



— LG INVERTER HEATPUMP WATER HEATER

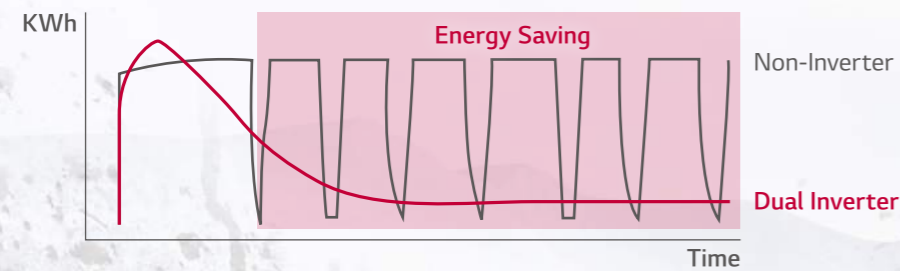


LG INVERTER HEAT PUMP WATER HEATER

What is LG Inverter Technology?

LG Inverter Technology is applied to various electronics including refrigerators and washing machines, especially to air conditioners which continuously receive global attention. With Inverter technology, consumer may have better energy saving and more saving money on their utility bills

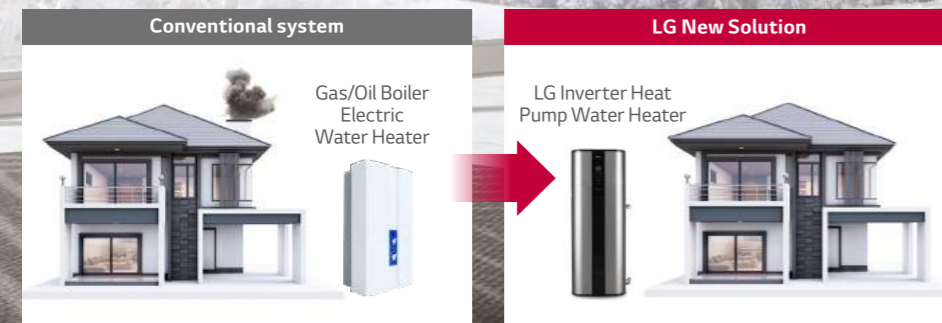
Power Consumption Change



What is LG Inverter Heat Pump Water Heater ?

Modernized Technology : Replacing Conventional Type Heater

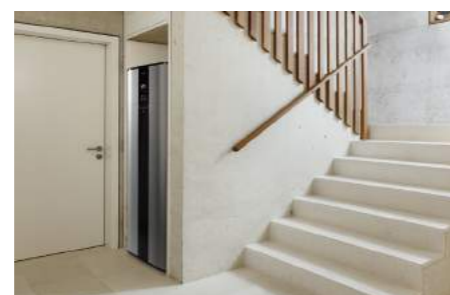
In recent years, interest in these environmentally friendly devices has been increasing because global warming and environment pollution has been progressing fast, and in order to meet these market demands, LG has further developed their heat pump technology to produce the most efficient, environmentally friendly products in the industry.



VARIOUS INSTALLATION PLACE



Laundry Room



Storage Room



Bathroom



Bathroom



Garage



Garage

* Actual product appearance may differ from the above simulated scene.

FOR USER

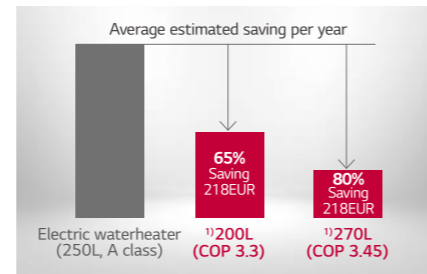
INVERTER TECHNOLOGY



Highest Energy Efficiency

LG's heat pump water heater using market first DUAL Inverter Compressor achieved COP 3.45 (270L) and COP 3.3 (200L), the highest efficiency in the industry. Save up to 80% more energy than Electric Water Heater (250L, A Class)

1) Simulation Data on Daily Electricity Consumption, based on EU Climate Condition(Average)



Fast & Powerful Water Heating

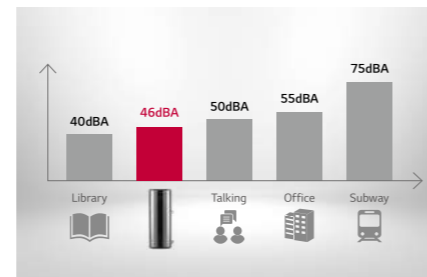
The DUAL Inverter Compressor allows the maximization of the power of heat pump. And it can heat up to 20% faster and 30% warmer at Turbo Mode than Non-Inverter water heater.

