Tankless Residential Water Heaters

TANKLESS X3 CONDENSING HIGH EFFICIENCY WATER HEATERS

X3 TECHNOLOGY

Ultra-Low NOx, condensing tankless water heaters featuring X3 Scale Prevention Technology will last three times longer than competitive models.

FEATURES:

X3 SCALE PREVENTION TECHNOLOGY (PATENT PENDING)

- No annual descaling required
- No scale buildup means the heater maintains like-new performance longer

ENERGY STAR® QUALIFIED

DURABLE HEAT EXCHANGER

- Primary heat exchanger is constructed of a commercial-grade copper that is more resilient to corrosion. Copper is 25X better at heat transfer than stainless steel, thus stabilizing outgoing water temperatures quicker.
- Secondary heat exchanger is made of 316L stainless steel to protect against corrosion

QUALIFIED AS LEAD FREE UNDER THE SAFE DRINKING WATER ACT

SAFETY FEATURES:

- Exhaust & Water Temperature Safety Control
- Overheat Cut-Off Fuse
- Air-Fuel Ratio (AFR) Sensor

INTERNAL FREEZE PROTECTION SYSTEM

POWER DIRECT VENT DESIGN

- Category III or IV venting can be used
- Exhaust, 3" PVC pipe up to 70; 4" PVC up to 100'
- Provides flexible venting with PVC, CPVC, polypropylene, or ABS pipe for intake and exhaust (solid core only).

RECIRC CAPABLE

- Tankless water heaters with X3 Technology are approved to work with an external recirculation pump and cross-over valve. See manual for full details.

ACCESSORIES

- Pipe Cover
- Neutralizer Kit
- X3 Freeze Protection Kit
- Recess Box
- Concentric Vent Kit

WARRANTY

- No hard water exclusions
- 15-year limited warranty on heat exchanger in residential applications
- 5-year limited warranty on all parts in residential applications
- 1-year limited warranty on heat exchanger and parts in commercial applications
- For complete information, consult written warranty

