

# C Series

Commercial/Industrial High-Capacity Tankless Water Heaters



# C Series Commercial/Industrial 3-Phase Electric Tankless Water Heaters

**C Series** 3-phase electric tankless water heaters are designed to provide hot water for commercial and industrial use. Tankless water heaters do not store hot water as a tank water heater does, but make it on demand as it is needed. There are several major benefits of tankless water heaters over tanks because of this difference.

First, a tankless water heater never runs out of hot water. As long as it is needed, a tankless water heater will make and deliver hot water at the specified set point temperature. Second, tankless water heaters are not storing hot water, and they have no standby heat losses. This results in energy savings on the order of 20% over an electric tank. The exception is hot-start tankless models like our CF Plus, but their standby heat loss is minimal when compared to the extensive surface area of a standard tank. And third, tankless water heaters are considerably smaller than a tank, saving space, and are not prone to leakage. Electric tankless water heaters also do not need venting.



## C Series common features

### Fabrication & enclosures

- › All machining, welding, assembly, and testing done in Sarasota, Fla.
- › Each unit is tested at full and partial load to ensure output temperature accuracy
- › Standard NEMA 3 enclosure is hinged and swings to the left for accessible service. All components are intuitively laid out and designed, including element replacement without removing the heat exchanger.
- › NEMA 4 and NEMA 4X watertight enclosures available if required

### Plumbing

- › Unique water flow relieves air build-up for increased longevity
- › Best-in-class low pressure drop. See charts on website for details
- › Heat exchangers and pipe connections are 316L stainless steel
- › Inlet and outlet stub piping with ball valves included and pre-installed
- › Lead-free brass pressure relief valve and air vent included
- › 3/4", 1", & 1 1/4" female water connection sizes depending on heating capacity

### Electronic control

- › The closed-loop temperature controller calculates heating power from flow rate, outlet, and inlet temperature sensor inputs

- › The amount of energy needed to meet demand is electronically controlled so only the minimum number of elements necessary to satisfy demand are activated
- › All models electronically flow activated using a vortex flow sensor available in 4 sizes, DN 10, 15, 20, 25, for customization to individual application
- › Completely pre-wired with only mains power connection needed
- › Printed circuit board (PCB), including triac driver
- › Printed circuit board (PCB) optimized to provide safety for triac control
- › Triac cooling accomplished with massive aluminum plate for reliability

### Safety

- › Four over-temperature protections
- › Latent heat protection though controller software eliminates timer switch
- › Each heating element circuit protected by dry-mounted, manually resettable temperature/safety cut-off providing greater safety and leak risk reduction than immersed bi-metal thermostat
- › Pressure switch provides dry-fire protection on all models



Intertek  
Conforms to UL Std. 499  
Certified to CAN/CSA Std. C22.2 No. 88.



6 years  
leaks/heat exchanger  
2 years  
electrical components

	CF Plus	CE Plus	CES Plus	CERO Plus	Competition Keltech	Eemax
<b>General description</b>	Hot Start Precise temp. control Single temp. output	Cold Start Precise temp. control Variable temp. output	Cold Start Precise temperature control within OSHA tepid water requirements	Cold Start Precise temperature control and corrosion resistance for heating caustic fluids	Various	Various
<b>Typical applications</b>	Circulation system Boiler replacement Process manufacturing Cleanup	Process manufacturing Boiler replacement Cleanup	Tepid water for Eyewash stations Safety showers OSHA compliance	Caustic fluids Reverse osmosis (RO) water	Various	Various
<b>Size Range kW</b>	12-144 kW	12-144 kW	12-144 kW	12-144 kW	5-144 kW	3-200+ kW
<b>Size Range Btu/hr</b>	40-491 kBtu/hr	40-491 kBtu/hr	40-491 kBtu/hr	40-491 kBtu/hr	17-491 kBtu/hr	9-600 kBtu/hr
<b>Voltages, 3-phase</b>	208, 240, 480, 575	208, 240, 480, 575	208, 240, 480, 575	208, 240, 480, 575	208, 240, 480, 575, 600 V	208, 240, 480, 575, 600 V 1- & 3-phase
<b>Heat exchanger</b>	316L Stainless Steel	316L Stainless Steel	316L Stainless Steel	316L Stainless Steel	Copper & Brass	Plastic
<b>Element sheathing</b>	840 Incoloy	840 Incoloy	840 Incoloy	Titanium	840 Incoloy	None
<b>Elements individually fused</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Temperature range &amp; adjustability</b>	60-180 °F (16-82 °C) Set as fixed output temperature but adjustable by 1 °F / 1 °C	60-180 °F (16-82 °C) by 1 °F / 1 °C	60-90 °F (16-32 °C) by 1 °F / 1 °C	60-180 °F (16-82 °C) by 1 °F / 1 °C	60-200 °F (16-93 °C)	60-180 °F (16-82 °C)
<b>Is output temperature measured and displayed?</b>	Yes. Actual and requested output temperatures shown if unit is over capacity	Yes. Actual and requested output temperatures shown if unit is over capacity	Yes. Actual and requested output temperatures shown if unit is over capacity	Yes. Actual and requested output temperatures shown if unit is over capacity	Yes	Yes NEMA3 No NEMA 4
<b>Over-temperature protections</b>	4	4	4	4	4	Unknown
<b>Activation flow rate</b>	0.7, 1.2, 1.7, 2.7 GPM (constant hot)	0.7, 1.2, 1.7, 2.7 GPM	0.7, 1.2, 1.7, 2.7 GPM	0.7, 1.2, 1.7, 2.7 GPM	1.5 GPM	0.7, 1.0, 2.5 GPM
<b>Flow rate (@ 40 PSI)</b>	up to 40 GPM, dependent on pipe size	up to 40 GPM, dependent on pipe size	up to 40 GPM, dependent on pipe size	up to 40 GPM, dependent on pipe size	13-50 GPM	8-40 GPM, pipe size dependent
<b>Pipe size</b>	¾-1 ¼"	¾-1 ¼"	¾-1 ¼"	¾-1 ¼"	¾-1 ¼"	½-1 ¼"
<b>Freeze protection*</b>	Standard	Standard	Standard	Standard	Standard	Optional
<b>Standard enclosure</b>	NEMA 3	NEMA 3	NEMA 3	NEMA 3	NEMA 3	NEMA 3
<b>Optional enclosures</b>	NEMA 4, NEMA 4X	NEMA 4, NEMA 4X	NEMA 4, NEMA 4X	NEMA 4, NEMA 4X	NEMA 4 and 4X	NEMA 4 and 4X
<b>Warranty</b>	6-year heat exchanger 2-year electrical	6-year heat exchanger 2-year electrical	6-year heat exchanger 2-year electrical	6-year heat exchanger 2-year electrical	8-year heat exchanger 2-year electrical	5-year heat exchanger 1-year electrical

\* Any freeze protection feature does not include heat trace material installed on the inlet and outlet piping. Heat trace material must be installed on external piping in any location where there is a freezing potential.

