

ATW Series Air-to-Water Heat Pump



- Air source hydronic heating up to 120°F (49°C)
- Desuperheater for domestic hot water
- Compressor housed inside indoor unit
- Outdoor temperature down to -7°F (-22°C)
- COPh up to 4.23



ATW Series

The air-to-water 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 6 nominal tons for whole-home applications.

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 buildup.

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.







Performance Ratings

Standard Capacity Ratings for Heating Mode (60Hz)												
LLI	۲ 105°F (4′	1°C)		(- 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)				Outdo	5°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
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