

STIEBEL ELTRON

Simply the Best

A TRUE HEAT PUMP WATER HEATER



Accelera[®] 300

HEAT PUMP WATER HEATER

- » #1 IN ENERGY STAR RATINGS
- » 80 GALLON STORAGE CAPACITY
- » REDUCES HOT WATER COSTS BY UP TO 80%
- » COOLS AND DEHUMIDIFIES THE AIR AROUND IT
- » REMOVABLE SACRIFICIAL ANODE WITH WEAR INDICATOR
- » RELIABLE GERMAN TECHNOLOGY & MANUFACTURING BACKED BY A 10 YEAR WARRANTY



ISO 9001
CERTIFIED



800.582.8423

www.stiebel-eltron-usa.com

SAVES ENERGY WHERE SOLAR WON'T WORK



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 water heater. Every watt the Accelera's compressor and fan use generates 3-5 Watts of hot water. The higher the ambient air temperature is, the greater the efficiency of the unit. This ground breaking technology redefines the efficiency a water heater is capable of.

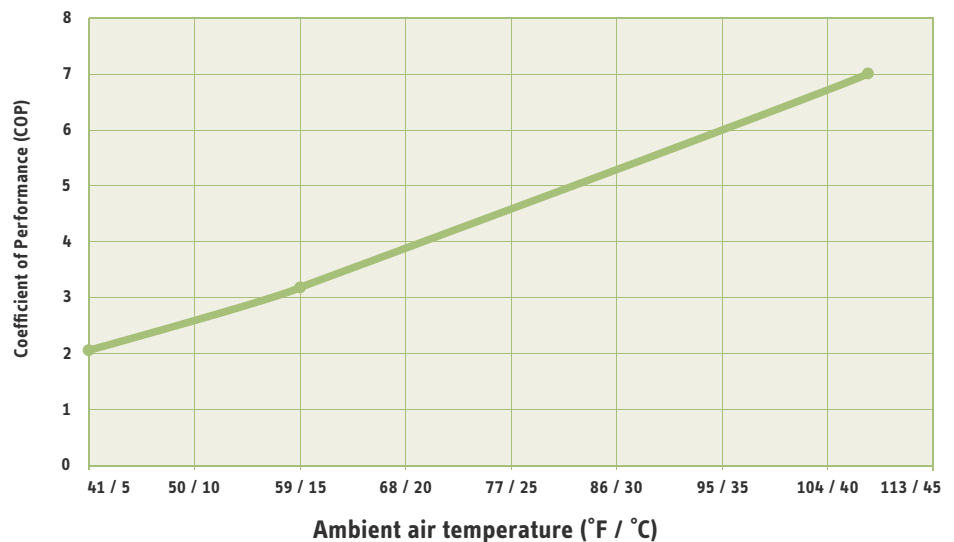
In a warm climate, the unit can be placed either in the garage, where it takes heat from the outside air, or inside the house, where it helps with the air conditioning load. In a cooler climate, the unit is typically placed in the basement where it also acts as a dehumidifier. You get hot water at a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

If the heat pump cannot keep up with the demand for hot water then a specially engineered 1700 W electric backup element supplies additional heat to the water.

The 80 gallon tank is designed to give 50 gallons of hot water before the backup heating element activates.