* Dual Inverter Max Hz plus Heater Logic Optimization



Low noise 46dBA

Through BLDC Motor and DUAL Inverter Compressor, noise is reduced to 46dBA and provides a comfortable environment even in indoor installation scenes.



Continuous Operation

The two heat sources, heater and heat pump, complement each other perfectly. If one of the heaters and the heat pump fails, the other heat source allows emergency operation.



SMART CONTROL



Embedded Wi-Fi

You can control the product through LG ThinQ app. You can check information such as current water temperature, operating mode, etc.



Smart Diagnosis

Smart Diagnosis allows users to conveniently check setup, installation, troubleshooting and other information directly from a smartphone.



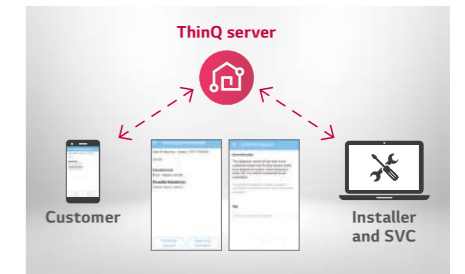
FOR INSTALLER

SMART CONTROL



Easy Check & Monitoring

Easily comprehensible error messages make detecting a solution and contacting the service center simple and convenient



EXTREME DURABILITY



Dual Inverter Compressor

- Energy Saving 70% Down vs Non-Inverter
- Fast Heating 40% Up vs Non-Inverter
- Low Vibration 88% Down vs Conventional Inverter



10-Year Warranty

10 year warranty for the core parts of the heat pump water heater - Water Tank, Compressor. TÜV Rheinland certified 10 year durability of Dual Inverter compress. Ceramic coating inside water tank meets Germany Ceramic Standard DIN 4753 and it provides 10 years of corrosion resistance.



DESIGN



Quick & Easy Installation

Easy to install the piping by designing the inlet and outlet piping only in one direction, You can easily connect wires in the junction box.



Differentiated Design

LG's exclusive square design and luxury silver color make it an excellent design for the interior.

