

# WC Series High-Temperature 160°F (70°C) Hot Water Heat Pump



- Ground loop or open well source hot water heating
  - Output temperatures up to 160°F (70°C)
- Available up to 6 nominal tons for home heating applications or domestic hot water heating
- COP up to 2.8
- Dual refrigerants R410a & R134a
- CuNi heat exchanger available on source side
- Double wall heat exchanger option for dedicated domestic hot water heating



### WC Series

The WC Series is a high-temperature hot water heat pump delivering up to 160°F (70°C) hot water from 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.





#### Standard Capacity Ratings for Heating (60Hz) (49°C) Output 140°F (60°C) Output 160°F (71°C) Output Outdoor Heating Heating Input Input Rating Flow COPh COPh Capacity (Btu/hr) Energy (Watts) Energy Model Tons dP Energy (Watts) Capacity (GPM) Conditions (Heating) (Heating) (psi) (Btu/hr) (Watts) 16 1.25 6.0 3.2 16,000 1.870 2.50 17,000 2.150 2.31 18.000 2.500 2 11 25 2 8.0 4.0 19,700 2,300 2.50 20,800 2,640 2.31 22,100 3,070 2.11 **Heating ELT** 45 3 10.0 4.1 29.700 3.460 2.52 31.400 3.960 2.32 33.400 4.620 2.12 30°F 41,700 4,970 44,100 2.27 2.07 55 4 12.0 4.0 2.46 5,700 46,900 6,640 65 5 14.0 4.5 49,500 5,910 2.46 52,400 6,740 2.28 55,700 7,850 2.08 6 16.0 3.9 59,900 7,010 2.50 63,400 8,030 2.31 67,400 9,360 75 2.11 80 65 17.0 41 67.900 8.020 2.48 71.800 9,190 2.29 76.400 10.710 2.09 6.0 20,500 21,700 16 1.25 3.2 19,900 2,100 2.77 2,410 2.49 2,790 2.28 24,400 25 2 8.0 40 2.470 2.90 25.100 2.830 2.60 26,700 3.280 2 38 3 10.0 4.1 37,200 3,900 2.80 38,300 4,460 2.52 40,700 5,180 2.30 45 **Heating ELT** 55 4 12.0 4.0 51.000 5.410 2.76 52.500 6.200 2.48 55.700 7.190 2.27 50°F 14.0 4.5 62,700 6,730 2.73 64,600 7,670 2.47 68,500 8,890 2.26 65 5 75 74,400 7,820 2.50 10,390 6 16.0 39 2.79 76,600 8,960 81,300 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

Contact us at www.nordicghp.com to order.

## **Performance Ratings**