INDOOR MODELS

LTI-240X3, LTI-340X3, LTI-540X3

OUTDOOR MODELS

LTO-240X3, LTO-340X3, LTO-540X3

AHRI CERTIFIED · ENERGY STAR · DESIGN CERTIFIED · Meets: SCAQMD Rule 1146.2 · LOW-LEAD IAPMO R&T

Lochinvar®

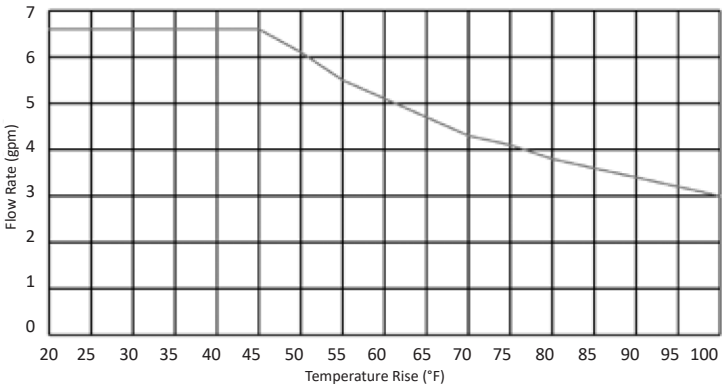
HIGH EFFICIENCY BOILERS & WATER HEATERS

TANKLESS X3 CONDENSING HIGH EFFICIENCY WATER HEATERS

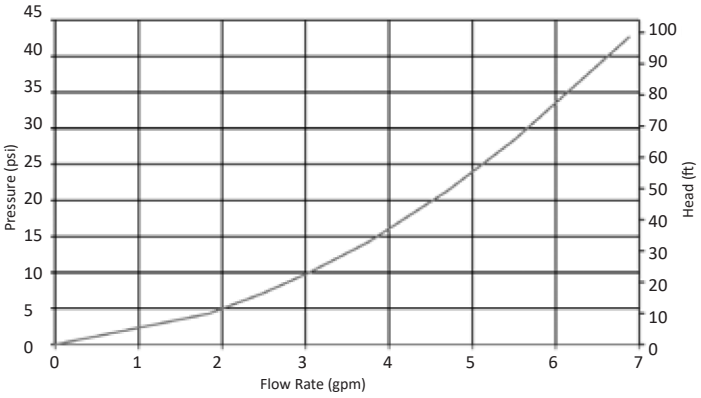
Model Number	Type	Gas Consumption Input		Inlet Gas Pressure		Energy Factor (EF)	Maximum GPM*	Hot/Cold Connections	Gas Connection	Dimensions in Inches			Unit Weight (lbs)
		Minimum BTU/H	Maximum BTU/H	Minimum in. W.C.	Maximum in. W.C.					Height	Width	Depth	
Indoor Models													
LTI-240H-N	Natural	15,000	160,000	4.0	10.5	0.95	6.6	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	58
LTI-240H-P	Propane	13,000	160,000	8.0	14.0	0.95	6.6	3/4" NPT	3/4" NPT	23-5/9	17-3/4	11-1/4	58
LTI-340H-N	Natural	15,000	180,000	4.0	10.5	0.95	8	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	58
LTI-340H-P	Propane	13,000	180,000	8.0	14.0	0.95	8	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	58
LTI-540H-N	Natural	15,000	199,000	4.0	10.5	0.95	10	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	59
LTI-540H-P	Propane	13,000	199,000	8.0	14.0	0.95	10	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	59
Outdoor Models													
LTO-240H-N	Natural	15,000	160,000	4.0	10.5	0.95	6.6	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	58
LTO-240H-P	Propane	13,000	160,000	8.0	14.0	0.95	6.6	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	58
LTO-340H-N	Natural	15,000	180,000	4.0	10.5	0.95	8	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	58
LTO-340H-P	Propane	13,000	180,000	8.0	14.0	0.95	8	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	58
LTO-540H-N	Natural	15,000	199,000	4.0	10.5	0.95	10	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	59
LTO-540H-P	Propane	13,000	199,000	8.0	14.0	0.95	10	3/4" NPT	3/4" NPT	23-5/8	17-3/4	11-1/4	59

15-150 PSI water pressure. 40 PSI or above is recommended for maximum flow.
Current numbers based on factory testing; 0.5 GPM required for activation; 0.4 GPM required for continuous fire after initial ignition.
Maximum certified or allowable installed altitude is 10,100 feet for indoor installations and 6,000 for outdoor installations.

