



## Medium Duty Commercial Two Element Small Volume Electric Water Heaters

<b>Job Name:</b>	<b>Location:</b>
<b>Engineer:</b>	<b>Wholesaler:</b>
<b>Mechanical Contractor:</b>	<b>Notes:</b>
<b>Model Number:</b>	
<b>Electrical Specifications:</b>	

### Electric Water Heater Models

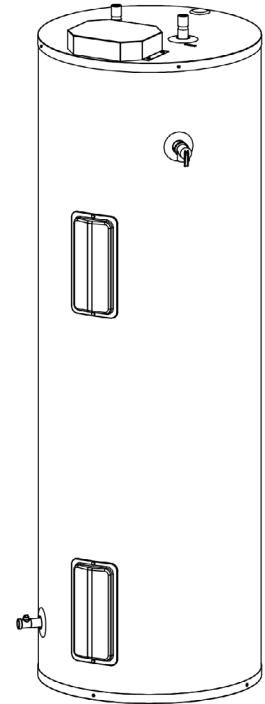
- Available in 30 through 50 gallon capacities
- Available Voltages: 208V, 240V, 277V, and 480V offer installation flexibility
- Single or Three Phase, Non-Simultaneous or Simultaneous Operation
- Water heaters can be converted to Single Phase and/or Simultaneous Operation in the field
- Example Model Number: EVC050C2T045
- Standard configuration is 240V, Three Phase, Non-Simultaneous, 4500W Elements

### Construction

- 316L stainless steel tank tolerates high temperatures and offers superior corrosion resistance
- Super-insulated for minimal heat loss and energy efficiency
- Top hot water outlet draws the hottest water from the tank
- Top inlet with dip tube directs cold water to the lower heating element, minimizing the mixing of cold and heated water and ensuring long draws of hot water
- 3/4" inlet and outlet nipples constructed of durable brass
- Top-mounted terminal block for easy wiring and installation

### Long Life Electric Elements / Thermostat High Limit Control

- Element kits offer maximum installation versatility and provide field conversion options for alternate voltages and inputs
- Highest quality elements in the industry increase corrosion resistance, reducing the chance of element burnout and providing longer service life than conventional elements
- Immersed elements allow maximum recovery efficiency and direct, 98% efficient heat transfer
- Adjustable surface mounted thermostat provides years of reliable, trouble-free water temperature control
- Maximum temperature capability of 181°F
- Fully automatic controls provide adequate temperature control and overheat protection - manual reset high limit cutoff



### Additional Features

- Extended Limited Warranty if registered online - Ten (10) years coverage against inner tank leakage from the date of installation - One (1) year coverage on component parts
- Standard Limited Warranty - Five (5) years coverage against inner tank leakage from the date of installation - One (1) year coverage on component parts
- Included ASME rated Temperature and Pressure Relief Valve
- Included Brass Drain Valve

