LG INVERTER HEAT PUMP WATER HEATER

RESIDENTIAL

LG Air Conditioning Technologies



LG INVERTER HEAT PUMP WATER HEATER What is the LG Inverter Heat Pump Water Heater? LG's Inverter Heat Pump Water Heater is an energy-efficient alternative to electric resistance or gas water heaters. LG inverter technology heats water with an efficiency of 3.931 and 3.902 uniform energy factor (UEF) at a noise level of just 42 dB(A)³ about the sound level of a quiet library, which is lower than a typical heat pump water heater. Power Consumption Change KWh **Energy Savings** Non-Inverter **DUAL Inverter** Time



LG Electronics USA, Inc., based in Englewood Cliffs, N.J., is the North American subsidiary of LG Electronics, Inc., a \$68 billion global innovator in technology and manufacturing. In the United States, LG sells a wide range of innovative home appliances, home entertainment products, commercial displays, air conditioning systems, energy solutions and vehicle components. LG is a 2024 ENERGY STAR® Partner of the Year-Sustained Excellence. The company's commitment to environmental sustainability and its "Life's Good" marketing theme encompass how LG is dedicated to people's happiness by exceeding expectations today and tomorrow.



Inverter technology changes motor and compressor speeds freely. Just like the "natural breeze" function on fans, inverter technology allows a fan to go faster for a moment, and then slow down the next moment. Inverters change the power provided to a compressor and motor through voltage and frequency to switch their speeds at any time. This enables both powerful output and delicate control, making it possible to spend the minimum amount of energy necessary for the operation without any waste. Inverter technology is also quieter and more energy efficient than traditional HVAC products.

LG Inverter Heat Pump Water Heater

BENEFITS

INVERTER TECHNOLOGY



Energy Efficiency

LG's Inverter Heat Pump Water Heater using a DUAL Inverter compressor has achieved UEF 3.93, so operating costs can be saved up to 76%.

¹Based on same annual hot water demand (16.9 MMBTU) with LG Inverter Heat Pump Water Heater and electric cost is assumed as \$0.14 per kWh.

²Based on same annual hot water demand (16.9 MMBTU) with LG Heat Pump Water Heater and gas cost is assumed as \$1.21 per therms.

³Based on values of energy guide label.



Backup Heating

The LG Inverter Heat Pump Water Heater has two heat sources - a heater and a heat pump - which complement each other. If one of the heating elements fails, the other heat heating element will provide backup heating.



Low Noise Operation 42dB(A)

Through Brushless Direct Current (BLDC) Motor and DUAL Inverter Compressor, noise is reduced to 42dB(A) and provides a comfortable environment even with indoor installation.



PRODUCT DURABILITY



True Durability

Enamel coating inside water tank provides 10 years of corrosion resistance based on the Germany Ceramic Standard DIN 4753.



Limited Warranty

Ten Year Parts, Ten Year Water Tank, Ten Year Compressor, and One Year Labor Limited Warranty. Registration required for Ten Year Part and One Year Labor Full limited warranty terms are available at https://www.lqhvac.com/resources/.



SMART CONTROL



Easy Control

The LG Inverter Heat Pump Water Heater can be managed remotely using the LG ThinQ app as part of a whole-home control for LG HVAC, appliances and electronics.



Demand Response

The LG Inverter Heat Pump Water Heater supports Demand Response and Time of Use functions, adjusting operation based on utility signals and time-based electricity rates.

* The Universal Communication Module is field-supplied by utility companies

Water Leak Detection

The LG Inverter Heat Pump Water Heater supports Water Leak Detection, automatically closing the shut-off valve at the inlet when a leak is detected to prevent further leakage.

* The shut-off valve is field-supplied.



Part Replacement Notification (Mobile)

The LG ThinQ app reminds you when to check your product. (filter cleaning, water tank drain, anode rod, etc.)



DESIGN



Convenient Installation

Ease of installation by designing inlet and outlet piping connections in one direction. Wire connections are easily made to the junction box.



Differentiated Design

The LG design and luxury silver color make it an excellent design for the interior of the home.





Specification





EcoPort^{cm} (CTA-2045 Port¹) Models ending in D & L

Washable Filter

DUAL Inverter Compressor Display

Water Outlet (NPT 3/4")

Opening for T&P Relief Valve Upper Heating Element

Ceramic Coating

Lower Heating Element (Located behind Condenser Coil)

Condenser Coil

Water Inlet (NPT 3/4")

Drain

Water Leak Detection*

			APHWC501(M/L/D)*	APHWC801(M/L/D)*
Water Tank Capacity	Nominal	Gallon	58	80
	Rated	Gallon	53	72
	First Hour Rating	Gallon	76	94
UEF ² (Uniform Energy Factor)			3.93	3.90
FHR (First Hour Rate - Standard)		Gallon	76	94
Ambient Operating Range		°F	23 ~ 120	
Sound Pressure ³		dB(A)	42 - 45	
Limited Warranty		1 Year Parts - 10 Years Water Tank and Compressor (does not include labor)		
Power Input	Upper Element	kW	3.8 (208V) / 5 (240V)	
	Lower Element	kW	3.8 (208V) / 5 (240V)	
Power		V, Hz, Ø	208/240, 60, 1	
Dimensions (W x H x D)		Inches	22-27/32 X 63-31/32 X 22-29/32	22-27/32 X 79-1/16 X 22-29/32
Weight		lbs	225	267
Basic Models (M)		501M and 801M Models		
Demand Response ¹ and Water Leak Detection (L)		501L and 801L Models		
* Demand Response Only (D)		501D and 801D Models		
Smart ⁴ (Wi-Fi)		LG ThinQ		

Note: ¹Universal Communication Module for Demand Response is field-supplied by utility companies

²US Water Heater Energy Efficiency (at auto mode)

 3 Sound pressure level S measured on the rated condition in the anechoic rooms by ISO 3745 standard.

⁴LG ThinQ Main Function

- Operation mode (Auto. Heatpump, Turbo, Vacation, Schedule), Temperature setting
 Monitoring hot water temperature
 Maintenance point alarm (Filter, Anode Rod, etc.)

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T&P Valve and Drain Valve are included with the Heat Pump Water Heater. If required, Duct Adapter (PHDCLA0) is sold separetly.









 $\mbox{EcoPort}^{CM} \mbox{ and the EcoPort}^{CM} \mbox{ mark are (registered) certification marks} \\ \mbox{owned by the OpenADR Alliance}.$



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Proper sizing and Installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps (excluding ductless systems) must be matched with appropriate coil components to meet ENERGY STAR criteria. Ask your contractor for details or visit www.energystar.gov.

LG Electronics USA, Inc.

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 $\label{thm:product} Visit\ LGHVAC.com\ for\ more\ information.\ Product\ specifications\ may\ be\ changed\ or\ modified\ from\ time\ to\ time\ by\ LG\ in\ its\ sole\ discretion.$

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