	12 kW	15 kW	18 kW	24 kW	27 kW	36 kW	48 kW	54 kW	60 kW	72 kW	81 kW	90 kW	108 kW	120 kW	144 kW
<b>CF Plus</b>															
208 volt	■	■	■	■	■	■	■	■	■	■					
240 volt	■	■	■	■	■	■	■	■	■	■					
480 volt	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
575 volt				■		■	■			■			■		■
<b>Water connection</b>	¾"			¾"			¾" or 1"			1"			1 ¼"		
<b>CE Plus &amp; CES Plus*</b>															
208 volt	■	■	■	■	■	■	■	■	■	■					
240 volt	■	■	■	■	■	■	■	■	■	■					
480 volt	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
575 volt				■		■	■			■			■		■
<b>Water connection</b>	¾"			¾"			¾" or 1"			1"			1 ¼"		
<b>CERO Plus</b>															
208 volt	■	■	■	■	■			■							
240 volt	■	■	■	■	■	■	■	■	■	■					
480 volt	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
575 volt				■		■	■			■			■		■
<b>Water connection</b>	¾"			¾"			¾" or 1"			1"			1 ¼"		

\* CES Plus 48-72 kW models available only with 1" water connection

# CF Plus | General Purpose Water Heaters

CF Plus models are electronically-controlled, hot-start models that will deliver immediate hot water. When shipped they are set to output hot water at a single temperature specified when ordering. Output temperature can be easily adjusted on the printed circuit board, but CF models lack an external toggle switch to make a temperature adjustment. CF Plus models are accurate to  $\pm 1.5^{\circ}\text{F}$  at low flow rates. They are used for applications where continuous delivery of hot water is demanded and an immediate start is important. Typical applications include circulation systems, boiler replacement, process manufacturing, and cleanup. CF Plus models can also be used in safety shower applications.

**Features**

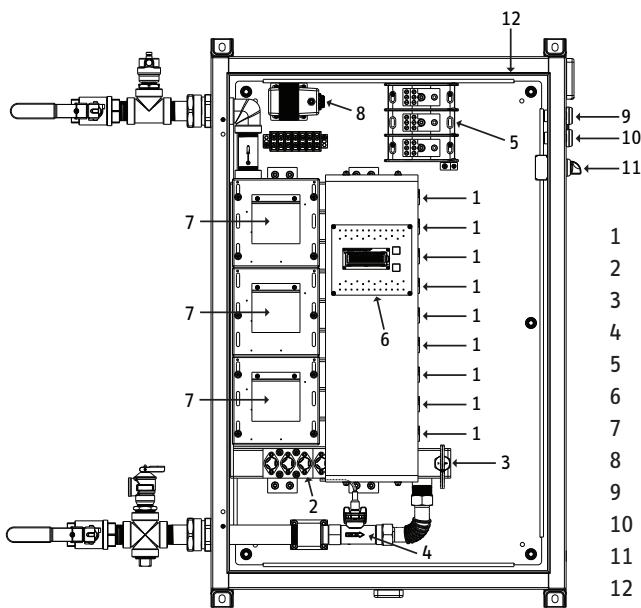
- › Minimum activation rate of 0.7 gpm
- › Activates on demand but stays hot without flow, ensuring immediate hot water on demand
- › Inside of enclosure is insulated to reduce standby heat loss
- › Individually fused element circuits
- › 840 Incoloy sheathing material for the elements
- › User set output temperature 60–180° Fahrenheit
- › Freeze protection
- › Temperature of output water and set point temperature both displayed behind front panel window

**Options**

- › NEMA 4 and NEMA 4X enclosures are available



Shown: CF Plus, 24–36 kW models configuration, Standard NEMA 3 enclosure



- 1 Element
- 2 Power triac
- 3 Pressure sensor switch
- 4 Flow sensor
- 5 Terminal block
- 6 Electronic board PCB
- 7 Fuse box
- 8 Transformer
- 9 Power indicator light
- 10 On/off indicator light
- 11 On/off switch
- 12 Mains power knockout

**Pros**

Hot-start maintains heated water in heat exchanger for immediate start

**Cons**

Heat loss is greater than cold-start models



6 years  
leaks/heat exchanger  
2 years  
electrical components



Intertek  
Conforms to UL 499  
Certified to CAN/CSA Std. C22.2 No. 88.



