

COMMERCIAL ELECTRIC WATER HEATER

Standard Features:

- Glass-Lined Carbon Steel Tank
- 150 psi ASME Code
- ASME Temperature and Pressure Relief Valve
- Internal Fusing (above 120 amps)
- Incoloy Heating Elements
- Painted Steel Jacket
- Magnesium Anode Rods
- Immersion Thermostats
- Magnetic Contactors
- Digital Temperature Display
- Manual Reset High Limit
- Hinged Door with Keyed Lock
- Channel Iron Skid Base
- Approved for 180°F Operation
- Lifting Lug access

Optional:

- BMS Contacts
- Low Water Cut-off
- Pilot Lights and Manual Limiting Switches
- Electric Step Controller (36kW & higher)
- Alarm Bell
- Shunt Trip Disconnect *
- Low Pressure Switch
- High Pressure Switch
- Time Clock (7 Day)
- Time Clock (24 Hour)
- Safety door interlock
- Pressure gauge
- 12" x 16" Manhole (250 Gallons and Larger)

* Separate mounting

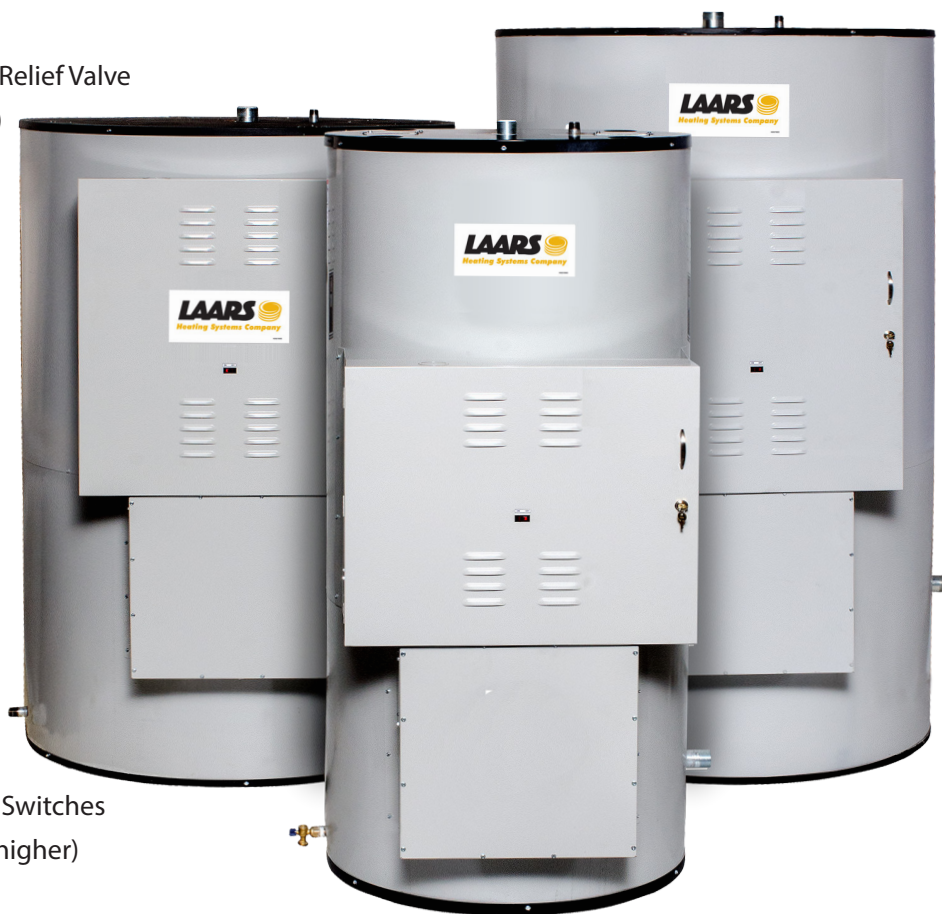
Glass lining = 3 year limited tank warranty

Double glass lining = 6 year limited tank warranty

316L passivated stainless steel = 10 year limited warranty (see warranty sheet for details)

Passivated duplex stainless steel = 25 year limited warranty (see warranty sheet for details)

For products installed in USA, Canada and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.



