

**Commercial Electric Heat Pump Water Heaters
Air-to-Water**



**The Energy-Efficient, “Environmentally-Friendly” Choice
From The Commercial Water Heater Experts**



Commercial Electric Heat Pump Water Heaters from A. O. Smith

Our impressive line of “Environmentally-Friendly” renewable energy products has expanded to include one of the most energy-efficient and innovative commercial water heaters on the market.

This efficiency is achieved by capturing heat typically discarded from the building.

Commercial electric heat pump water heaters are up to three times more efficient than standard electric water heaters and up to five times more efficient than conventional gas water heaters. In applications where the need for hot water and space cooling occur simultaneously, heat pump water heaters maximize cost savings providing for the quickest payback. The time has never been better to go green. Commercial electric heat pump water heaters allow business owners to capitalize on energy efficiency, realize a quick return on investment and promote their green initiative.

COMMON APPLICATIONS

Commercial: Restaurants/Kitchens

Institutional: Hospitals and Schools

Military: Barracks

Municipal: Fire Stations

Industrial: Commercial Laundry Facilities



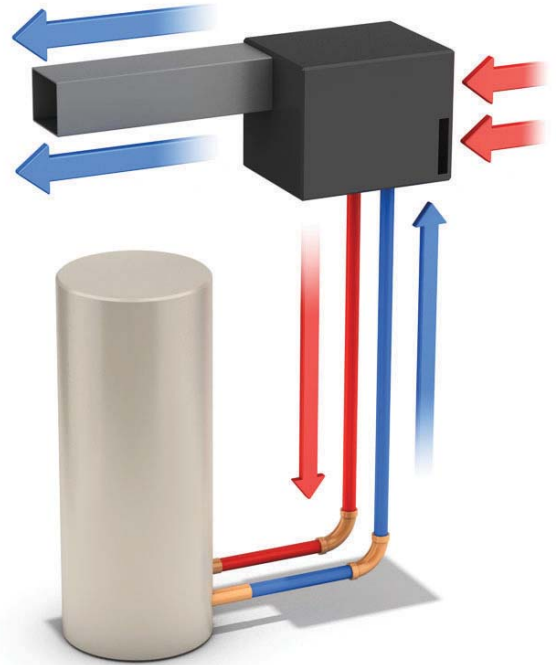
COMMERCIAL ELECTRIC HEAT PUMP WATER HEATERS

WHY ARE HEAT PUMP WATER HEATERS AN "ENVIRONMENTALLY-FRIENDLY" CHOICE?

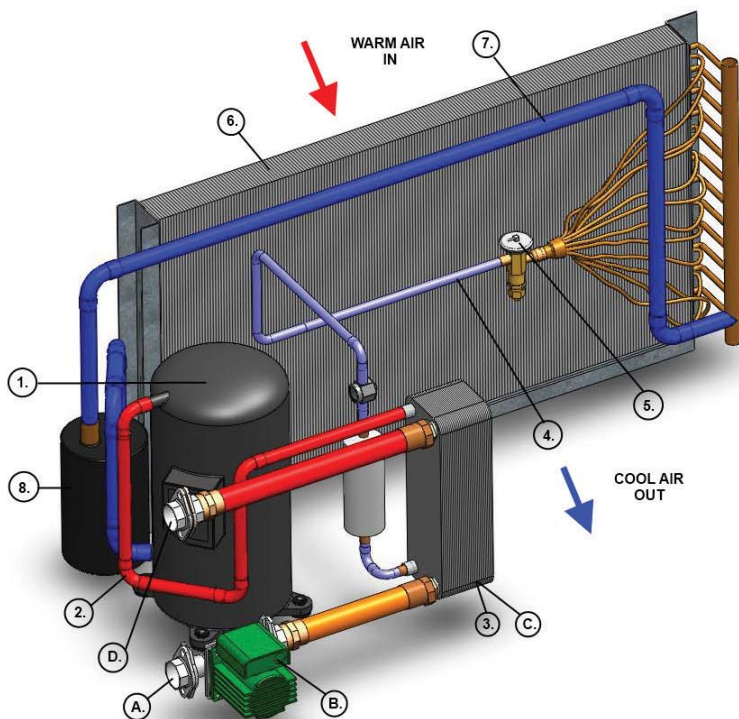
- High efficiency with coefficient of performance (COP) up to 4.2
- No fossil fuels are used or burned at the source
- "Ozone-Friendly" R-134a refrigerant
- Uses 33% less electricity than standard electric water heaters
- Contributes to room cooling
- Recycles waste heat discarded by mechanical systems

HOW DO ELECTRIC HEAT PUMP WATER HEATERS WORK?