## CF Plus models and specifications

Model	Item Number	Voltage 3-phase	kW actual output	Full Load Amp Draw	3P Breaker Size (A)	No. of Elements	Pipe Size (inches)	Enclosure Size Standard NEMA 3 Including fittings (W x H x D in inches)	
<b>CF Plus 12KW</b>	CFPLUS-012-208	208	11.27	31.27	35	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>	
	CFPLUS-012-240	240	12.50	30.07	35				
	CFPLUS-012-480Y	480 Wye	13.50	16.24	20				
<b>CF Plus 15KW</b>	CFPLUS-015-208	208	15.77	43.78	50	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>	
	CFPLUS-015-240	240	15.00	36.08	40				
	CFPLUS-015-480Y	480 Wye	16.65	20.03	25				
<b>CF Plus 18KW</b>	CFPLUS-018-208	208	18.00	49.96	60	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>	
	CFPLUS-018-240	240	18.00	43.30	50				
	CFPLUS-018-480Y	480 Wye	18.00	21.65	25				
	CFPLUS-018-480D*	480	18.00	21.65	25				6*
<b>CF Plus 24KW</b>	CFPLUS-024-208	208	22.53	62.55	70	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>	
	CFPLUS-024-240	240	25.00	60.14	70				
	CFPLUS-024-480	480	25.00	30.07	35				
	CFPLUS-024-575	575	24.00	24.10	30				
<b>CF Plus 27KW</b>	CFPLUS-027-208	208	27.04	75.06	80	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>	
	CFPLUS-027-240	240	27.02	65.01	80				
	CFPLUS-027-480	480	27.02	32.51	40				
<b>CF Plus 36KW</b>	CFPLUS-036-208	208	36.00	99.93	110	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>	
	CFPLUS-036-240	240	36.00	86.60	100				
	CFPLUS-036-480	480	36.00	43.30	50				
	CFPLUS-036-575	575	36.00	36.15	40				
<b>CF Plus 48KW</b>	CFPLUS-048-208	208	45.07	125.09	150	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CFPLUS-048-240	240	50.00	120.28	150				
	CFPLUS-048-480	480	50.00	60.14	70				25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
	CFPLUS-048-575	575	47.99	48.19	60				
<b>CF Plus 54KW</b>	CFPLUS-054-208	208	54.08	150.11	175	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CFPLUS-054-240	240	54.05	130.02	150				
	CFPLUS-054-480	480	54.05	65.01	80				25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
<b>CF Plus 60KW</b>	CFPLUS-060-208	208	63.09	175.13	200	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CFPLUS-060-240	240	60.00	144.34	175				
	CFPLUS-060-480	480	60.00	72.17	80				25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
<b>CF Plus 72KW</b>	CFPLUS-072-208	208	72.00	199.85	225	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CFPLUS-072-240	240	72.00	173.21	200				
	CFPLUS-072-480	480	72.00	86.60	100				25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
	CFPLUS-072-575	575	72.00	72.29	80				
<b>CF Plus 81KW</b>	CFPLUS-081-480	480	81.07	97.52	110	18	1	37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14	
<b>CF Plus 90KW</b>	CFPLUS-090-480	480	90.00	108.25	125	18	1	37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14	
<b>CF Plus 108KW</b>	CFPLUS-108-480	480	108.00	129.90	150	18	1	37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14	
	CFPLUS-108-575	575	108.00	108.44	125				
<b>CF Plus 120KW</b>	CFPLUS-120-480	480	120.00	144.34	175	24	1 <sup>1</sup> / <sub>4</sub>	39 <sup>1</sup> / <sub>32</sub> X 50 <sup>13</sup> / <sub>32</sub> X 14	
<b>CF Plus 144KW</b>	CFPLUS-144-480	480	144.00	173.21	200	24	1 <sup>1</sup> / <sub>4</sub>	39 <sup>1</sup> / <sub>32</sub> X 50 <sup>13</sup> / <sub>32</sub> X 14	
	CFPLUS-144-575	575	144.00	144.59	175				

\* CFPLUS-018-480D is a 6-element Delta heater. The enclosure is larger than other 18 kW heaters. Available at extra cost.

† Available with 1" pipe size, dimensions slightly larger:

CF Plus 48-72KW, 208-240 V: 35<sup>1</sup>/<sub>16</sub> x 44<sup>27</sup>/<sub>32</sub> x 13<sup>5</sup>/<sub>32</sub>

CF Plus 48-72KW, 480-575 V: 26<sup>1</sup>/<sub>2</sub> x 41<sup>27</sup>/<sub>32</sub> x 9<sup>7</sup>/<sub>8</sub>

# CE Plus | General Purpose Water Heaters

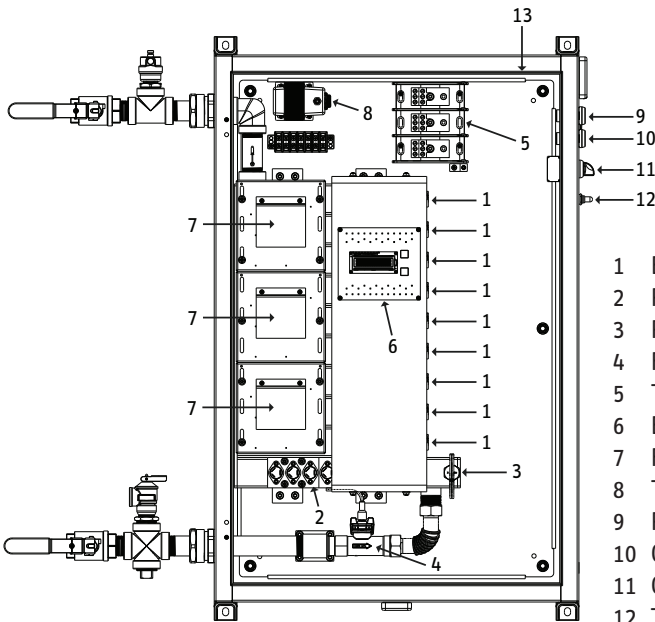
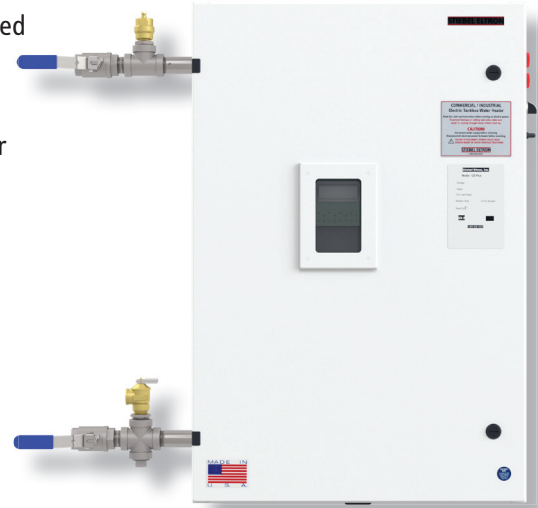
CE Plus models are electronically-controlled, cold-start models. No energy is used when the unit is idle other than the indicator light. CE Plus models are accurate to  $\pm 1.5^{\circ}\text{F}$  at low flow rates. They are used for applications where continuous delivery of hot water is necessary on demand. Typical applications include boiler replacement, process manufacturing, and cleanup.

**Features**

- › Minimum activation rate of 0.7 gpm
- › User set output temperature 60-180° Fahrenheit
- › Rocker switch on outside of enclosure adjusts temperature in increments of 1° Fahrenheit
- › Individually fused element circuits
- › 840 Incoloy sheathing material for the elements
- › Temperature of output water and set point temperature both displayed behind front panel window

**Options**

- › NEMA 4 and NEMA 4X enclosures are available



- 1 Element
- 2 Power triac
- 3 Pressure sensor switch
- 4 Flow sensor
- 5 Terminal block
- 6 Electronic board PCB
- 7 Fuse box
- 8 Transformer
- 9 Power indicator light
- 10 On/off indicator light
- 11 On/off switch
- 12 Temperature set switch
- 13 Mains power knockout

Shown:  
**CE Plus,**  
**81 – 108 kW models configuration,**  
**Standard NEMA 3 enclosure**

**6 1/2**  
**YEAR**  
WARRANTY  
6 years  
leaks/heat exchanger  
2 years  
electrical components

**ETL** US  
Intertek  
Conforms to UL Std. 499  
Certified to CAN/CSA Std. C22.2 No. 88.



**Pros**

Temperature adjustable on PCB or external toggle switch  
Less energy use than CF Plus due to flow activation

