

Commercial Tankless Electric Water Heaters

H SERIES (FORMERLY HL SERIES)

Fluid heating for light industrial applications



LAARS®
Heating Systems Company

PRECISE. RELIABLE. DURABLE. TANKLESS.

POWERED BY **KELTECH™**

COMMERCIAL TANKLESS ELECTRIC WATER HEATERS

Laars - Powered by Keltech™

Keltech® technology is the recognized leader in powering commercial tankless electric water heating systems, especially for the bid spec market. For well over 30 years, tankless electric water heaters Powered by Keltech™ are known for their savings (energy, space) and simplicity (installation, maintenance).

Products which have the “Powered by Keltech™” label are known to complement a wide range of applications and unique environments. Anyone who owns a “Powered by Keltech™” product knows they are durable, reliable, and manufactured in the United States. And with Laars manufacturing the products, customers can also trust that they are Built to be the Best®.

- **Save Energy**

No need to generate heat and maintain temperature 24 hours per day, 7 days per week. Laars tankless heaters only heat water when needed. And, Laars' innovative controller is fully modulating so you only use the actual kW needed, not full power or stages.

- **Save Space**

A large commercial tank water heater requires a large space. Laars tankless water heaters only require 3 square feet (0.3 square meters) of space to generate up to 491,000 BTUs.

- **Simple Installation**

Requires only one electrical connection and connection to water. No pumps, no external fusing, and no design needs to be considered externally – it's all built into the heater.

- **Simple to Maintain**

No tank to maintain, no anodes, no softeners.

- **Simply the Best**

Built to the toughest standards with the highest quality materials and engineered to meet the world's most demanding applications.

H SERIES (FORMERLY HL SERIES) COMMERCIAL APPLICATIONS



H Series (Formerly HL Series)

Designed to accommodate most commercial fluid heating applications where demand is ≤ 18 kW and total flow is ≤ 7 GPM (26.5 L-Min). For environments where lower activation flows are required, standard units are 0.5 GPM (1.9 L-Min) with options as low as 0.15 GPM (0.6 L-Min). Heaters are also suited to applications with single phase service or 3-Phase 208V, 240V and 480V. Standard 5-18kW units are built with an 18-gauge electro-galvanized, powder coated steel enclosure. NEMA 4 and 4X options are available. Standard 25 kW units have a NEMA 4 enclosure, and are available with NEMA 4X.

Whether you need intermittent hot water, low flow control, booster heating or deionized water in schools, hospitals, or commercial kitchens, Laars has an energy efficient commercial process heater that provides precise temperature control.

Key markets & applications

Laars electric tankless water heaters fit in virtually any commercial market you can think of including commercial buildings, schools, hospitals, restaurants, science labs, sports facilities, lodging, parks and recreation, marine and transportation.

Applications include handwashing, mop sinks, kitchen booster, hydronics, remote locations, pre-heating for stationary applications or mobile trailers, recirculation, sanitization and potable water distribution.

Whatever your specific application is, Laars has a tankless heating solution.



kW Range
5 - 25 kW



Flow Range
0.5 - 7 GPM (1.9 - 26.5 L-Min)



Standard Voltages
208V, 240V, 277V, 480V Single Phase
208V, 240V, 480V 3-Phase Delta

Code Compliance & Certifications



- **Lead-Free**

Brass/Copper heat exchangers certified to NSF/ANSI 372

- **Third-Party Certified**

ETL listed to UL499



H SERIES (FORMERLY HL SERIES)

STANDARD FEATURES

PID Temperature Controller

More energy efficient and reliable than traditional microprocessors, Laars heaters hold temperature as demand changes regardless of incoming ground water temperature. Power is infinitely variable, with no fixed inputs. The PID controller makes it possible to modulate the amount of power applied to the elements while also dispersing the required power evenly across all elements. This unique feature increases the product's life cycle.

Simple Touch Operation

Digital LED screen with touch pad for easy operation shows set point and output temperature.



Precise Temperature Range & Flow

The electronic power modulation system can control outlet water temperature to within $\pm 1^{\circ}\text{F}$ ($\pm 0.56^{\circ}\text{C}$) over a wide range of flow rates. Precision temperature controls make Laars tankless water heaters the preferred choice for process heating applications or an alternative to high energy consuming boiler use.

Incoloy 800 Elements

Recognized for extending the life of the metal components.

Provides protection, durability and resistance to scaling from hard water. Water is only heated when flowing; this means sediment will not collect in the heat exchanger.



Low Watt Density Element

Extremely low wattage is applied per square inch of the element for improved heat transfer and reduced scaling which results in a longer lasting element.

Electrical Design

Requires only one service feed per unit. Includes internal fusing as standard, which provides superior protection. Units have a delta wiring system and do not require a neutral.



Liquid-Cooled Triac Switches

The liquid-cooled, triac switches provide silent switching and a faster response than mechanical relays to assist in maintaining an accurate temperature.