150 to 2500 Gallon Storage

15 to 360 kW

Round Vertical Models

Outstanding Safety Features



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Standard Equipment Features:

Energy-Saving Performance - High-density open cell foam insulation is used to meet the demanding ASHRAE 90.1b current standard for minimizing heat loss. This requirement, allowing a maximum 4 watts per square foot of tank surface energy loss, offers big savings and operating efficiency.

Magnetic Contactors with Immersion Thermostats - 120 volt control circuit with built in transformer. Elements are thermostatically controlled in 54kW (max) increments.

Low Watt Density Incoloy Elements - Incoloy elements are used because of their many superior characteristics to copper-sheathed elements in rigorous water heating applications. This tough alloy successfully resists the effects of prolonged high operating temperatures, hard water, acids, corrosion and thermal shock. Their nominally higher initial cost is more than off-set by much longer life expectancies and reduced service and replacement costs. Incoloy elements are designed to "burn in air" to prevent failures caused by water void.

Internal Fusing - All elements and circuits are fused in 48 amp increments, providing complete electrical protection. Cartridge type fuses are rated at 200,000 ampere interrupting capacity.

Glass-Lined Tank - Ultonium glass is applied to the inside surface of the carbon steel tank and fired to 1600 F. (All models are constructed in accordance with the ASME code and approved for 150 psi working pressure).

Magnesium Anode Protection - Provides anodic protection against corrosion of the tank due to electrolysis.

Digital Temperature Display - Easy to read digital temperature display located on front cabinet.

Painted Jacket - The painted steel jacket is coated on both sides and beautifully finished in durable finish. This combines attractive appearance with maximum protection.

Hinged Door with Key Lock - Quality requires full length hinged doors for ease of inspection and maintenance. Keyed door lock provides additional safety and security at no charge.

Temperature and Pressure Relief Valve - Factory provided ASME rated relief valve protects against excessive temperature and/or pressure buildup within the tank.

Terminal Block Connections - Easy and safe wiring connections are made possible by factory installed terminal blocks.

180°F Temperature Operation - Every Electric Power Water Heater is approved for 180°F operation for sanitizing and other high-temperature requirements.

Inspection Opening - Provides easy access to the heater interior for inspection and cleaning.

Three-Year Limited Warranty - Provides warranty protection against tank failure resulting from defects in material and workmanship.

Lifting Lugs Access - Removable access panels to lifting lugs.

Channel Iron Skid Base

Optional Equipment Features:

- Double Glass Lining - Offers a 6-Year limited warranty.

- Stainless Steel Options Available.

- BMS Contacts - Building Management System Interface.

- Low Water Cut-off - Prevents energizing of the heater when not filled with water or upon low water condition.

- Pilot Lights and Manual Limiting Switches - With indicating lights - permits manual limitation of heating input by switching off current to each contactor.

- Electric Step Controller (36kW & higher) - Electronic sequencing of thermostats.

- Alarm Bell - Warns of various failures.

- Shunt Trip Disconnect * - Provides maximum protection by interrupting all power to the system in the event of a control sensed malfunction or over current.

- Low Pressure Switch - Turns off control circuit when water pressure drops below a set minimum.

- High Pressure Switch - Turns off control circuit when water pressure exceeds a set maximum.

- 7 Day Clock - To control off/on cycles of the heater as programmed by the owner or electric utility requirement.

- 24 Hour Clock - to control on/off cycles in 24 hr. cycles.