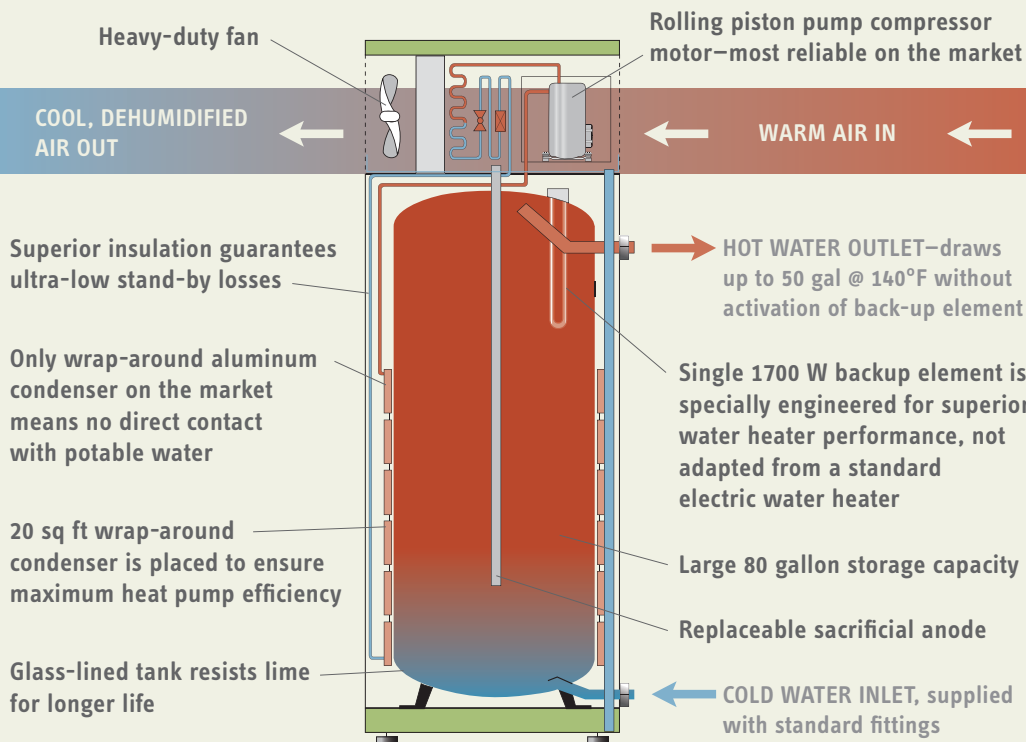


Accelera® 300 Efficiency rate: COP measured according to EN 255.3 as function of ambient air temperature at 70% r.H. based on 59°F / 15°C cold water temperature



CAPTURE THE ENERGY

STIEBEL ELTRON



Simple innovation from Germany.

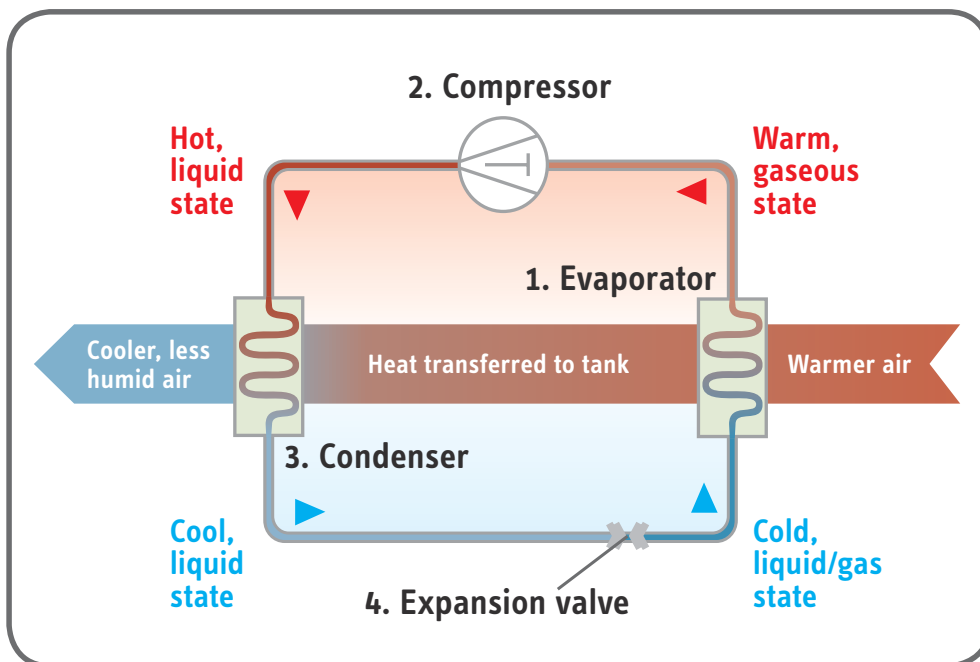
Heat pumps have been around for decades, but a heat pump water heater is a new concept. The Accelera® 300 works like an air conditioner but instead of dumping the heat outdoors, it puts it into the water.

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

The now warm gaseous refrigerant passes through the compressor (2) which increases its pressure. As the pressure increases, the temperature of the refrigerant rises. The refrigerant turns back into a liquid which is now hot.

The hot refrigerant then passes through the condenser (3), which is wrapped around the water tank, transferring its heat to the water.