Electric heat pump water heaters capture heat and humidity from the surrounding atmosphere, transferring that energy into a storage tank for potable uses. Simply put, heat pumps move heat from where it is not needed to where it is wanted. This innovative technology provides low cost hot water and supplemental cooling that can be directed where needed for even greater savings.



TYPICAL INSTALLATION



COMPONENT REFRIGERATION CIRCUIT

- 1.) COMPRESSOR
- 2.) HOT GAS LINE
- 3.) CONDENSER / HEAT EXCHANGER
- 4.) LIQUID LINE
- 5.) THERMOSTATIC EXPANSION VALVE
- 6.) EVAPORATOR
- 7.) SUCTION LINE
- 8.) ACCUMULATOR

REFRIGERANT STATE

- GAS
- GAS
- GAS → LIQUID
- LIQUID
- LIQUID → GAS
- GAS
- GAS

COMPONENT WATER CIRCUIT

- A.) WATER INLET FROM STORAGE TANK
- B.) WATER PUMP
- C.) HEAT EXCHANGER / CONDENSER
- D.) WATER OUTLET TO STORAGE TANK

SPECIFICATION TABLE

| MODEL NUMBER | PERFORMANCE | | | | Air Volume cfm** | Water Flow (GPM) | DIMENSION | | | | | APPROX. SHIPPING WEIGHT (lbs) |
|--------------|---------------|---------|------------------|-------|---------------------|---------------------|-----------------------|------------|------------|-------------|---|----------------------------------|
| | Water Heating | | Cooling Capacity | C.O.P | | | Inlet/Outlet (fpt) | Width A | Depth B | Height C | D | |
| | kW | Btu/hr* | Btu/hr* | | | | | | | | | |
| AWH-35 | 10.3 | 35,500 | 27,500 | 3.9 | 1040 | 7 | 1.0" | 40" | 26" | 24.75" | 7 | 315 |
| AWH-55 | 17.3 | 58,000 | 45,500 | 4.1 | 1650 | 11 | 1.0" | 47" | 32" | 28.5" | 7 | 405 |
| AWH-75 | 22.4 | 76,000 | 59,000 | 3.9 | 2150 | 15 | 1.5" | 57" | 32" | 28.5" | 7 | 485 |
| AWH-100 | 28.8 | 98,000 | 78,000 | 4.2 | 3200 | 20 | 1.5" | 63" | 38" | 42.5" | 8 | 660 |
| AWH-115 | 32.0 | 113,000 | 89,000 | 4.2 | 3200 | 23 | 1.5" | 63" | 38" | 42.5" | 8 | 665 |
| AWH-140 | 41.6 | 142,000 | 110,000 | 3.9 | 3800 | 28 | 2.0" | 63" | 38" | 42.5" | 8 | 725 |
| AWH-170 | 50.1 | 171,000 | 133,000 | 3.9 | 4900 | 34 | 2.0" | 75" | 46" | 42.5" | 8 | 880 |

Standard Voltage:

- 208/230VAC, Three-phase, 60 Hz

Optional Features:

- 460/480VAC, Three-phase, 60 Hz
- 240VAC – Single Phase, 60 Hz (only available on AWH-35 and AWH-55)
- *Optional Corrosive Duty Package includes 316 stainless steel cabinet as well as a polyurethane coating on the cooling coil and blower for superior corrosion protection. This package is recommended for installation within 5 miles of seacoast.*

* Performance rating at 75°, 55% relative humidity and 100° incoming water temperature

**Blower design at 0.3" external static pressure

Accessories:

- Digital temperature controller with tank probe
- Removable and washable metal mesh air filters



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