

STIEBEL ELTRON

Simply the Best

ACCELERA® 300 HEAT PUMP WATER HEATER
ACCELERATE YOUR SAVINGS !



Accelera® 300

HEAT PUMP WATER HEATER



- 10 YEAR WARRANTY
- 2.5 ENERGY FACTOR
- 80 GALLON STORAGE CAPACITY
- REDUCES HOT WATER COSTS BY UP TO 80 %
- COOLS AND DEHUMIDIFIES THE AIR AROUND IT
- LOW STAND-BY LOSSES THROUGH GOOD INSULATION

ACCELERA[®] 300: SAVE ENERGY LIKE NEVER BEFORE !



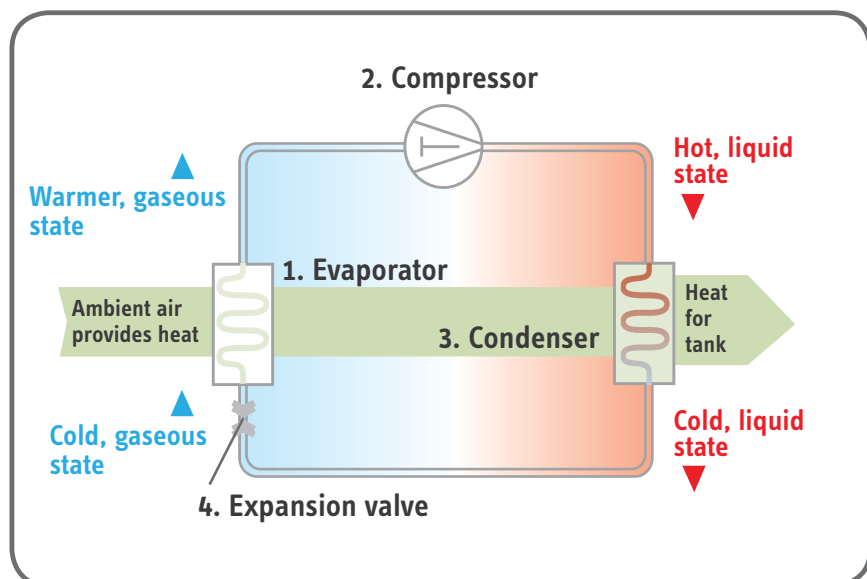
The Accelera[®] 300 can extract up to 80% of its energy requirements from the energy in the air around it.

Energy from nature.

The beauty of heat pump water heating technology is that the amount of electrical energy needed to create hot water is greatly reduced compared to a conventional electric tank type water heater. The Accelera's compressor and fan consume only 1KWH of electricity to generate the heat equivalent of 3 - 5KWH. The efficiency of the unit goes up with increasing ambient air temperatures. This ground breaking efficiency redefines what a water heater is capable of.