Bi-metal Manual Resets

Every heater that Laars engineers includes a separate set of circuits that monitor over temperature conditions. Should overheating occur, each sector of the heat exchanger has a dedicated thermal switch that breaks power. Normal operation cannot be resumed until the safety switch is manually reset.



Enclosures

Standard wall cabinet enclosure is 5-18 kW made from 18 gauge electrogalvanized, powder coated steel. Designed to protect the unit from falling dirt and incidental personnel contact with enclosed equipment. For indoor applications. Standard 25 kW are built with a NEMA 4 enclosure.

H SERIES (FORMERLY HL SERIES)

STANDARD FEATURES

Minimal Pressure Drop

Laars' best in industry low pressure drop reduces or eliminates the need and expense associated with adding pressure booster pumps.

Durable Plumbing Assembly

All units consist of brazed joints, brass and copper heat exchanger, industrial-grade flow switch & brass castings/fittings at all directional changes.

Premium Materials

All waterways consist of high-quality copper & brass construction tested to 300 PSI (20.7 bar).



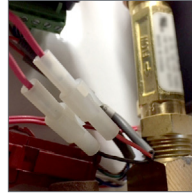
Robust lead-free brass castings and flanges are CNC cut from solid brass blanks for precision fit. High-quality copper & brass construction extend the life of the heat exchanger.

Recirculation Capable

Laars heaters can be installed within a recirculation system, saving money and energy while providing desired temperature on demand.

Activation Requirements

On-demand heaters require a minimum flow rate for activation. Water heaters come standard with 0.5 GPM (1.9 L-Min) activation set point & can provide flow up to 7 GPM (26.5 L-Min). Minimum flow requirements provide maximum efficiency.



Reliable Performance & Minimal Maintenance

The heater maintenance schedule falls within the normal facilities maintenance program requirements. LED indicators, test buttons, and reset buttons on the front cover dramatically reduce the need to open the enclosure making maintenance or troubleshooting even easier.

Easy to Install

Heaters can be wall-mounted almost anywhere. Without a traditional tank the H Series (formerly HL Series) saves space in any installation location.



OPTIONAL FEATURES

NEMA 4 Enclosures

NEMA 4 enclosures are constructed for either indoor or outdoor use. The enclosure protects the components of the commercial heater from dust and water. Enclosures are made from 18 gauge electrogalvanized and powder coated steel with ANSI 61 gray, corrosive resistant paint (standard on 25 kW).

NEMA 4X Enclosures

For harsh environments, NEMA 4X watertight enclosures are available for an additional level of protection. Enclosures are made from 304 or 316 stainless steel.

Building Management Systems Integration

Transfers control of the heater to a Building Management System (BMS). The heater is no longer adjusted or controlled at the heater location, a computer interface integrates with the BMS.

Low Flow Activation

Activate the heater at a lower flow rate than the standard 0.5 GPM (1.9 L-Min). The H Series (formerly HL Series) also has low flow options of 0.15 GPM (0.6 L-Min) and 0.25 GPM (0.9 GPM).

High Temperature Package

Standard temperature range is 40-160°F (4-71°C). With the high temperature package, heaters can reach and maintain settings as high as 190° (88°C).

Temperature Lock Out

This option locks in a specified set point and removes adjustment from the controller to prevent tampering.

TE2 Protection System: Deionized Water Solutions & Corrosive Fluid Protection

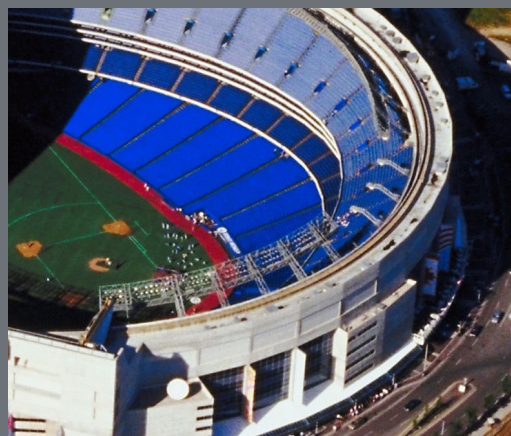
Exclusive TE2 Protection protects the heat exchanger from corrosive fluids including deionized water, chlorides, saltwater solutions, reverse osmosis water & caustic alkalis. Laars uses

bright annealed, passivated stainless steel elements; all stainless steel plugs and fittings are also used.

The TE2 Protection is recommended when fluid purity is critical (e.g. to heat de-ionized water). To conform to FDA regulations governing direct food contact applications, this option includes a single layer of Xylan® Fluoropolymeric coating on all surfaces & internal passageways that come in contact with the heated media.

Choose the TE2 protective coating option for:

- Media Purity: no contamination of heated fluids.
- Non-stick: very low adhesion properties for best possible flow characteristics
- Virtually inert: resists change or destruction due to chemicals or corrosion
- Thermal Stability: resists change due to temperature fluctuations
- Washing solid-state devices, printed circuit boards, parts and aluminum products and/or equipment
- Heating corrosive and/or non-flammable liquids
- Desalination systems



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