

## Commercial Products

### Air Sourced Hot Water Heat Pumps

#### Quantum 268ACW2-134

<b>Model Number</b>	268ACW2-134
<b>Hot Water Generating Rate (L/Hr)</b>	2,108
<b>Heating Capacity (kW)</b>	6.50
<b>Power Input (kW)</b>	22.86
<b>Typical Operating Amps (Amp)</b>	60
<b>Max Amps (Amp)</b>	80
<b>Voltage/Hz/Phase</b>	380-420 / 50/ 3
<b>Centrifugal Fan Outlet</b>	(4X) 600 x 500 mm
<b>Air flow (m3/Hour)</b>	36,000
<b>Static Pressure Rating (Pa)</b>	400
<b>Compressor (kW Scroll)</b>	4 x 6.7 kW
<b>Compressor Oil</b>	ICI EMKARATE RL 32H
<b>Refrigerant</b>	R134a
<b>Maximum Water Temperature (°C)</b>	65
<b>Connections</b>	DN40 Copper
<b>Condenser Pressure Drop (kPa)</b>	290 at 85LPM
<b>Sound level (dBA)</b>	75
<b>Dimension (Length x Depth x Height/mm)</b>	2300 x 2300 x 1540
<b>Weight (kg)</b>	1600 kg
<b>Note:</b> Rated at 25°C ambient and water heated from 20°C to 60°C	



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#### For 268ACW2-134

##### 1. General

Quantum 268ACW2-134 air sourced hot water heat pumps are shipped complete from the factory ready for installation and use. They are shipped complete with all factory wiring, piping, controls and refrigerant charge (R134a).

##### 2. Unit Casing

The unit casing is constructed of heavy gauge, zinc coated, galvanized steel. Exterior surface is cleaned, phosphatized, and finished with a weather-resistant baked enamel finish. Unit surface is tested to withstand a 500 consecutive hour salt spray durability test. Stainless steel unit casing is available on request.

##### 3. Compressor

Compressors are hermetic scroll compressors. The motor is suction gas-cooled and has a voltage utilization range of plus or minus 10 percent of nameplate voltage. Compressors also include an internal overload protection.

##### 4. Evaporator coil

Evaporator coils are air-cooled configured aluminum fins mechanically bonded to seamless copper tubes which are then cleaned, dehydrated, pressure and leak tested and sealed. Factory pressure and leak tested to 29bar. They additionally have a special epoxy coating which provides protection against aluminium corrosion.

##### 5. Fan

Evaporator fans are three-phase direct-driven centrifugal fans, with draw-thru vertical discharge positioning. They incorporate permanently lubricated sealed bearings with special corrosion treated shafts. The fans are statically and dynamically balanced.

##### 6. Condenser

Double wall heat exchanger with air venting is employed. The heat exchanger is a tube-in-tube type and in coil shape. The outside tube is seamless steel and the inner tube is copper. The design and operational characteristics of the condenser units meet and exceed all local and international potable water regulations.

##### 7. Refrigeration Components

Refrigeration circuit components include filter drier, sight glass with moisture indicator, liquid line solenoid valve, thermal type expansion valve. The units come complete with operating charge of refrigerant R134a.

##### 8. Controls

The hot water heat pump is completely factory wired with necessary controls and terminal block for power wiring. Controls include: Microprocessor, timer, and thermistors installed to measure water temperature, evaporator temperature, and compressor discharge temperature. Control wiring is a 24-volt control circuit which includes control transformer.

##### 9. Safety

Thermistors along with all necessary components work in conjunction with the control system in order to provide the unit with the following safety measures; high discharge pressure, low suction pressure, electrical overload through the use of definite-purpose contactors, and circuit breaker, overheat, low fluid flow, and phase balance.

##### 10. Flow switch

Required as a safety interlock to prevent operation of unit without water flow.

