

Accelera® E Heat Pump Water Heaters**Applications****Commercial > Industrial > Institutional**

- › Office buildings
- › Stores
- › Malls
- › Warehouses
- › Restaurants
- › Gas stations
- › Schools
- › Hotels/Motels
- › Commercial condominiums
- › Manufacturing facilities

Residential

- › Homes
- › Condos
- › Apartments
- › Cabins/cottages



Tested and certified by WQA against NSF/ANSI 372 for lead free compliance.



Conforms to ANSI/UL Std. 174 & 1995
Certified to CAN/CSA C22.2 No. 110-94 & 236-05

**ISO 9001
CERTIFIED**

Technical Data

| General Data | Accelera® 220 E | Accelera® 300 E |
|---|------------------------------------|---------------------|
| Item no. | 233058 | 233059 |
| Operating temperature range | 42 °F to 108 °F (6 °C to 42 °C) | |
| DHW temperature | 149 °F (65 °C) | |
| Air flow rate | 324 CFM | |
| Sound power level* | 60 dB | |
| Sound pressure level* @ 3.3 feet (1 m) | 52 dB(a) | |
| Capacity | 58 gal (220 l) | 79.8 gal (302 l) |
| Refrigerant / filling weight | R134a / 850 g | R134a / 900 g |
| Height | 60 7⁄8" (1545 mm) | 75 1⁄4" (1913 mm) |
| Diameter | 27 1⁄8" (690 mm) | |
| Height of unit when tilted incl. packing | 74 1⁄8" (1895 mm) | 87 3⁄4" (2230 mm) |
| Weight dry | 264.5 lb (120 kg) | 297.6 lb (135 kg) |
| Weight wet | 748.5 lb (339.5 kg) | 956.6 lb (433.9 kg) |
| Water connection | 1" male NPT | |
| Condensate connection | 3⁄4" male NPT to 1⁄2" barbed elbow | |
| Safety condenser | Wraps around outside | |
| Operating pressure, water side | 87 psi (600 kPa) | |
| High pressure cutoff, refrigerant side | 348.1 psi (2.4 MPa) | |
| Electrical Data & Performance | | |
| Voltage / Frequency | 220–240 V / 60 Hz | |
| Circuit breaker | 15 A | |
| Rated current compressor & fan | 2.7 A | |
| Rated power consumption compressor and fan² | 650 W | |
| Rated power, booster heater | 1500 W | |
| Heating output, heat pump³ | approx. 1700 W | |
| ENERGY STAR energy factor | 3.05 | 3.39 |
| DOE est. yearly energy usage / cost | 1040 kWh | 1289 kWh |
| DOE est. yearly energy cost | \$169 | \$155 |
| First hour rating | 50.3 gal (190.4 l) | 74.2 gal (280.8 l) |



* Sound Power Level measures the sound energy emitted by a source. Sound Pressure Level (SPL) measures the sound level (loudness) at a distance from the source. SPL varies depending on the acoustic environment and the accuracy of the measurement device.

¹ T_{amb} = 107.6 °F (42 °C) T_{water} = 149 °F (65 °C) / 240 V

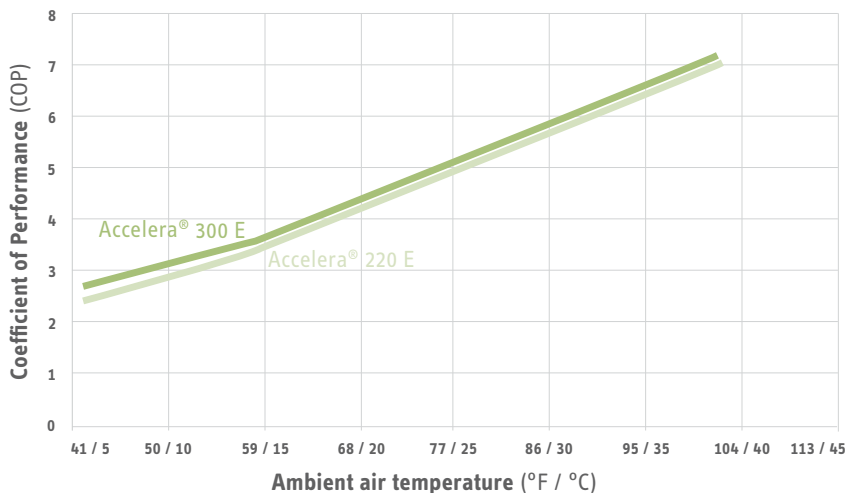
² Test point to DIN 8497 at 59 °F (15 °C) air temperature, 70% rel. humidity and 113 °F (45 °C) water temperature.