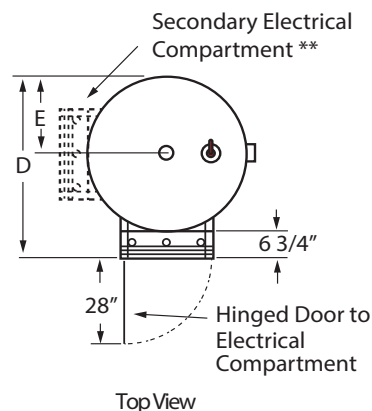
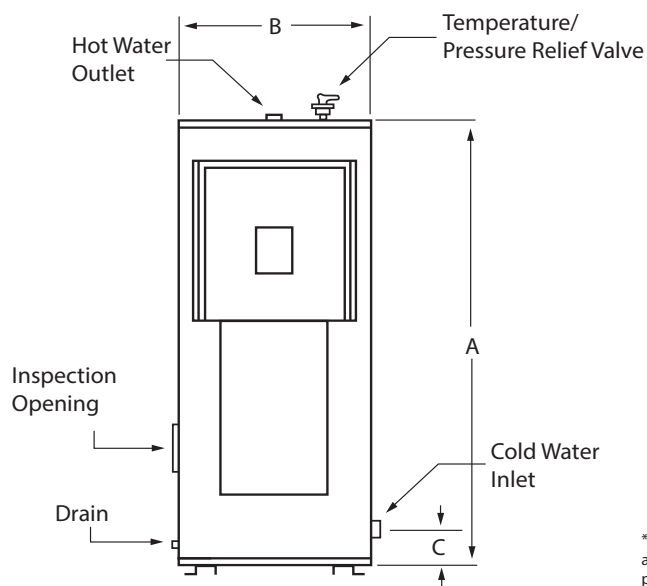
- Safety Door Interlock - Prevents opening of access door while heater is energized.

- Pressure Gauge - Jacket mounted for convenient viewing.

- Manway - Provides means to easily remove sediment from heater, available on 250 gallon and larger.

* Separate Mounting

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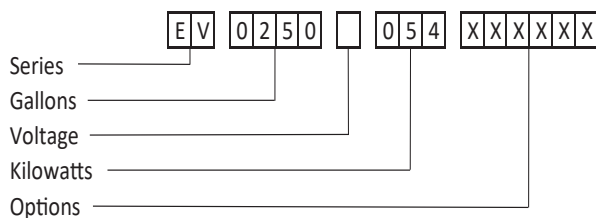


** Note: Vertical round models above 90kW at 208V, 240V or 380V, and 162kW at 400V or 480V, exceed the capacity of a single control panel and may require multiple control panels. Consult the factory for specific details and optional construction.

Model Number	Gallon Capacity	Maximum kW	A	B	C	D	E	Water Connection	Approx. Ship Weight
			Floor to Top of Heater	Jacket Dia.	Floor to Cold Water Inlet	Depth	Back of Heater to Hot Water Outlet		
EV0150 ****	150	90	67 1/2"	32	12 3/4"	38 3/4"	16"	1 1/2"	650
EV0200 ****	200	162	80"	32	12 3/4"	38 3/4"	17"	1 1/2"	750
EV0250 ****	250	162	92"	34	16 7/8"	40 3/4"	17"	1 1/2"	1165
EV0300 ****	300	162	80"	40	19 1/4"	40 3/4"	20"	2"	1350
EV0400 ****	400	216	80"	46	19 3/4"	52 3/4"	23"	2"	1590
EV0500 ****	500	216	92"	46	19 3/4"	52 3/4"	23"	2"	1700
EV0600 ****	600	216	92"	52	21 3/4"	58 3/4"	26"	2 1/2"	2010
EV0800 ****	800	270	104"	52	21 3/4"	58 3/4"	26"	2 1/2"	2450
EV1000 ****	1000	360	128"	52	21 3/4"	58 3/4"	26"	2 1/2"	3160
EV1250 ****	1250	360	133"	58	25 3/4"	64 3/4"	29"	3"	3792
EV1500 ****	1500	360	129"	64	27 1/4"	70 3/4"	32"	3"	4550
EV2000 ****	2000	360	140"	70	28 1/2"	76 3/4"	35"	3"	5460
EV2500 ****	2500	360	144"	76	30 1/4"	82 3/4"	38"	3"	6553

**** = voltage character in model number & kW

Part Number Example:



Available Voltages:

A=240V, 1ph W=277V, 1ph
 B=240V, 3ph X=480V, 3ph
 J=208V, 1ph Y=380V, 3ph
 K=208V, 3ph Z=415V, 3ph
 Q=400V, 3ph N=600V, 3ph

For kW inputs not shown, consult factory.

