

Voltex®

Hybrid Electric Heat Pump Water Heaters

AC Smith®

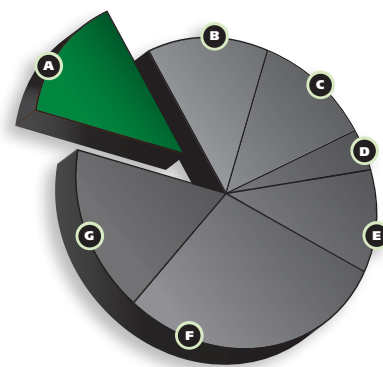


Voltex® Hybrid Electric Water Heaters

Over twice the efficiency of a standard electric water heater and easy to install, the Voltex more than lives up to its impressive reputation. With flexible operation modes, this is a water heater designed to work in many different applications.

Save Money On Cost Of Operation

Water heaters typically use more energy than most other household appliances. On average, they use more energy than a household's refrigerator, dishwasher, clothes washer and dryer combined. The great news is that the Voltex has been designed to dramatically decrease the cost of operation. In fact, the Voltex can translate into quite significant savings for the homeowner over the course of its lifespan. Just how significant? With up to 2.75 EF (Energy Factor) rating (compared to an average .93–.95 EF (Energy Factor) rating of a standard electric model), this innovative water heater can cut annual operating costs by more than half.



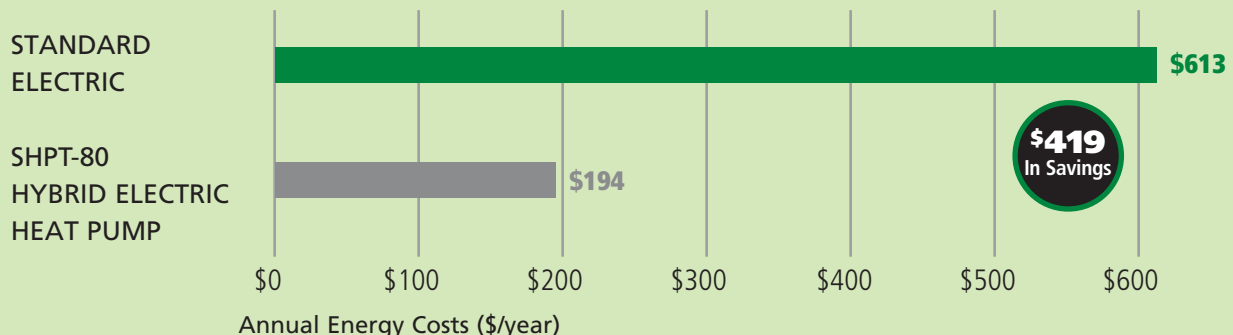
- A. Water Heating: 14%**
- B. Appliances: 13%** (Includes refrigerator, dishwasher, clothes dryer)
- C. Lighting: 12%**
- D. Electronics: 4%** (Includes computer and monitor, tv and DVD)
- E. Other: 11%** (Includes external power adapters, set-top boxes, ceiling fans, vent fans, ovens, home audio, small appliances and other household products.)
- F. Heating: 29%**
- G. Cooling: 17%**

Low annual operating cost means \$419 annual savings, or \$4,190 over a 10-year period, compared to conventional electric water heater.

Source: Typical House memo, Lawrence Berkeley National Laboratory, 2009 and Typical house_2009_Reference.xls spreadsheet.

How Much Money Can You Save?

Compare the energy costs with Voltex Hybrid Electric Heat Pump SHPT-80 Heat Pump.



Based upon DOE test procedure and comparison of 80-gallon standard electric tank water heater.

How Does The Voltex Work?

The Voltex Hybrid Electric Heat Pump Water Heater is an integrated system that utilizes heat pump technology to provide a more efficient way to heat water with electricity. The Voltex pulls heat from the surrounding air and deposits the heat into the tank. The end result is very efficient production of hot water, with cooler and dehumidified air as a welcome by-product.

How It Works

In “efficiency” mode, the Voltex Hybrid Electric Heat Pump Water Heaters operate automatically to heat water in the following manner:

- 1 A fan brings air through the air filter.
- 2 Heat in the air is absorbed by the refrigerant inside the evaporator coil.
- 3 The refrigerant is pumped through a compressor, which raises the temperature.
- 4 Hot refrigerant is circulated through the coil and transfers heat to the water.
- 5 The coil and storage tank are surrounded by “Environmentally-Friendly” Non-CFC foam insulation to reduce standby heat loss.



