WHES

DEMAND RESPONSE ELECTRIC WATER HEATER

Top-Connect | I-Memory | LCD Display | 60Hz

RESIDENTIAL
PRODUCT SPECIFICATIONS (EHB)

40 and 50 Gallons
208/240V-1Ph



ECOPORT

FEATURES

Electronic Temperature Control
- Precise temperature control and improved performance combined with energy cut-off to prevent overheating

I-Memory
- Self-learning habit algorithm ensures hot water is available when needed
- Saves energy when hot water is not needed

FillSafe Protection™
- Protects tank and components if the tank is not properly filled

Daily Scheduling
- Set up daily scheduling to ensure that hot water is available when needed most

EcoPort Certified
- Demand Response ready (CTA-2045/OpenADR)

User-Friendly LCD Display Screen
- Allows for easy view of current operational status, parameter changing and diagnostics

Dual Incoloy Superalloy Heating Elements
- Superior resistance to high temperatures and corrosive environments
- Low wattage density to ensure more efficient operation and longer element life

SediMotion™ Turbulence-Inducing Dip Tube
- Engineered to reduce sediment buildup inside the tank

Full Flow Brass Drain Valve
- Allows easy and quick drainage

Factory Installed Heat Traps
- Reduces standby heat loss caused by heat mitigation to water pipes

Temperature And Pressure Relief Valve
- Factory provided and installed

QUALITY

Heavy Gauge Steel Tank
- Extra years of trouble-free service

Permaclad™ Glass-Lined Tank
- Lined and fired at 1600°F for optimum protection from the effects of corrosion

Dual Magnesium Anode Rods
- Prolongs tank life

WARRANTY

- Tank - Limited twelve years in residential applications, one year in non-residential applications
- Components - Limited six years in residential applications, one year in non-residential applications

NOTE - Refer to Lennox® Basic Limited Warranty at www.Lennox.com for additional details.

PERFORMANCE

- Up to 0.93 UEF
- Up to 67 gallons First Hour Rating (FHR)

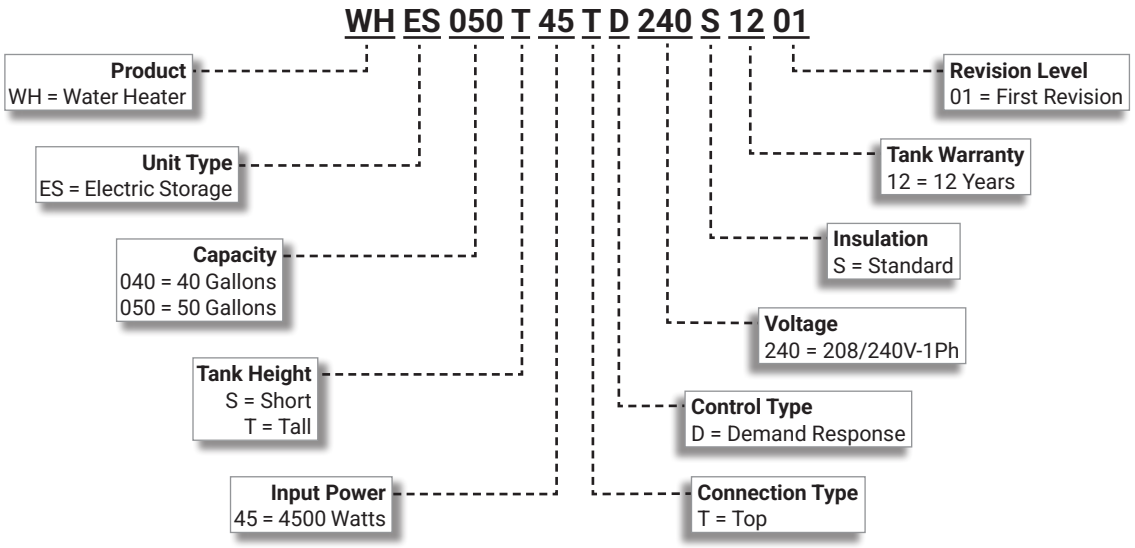
HFO Foam Insulated
- Two-inch thick, environmentally-friendly insulation foam
- Saves energy, reduces fuel cost by maximizing heat retention
- Contributes to overall energy efficiency

APPROVALS

- AHRI Certified
- Meets or Exceeds DOE Efficiency Requirements
- All models comply with and meet or exceed ASHRAE Standard 90.1B

Form Number 211262 | March 2026
Supersedes all previous versions

MODEL NUMBER IDENTIFICATION



SPECIFICATIONS

Model		WHES040S45T D240S12	WHES050S45T D240S12	WHES040T45T D240S12	WHES050T45T D240S12
Height		Short	Short	Tall	Tall
Insulation		Standard	Standard	Standard	Standard
Nominal Capacity	Gallons	40	50	40	50
DOE Rated Capacity	Gallons	36	46	36	46
First Hour Rating	Gallons	54	61	58	67
[1] GPH Recovery @ 90°F Rise	Gallons	21	21	21	21
Uniform Energy Factor		0.92	0.92	0.93	0.92
Line voltage data (Volts-Phase-Hz)		208/240-1-60	208/240-1-60	208/240-1-60	208/240-1-60
Electrical Breaker Size	Amps	25	25	25	25
Element Wattage		4500	4500	4500	4500
[2] Element Wattage Derate @ 208V		3380	3380	3380	3380
Recommended Drain Pan Diameter	in. (mm)	20 (508)	22 (558)	22 (558)	24 (610)
Shipping Weight	lbs.	112	130	117	164