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*380V has 4

**380V has 6

***380V has 8

****380V has 9

Standard kW Input and Amperage

kW	GPH Recovery 100 F Rise	BTU/hr. Equivalent	Number of Control Steps	Maximum Number of Elements	kW Size of Element	Contactor Option		Amperage Draw									
						No. of Contactors (208,240)/ (380,400,415,480)	Suggested Control Steps (208, 240)/ (380,400,415,480)	Single	Phase	Three Phase							
										208V	240V	208V	240V	380V	400V	415V	480V
15	62	51,180	1	1	15	1/1	--	72	63	42	36	23	22	21	18	14	
18	74	61,416	1	1	18	2/1	--	87	75	50	44	28	26	25	22	17	
30	123	102,360	1	2	15	2/1	--	144	125	83	72	46	44	42	36	29	
36	148	122,832	1	2	18	4/2	4/2	174	150	100	87	55	51	50	43	35	
45	185	153,540	1	3	15	3/2	3/2	216	188	125	108	69	66	63	54	43	
54	221	184,248	1	3	18	6/2	3/2	260	225	150	130	83	78	75	65	52	
60	246	204,720	2	4	15	12/6	4/3	289	250	167	144	92	88	83	72	58	
72	295	245,664	2	4	18	8/4	4/4	--	--	200	174	110	104	100	87	69	
90	369	307,080	2	6	15	6/3*	3/3	--	--	250	217	137	132	125	108	87	
108	443	368,496	2	6	18	12/4**	4/4	--	--	300	260	165	156	150	130	104	
120	492	409,440	3	8	15	8/4***	4/4	--	--	333	289	183	176	167	144	115	
135	554	460,620	3	9	15	9/6	4/4	--	--	375	325	206	198	188	162	130	
144	590	491,328	3	8	18	16/8	4/4	--	--	400	347	219	208	200	173	139	
162	664	552,744	3	9	18	18/6****	8/6	--	--	450	389	247	234	225	195	156	
180	738	614,160	4	10	18	20/10	8/8	--	--	500	434	273	260	250	217	173	
216	886	736,992	4	12	18	24/8	8/8	--	--	600	519	328	312	301	260	208	
234	959	798,408	5	13	18	26/13	8/8	--	--	650	563	355	338	326	282	225	
252	1033	859,824	5	14	18	28/14	12/10	--	--	700	607	383	364	351	304	242	
270	1107	921,240	5	15	18	30/10	12/12	--	--	750	649	410	390	376	325	260	
288	1181	982,656	6	16	18	32/16	12/12	--	--	800	692	438	416	401	347	277	
306	1256	1,044,072	6	17	18	34/17	12/12	--	--	850	736	465	442	426	368	294	
324	1328	1,105,488	6	18	18	36/12	12/12	--	--	900	780	492	468	451	390	312	
342	1402	1,166,904	7	19	18	38/19	12/12	--	--	950	822	520	494	476	412	329	
360	1476	1,228,320	7	20	18	40/20	12/12	--	--	1,000	865	547	520	501	435	346	

Typical Specifications

Water Heaters shall be Laars Commercial Electric Water Heaters, model number _____ with _____ gallons of storage capacity, rated at _____ kilowatts, _____ volts, _____ Phase. Heater to be completely insulated and jacketed for vertical installation.

The jacket shall be round painted steel with durable finish. Control panel shall have a full length hinged access door with keyed lock. Tank insulation shall be closed cell high density foam sufficient to meet ASHRAE 90.1b. Keyed Locked Door provides additional safety and security.

Tank construction shall be carbon steel 150 psi maximum allowable working pressure and be ASME stamped and National Board listed. All tanks are to be lined with Ultonium superior glass lining, fired at 1600° F (871° C) by a process which provides a molecular interchange of glass and steel. The Commercial Electric Water Heater shall include the following standard features: magnetic contactors with immersion thermostats, internal fusing for control and load circuits, low-watt density Incoloy sheath elements, magnesium anode rods, ASME rated temperature and pressure relief valve, terminal block wiring, 180° F (82° C) water temperature approval, 3-year limited warranty.

Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.



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