**Cons**

Cold-start means 30 second delay before hot water at set temperature is delivered

**CE Plus models and specifications**

Model	Item Number	Voltage 3-phase	kW actual output	Full Load Amp Draw	3P Breaker Size (A)	No. of Elements	Pipe Size (inches)	Enclosure Size Standard NEMA 3 Including fittings (W x H x D in inches)	
<b>CE Plus 12KW</b>	CEPLUS-012-208	208	11.27	31.27	35	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>	
	CEPLUS-012-240	240	12.50	30.07	35				
	CEPLUS-012-480Y	480 Wye	13.50	16.24	20				
<b>CE Plus 15KW</b>	CEPLUS-015-208	208	15.77	43.78	50	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>	
	CEPLUS-015-240	240	15.00	36.08	40				
	CEPLUS-015-480Y	480 Wye	16.65	20.03	25				
<b>CE Plus 18KW</b>	CEPLUS-018-208	208	18.00	49.96	60	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>	
	CEPLUS-018-240	240	18.00	43.30	50				
	CEPLUS-018-480Y	480 Wye	18.00	21.65	25				
	CEPLUS-018-480D*	480	18.00	21.65	25				6*
<b>CE Plus 24KW</b>	CEPLUS-024-208	208	22.53	62.55	70	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>	
	CEPLUS-024-240	240	25.00	60.14	70				
	CEPLUS-024-480	480	25.00	30.07	35				
	CEPLUS-024-575	575	24.00	24.10	30				
<b>CE Plus 27KW</b>	CEPLUS-027-208	208	27.04	75.06	80	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>	
	CEPLUS-027-240	240	27.02	65.01	80				
	CEPLUS-027-480	480	27.02	32.51	40				
<b>CE Plus 36KW</b>	CEPLUS-036-208	208	36.00	99.93	110	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>	
	CEPLUS-036-240	240	36.00	86.60	100				
	CEPLUS-036-480	480	36.00	43.30	50				
	CEPLUS-036-575	575	36.00	36.15	40				
<b>CE Plus 48KW</b>	CEPLUS-048-208	208	45.07	125.09	150	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CEPLUS-048-240	240	50.00	120.28	150				
	CEPLUS-048-480	480	50.00	60.14	70				25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
	CEPLUS-048-575	575	47.99	48.19	60				
<b>CE Plus 54KW</b>	CEPLUS-054-208	208	54.08	150.11	175	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CEPLUS-054-240	240	54.05	130.02	150				
	CEPLUS-054-480	480	54.05	65.01	80				25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
<b>CE Plus 60KW</b>	CEPLUS-060-208	208	63.09	175.13	200	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CEPLUS-060-240	240	60.00	144.34	175				
	CEPLUS-060-480	480	60.00	72.17	80				25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
<b>CE Plus 72KW</b>	CEPLUS-072-208	208	72.00	199.85	225	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CEPLUS-072-240	240	72.00	173.21	200				
	CEPLUS-072-480	480	72.00	86.60	100				25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
	CEPLUS-072-575	575	72.00	72.29	80				
<b>CE Plus 81KW</b>	CEPLUS-081-480	480	81.07	97.52	110	18	1	37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14	
<b>CE Plus 90KW</b>	CEPLUS-090-480	480	90.00	108.25	125	18	1	37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14	
<b>CE Plus 108KW</b>	CEPLUS-108-480	480	108.00	129.90	150	18	1	37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14	
	CEPLUS-108-575	575	108.00	108.44	125				
<b>CE Plus 120KW</b>	CEPLUS-120-480	480	120.00	144.34	175	24	1 <sup>1</sup> / <sub>4</sub>	39 <sup>1</sup> / <sub>32</sub> X 50 <sup>13</sup> / <sub>32</sub> X 14	
<b>CE Plus 144KW</b>	CEPLUS-144-480	480	144.00	173.21	200	24	1 <sup>1</sup> / <sub>4</sub>	39 <sup>1</sup> / <sub>32</sub> X 50 <sup>13</sup> / <sub>32</sub> X 14	
	CEPLUS-144-575	575	144.00	144.59	175				

\*CEPLUS-018-480D is a 6-element Delta heater. The enclosure is larger than other 18 kW heaters. Available at extra cost.

† Available with 1" pipe size, dimensions slightly larger:

CE Plus 48-72KW, 208-240 V: 35<sup>1</sup>/<sub>16</sub> x 44<sup>2</sup>/<sub>32</sub> x 13<sup>5</sup>/<sub>32</sub>

CE Plus 48-72KW, 480-575 V: 26<sup>1</sup>/<sub>2</sub> x 41<sup>2</sup>/<sub>32</sub> x 9<sup>7</sup>/<sub>8</sub>

# CES Plus | Eyewash & Emergency Shower Water Heaters

CES Plus models are designed to heat water for emergency eyewash/face wash stations and emergency drench showers to meet OSHA requirements. The CES Plus has the same operation, capacity, and voltage ranges as the CE Plus series. It differs from the CE Plus by limiting temperature control to 60–90 °F and using a 180 °F manual-reset safety cut-off.

CES Plus 12 kW through CES Plus 36 kW units should be used solely for eyewash station applications. Depending on size, they will heat up to 7 gallons per minute by 35 °F (20 °C) and limit the output temperature to OSHA requirements. CES Plus 60 kW through CES Plus 144 kW units will meet OSHA requirements for many installations including emergency drench showers.

Incoming water temperature must be measured on a cold day to verify the heating capacity needed to comply with emergency shower and eyewash/face wash requirements. Only the largest models will be sufficient for cold temperate climates. We recommend targeting 85 °F for best results. To meet regulations 60 °F must be attained. Regulations also require at least 20 GPM per shower for 15 minutes to comply, plus eyewash/face wash station requirements.



