STIEBEL ELTRON

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/CAN 372 for lead free compliance.

Intertek
Conforms to UL Std. 1995, 174
Certified to CSA Std. C22.2 No. 236, 110

ISO 9001 CERTIFIED

Technical Data

Model	Accelera® 220 E	Accelera® 300 E
Item no.	233058	233059
GENERAL DATA		
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 fan[2]	650 W	
Rated power, booster heater	1500 W	
Heating output, heat pump[3]	approx. 1700 W	
Uniform Energy Factor (UEF)	3.115	3.609
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

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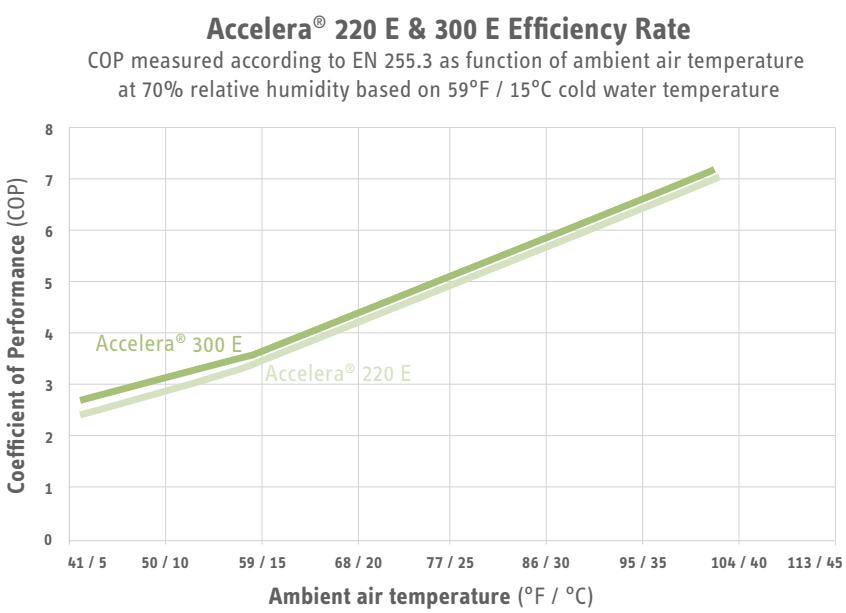
Features



- 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 _____ _____

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