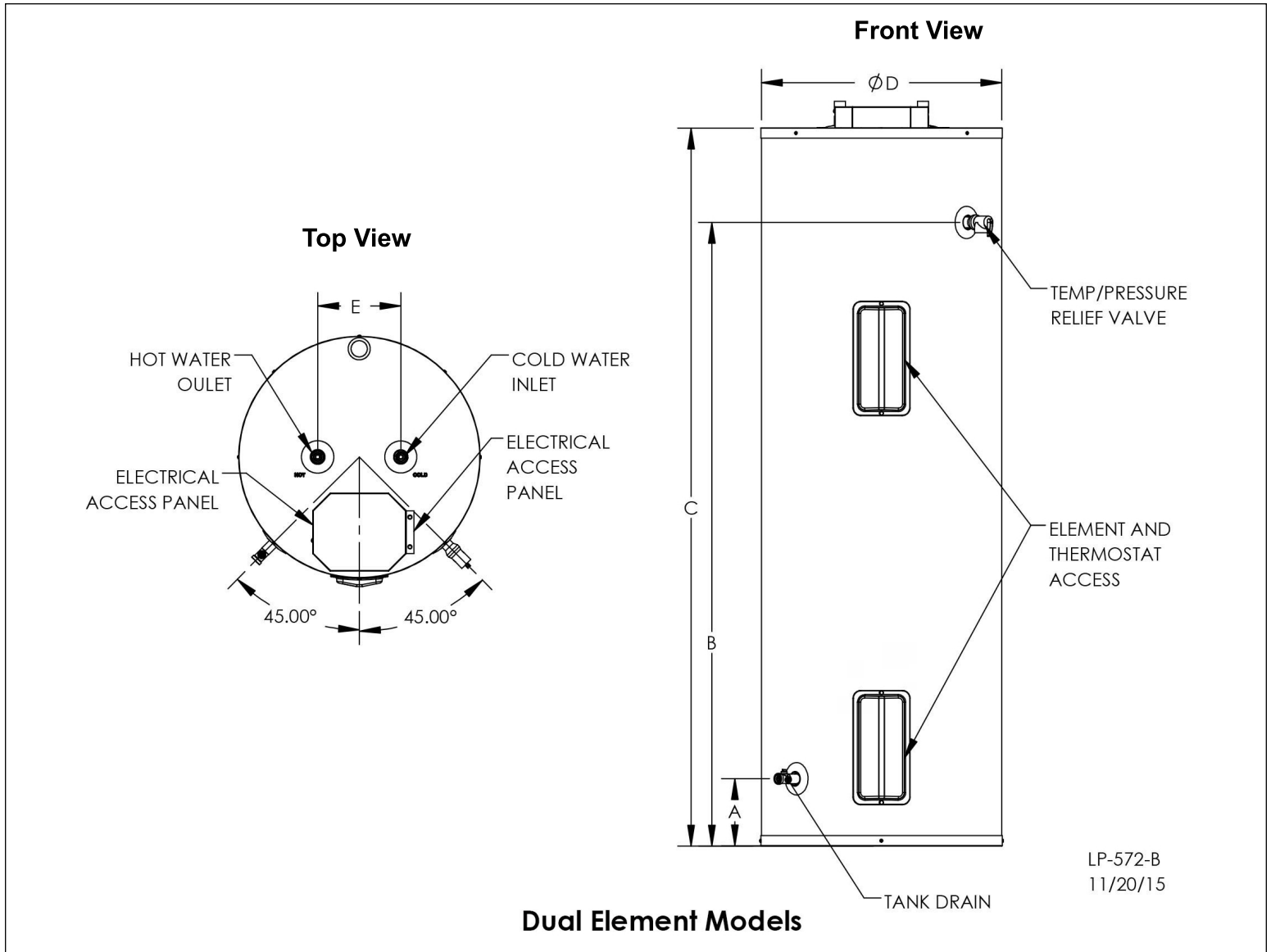
### Certifications and Ratings Efficiency

- ETL Design Certified to meet UL Standard 1453 as Electric Booster and Commercial Storage Tank Water Heaters
- Complies with 10 CFR § 431.110 (Commercial Water Heaters)
- Does not comply with 10 CFR § 430.32 (d) (Consumer Water Heaters)
- North Carolina code compliant models available
- Lead Free compliant per the Safe Drinking Water Act, Section 1417
- NSF/ANSI Standard 5 Listed for use in sanitary applications
- Tested below the maximum allowable standby loss levels of current ASHRAE standards in accordance to ANSI test procedures
- Exceeds energy efficiency codes of all states, including California Energy Commission (CEC)



Input		Temperature Rises (deg. F)										
W	BTU	40	50	60	70	80	90	100	110	120	130	140
3000	10236	30	24	20	17	15	13	12	11	10	9	9
3500	11942	35	28	23	20	18	16	14	13	12	11	10
4000	13649	41	32	27	23	20	18	16	15	13	12	11
4500	15355	46	36	30	26	23	20	18	16	15	14	13
5000	17061	51	40	34	29	25	22	20	18	17	15	14
5500	18767	56	44	37	31	28	24	22	20	18	17	16
6000	20473	61	48	41	34	30	27	24	22	20	18	17
7000	23885	70	56	47	40	35	31	28	25	23	22	20
8000	27297	80	64	53	46	40	36	32	29	27	25	23
9000	30709	90	72	60	51	45	40	36	33	30	28	26
10000	34121	100	80	67	57	50	44	40	36	33	31	29
11000	37534	110	88	73	63	55	49	44	40	37	34	31
12000	40946	120	96	80	69	60	53	48	44	40	37	34

**NOTE:** HTP reserves the right to make product changes or updates without notice and will not be held liable for typographical errors in literature.



