

R Series Water-to-Air Heat Pump





- Desuperheater for domestic hot water
- COP up to 4.9
- Industry leading 5 & 6 ton footprint 24x28
- Available in sizes 2 to 6 nominal tons for whole home applications
- · CuNi heat exchanger available
- Open or closed loop

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R Series

The water to air heat pump (R Series) is a geothermal heat pump that heats and cools air for ducted heating and air conditioning, and uses its built-in desuperheater to preheat domestic hot water. This unit is available in sizes from 2 to 6 nominal tons, and works on an open or closed ground loop.

Features & Benefits

Size - Smallest 5-6 ton footprint in the industry at 24" x 28"

Appearance - New, industry leading graphics.

R410a - Environmentally friendly, non-ozone-depleting refrigerant.

Fan - Oversized blower for quiet operation. Motor is constant airflow variable speed ECM, serviceable from one side.

Drip Tray - Stainless steel with internally trapped clear vinyl drain.

Compressor - Copeland Ultratech® high efficiency two-stage scroll, with double isolation for guiet operation.

Hard Start Kit - Standard on all single phase units.

TXV - Thermostatic expansion valve maintains maximum capacity under all operating conditions.

Filter Drier - Standard on all units.

Sight Glass - Standard on all units.

Accumulator - Protects compressor against liquid slugging.

Coaxial Heat Exchangers - Heavy duty for reliability, enhanced surface for efficiency (CuNi available).

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

Electronic Control Board - With safety and short cycle protection.

Cabinet - Satin galvanized, powder coated, and acoustically insulated for quiet operation.

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





| 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 | 25 | 2 | 8.0 | 2.7 | Stage 1 Stage 2 | 17,900 23,100 | 1,070 1,540 | 4.9 4.4 | 21,000 26,800 | 640 1,160 | 9.6 6.8 | 32.7 23.1 |
| | 45 | 3 | 10.0 | 4.0 | Stage 1 Stage 2 | 25,500 35,700 | 1,645 2,375 | 4.6 4.4 | 29,500 38,500 | 1,080 1,805 | 8.0 6.2 | 27.3 21.7 |
| | 55 | 4 | 12.0 | 3.5 | Stage 1 Stage 2 | 34,700 47,500 | 2,075 2,960 | 4.9 4.7 | 37,500 50,500 | 1,315 2,245 | 8.3 6.6 | 28.5 22.5 |
| | 65 | 5 | 14.0 | 4.3 | Stage 1 Stage 2 | 42,800 58,700 | 2,670 3,740 | 4.7 4.6 | 47,200 62,600 | 1,705 2,865 | 8.1 6.4 | 27.5 21.8 |
| | 75 | 6 | 16.0 | 3.6 | Stage 1 Stage 2 | 52,000 68,500 | 3,540 4,780 | 4.3 4.2 | 56,500 72,000 | 2,305 3,710 | 7.2 5.7 | 24.5 19.4 |
| | 80 | 6 | 17.0 | 4.1 | Stage 1 Stage 2 | 77,500 | 5,315 | 4.3 | 87,900 | 4,130 | 6.2 | 21.1 |
| Standard Capacity Ratings for Closed Loop (60Hz) | | | | | | | | | | | | |
| Closed Loop Heating EWT 32°F (Stg 1 EWT 41°) Cooling EWT 77°F (Stag 1 EWT 68°F) | 25 | 2 | 8.0 | 2.9 | Stage 1 Stage 2 | 15,200 18,300 | 1,035 1,450 | 4.3 3.7 | 20,100 24,800 | 790 1,460 | 7.5 5.7 | 25.5 17.0 |
| | 45 | 3 | 10.0 | 4.4 | Stage 1 Stage 2 | 22,000 27,200 | 1,535 2,155 | 4.2 3.7 | 26,800 35,100 | 1,130 2,155 | 6.9 4.8 | 23.7 16.3 |
| | 55 | 4 | 12.0 | 4.1 | Stage 1 Stage 2 | 29,300 35,900 | 2,045 2,700 | 4.2 3.9 | 36,000 45,700 | 1,470 2,640 | 7.2 5.1 | 24.5 17.3 |
| | 65 | 5 | 14.0 | 5.3 | Stage 1 Stage 2 | 35,900 44,00 | 2,565 3,390 | 4.1 3.8 | 45,500 57,600 | 1,910 3,445 | 6.7 4.9 | 23.8 16.8 |
| | 75 | 6 | 16.0 | 4.1 | Stage 1 Stage 2 | 45,700 53,500 | 3,435 4,355 | 3.9 3.6 | 55,000 67,500 | 2,620 4,300 | 6.3 4.7 | 21.0 15.7 |
| | 80 | 6 | 17.0 | 4.5 | Stage 1 Stage 2 | 63,000 | 4,940 | 3.7 | 84,200 | 4,950 | 5.0 | 17.1 |

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