

# **WC Series High-Temperature Heat Pump** Water-to-Water



- Ground loop or open water well
- Output temperatures up to 160°F (70°C)
- Available up to 6 nominal tons for home heating applications or domestic hot water heating
- **R134**a
- CuNi heat exchanger available on source side
- Double wall heat exchanger option for dedicated domestic hot water heating



### **WC Series**

This high-temperature water-to-water heat pump delivers up to  $160^{\circ}$ F (70°C) of hot water from an open or closed loop source temperatures. This heating-only heat pump is available up to 6 tons for home heating applications or with a double wall heat exchanger for dedicated hot water heating.

## 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.

**Condenser -** single wall heat exchanger for hydronic heating, with optional double wall condenser 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

Refrigerant Receiver - on each circuit, to maximize condenser capacity.



#### Certification







## **Performance Ratings**

Standard Capacity Ratings for Heating (60Hz)													
					120°F (49°C) Output			140°F (60°C) Output			160°F (71°C) Output		
Rating Conditions	Model	Tons	Flow (GPM)	Outdoor dP (psi)	Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh (Heating)	Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh (Heating)	Heating Capacity (Btu/hr)	Input Energy (Watts)	COPh (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