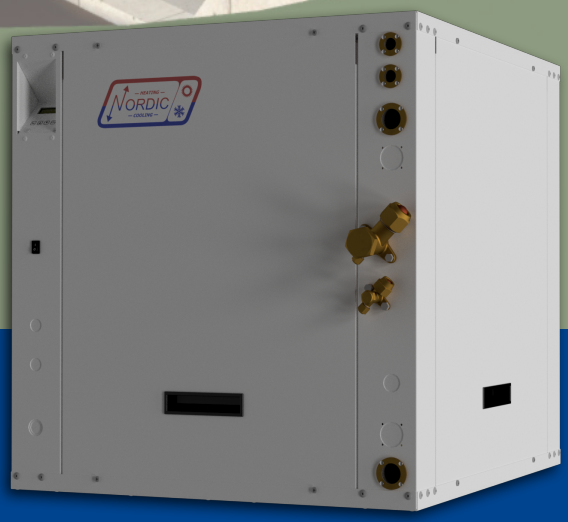
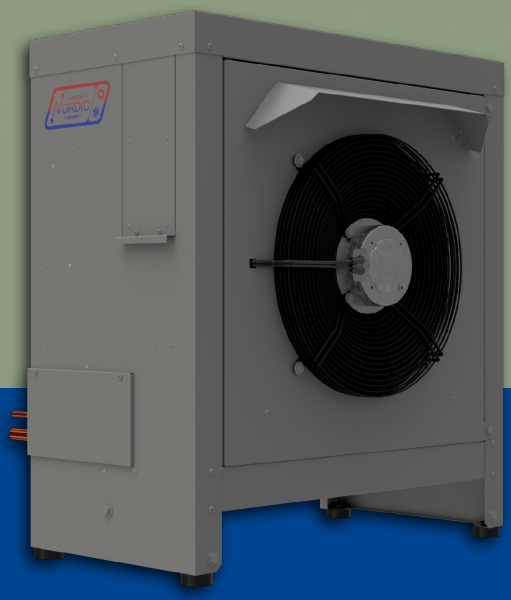
ATW Series
Air-to-Water Heat Pump







- Air source hydronic heating up to 120˚F (50˚C)
- Desuperheater for domestic hot water
- COP up to 4.0
- Compressor housed inside home
- Electronic TXV's
- Outdoor temperature range of -4˚F (-20˚C) to 113˚F (45˚C)
- Micoprocessor controlled with BACnet and wifi connections

ATW Series

The Air-to-Water (ATW) Series uses heat transfer from the outdoor air to heat water for a hydronic heating system, or cool water for air conditioning via hydronic fan coils. Available in sizes from 2 to 5 nominal tons for whole-house applications.

Features & Benefits

Indoor Unit - industry leading 24" x 28" footprint with premium appearance.

High Performance Outdoor Unit - for superior heating in cold temperatures & efficient cooling in hot climates. Hinge mounted door for ease of service. Raised mounting leg kits available.

Fan Unit - Outdoor unit fan is true variable speed with ECM-style hub motor, for maximum energy efficiency and minimum service.

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

Outdoor Ice Channeling Design - no bottom tray & angled outdoor coil for no ice build-up.

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

Gen2 Electronic Control Board - with external two-line digital user interface. Includes automatic hot water output control based on outdoor temperature, data logging, internet and laptop USB connections, and BACnet interface.

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

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

Start Capacitor Kit & Suction Accumulator - standard equipment.

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

Performance Ratings

Standard Capacity Ratings for Heating Mode (60Hz)

Indoor Loop ELT 104°F (50°C)						Outdoor Air 47°F (8.3°C)				Outdoor Air 35°F (1.7°C)				Outdoor Air 17°F (-8.3°C)			
Model	Indoor Liquid Flow		Pressure Drop		Stage	Input Energy	Capacity		COPh	Input Energy	Capacity		COPh	Input Energy	Capacity		COPh
	USGPM	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	1												
					2	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	1												
					2	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	34.5	1												
					2	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	5.2	35.9	1												
					2	4,417	58,600	17.2	3.88	4,527	50,200	14.7	3.25	4,893	38,400	11.2	2.30

Standard Capacity Ratings for Cooling Mode (60Hz)

Indoor Loop ELT 53.6°F (12°C)						Outdoor Air 67°F (19.4°C)					Outdoor Air 82°F (27.8°C)				
Model	Indoor Liquid Flow		Pressure Drop		Stage	Input Energy	Capacity		EER	COPc	Input Energy	Capacity		EER	COPc
	USGPM	L/s	PSI	kPA		Watts	Btu/hr	kW	BTU/W-Hr	W/W	Watts	Btu/hr	kW	BTU/W-Hr	W/W
45	10.0	0.63	3.8	26.2	1										
					2	1,926	32,400	9.5	16.8	4.93	2,247	29,300	8.6	13.0	3.82
55	12.0	0.76	4.1	28.3	1										
					2	2,438	40,500	11.9	16.6	4.87	2,846	36,900	10.8	13.0	3.80
65	14.0	0.88	5.0	34.5	1										
					2	3,047	50,700	14.8	16.6	4.87	3,523	45,500	13.3	12.9	3.78
75	16.0	1.01	5.2	35.9	1										
					2	3,523	58,600	17.2	16.6	4.88	4,119	52,900	15.5	12.9	3.77