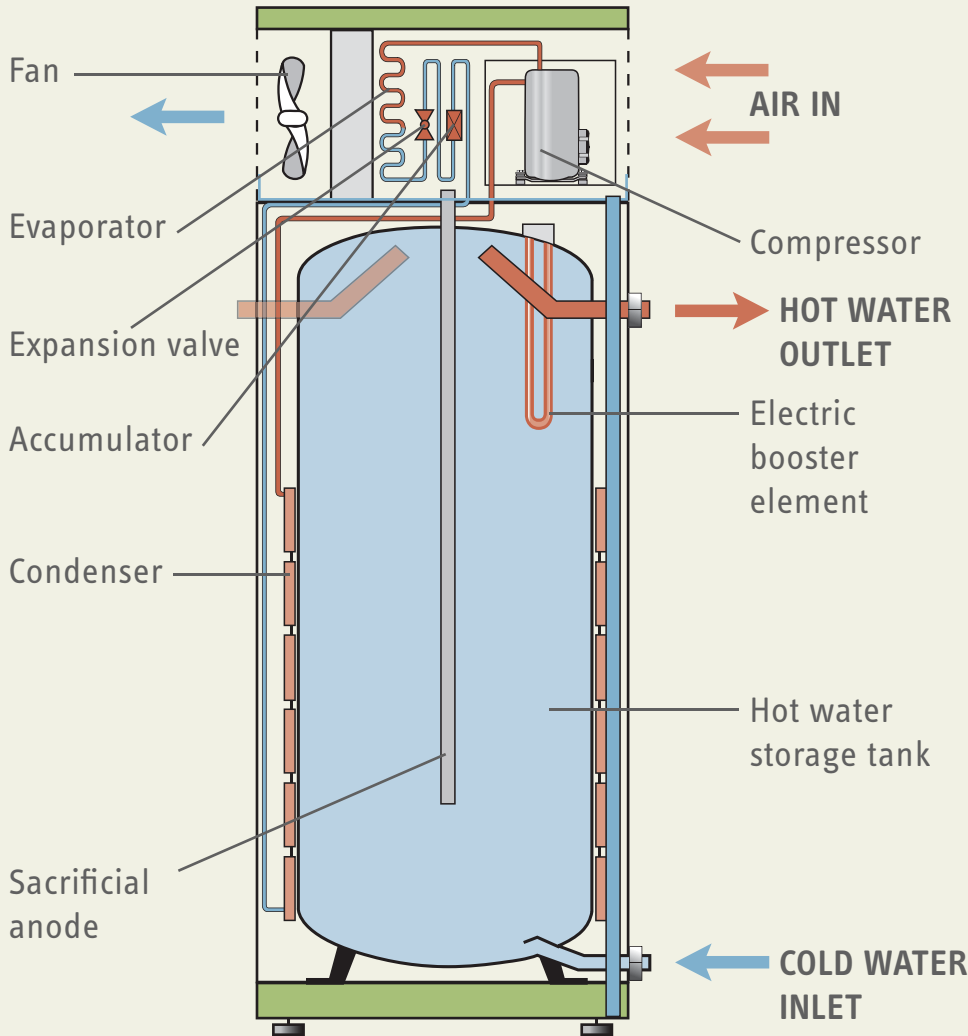
In a warm climate, the unit can either be placed in the garage where it takes heat from the ambient air, or inside the house, where it helps with the air conditioning load. In a cooler climate, the unit is typically placed in the basement where it also acts as a dehumidifier. You get hot water at a discount and a dry basement as well.

If the heat pump that is built into the unit alone cannot keep up with the hot water demand then an electric backup element with 1.7 kW loading will automatically activate.



HOW A HEAT PUMP WORKS: MULTIPLY THE ENERGY

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Simple innovation from Germany.

Heat pumps have been around for decades, but a heat pump water heater is a new concept. The Accelera® 300 works like an air conditioner but instead of dumping the heat outdoors, it puts it into the water.

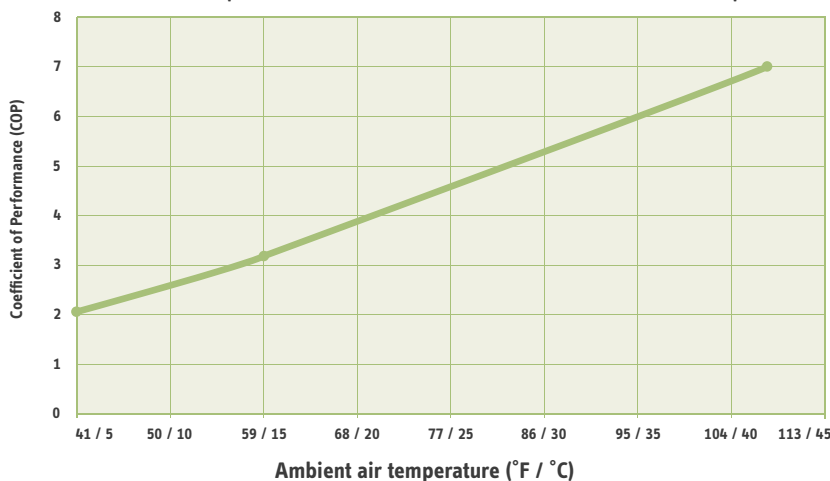
The heat pump system contains a fan that forces air through an evaporator (1). The evaporator contains a liquid refrigerant. This refrigerant evaporates and extracts heat from the ambient air.

