



## Hybrid Electric Residential Heat Pump Water Heaters

<b>Job Name:</b>
<b>Engineer:</b>
<b>Mechanical Contractor:</b>
<b>Model Number:</b>
<b>Electrical Specifications:</b>

<b>Location:</b>
<b>Wholesaler:</b>
<b>Notes:</b>

### Heat Pump Water Heater Models

- Available in 50 gallon capacities
- Standard configuration: 240V / 30A Electrical Connection
- Example Model Number: HPWH50H

### High Efficiency Heat Pump

- Uses ambient room air to heat domestic hot water
- Maximum operating ambient air temperature: 130°F
- Minimum operating ambient air temperature: 45°F
- Noise level when operating: 48 dBA

### Construction

- Glass-lined steel storage tank tolerates high temperatures and offers superior corrosion resistance
- Maximum operating pressure: 150 psi
- Super-insulated for minimal heat loss and energy efficiency
- Outer jacket features attractive appearance
- 3/4" inlet and outlet water connections on the side of the water heater ease installation
- Hot water outlet with dip tube draws the hottest water from the tank; Cold water inlet with dip tube directs cold water to the lower heating element, minimizing the mixing of cold and heated water and providing long draws of hot water
- Pressure Relief Port: Temperature and Pressure Relief Valve Included
- Electric Junction Box located on top of water heater for easy wiring and installation

### Long Life Electric Elements / Thermostat High Limit Control

- Two (2) 4500W stainless steel electric elements reduce the chance of element burnout and provide longer service life than conventional elements
- Immersed elements allow maximum recovery efficiency and direct, 98% efficient heat transfer
- Adjustable surface mounted thermostat provides years of reliable, trouble-free water temperature control
- Fully automatic high limit controls provide adequate temperature control and overheat protection - manual reset cutoff

### Operating Specifications

- Minimum Water Temperature: 100°F
- Maximum Water Temperature: 140°F
- Default Water Temperature: 120°F

### Integrated Control System

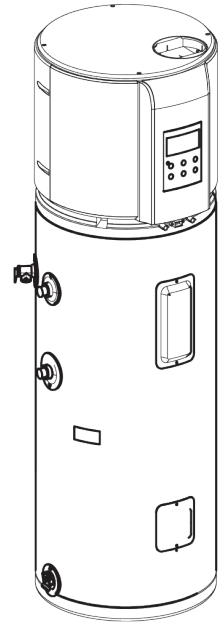
- Six (6) Button Digital Operating Control
- Three (3) Digit Display
- Temperature displayed in Fahrenheit
- Two (2) Digit Error Codes
- Six (6) Indicator Lamps: Off Peak 1, Off Peak 2, High Temp, Lock, Alarm, Vacation
- Four Operating Modes: Economy, Auto, Standard, Vacation
- Vacation Mode can be set from 3 to 99 days

### Certifications and Ratings Efficiency

- 2.8 Uniform Energy Factor (UEF) exceeds Energy Star performance of 2.0
- Compliant with Law 114-11 - The Energy Efficiency Improvement Act of 2015
- ETL Design Certified to meet UL Standard 174 for Household Electric Water Heaters
- North Carolina code compliant models
- Lead Free compliant per the Safe Drinking Water Act, Section 1417
- Meets or exceeds ANSI requirements and tested according to DOE procedures
- Meets or exceeds the energy efficiency requirements of NAECA, ASHRAE Standard 90, ICE code, and all state energy performance criteria
- Exceeds energy efficiency codes of all states, including California Energy Commission (CEC)

### Additional Features

- Limited Ten (10) Year Residential Use Warranty - One (1) year coverage on component parts
- One (1) Year Commercial Use Warranty - One (1) year coverage on component parts
- Cool Air Output Adapter
- Built-in Condensate Collection System
- Manual Reset High Limit
- Magnesium Anode Rod
- Included ASME rated Temperature and Pressure Relief Valve



Recovery Table for Electric Water Heaters (US Gallons per Hour)												
Input		Temperature Rises (deg. F)										
W	BTU	40	50	60	70	80	90	100	110	120	130	140
4500	15355	46	36	30	26	23	20	18	16	15	14	13

**NOTE:** HTP reserves the right to make product changes or updates without notice and will not be held liable for typographical errors in literature.

Water Heater Type		Hybrid, Unitized			
Storage Size / Water Tank Volume		Gal (L)	50 (190)		
Power Supply		Ph-V-Hz	1-240/208-60		
Water Connections			3/4" NPT		
Ambient Temp. Operating Range		°F (°C)	-5 to 130 (-21 to 55)		
Physical Properties	Net Dimension (Diameter×H)	in. (mm)	22.5 × 64.5 (568 × 1640)		
	Packing Dimensions (W×H×D)		27.5 × 68.5 × 28.5 (700 × 1740 × 720)		
	Net Weight	lbs. (kg)	213 (96.5)		
	Gross Weight		243 (110.5)		
Outlet Water Temp.	Set Point Range	°F (°C)	100-140 (38-60)		
	Factory Setting		125 (50)		
Operating Modes			Economy	Auto	Electric
Operating Mode Ambient Temp. Range		°F (°C)	45 to 120 (7 to 48)		-5 to 130 (-20 to 55)
Water Heating	Heating Capacity	kW	1.5		4.5
	Max. Power Input		0.8	5.0	
	Uniform Energy Factor (UEF)	-	2.8		-
	FHR	US Gal	60	65.0	60.0
	Heat Pump COP	-	3.75		-
	Max. Current Input	A	6.5	24.0	21.0
	Resistance Elements	kW	4.5		
Branch Wiring	Minimum Circuit Ampacity	Amps	25		
	Over-Current Protection Recommendations		30		
	Copper Wire Size per NEC Table 310.16 (75 deg. C)	AWG	10		
Noise Level		dB(A)	48		
Refrigerant	Type		R134a		
	Charge Quantity	lbs. (kg)	1.8 (0.8)		
	Operating Pressure - High / Low	PSIA	331 / 86 at ambient 70°F		
Tank Max. Operating Pressure		PSI	150		
Certification	Energy Star		Yes		
	UL				

**Table 1 - Technical Specifications and Dimensions**

**Typical Specifications**

The water heater shall be an HTP, Inc. model #HPWH50H with a 50 gallon storage capacity, an input of \_\_\_\_\_ kw (BTU), a recovery rate of 60 GPH at 100°F (56°C) temperature rise and be equipped for 240 volts, single phase, non-simultaneous operation.

The tank shall be constructed of glass-lined carbon steel, and have a working pressure of 150 PSI (1,034 kPA) and test pressure of 300 PSI. The water heater shall be design certified by UL to meet the UL 174 for Household Electric Water Heater Standard, and meet or exceed the standby loss requirements of ASHRAE.

The water heater shall be supplied with a ¾" NPT inlet and outlet.

The water heater shall be equipped with adjustable surface mounted thermostats with manual reset high limit safety control, and an electric junction box located on the top of heater. All water heaters will be shipped with an ASME Rated temperature and pressure relief valve, and a drain valve.

Water heaters shall be covered by a Limited Ten (10) Year Residential Use or One (1) Year Commercial Use Warranty, with One (1) year coverage on component parts. See product warranty for details.

The surfaces of these products contacted by consumable water contain less than 0.25% lead by weight, as required by the Safe Drinking Water Act, Section 1417.

Maximum unit dimensions shall be width 22.5 inches and height 64.5 inches. Maximum unit weight shall be 213 pounds.