Cutaway of PHPT model



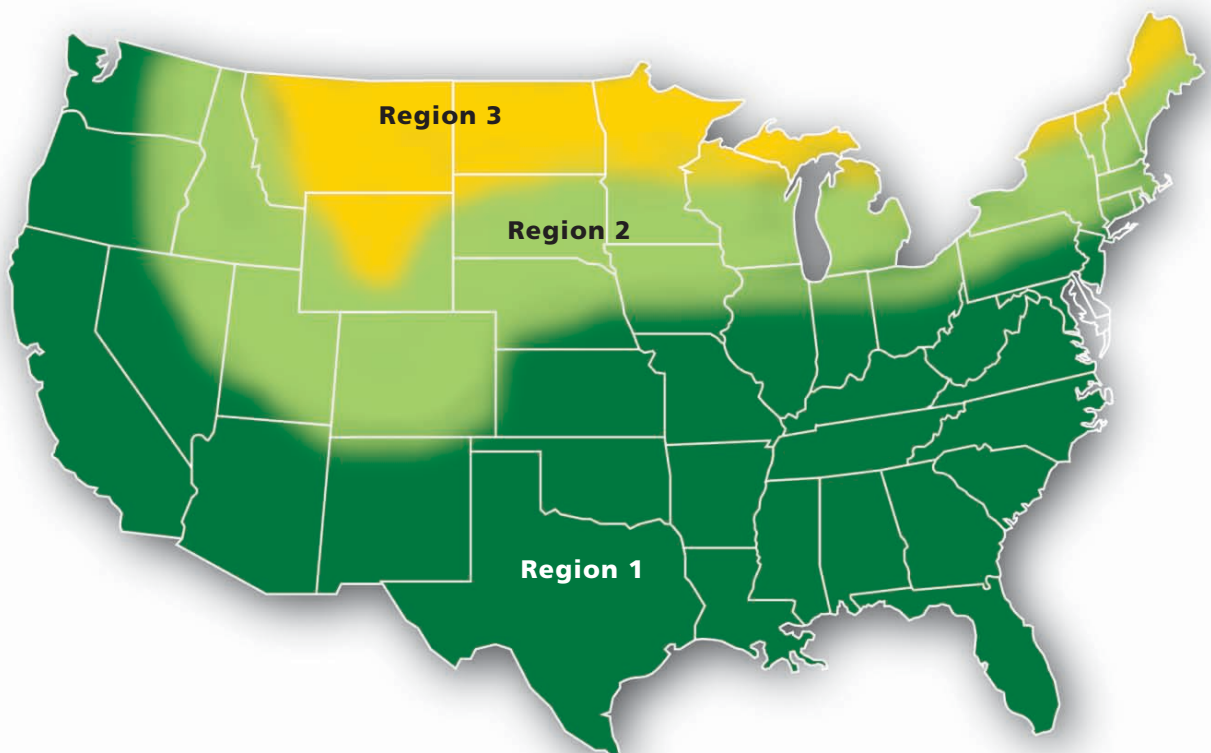
Large Capacity Allows Use Across All Geographic Regions

The Voltex Hybrid Electric Heat Pump Water Heater can be effectively used in all areas of the U.S. Based on the location, either or both of the heating components—heat pump and traditional heating elements—will operate for optimal performance.

Region 1: *Heat pump will be used most of the year*

Region 2: *Majority heat pump operation*

Region 3: *Combination heat pump and electric heating elements*



At A Glance:

- A heat pump water heater absorbs heat from ambient air and transfers it to the water
- While heating the water in the tank, it is also cooling and dehumidifying the surrounding air
- More storage means more energy savings. With an 80-gallon tank, more energy can be stored that has been created through the heat pump, resulting in greater savings.
- User-friendly displays for easy interaction

- High energy factors (EF) result in more energy conservation, minimizing operating costs
- Eligible for local rebates and tax incentive programs which provide cash-back to consumers. Go to www.hotwater.com and see "Find Local Incentives"
- ENERGY STAR® Qualified



Advanced Electronic Controls

Choose the right efficiency setting based on three operating modes: Efficiency, Hybrid and Electric mode.



SHPT-50, 66 & 80 User interface

- The models are easy for homeowners to use. It is customized to meet their unique needs with 3 operating modes, and a convenient programmable Vacation setting. It also includes diagnostic reporting through the eye-level user interface panel.
- The SHPT models have a communications port built into the user interface, which will enable connectivity to home management applications for easy control via smart phone, tablet or PC and to connect to money saving utility demand response solutions.



PHPT-80 User interface

- Large LCD with three line display and touch pad buttons, provides simplified control of temperature and mode, and communicates current status and diagnostics in plain English.
- Safety lock feature prevents unwanted access.
- Status icons clearly indicate operating mode.

Voltex Hybrid Electric Heat Pumps

Model Number	Gallon Capacity	Energy Factor by Mode			First Hour Rating (gal) by Mode			Dimensions		Shipping Weight (lbs)
		Efficiency	Hybrid	Electric	Efficiency	Hybrid	Electric	Height	Diameter	
PHPT-80	80	2.30	2.33	0.85	70	84	76	81 ½	24 ½	340
SHPT-50	50	2.78	2.75	0.89	42.1	67.5	59.1	63	22	196
SHPT-66	66	2.71	2.74	0.91	59.7	81	79	61	27	285
SHPT-80	80	2.71	2.72	0.92	76.3	91	88	69	27	302

All dimensions in inches.

Choose from three operational modes and a convenient Vacation Setting

Choose the right efficiency setting, based on climate, demand and installation.

Efficiency Mode – The high efficiency setting utilizes only the heat pump to extract heat from the surrounding air and transfers it to the water. This mode provides a high Energy Factor (EF).

Hybrid Mode – When hot water demand is at its peak, this setting utilizes both the heat pump and conventional electric elements to provide the necessary amount of hot water. This mode will provide a highly efficient EF.

Electric Mode – In electric mode, the unit operates as a conventional electric water heater utilizing the elements only.

Vacation Setting – One touch operation maintains tank temperatures of 60°F (15.6°C) during extended absences to reduce operating costs and provide freeze protection. Vacation Setting on SHPT models are programmable up to 99 days.

ENERGY STAR® qualified.

All Voltex Hybrid Electric Heat Pump Water Heaters meet ENERGY STAR® qualifications.



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