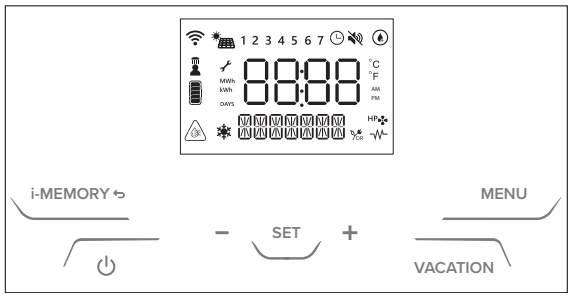
NOTES - All models are UL and CEC listed and meet or exceed ASHRAE 90.1B.
Heaters are wired for non-simultaneous operation, single phase 240 Volts with dual 4500 Watt elements, unless otherwise specified.
All models are certified at 300 PSI test pressure and 150 PSI working pressure.

[1] Recovery calculations used are based on 4500-watt elements used in non-simultaneous operation. Replacing 4500 Watt heating elements, with 6000 Watt non-simultaneous elements will increase the recovery rating from 21 GPH to 27 GPH @ 90° Rise.

[2] Water heaters are manufactured to voltage and wattage specified. When less than design voltage is supplied to the unit, the element will still heat, but at less than the design value

CONTROLS

CONTROL PANEL



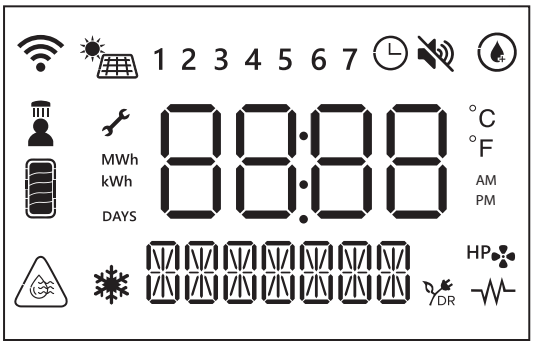
- LCD Display with seven touch buttons:
- There are two blue LEDs
  - POWER (when power supplied to the product)
  - VACATION (when active)
  - ⏻ POWER - Turns the water heater on or off
  - − SET + - Use the plus and minus buttons to set desired hot water temperature or scroll through available parameter settings in the Menu settings
  - Use the SET button to confirm settings selected
  - I-MEMORY - Uses a proprietary algorithm to reduce energy consumption and maximize comfort by monitoring the hot water needs of the user to optimize the use of the heat pump/ heating element
  - Control meets daily needs by averaging use profiles over every four weeks
    - First week monitoring - The setpoint temperature entered by the user remains constant
    - Second through fourth week monitoring - The control automatically adjusts the setpoint temperature to meet daily needs
  - VACATION - When hot water will not be needed for an extended period of time (vacation, etc.)
    - Vacation mode is set in the User Menu
    - In Vacation mode, no heating operation is performed
    - When Vacation mode time has expired water heater will return to the previous setting
  - MENU - Press the MENU button to access and view different parameter setting available

SCHEDULES

NOTE - Schedules are set in the MENU settings

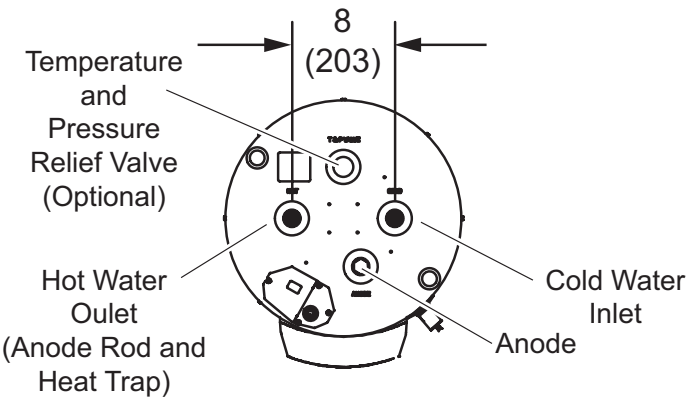
- Four different time periods per day of the week
- Four different modes per time period
- All Days - Time periods follow the same schedule for all seven days
- Each day - Time period follows each day of the week