Shown:  
**CES Plus,**  
**120–144 kW models configuration,**  
**Standard NEMA 3 enclosure**

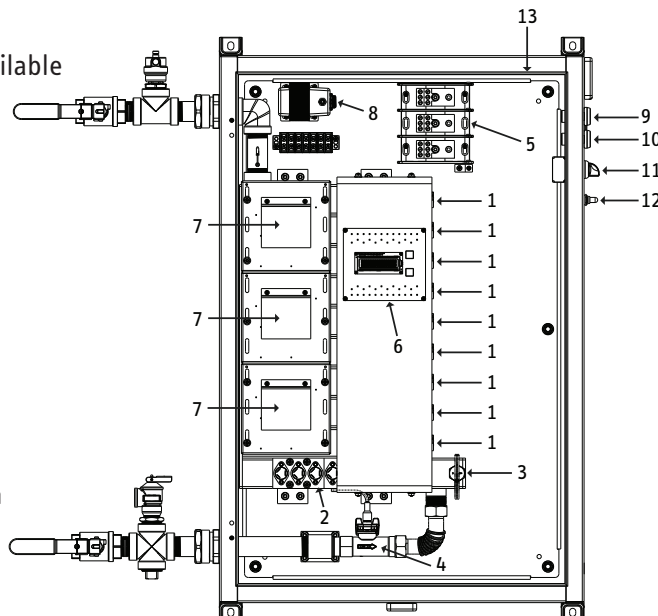
### Features

- › Meets all OSHA and ANSI Z 358.1 requirements
- › Minimum activation rate of 0.7 gpm
- › Output temperature range 60–90° Fahrenheit
- › Rocker switch on outside of enclosure adjusts temperature in increments of 1° Fahrenheit
- › Individually fused element circuits
- › 840 Incoloy sheathing material for the elements
- › Temperature of output water and set point temperature both displayed behind front panel window

### Options

- › NEMA 4 and NEMA 4X enclosures are available

- 1 Element
- 2 Power triac
- 3 Pressure sensor switch
- 4 Flow sensor
- 5 Terminal block
- 6 Electronic board PCB
- 7 Fuse box
- 8 Transformer
- 9 Power indicator light
- 10 On/off indicator light
- 11 On/off switch
- 12 Temperature set switch
- 13 Mains power knockout



6 years  
leaks/heat exchanger  
2 years  
electrical components



Intertek  
Conforms to UL Std. 499  
Certified to CAN/CSA Std. C22.2 No. 88.



**CES Plus models and specifications**

Model	Item Number	Voltage 3-phase	kW actual output	Full Load Amp Draw	3P Breaker Size (A)	No. of Elements	Pipe Size (inches)	Enclosure Size Standard NEMA 3 Including fittings (W x H x D in inches)	
<b>CES Plus 12KW</b>	CESPLUS-012-208	208	11.27	31.27	35	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>	
	CESPLUS-012-240	240	12.50	30.07	35				
	CESPLUS-012-480Y	480 Wye	13.50	16.24	20				
<b>CES Plus 15KW</b>	CESPLUS-015-208	208	15.77	43.78	50	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>	
	CESPLUS-015-240	240	15.00	36.08	40				
	CESPLUS-015-480Y	480 Wye	16.65	20.03	25				
<b>CES Plus 18KW</b>	CESPLUS-018-208	208	18.00	49.96	60	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>	
	CESPLUS-018-240	240	18.00	43.30	50				
	CESPLUS-018-480Y	480 Wye	18.00	21.65	25				
	CESPLUS-018-480D*	480	18.00	21.65	25				6*
<b>CES Plus 24KW</b>	CESPLUS-024-208	208	22.53	62.55	70	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>	
	CESPLUS-024-240	240	25.00	60.14	70				
	CESPLUS-024-480	480	25.00	30.07	35				
<b>CES Plus 27KW</b>	CESPLUS-027-208	208	27.04	75.06	80	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>	
	CESPLUS-027-240	240	27.02	65.01	80				
	CESPLUS-027-480	480	27.02	32.51	40				
<b>CES Plus 36KW</b>	CESPLUS-036-208	208	36.00	99.93	110	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>	
	CESPLUS-036-240	240	36.00	86.60	100				
	CESPLUS-036-480	480	36.00	43.30	50				
	CESPLUS-036-575	575	36.00	36.15	40				
<b>CES Plus 48KW</b>	CESPLUS-048-208	208	45.07	125.09	150	12	1	35 <sup>1</sup> / <sub>16</sub> X 44 <sup>27</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CESPLUS-048-240	240	50.00	120.28	150				
	CESPLUS-048-480	480	50.00	60.14	70				26 <sup>1</sup> / <sub>2</sub> X 41 <sup>27</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
	CESPLUS-048-575	575	47.99	48.19	60				
<b>CES Plus 54KW</b>	CESPLUS-054-208	208	54.08	150.11	175	12	1	35 <sup>1</sup> / <sub>16</sub> X 44 <sup>27</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CESPLUS-054-240	240	54.05	130.02	150				
	CESPLUS-054-480	480	54.05	65.01	80				26 <sup>1</sup> / <sub>2</sub> X 41 <sup>27</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
<b>CES Plus 60KW</b>	CESPLUS-060-208	208	63.09	175.13	200	12	1	35 <sup>1</sup> / <sub>16</sub> X 44 <sup>27</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CESPLUS-060-240	240	60.00	144.34	175				
	CESPLUS-060-480	480	60.00	72.17	80				26 <sup>1</sup> / <sub>2</sub> X 41 <sup>27</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
<b>CES Plus 72KW</b>	CESPLUS-072-208	208	72.00	199.85	225	12	1	35 <sup>1</sup> / <sub>16</sub> X 44 <sup>27</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub>	
	CESPLUS-072-240	240	72.00	173.21	200				
	CESPLUS-072-480	480	72.00	86.60	100				26 <sup>1</sup> / <sub>2</sub> X 41 <sup>27</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
	CESPLUS-072-575	575	72.00	72.29	80				
<b>CES Plus 81KW</b>	CESPLUS-081-480	480	81.07	97.52	110	18	1	37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14	
<b>CES Plus 90KW</b>	CESPLUS-090-480	480	90.00	108.25	125	18	1	37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14	
<b>CES Plus 108KW</b>	CESPLUS-108-480	480	108.00	129.90	150	18	1	37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14	
	CESPLUS-108-575	575	108.00	108.44	125				
<b>CES Plus 120KW</b>	CESPLUS-120-480	480	120.00	144.34	175	24	1 <sup>1</sup> / <sub>4</sub>	39 <sup>1</sup> / <sub>32</sub> X 50 <sup>13</sup> / <sub>32</sub> X 14	
<b>CES Plus 144KW</b>	CESPLUS-144-480	480	144.00	173.21	200	24	1 <sup>1</sup> / <sub>4</sub>	39 <sup>1</sup> / <sub>32</sub> X 50 <sup>13</sup> / <sub>32</sub> X 14	
	CESPLUS-144-575	575	144.00	144.59	175				

\*CESPLUS-018-480D is a 6-element Delta heater. The enclosure is larger than other 18 kW heaters. Available at extra cost.