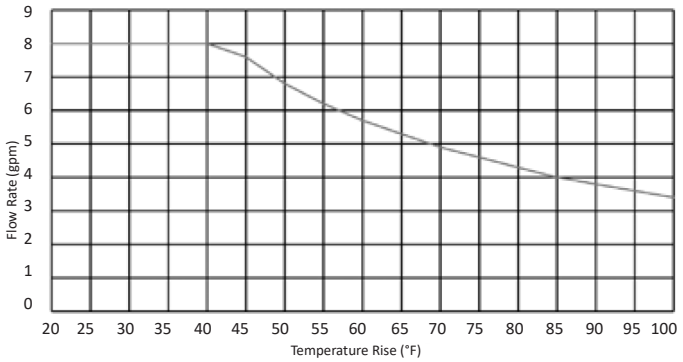
240X3 Output Temp Vs. GPM



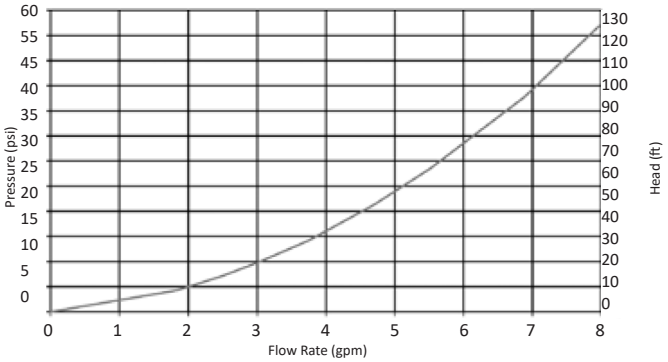
240X3 Pressure Loss



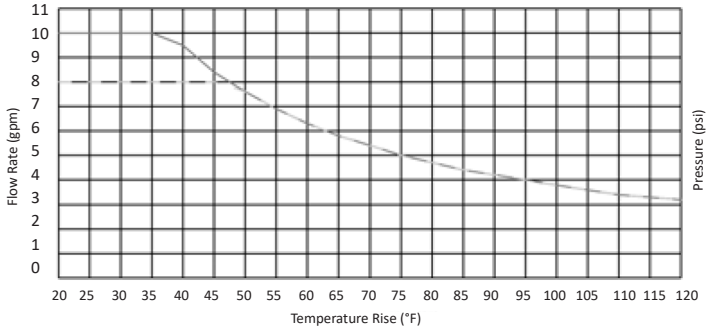
340X3 Output Temp Vs. GPM



340X3 Pressure Loss

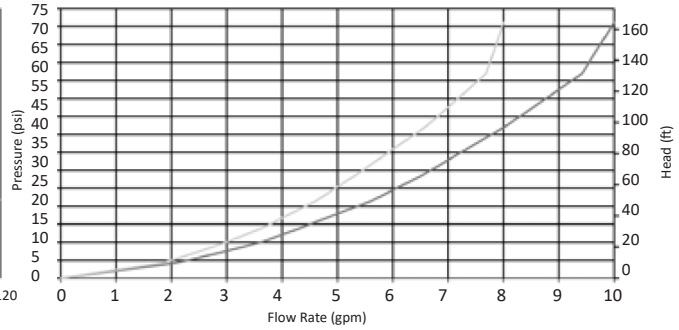


540X3 Output Temp Vs. GPM



----------Set Temperature: 100-125°F ----------Set Temperature: 130-160°F

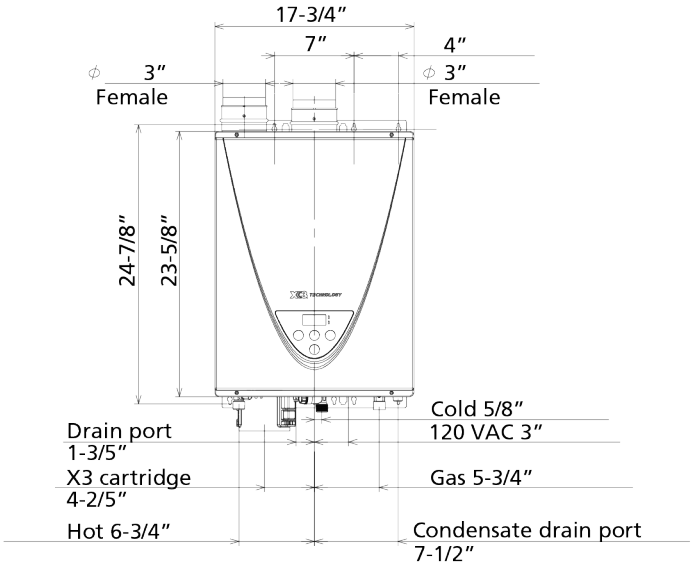
540X3 Pressure Loss



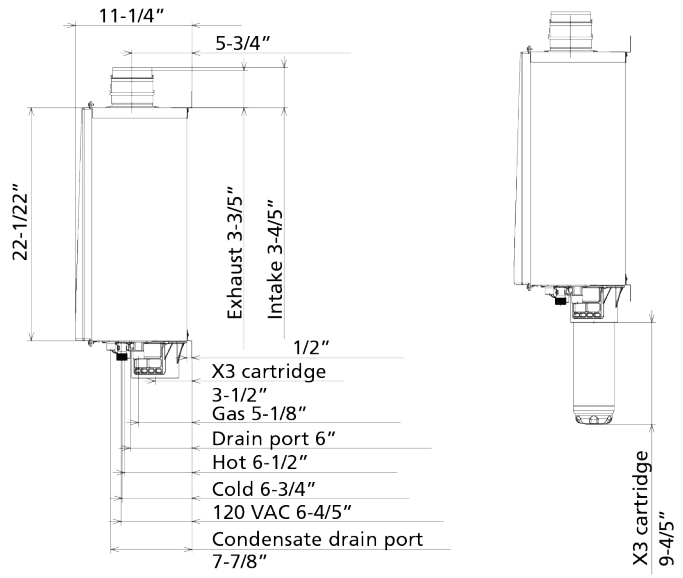
----------Set Temperature: 100-125°F ----------Set Temperature: 130-160°F