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



State and Local Rebates / Incentives | Regional incentives for the Accelera® 300 may be available. The US Department of Energy's Database of State Incentives for Renewables & Efficiency website, DSIRE, has up-to-date details at: <http://www.dsireusa.org/>

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ETL
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US
Intertek



ACCELERA® 300 HEAT PUMP WATER HEATER: 30 YEARS OF GERMAN TECHNOLOGY

Technical Data

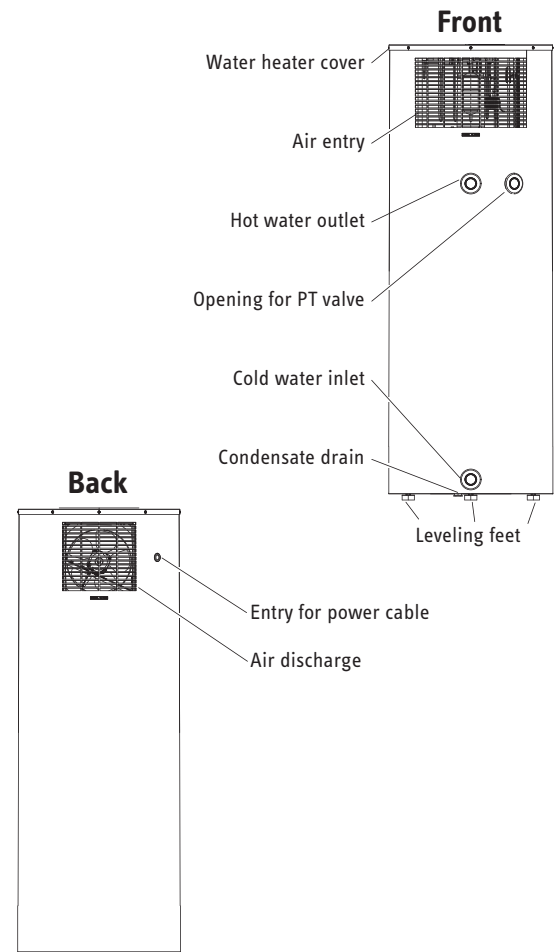


The Accelera® 300 is tested and certified by WQA against NSF/ANSI 372, for "lead free" compliance.

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Accelera® 300 Heat Pump Water Heater

| General Data | |
|---|--------------------------------|
| Item no. | 222423 |
| Operating temperature range | 42°F to 108°F / 6°C to 42°C |
| DHW temperature | 140°F / 60°C |
| Air flow rate | 324 CFM |
| Sound level @ 1.1 yards / 1 m | 64.2 dB(a) |
| Capacity | 80.044 gal / 303 l |
| Refrigerant / filling weight | R134a / 900 g |
| Height | 73.8" / 187.4 cm |
| Diameter | 26" / 66 cm |
| Height of unit when tilted including packing | 90" / 228.6 cm |
| Weight dry | 286.6 lb / 130 kg |
| Weight wet | 952.4 lb / 432 kg |
| Water connection | Union to 3/4" NPT |
| Condensate connection | 3/4" |
| Safety condenser | Wraps around outside |
| Operating pressure, water side | 87 psi / 0.6 MPa |
| Permissible positive pressure, refrigerant side | 348.1 psi / 2.4 MPa |
| Electrical Data | |
| Voltage / Frequency | Single Phase 240/208 v / 60 Hz |
| Maximum power draw ¹ | 2200 w |
| Circuit breaker | 15 A |
| Rated current compressor & fan | 2.5 A |
| Rated power consumption compressor & fan ² | 500 w |
| Rated power, booster heater | 1700 w |
| Heating output, heat pump ³ | approximately 1700 w |
| COP (t) ³ | 3.18 |
| Typical COP range | 3-6 |
| ENERGY STAR energy factor | 2.508 |
| First hour rating | 78.6 gal / 297.5 l |



¹ T_{amb} = 107.6°F / 42°C T_{water} = 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)

STIEBEL ELTRON FAMILY OF ENERGY SAVING PRODUCTS



Efficient tankless electric water heaters.

HOT WATER SOLUTIONS



DHC
Point-of-use
Tankless



Tempra®
Whole House
Tankless



Stiebel Eltron's plant in Holzminden, Germany.

Stiebel Eltron has been a world leader in the development of advanced water heating technology for over 80 years. Our pursuit of engineering excellence and high-quality manufacturing results in products fulfilling the highest expectations of performance and reliability. They are...**Simply the Best.**

RENEWABLE ENERGY



Collectors



Storage
Tanks



Pump
Stations



Solar thermal domestic hot water and radiant floor heating systems.

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