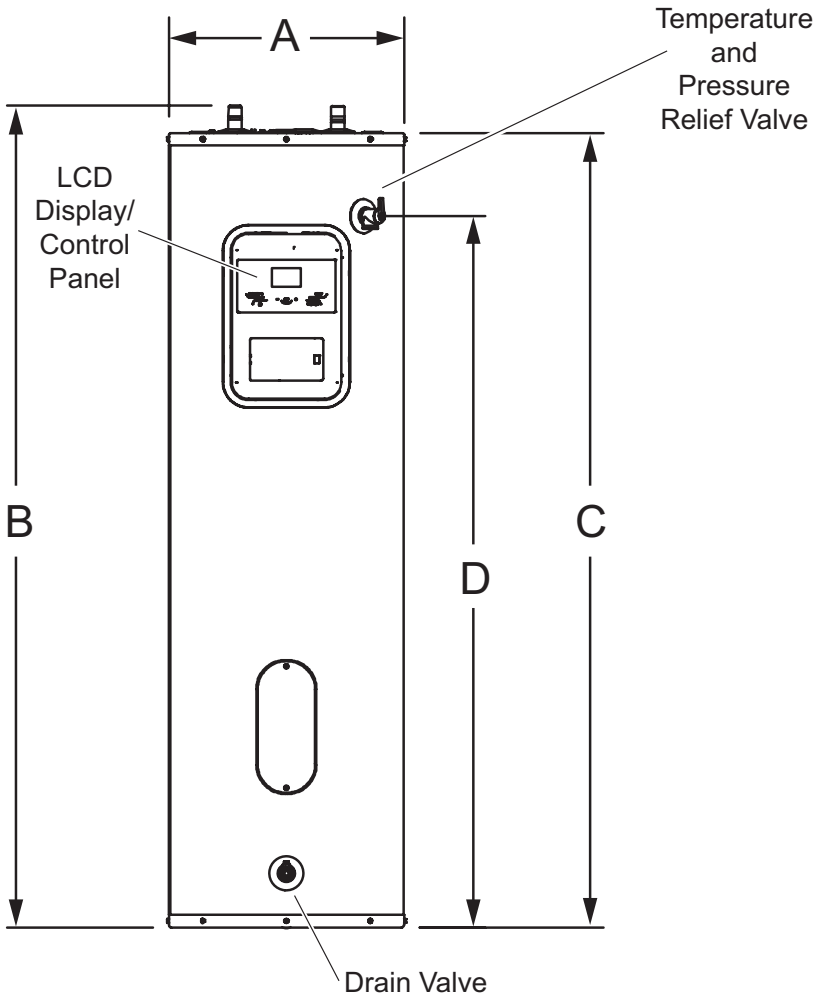
NOTE - Refer to the Installation Instructions for a more detailed list of available features.



88:88	String 1: 4 DIGITS x 7 segments and dots The main string shows the target temperature. The main string alternates the target temperature to a warning code if anyone is detected.
	String 2: 7 DIGITS x 14 segments The secondary string the active heating mode.
°C	CELSIUS DEGREE ICON
°F	FAHRENHEIT DEGREE ICON
AM	AM ICON
PM	PM ICON
HP	HP ICON (NOT USED)
	HE ICON Are steady on to indicate that the corresponding load is on blink to indicate that some malfunctioning is present
MWh	MWh ICON
kWh	kWh ICON
DAYS	DAYS ICON
	ANTIFREEZE ICON Indicates that the antifreeze function is active.
	HOT WATER ICON Indicates a water temperature hotter with respect to the displayed target temperature (e.g. antibacterial cycle).
	ENERGY CONTENT LEVEL i (NOT USED)
	SHOWER ICON Is ON to indicate that one shower at least is available.
	Wi-Fi ICON (NOT USED)
	PV-SG ICON (NOT USED)
1....7	DAY OF THE WEEK (1 = Sunday) The DAY ICON indicates the current day of the week.
	PROGRAM ICON Indicates that COMFORT MODE = TIME BASED.
	SILENT ICON (NOT USED)
	ANTIBACTERIAL ICON (NOT USED) Indicates that the ANTIBACTERIAL function is enabled. When the cycle is active the main string alternates the target temperature with the “Antb” label.
DR	DR ICON (Demand Response) When ON the DR icon is Highlighted.
	SERVICE ICON

DIMENSIONS





Model	A		B		C		D	
	in.	mm	in.	mm	in.	mm	in.	mm
WHES040S45TD240S12	18-1/4	464	51-1/4	1302	49-1/4	1251	42-/1/2	1080
WHES050S45TD240S12	20-1/4	514	50-3/4	1289	48-3/4	1238	41-3/4	1060
WHES040T45TD240S12	20-1/4	540	63-1/2	1613	61-1/2	1562	55-1/4	1403
WHES050T45TD240S12	22-1/4	565	61-3/4	1568	59-3/4	1518	53-1/4	1353







LENNOX®

Visit us at www.Lennox.com
For the latest technical information, www.LennoxPros.com
Contact us at 1-800-9-LENNOX

NOTE - Due to Lennox' ongoing commitment to quality, Specifications, Ratings and Dimensions subject to change without notice and without incurring liability.
Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury.
Installation and service must be performed by a qualified installer and servicing agency.

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