

AIR-TO-WATER HEAT PUMP WATER HEATER

FEATURES

Heat pump water heaters remove unwanted heat and humidity from the surrounding air and use it to heat water. The refrigeration-based system produces cool, dehumidified air for spot cooling or to reduce the load on air conditioning systems.

HIGH EFFICIENCY WATER HEATING

- Coefficient of performance (COP) up to 4.2, generates significant energy savings (up to 70% compared to standard electric water heaters) resulting in a quick payback on investment.

HIGH OUTPUT TEMPERATURES

- Maximum 140°F (60°C) final tank temperature at common indoor temperatures. Can be used as preheat for higher system temperature requirements.

ENVIRONMENTALLY FRIENDLY GREEN TECHNOLOGY

- Uses non-ozone depleting R-134a refrigerant.

EFFICIENT COMPRESSOR

- Scroll compressor technology provides reliable service and energy savings.

SANITARY HOT WATER FOR COMMERCIAL OR INDUSTRIAL USE

- Double wall condenser rated for potable water heating.

DESIGNED FOR EASE OF INSTALLATION

- Female pipe thread flanges allow for easy water and condensate connections. The factory-installed circulating water pump has been sized for 25 equivalent feet of piping on the supply and return lines for a total of 50 equivalent feet.

CORROSION RESISTANT METAL CABINET

- Painted aluminum cabinet provides superior protection against corrosion. Cabinet is insulated for noise reduction and features a stainless steel condensate pan.

BUILT-IN PROTECTION

- High and low refrigerant pressure switch protection with lockout relay. Thermal motor protection against overheating.

ONE YEAR LIMITED WARRANTY

- For complete information, consult written warranty or contact A. O. Smith Water Products Company.

ACCESSORIES

- Digital Temperature Controller with tank probe.
- Removable and washable metal mesh air filters.

OPTIONS

- Corrosive duty package: The corrosive duty package includes a 316 stainless steel cabinet and a polyurethane coating applied to the cooling coil and blower housing for superior corrosion protection. This package is recommended for installations within 5 miles of the seacoast.
- Standard 208/230 VAC, 3 phase power (optional 460 VAC, 3 phase available).

**AWH-35 to
AWH-170**

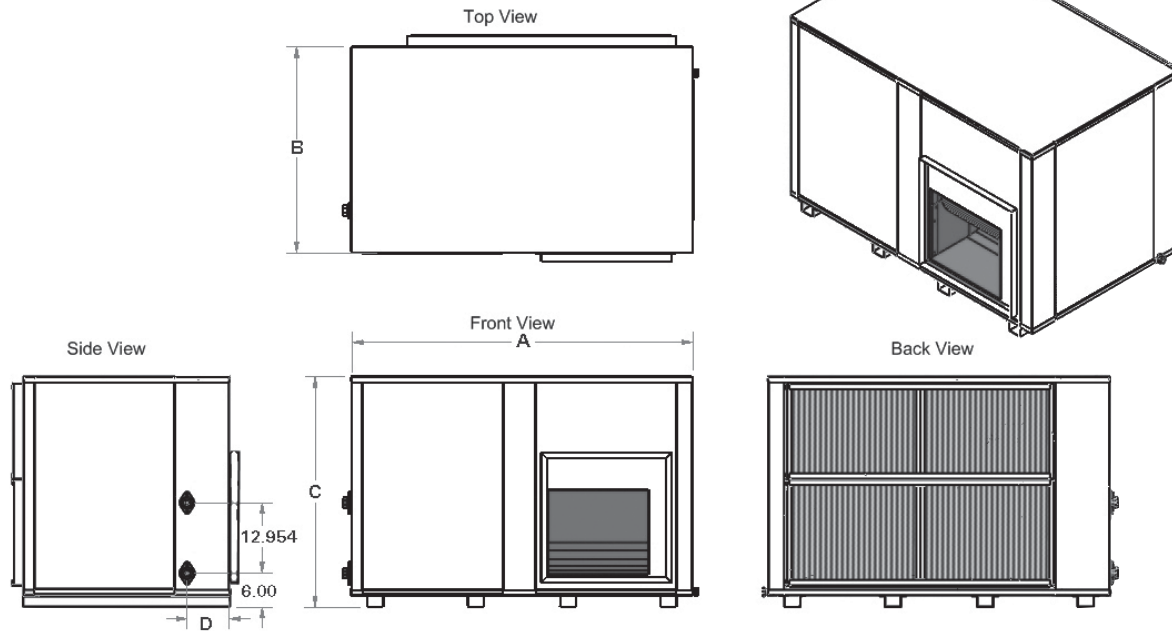


Low Lead Content

Heat pump water heaters are not sized for system applications in the same way as conventional tank type water heaters or boilers. Heat pumps are designed to absorb heat from the surrounding air and gradually transfer the captured heat into a water storage tank that has been sized to meet peak demand requirements. When sized properly, heat pump water heaters will operate 12 to 16 hours per day. For sizing and system design information, see the commercial electric heat pump products page at www.hotwater.com.



Commercial Electric Heat Pump Water Heaters



SPECIFICATION TABLE A. O. SMITH AWH AIR-TO-WATER HEAT PUMP WATER HEATERS

MODEL NUMBER	PERFORMANCE				Air Volume cfm**	G.P.M.	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*										
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

*Performance rating at 75° F, 55% Relative Humidity and 100° incoming water temperature

**Blower design at 0.3" external static pressure

C.O.P. coefficient of performance

All models standard 208/230V, 3-phase, 60 Hz.

Optional: 460v, 3-phase, 60Hz.

Optional: 240v, 1-phase, 60Hz available on AWH-35 and AWH-55 only

SUGGESTED SPECIFICATION

The water heater shall be air-to-water heat pump model no. _____ as manufactured by A. O. Smith Corporation. Water heater shall be rated at _____ Btu/hr heating capacity and _____ Btu/hr cooling capacity.

The unit cabinet shall be constructed of formed, painted aluminum panels for superior corrosion resistance. All unit fasteners shall be coated with zinc-based plating for corrosion resistance. The panels shall be insulated with matte-finish, fiberglass insulation for thermal barrier and noise reduction. The cooling coil drain pan shall be constructed of stainless steel. Units shall come equipped with MERV-8 rated, two inch pleated air filters.

The refrigeration circuit shall consist of a minimum of a scroll-type compressor, suction line accumulator, direct expansion valve, liquid line filter dryer, sight glass, cooling coil (copper tube and aluminum fin) and a brazed plate refrigerant to water heat exchanger stainless steel, double wall). The refrigerant tubing shall be ACR rated and brazed with a 15% silver alloy. The suction line and suction line accumulator shall be totally insulated.

A unit mounted circulating pump shall pump water between the storage tank and heat pump. Female pipe thread flanges shall be provided for easy water connections to the unit.

The blower assembly shall consist of a double inlet forward curved blower, an open drip-proof motor, drive belt and adjustable sheaves. The blower assembly shall be mounted on vibration pads to reduce vibration noise through the unit cabinet.

Water heating shall be initiated when the tank temperature drops below the heating set point. After a factory set time delay, the compressor shall be energized to heat water until the tank set point is reached. The compressor shall be protected by high and low pressure switches as well as thermal overload.

A unit mounted phase monitor shall protect the motors from phase loss or undercurrent conditions (available on the 100, 115, 140 and 170 models only).

For Technical Information and Automated Fax Service, call 800-527-1953. A. O. Smith reserves the right to make product changes or improvements without prior notice.