Max flow is 8 gpm when set temp above 125

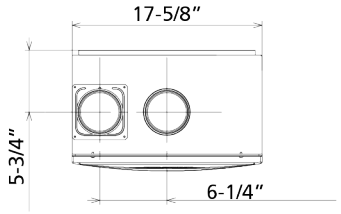
INDOOR DIMENSIONS



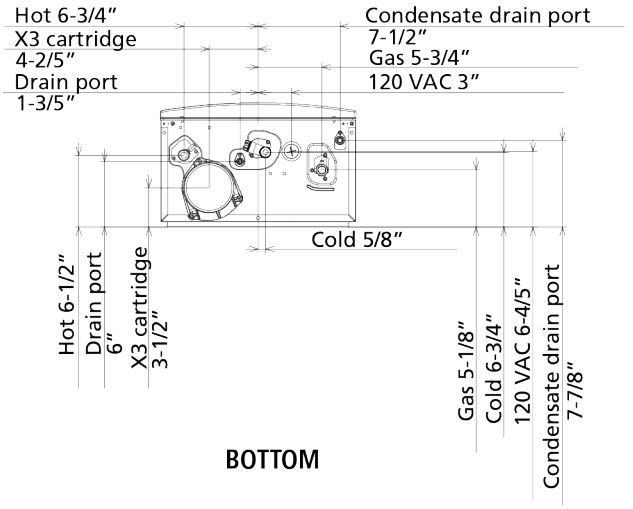
FRONT



SIDE

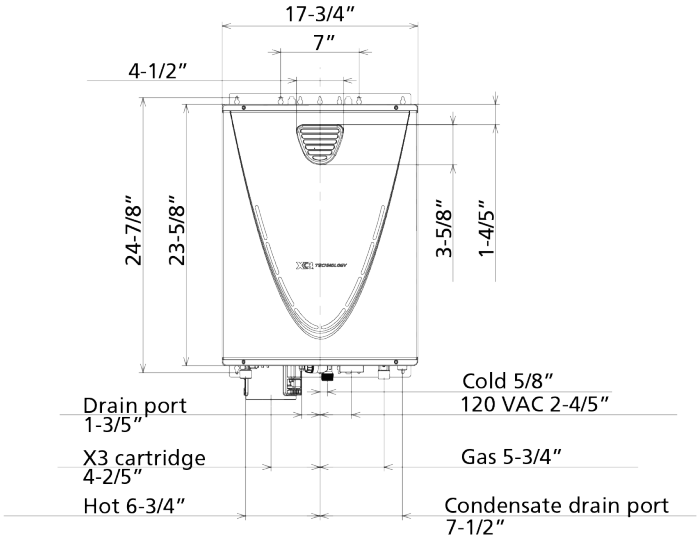


TOP

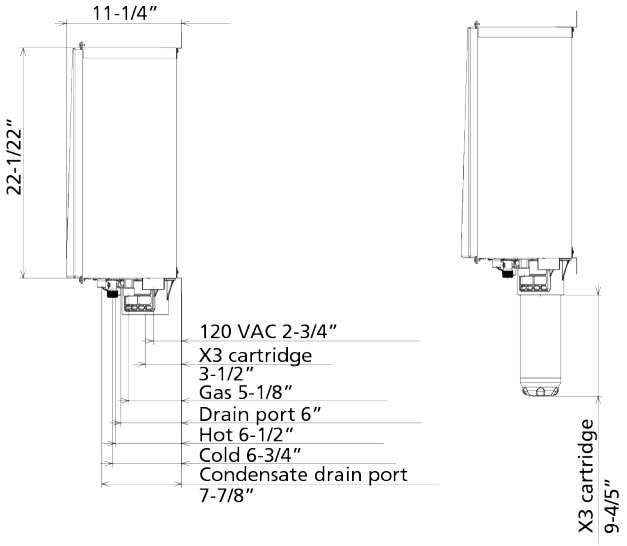


BOTTOM

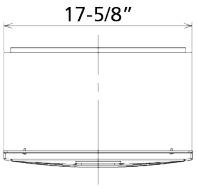
OUTDOOR DIMENSIONS



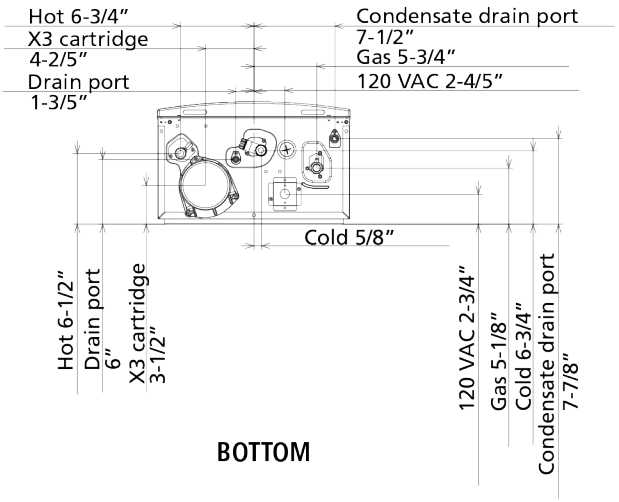
FRONT



SIDE



TOP



BOTTOM

SUGGESTED SPECIFICATION FOR LTI-240X3, LTI-340X3, LTI-540X3 OR LTO-240X3, LTO-340X3, LTO-540X3

The fully modulating, on-demand, condensing gas fired tankless water heater(s) shall be Lochinvar Tankless Water Heater model LTI-240X3, LTI-340X3, LTI-540X3 or LTO-240X3, LTO-340X3, LTIO540X3 having a maximum input rating of 199,000 Btu/h and available in NG or LP. The heater shall have ¾ in. male NPT water and gas connections. The inlet gas supply pressures shall be 4.0 in. WC (min.) up to 10.5 in. WC (max.) for NG and 8.0 in. WC (min.) up to 14 in. WC (max.) for LP. The water heater shall have the integrated X3 Scale Prevention Technology to prevent scaling of the heat exchangers. The indoor heater(s) shall incorporate an integrated temperature controller that will provide diagnostic information, fault history, and heater set temperature. The outdoor heater shall be factory supplied with a temperature remote, 100209924, that can be installed up to 400 ft. from the heater using 20 gauge (minimum) control wire. The temperature remote shall provide diagnostic information, fault history, and heater set temperature. The heater shall operate using 120 V / 60 Hz power source. The indoor heater will incorporate a factory installed power cord.

The indoor heater shall be vented with 3” or 4” diameter schedule 40 PVC (solid core), CPVC, ABS, polypropylene or category IV vent pipe with a length not to exceed 70 ft. (equivalent) for 3” vent or 100 ft. (equivalent) for 4” vent, terminating horizontally or vertically. The intake pipe may use material such as PVC, CPVC, ABS, aluminum, or Category IV pipe and cannot exceed 70 ft. (equivalent) for 3” vent or 100 ft. (equivalent) for 4” vent.