³ Test point at 59 °F (15 °C) air temperature, 70% rel. humidity, heating up water from 59 °F (15 °C) to 149 °F (65 °C), according to EN 255 T3, 240 V / 60 Hz

Features

Accelera® 220 E & 300 E Efficiency Rate

COP measured according to EN 255.3 as function of ambient air temperature at 70% relative humidity based on 59°F / 15°C cold water temperature



- › Selection of high-efficiency or high-demand operating modes
- › LCD displays energy content in the tank, setpoints, current temperature, aids in troubleshooting and can display in either SI or US units.
- › Boost function can provide extra hot water for 48 hours at the press of a button.

- › 58 & 80 gallon storage capacities
- › Up to 4 units can be combined in parallel for additional capacity
- › Reduces hot water costs by up to 80%
- › Cools & dehumidifies the air around it
- › Impressed current anode
- › Reliable German engineering
- › Low stand-by loss due to 3" insulation
- › Designed to rely on the heat pump, not the back-up element, with a 90% heat pump / 10% element annual usage breakdown
- › Runs in automatic by default
- › Single 240 V 15 amp breaker and Smart Grid ready
- › Wrap-around aluminum condenser on the market prevents any possible potable water contamination with refrigerant and reduces problems with lime scaling
- › Defrost cycle is engineered to not interrupt heat pump operation for greater efficiency
- › A filter is unnecessary because the evaporator self-cleans during defrost mode due to its optimal fin spacing and hydrophobic coating
- › Angled air path offers more installation opportunities including next to shorter appliances
- › 10-year warranty

Specification

The water heater shall be Accelera® E air-to-water heat pump manufactured by Stiebel Eltron in E.U. with a 10-year warranty. Water heater shall have 3 adjustable rubber feet for leveling unit that shall also provide sound/vibration isolation. Tank shall be 58 gal. or 80 gal. with interior of hygienic glass enamelled surface and an impressed current anode. Heat pump thermal capacity shall be 1.7 kW and cooling capacity 1.0 kW, with thermal losses less than 504 Wh/24h for 220 E or 600 Wh/24h for 300 E at 45 K temp. difference. Tank insulation shall be 3" polyurethane foam insulation. There shall be a single electric resistance element of 1.5 kW. Heat pump shall be fitted with a safety pressure switch at 24 bar (348 PSI). Operation temperature limit shall be 107.6 °F to 42.8 °F. Unit shall be equipped with automatic defrost via fan-driven ambient air and shall have a fast pressure equalization to prevent cycling compressor after power outage. Housing shall be hot dip power painted galvanized sheet metal without welding and have salt air impervious screws. Refrigerant circuit shall have corrosion protection via a stainless steel expansion valve and a coated evaporator salt mist tested to ASTM B 287-74/G84-95 200 hrs. Compressor shall be a high efficiency reliable rotary compressor with thermal overload switch. Refrigerant circuit shall be stainless steel parts and silver alloy brazed copper tubing with recuperator tubing. Water connections shall be NPT.

Engineer/Architect _____ Date _____

Job Name/Customer _____ Location _____

Contractor _____ Representative _____

Qty

Accelera® model _____