# CERO Plus | Caustic Fluid Heaters

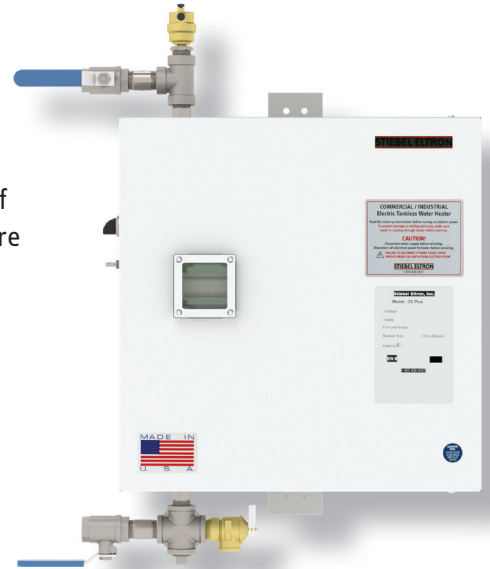
CERO Plus models are designed to heat reverse osmosis (RO) water and caustic fluids. They have corrosion-free titanium-sheathed elements that will last longer in a caustic environment than standard Incoloy-sheathed elements. CERO Plus has the same electronic operation as the CE Plus series, calculating the amount of energy needed to meet hot water demand, then activating the minimum number of elements necessary to satisfy that demand, depending on flow rate and temperature measurement. CERO Plus has low standby energy consumption.

**Features**

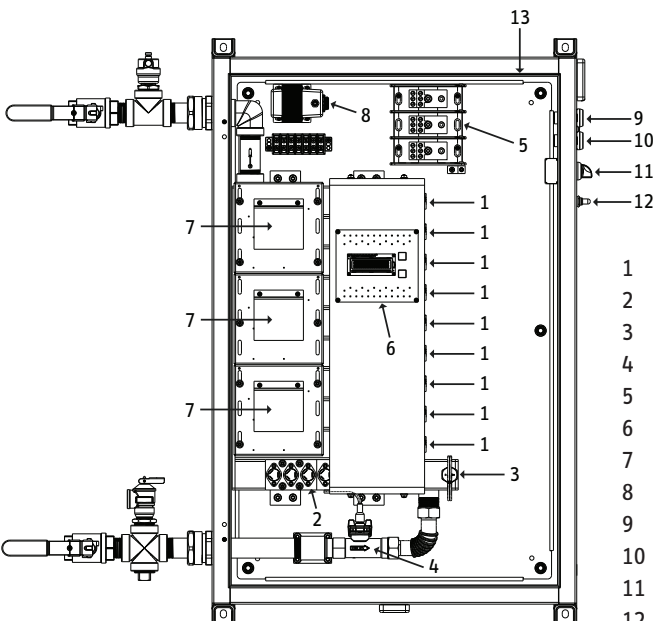
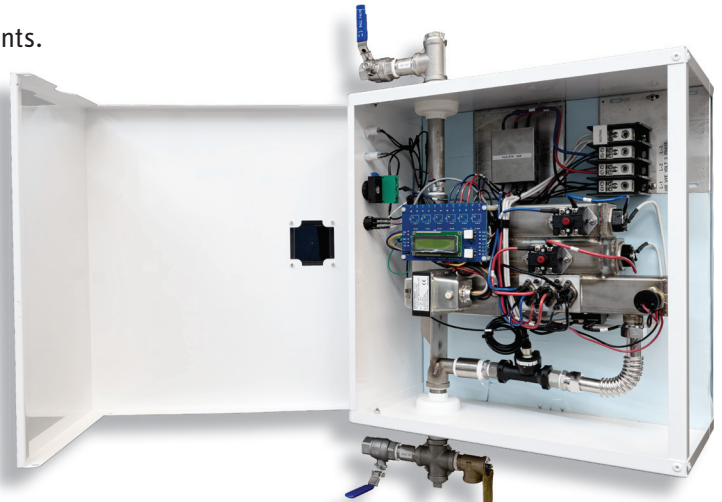
- › Minimum activation rate of 0.7 gpm
- › User set output temperature 60-180° Fahrenheit
- › Rocker switch on outside of enclosure adjusts temperature in increments of 1° Fahrenheit
- › Individually fused element circuits
- › Titanium-sheathed elements for resistance to caustic fluids
- › Temperature of output water and set point temperature both displayed behind front panel window

**Options**

- › NEMA 4 and NEMA 4X enclosures are available  
NEMA 4X is recommended for highly corrosive environments.



Shown:  
**CERO Plus,**  
**12-18 kW models configuration,**  
**Standard NEMA 3 enclosure**



- 1 Element
- 2 Power triac
- 3 Pressure sensor switch
- 4 Flow sensor
- 5 Terminal block
- 6 Electronic board PCB
- 7 Fuse box
- 8 Transformer
- 9 Power indicator light
- 10 On/off indicator light
- 11 On/off switch
- 12 Temperature set switch
- 13 Mains power knockout



6 years  
leaks/heat exchanger  
2 years  
electrical components



Intertek  
Conforms to UL Std. 499  
Certified to CAN/CSA Std. C22.2 No. 88.