The water heater shall use a commercial grade copper alloy, fin tube primary heat exchanger with quick release brass or bronze waterways. The secondary heat exchanger shall be constructed from stainless steel 316L. The heater shall be controlled by an on board solid-state printed circuit board which uses the following factory installed components: thermistors to monitor inlet & outlet water temperature and exhaust temperature; a flow sensor to measure flow rate; a flame sensor to monitor combustion; an air-fuel ratio rod to measure and adjust operation in order to maintain optimal combustion efficiency. The heater also consists of in-line fusing and surge absorbers for electrical surge protection, an electronic spark igniter, aluminized stainless steel burners, hi-limit temperature switches to monitor water and exhaust temperatures, modulating gas valve, an overheat cutoff fuse, ceramic heating blocks to protect the heat exchanger and water piping. The indoor heater shall incorporate auto-fire system for additional freeze protection. The indoor model shall include an exhaust temperature monitoring system using an exhaust thermistor and automatic hi-limit switch to maintain safe exhaust temperatures for sch. 40 PVC. The heater shall have a built-in condensate trap for the secondary heat exchanger The heater shall incorporate a condensate drain blockage detector to provide safe operations and prevent overflow.

The heater shall be design certified by CSA according to CSA/ANSI Z21.10.3•CSA 4.3, approved for sale in the United States, ENERGY STAR® qualified, has a minimum Uniform Energy Factor of 0.93, meets the energy efficiency requirements of the U. S. Department of Energy and ASHRAE 90.1, complies with SCAQMD Rule 1146.2 and other air quality districts with similar requirements for low NOx emissions of 14 ng/J or 20 ppm.

Lochinvar®
HIGH EFFICIENCY BOILERS & WATER HEATERS

Lochinvar, LLC
300 Maddox Simpson Parkway
Lebanon, Tennessee 37090
P: 615.889.8900 / F: 615.547.1000
Lochinvar.com

(ASB - 750) 5/22 - Printed in U.S.A.