The now warm gaseous refrigerant is then compressed (2) by the compressor which is driven by an electric motor. As it goes through the compressor the pressure and temperature rises. The refrigerant turns back into a liquid which is now hot.

The refrigerant then passes through the condenser (3), which in this case is wrapped around the water tank. The hot refrigerant loses its heat which goes into the DHW.

The now cooler refrigerant then passes through an expansion valve (4), where it goes back into a gaseous state and the process begins anew.

Accelera® 300 Efficiency rate: COP measured according to EN 255.3 as function of ambient air temperature at 70% r.H. based on 59 °F / 15 °C cold water temperature



**ISO 9001
CERTIFIED**

Renewable energy certificates | The Accelera® 300 is eligible for a 30% federal tax credit on the total cost of materials and labor up to **\$1,500**, as well as any state or local tax or rebate incentives. Federal tax credit applies only to retrofit situations.



ACCELERA® 300 HEAT PUMP WATER HEATER: WHAT'S NEW IN WATER HEATING

Technical Data



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Model		Accelera® 300 Heat Pump Water Heater
General Data		
Part no.		222423
Operating temperature range	°F / °C	42 to 108 / 6 to 42
DHW temperature	°F / °C	140 / 60
Air flow rate	CFM	324
Sound level @ 1.1 yards / 1 m	dB(A)	64.2
Capacity	Gal / l	80.044 / 303
Refrigerant filling weight	-- / g	R 134a / 900
Height	in / cm	73.8 / 187.4
Diameter	in / cm	26 / 66
Height of unit when tilted including packing	in / cm	90 / 228.6
Weight dry	lb / kg	286.6 / 130
Weight wet	lb / kg	952.4 / 432
Water connection	in	R3/4" NPT
Condensate connection	in	3/4"
Condenser		Safety heat exchanger (tank wrap-around condenser)
Operating pressure, water side	Psi / MPa	87 / 0.6
Permiss. positive pressure, refrigerant side	Psi / MPa	348.1 / 2.4
Electrical Data		
Voltage / Frequency	V / Hz	Single Phase 220-240 / 60
Maximum power draw	kW	2.2
Circuit breaker	A	15
Rated current compressor & fan	A	2.5
Rated power consumption compressor & fan ²⁾	kW	0.5
Rated power, booster heater	kW	1.7
Heating output, heat pump ³⁾	kW	approximately 1.7
COP (t) ³⁾		3.18
Typical COP range		3-6
Energy factor according to ENERGY STAR		2.508
First hour rating	Gal / l	78.6

¹⁾ Tamb = 107.6 °F / 42 °C Twater = 140 °F / 60 °C / 240 V ²⁾ Test point to DIN 8947 at 59 °F / 15 °C air temperature, 70 % rel. humidity and 113 °F / 45 °C water temperature.

³⁾ Test point at 59 °F / 15 °C air temperature, 70 % rel. humidity, heating up water from 59 °F / 15 °C to 140 °F / 60 °C (according to EN 255 T3, 240 V / 60 Hz)

Limited Warranty (Excerpt): STIEBEL ELTRON, Inc. warrants to the original owner that the Accelera 300 Water Heater will be free from defects in workmanship and materials for a period of TEN YEARS from the date of purchase. Should any part(s) prove to be defective during this period, STIEBEL ELTRON, Inc. will be responsible for replacement of the defective part(s) only. STIEBEL ELTRON, Inc. is not responsible for labor charges.