## CERO Plus models and specifications

Model	Item Number	Voltage 3-phase	kW actual output	Full Load Amp Draw	3P Breaker Size (A)	No. of Elements	Pipe Size (inches)	Enclosure Size Standard NEMA 3 Including fittings (W x H x D in inches)
<b>CERO Plus 12KW</b>	CEROPLUS-012-208	208	10.15	28.17	35	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>
	CEROPLUS-012-240	240	12.50	30.07	35			
	CEROPLUS-012-480Y	480 Wye	11.10	13.35	15			
<b>CERO Plus 15KW</b>	CEROPLUS-015-208	208	13.52	37.53	45	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>
	CEROPLUS-015-240	240	13.51	32.51	40			
	CEROPLUS-015-480Y	480 Wye	16.65	20.03	25			
<b>CERO Plus 18KW</b>	CEROPLUS-018-208	208	18.00	49.96	60	3	3/4	24 <sup>15</sup> / <sub>32</sub> X 30 <sup>1</sup> / <sub>32</sub> X 11 <sup>5</sup> / <sub>32</sub>
	CEROPLUS-018-240	240	18.00	43.30	50			
	CEROPLUS-018-480Y	480 Wye	16.66	20.04	25			
	CEROPLUS-018-480D*	480	18.00	21.65	25			
<b>CERO Plus 24KW</b>	CEROPLUS-024-208	208	20.30	56.34	70	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>
	CEROPLUS-024-240	240	25.00	60.14	70			
	CEROPLUS-024-480	480	25.00	30.07	35			
	CEROPLUS-024-575	575	24.00	24.09	30			
<b>CERO Plus 27KW</b>	CEROPLUS-027-208	208	27.04	75.06	80	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>
	CEROPLUS-027-240	240	27.02	65.01	80			
	CEROPLUS-027-480	480	27.02	32.50	40			
<b>CERO Plus 36KW</b>	CEROPLUS-036-240	240	36.00	86.60	100	6	3/4	24 <sup>29</sup> / <sub>32</sub> X 31 <sup>27</sup> / <sub>32</sub> X 10 <sup>5</sup> / <sub>8</sub>
	CEROPLUS-036-480	480	36.00	43.30	50			
	CEROPLUS-036-575	575	36.00	36.15	40			
<b>CERO Plus 48KW</b>	CEROPLUS-048-240	240	50.00	120.28	150	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub> 25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
	CEROPLUS-048-480	480	50.00	60.14	70			
	CEROPLUS-048-575	575	47.99	48.19	60			
<b>CERO Plus 54KW</b>	CEROPLUS-054-208	208	54.08	150.11	175	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub> 25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
	CEROPLUS-054-240	240	54.05	130.02	150			
	CEROPLUS-054-480	480	54.05	65.01	70			
<b>CERO Plus 60KW</b>	CEROPLUS-060-240	240	60.00	144.34	175	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub> 25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
	CEROPLUS-060-480	480	60.00	72.17	80			
<b>CERO Plus 72KW</b>	CEROPLUS-072-240	240	72.00	173.21	200	12	3/4 <sup>†</sup>	33 <sup>11</sup> / <sub>16</sub> X 44 <sup>5</sup> / <sub>32</sub> X 13 <sup>5</sup> / <sub>32</sub> 25 <sup>5</sup> / <sub>32</sub> X 41 <sup>5</sup> / <sub>32</sub> X 9 <sup>7</sup> / <sub>8</sub>
	CEROPLUS-072-480	480	72.00	86.60	100			
	CEROPLUS-072-575	575	71.99	72.28	80			
<b>CERO Plus 81KW</b>	CEROPLUS-081-480	480	81.07	97.52	110	18	1	37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14
<b>CERO Plus 90KW</b>	CEROPLUS-090-480	480	90.00	108.25	125	18		37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14
<b>CERO Plus 108KW</b>	CEROPLUS-108-480	480	108.00	129.90	150			37 <sup>27</sup> / <sub>32</sub> X 38 <sup>13</sup> / <sub>32</sub> X 14
	CEROPLUS-108-575	575	108.00	108.44	125			
<b>CERO Plus 120KW</b>	CEROPLUS-120-480	480	120.00	144.34	175	24	1 <sup>1</sup> / <sub>4</sub>	39 <sup>1</sup> / <sub>32</sub> X 50 <sup>13</sup> / <sub>32</sub> X 14
<b>CERO Plus 144KW</b>	CEROPLUS-144-480	480	144.00	173.21	200	24	1 <sup>1</sup> / <sub>4</sub>	39 <sup>1</sup> / <sub>32</sub> X 50 <sup>13</sup> / <sub>32</sub> X 14
	CEROPLUS-144-575	575	144.00	144.59	175			

\*CEROPLUS-018-480D is a 6-element Delta heater. The enclosure is larger than other 18 kW heaters. Available at extra cost.

† Available with 1" pipe size, dimensions slightly larger:

CERO Plus 48-72KW, 208-240 V: 35<sup>1</sup>/<sub>16</sub> x 44<sup>27</sup>/<sub>32</sub> x 13<sup>5</sup>/<sub>32</sub>

CERO Plus 48-72KW, 480-575 V: 26<sup>1</sup>/<sub>2</sub> x 41<sup>27</sup>/<sub>32</sub> x 9<sup>7</sup>/<sub>8</sub>

# All models | Flow Rate vs. Temperature Rise

	Power Output of Model <sup>1</sup>	Flow Rate Gallons/Min. Gallons/Hr.	Temperature Rise												
			20°F	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F	110°F	120°F	130°F	140°F
Ships via UPS	12 kW	GPM	4.1	2.7	2.1	1.6	1.4	1.2	1.0	0.9	0.8	0.7	0.7	0.6	0.6
		GPH	246	164	123	98	82	70	61	55	49	45	41	38	35
	15 kW	GPM	5.1	3.4	2.6	2.1	1.7	1.5	1.3	1.1	1.0	0.9	0.9	0.8	0.7
		GPH	307	205	154	123	102	88	77	68	61	56	51	47	44
	18 kW	GPM	6.1	4.1	3.1	2.5	2.1	1.8	1.5	1.4	1.2	1.1	1.0	1.0	0.9
		GPH	369	246	184	147	123	105	92	82	74	67	61	57	53
24 kW	GPM	8.2	5.5	4.1	3.3	2.7	2.3	2.1	1.8	1.6	1.5	1.4	1.3	1.2	
	GPH	492	328	246	197	164	140	123	109	98	89	82	76	70	
27 kW	GPM	9.2	6.1	4.6	3.7	3.1	2.6	2.3	2.1	1.8	1.7	1.5	1.4	1.3	
	GPH	553	369	277	221	184	158	138	123	111	101	92	85	79	
36 kW	GPM	12.3	8.2	6.1	4.9	4.1	3.5	3.1	2.7	2.5	2.2	2.1	1.9	1.8	
	GPH	737	492	369	295	246	211	184	164	147	134	123	113	105	
Ships via common carrier	48 kW	GPM	16.4	10.9	8.2	6.6	5.5	4.7	4.1	3.6	3.3	3.0	2.7	2.5	2.3
		GPH	983	655	492	393	328	281	246	218	197	179	164	151	140
	54 kW	GPM	18.4	12.3	9.2	7.4	6.2	5.3	4.6	4.1	3.7	3.4	3.1	2.8	2.6
		GPH	1106	737	553	442	369	316	277	246	221	201	184	170	158
60 kW	GPM	20.5	13.7	10.2	8.2	6.8	5.9	5.1	4.6	4.1	3.7	3.4	3.2	2.9	
	GPH	1229	819	614	492	410	351	307	273	246	223	205	189	176	
72 kW	GPM	24.6	16.4	12.3	9.8	8.2	7.0	6.1	5.5	4.9	4.5	4.1	3.8	3.5	
	GPH	1475	983	737	590	492	421	369	328	295	268	246	227	211	
Ships via common carrier with crate	81 kW	GPM	27.7	18.4	13.8	11.0	9.2	7.9	6.9	6.1	5.5	5.0	4.6	4.3	4.0
		GPH	1659	1106	829	664	553	474	415	369	332	302	277	255	237
	90 kW	GPM	30.7	20.5	15.4	12.3	10.2	8.8	7.7	6.8	6.1	5.6	5.1	4.7	4.4
		GPH	1843	1229	922	737	614	527	461	410	369	335	307	284	263
	108 kW	GPM	36.9	24.6	18.4	14.7	12.3	10.5	9.2	8.2	7.4	6.7	6.1	5.7	5.3
		GPH	2212	1475	1106	885	737	632	553	492	442	402	369	340	316
120 kW	GPM	40.0 <sup>2</sup>	27.3	20.5	16.4	13.7	11.7	10.2	9.1	8.2	7.5	6.8	6.3	5.9	
	GPH	2400 <sup>2</sup>	1638	1229	983	819	702	614	546	492	447	410	378	351	
144 kW	GPM	40.0 <sup>2</sup>	32.8	24.6	19.7	16.4	14.0	12.3	10.9	9.8	8.9	8.2	7.6	7.0	
	GPH	2400 <sup>2</sup>	1966	1475	1180	983	843	737	655	590	536	492	454	421	