Red Dot Design Award 2020
iF DESIGN AWARD 2020



reddot winner 2020



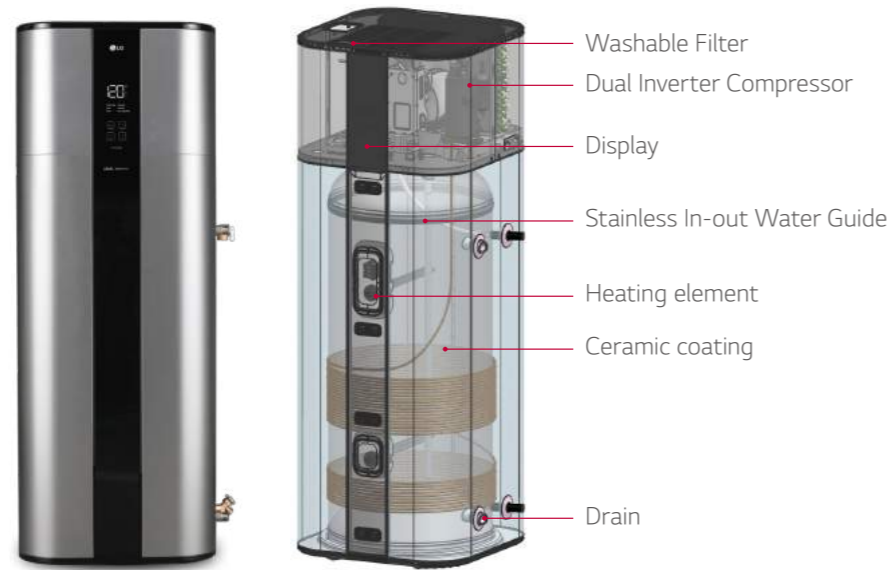
DESIGN AWARD 2020



LG Inverter Heat Pump Water Heater

PRODUCT SUPPORT & SPECIFICATION

Specification



Sales Model		Unit	WH20S	WH270S	
Factory Model			R5TT20F-SA1	R5TT270F-SA0	
Capacity	Volume (Norminal)		200L	270L	
Energy Efficiency	COP		3.3	3.3	
Energy Consumption	Annual Energy Consumption	kWh	866		
Power Input	Power Input	kW	2	2	
	Lower Element Wattage (230V)	kW	2	2	
Energy Efficiency Class			A+	A+	
Power Supply	Ø, V, Hz		1Ø, 230V, 50Hz	1Ø, 230V, 50Hz	
Available Voltage Range		V	(207 ~ 253)		
Indoor	Air Flow Rate	H/M	m ³ /min	(6.7) / (4.4)	
		H/M	CFM	(236.6) / (155.4)	
	RPM	H/M	-	1,150 / 850	
	Sound Pressure Level	Auto	dB(A)+3	40	40
		Turbo/Heat Pump	dB(A)+3	42	42
	Sound Power Level		dB(A)	-	-
	Dimensions	Net (W x H x D)	mm	580 x 1,625 x 582	
			in.	22 3/4 x 64 x 23	
		Shipping (W x H x D)	mm	738 x 1,775 x 690	
			in.	29 x 69 4/5 x 27	
	Weight	Net	kg	100	
			lb.	220	
		Shipping	kg	118	
			lb.	260	
Operation Range	Heating	°C DB	-5 ~ 48.9	-5 ~ 48.9	
		°F DB	23 ~ 120	23 ~ 120	
Max. Fuse Size		A	13.5	13.5	
Exterior Color Code		-	Luxury Silver	Luxury Silver	
Compressor	Type	-	Twin Rotary	Twin Rotary	
	Motor Type	-	BLDC	BLDC	
Refrigerant	Type	-	R134a	R134a	
Digital Display		-	Yes	Yes	
Wi-Fi		-	Yes	Yes	
Tank Warranty		Year	10	10	

Note : 1) US Water Heater Energy Efficiency (At Auto mode)
 2) Maximum hot water Supply/hr at Turbo Mode
 3) ThinQ Main Function
 - Operation mode (Auto, Heatpump, Turbo, Vacation, Schedule), Temperature setting
 - Monitoring hot water Temperature
 - Maintenance point Alarm (Filter, Anode Rod, etc.)

LG Inverter heat pump water heater Installation Steps

For details, please read and follow the installation and safety instructions in the User's manual.

- Select space where has enough space for air exchange and periodic service.
- Determine if a check valve or back flow preventor is present on the inlet water line. If check valve or back flow preventor presents, we recommend installing an expansion tank. Contact water supplier or local plumbing inspector for details.
- Install a suitable drain pan piped to an adequate drain.
- Connect drain vale to opening marked "drain valve"
- Connect condensate Drain line. The condensate drain should be hand tightened only.
- Connect T&P relief valve to opening marked "T/P relief valve"
- Connect T&P relief valve discharge pipe. The end of the discharge pipe must stop no more than six inches above the floor drain or outside.
- Connect hot and cold water supply line.
- Make sure that the drain valve on water heater is completely closed.
- Turn on the cold water supply. Keep hot water faucet open while filling water heater.
- Do not connect electrical connection until water heater is completely full of water.
- Make sure that the electrical power is turn off before making electric connections.
- Make electric connections refer to instructions contained in user's Manual.
- Set the desired temperature on control display. Even at 120°F, hot water can be scalded. See User's manual for details.

Error Code Guide

Check code	Contents	Case of error	Operating Status	Check code	Contents	Case of error	Operating Status
1	Indoor air temperature sensor error	Open/Short	Elements Only	27	PSC Fault	IGBT Over Current	Elements Only
4	Float switch error	Float switch open	Elements Only	29	Comp Phase Over-Current	Compressor input phase current is high	Elements Only
5	Communication error	Poor communication	Elements Only	32	Inverter compressor D-Pipe overheat	INV Comp D-Pipe Temp. is 221°F(105°C) ↑	Elements Only
6	Lower tank sensor error	Open/Short	OFF	41	D-pipe sensor error	Open/Short	Elements Only
9	EEPROM check sum error	Poor connection of Option PCB	Elements Only	46	Suction Pipe sensor	Open/Short	Elements Only
12	Mid pipe sensor error	Open/Short	Elements Only	61	Cond. Pipe High	Cond. Temp. high	Elements Only
19	Upper element error	Upper heating element is not functioning	Heat pump Only	65	Heat sink sensor error	Open/Short	Elements Only
20	Lower element error	Lower heating element is not functioning	Heat pump Only	67	BLDG motor fan lock	Motor not operation	Elements Only
21	DC Peak (IPM Fault)	INV Comp.malfunction, IPM Fault Elements	Elements Only	DF	Dry fire (No water)	Not enough water in storage tank	OFF
22	CT 2 (Max, Current)	AC input current is higher than the limit	Elements Only	EC	ECO Error	ECO tripped	OFF
23	DC Link Low / High Volt	DC Link volt. Is 140V ↓ / 420V ↑	Elements Only	H1	Water Temp. High	Water Temp. is 140 - 170°F(60 - 77°C)	OFF
26	DC Comp Position Error, LOCKING	Position Detection Error	Elements Only	H2	Water Temp. High	Water Temp. is 212°F(100°C) ↑	OFF
				L1	Water Temp. Low	Water Temp. is 32 - 81°F(0 - 27°C)	OFF
				L2	Upper tank sensor error or Water Temp. Low	Water Temp. is 32°F(0°C) ↓	OFF