**Dual Element Models**

**Figure 1 - Dimensional Drawing**

Specifications and Dimensions									Water Temperature Ratings		
Models	Storage Capacity	A	B	C	D	E	Hot / Cold Inlets	Shipping Weight (Lbs. Est.)	Min. Delivered Temp.	Max. Delivered Temp.	High Temp. Limit
030	30	6"	34"	42 1/4"	19 1/2"	8"	3/4" NPT	89	135°F (57.2 C)	181°F (82.8 C)	200°F (93.3 C)
040	40		46"	54 1/2"				104			
050	50		58"	66 1/2"				118			

**Table 1 - Specifications and Dimensions - See Table 3 for a List of Available Voltages**

Gallons	# Elements and Thermostats	Non-Simultaneous	Simultaneous	120	208	240	277	480
30, 40, 50	2	3,000	6,000	NO	B2W060N	C2W060N	NO	E2W060N
		3,500	7,000		B2W070N	C2W070N		NO
		4,000	8,000		B2W080N	C2W080N	D2W080N	E2W080N
		4,500	9,000		B2W090N	C2W090N	D2W090N	E2W090N
		5,000	10,000		B2W100N	C2W100N	D2W100N	E2W100N
		5,500	11,000		NO	C2W110N	D2W110N	E2W110N
		6,000	12,000			C2W120N	D2W120N	E2W120N

**Table 2 - Element Kits and Corresponding Wattages / Voltages - For Element Kit Part #'s, See Replacement Parts, This Manual**

Input Wattage	Two Element Single or Three Phase Non-Simultaneous Operation			
	Amperages by Voltage and Input			
	208	240	277	480
3,000	14.4	12.5	12	6.3
3,500	16.3	14.6	12.1	-
4,000	19.9	16.7	14.4	8.3
4,500	21.6	18.8	16.8	9.4
5,000	-	20.8	18	10.4
5,500		22.9	19.2	11.5
6,000		25	21.6	12.5

**Table 3 - For Reference Use Only**

Input Wattage	Two Element Single or Three Phase Simultaneous Operation							
	Amperages by Voltage, Phase, and Input							
	208 Volts		240 Volts		277 Volts		480 Volts	
	Single Phase	Three Phase	Single Phase	Three Phase	Single Phase	Three Phase	Single Phase	Three Phase
6,000	28.9	25	25	21.6	24.1	20.8	12.5	10.8
7,000	32.5	28.1	29.2	25.2	-	-	-	-
8,000	39.7	34.4	33.3	28.8	28.9	25	16.7	14.4
9,000	43.3	37.4	37.5	32.4	33.7	29.1	18.8	16.2
10,000	-	-	41.7	36	36.1	31.2	20.8	18
11,000	-	-	45.8	39.7	38.5	33.3	22.9	19.8
12,000	-	-	49.9	43.2	43.3	37.4	25	21.7

**Table 4 - For Reference Use Only**

**Typical Specifications**

The water heater shall be an HTP model # \_\_\_\_\_ with a \_\_\_\_\_ gallon storage capacity, an input of \_\_\_\_\_ kw (BTU), a recovery rate of \_\_\_\_\_ GPH at 100°F (56°C) temperature rise and be equipped for \_\_\_\_\_ volts, \_\_\_\_\_ phase, \_\_\_\_\_ operation.

The tank shall be constructed of 316L stainless steel, and have a working pressure of 150 PSI (1,034 kPA) and test pressure of 300 PSI. The water heater shall be design certified by ETL to meet the UL 1453 Commercial Electric Water Heater Standard, and meet or exceed the standby loss requirements of ASHRAE. The water heater shall be constructed with NSF listed components and be applicable for use in sanitary applications.

Water heaters shall be supplied with ¾" NPT brass inlet and outlet connections with built-in heat traps and a full port brass drain valve.

The water heater shall be equipped with an adjustable surface mounted thermostat with manual reset high limit safety control, and an electric junction box located on the top of heater. Water heaters are equipped with a terminal block to wire the unit for single or three phase operation and non-simultaneous or simultaneous operation. All water heaters will be shipped with an ASME Rated temperature and pressure relief valve.

Water heaters shall be covered by a ten (10) year limited warranty against inner tank leakage when registered online with HTP. See product warranty for details.

The surfaces of these products contacted by consumable water contain less than 0.25% lead by weight, as required by the Safe Drinking Water Act, Section 1417.

Maximum unit dimensions shall be length \_\_\_\_\_ inches, width \_\_\_\_\_ inches and height \_\_\_\_\_ inches. Maximum unit weight shall be \_\_\_\_\_ pounds.