<sup>1</sup> Actual power output varies by model depending on voltage which will affect achievable temp. rise.

<sup>2</sup> Assumes 1¼" pipe size

## Activation/Deactivation Rate / Piping Diameter & Flow Meter by Heater Element Size

	Flow Meter	Piping Diameter	Activation Flow Rate	Deactivation Flow Rate	Available Flow Rate Range	Approximate weights for assembled heaters: NEMA 3		NEMA 4/4X
<b>3-Element Heaters</b>	DN 10	¾"	0.7 gpm	0.5 gpm	0.5-10.6 gpm	50 lbs		104 lbs
<b>6-Element Heaters</b>	DN 10	¾"	0.7 gpm	0.5 gpm	0.5-10.6 gpm	70 lbs		124 lbs
	DN 15	¾"	1.2 gpm	0.9 gpm	0.9-13.21 gpm			
<b>12-Element Heaters</b>	DN 20	¾"	1.7 gpm	1.4 gpm	1.4-22.45 gpm	480/575 V:	208/240 V:	All voltages:
	DN 25	1"	2.7 gpm	2.4 gpm	2.4-40.0 gpm	100 lbs	175 lbs	190 lbs
<b>18-Element Heaters</b>	DN 25	1"	2.7 gpm	2.4 gpm	2.4-40.0 gpm	210 lbs		300 lbs
<b>24-Element Heaters</b>	DN 25	1¼"	2.7 gpm	2.4 gpm	2.4-40.0 gpm	275 lbs		406 lbs

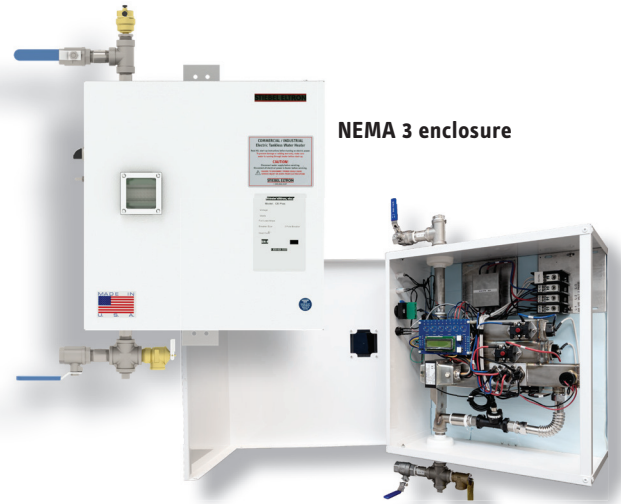
# Options

**The standard enclosure is NEMA 3**

- › Made in Florida specifically for Stiebel Eltron
- › Front cover and right-hand side are one piece, hinged, and swing open to the left to allow servicing and element replacement
- › NEMA 3 is powder-coated and Alpine white color
- › NEMA 3 enclosures are constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, and windblown dust; and will be undamaged by the external formation of ice on the enclosure.

**NEMA 4 & NEMA 4X are optional enclosures**

- › NEMA 4 is painted steel in Alpine white color
- › NEMA 4X is stainless steel
- › NEMA 4 and NEMA 4X are watertight and come with watertight fittings, lights, switches, etc.



**NEMA 3 enclosure**

	Dimensions (HxWxD, inches)	Applicable Plus Models
<b>NEMA 4 Enclosure</b> 3- or 6-element heater	24 x 24 x 14	CF 12, 15, 18, 24, 27, 36 CE 12, 15, 18, 24, 27, 36 CES 12, 15, 18, 24, 27, 36 CERO 12, 15, 18, 24, 27, 36
<b>NEMA 4 Enclosure</b> 12- or 18-element heater	36 x 24 x 14	CF 48, 54, 60, 72, 81, 90, 108 CE 48, 54, 60, 72, 81, 90, 108 CES 48, 54, 60, 72, 81, 90, 108 CERO 48, 54, 60, 72, 81, 90, 108
<b>NEMA 4 Enclosure</b> 24-element heater	48 x 24 x 14	CF 120, 144 CE 120, 144 CES 120, 144 CERO 120, 144
<b>NEMA 4X Enclosure</b> 3- or 6-element heater	24 x 24 x 14	CF 12, 15, 18, 24, 27, 36 CE 12, 15, 18, 24, 27, 36 CES 12, 15, 18, 24, 27, 36 CERO 12, 15, 18, 24, 27, 36
<b>NEMA 4X Enclosure</b> 12- or 18-element heater	36 x 24 x 14	CF 48, 54, 60, 72, 81, 90, 108 CE 48, 54, 60, 72, 81, 90, 108 CES 48, 54, 60, 72, 81, 90, 108 CERO 48, 54, 60, 72, 81, 90, 108
<b>NEMA 4X Enclosure</b> 24-element heater	48 x 24 x 14	CF 120, 144 CE 120, 144 CES 120, 144 CERO 120, 144



**NEMA 4X enclosure**

Options	Description	Applicable Models
<b>NEMA 4 Enclosure</b> dust-tight and water-tight painted white steel	Includes all drains and fittings surrounding the plumbing. Powder-coated white. Includes water-tight window to view the control board.	All series and models
<b>NEMA 4X Enclosure</b> dust-tight and water-tight stainless steel	Including all drains and fittings surrounding the plumbing. Includes water-tight window to view the control board.	All series and models
<b>Class 1 Division 2</b>	NEMA 4 or NEMA 4X enclosure required	All series and models
<b>Element Indication Lights</b>		All series and models

All NEMA 4 and 4X enclosures will be shipped via common carrier, regardless of size of unit.

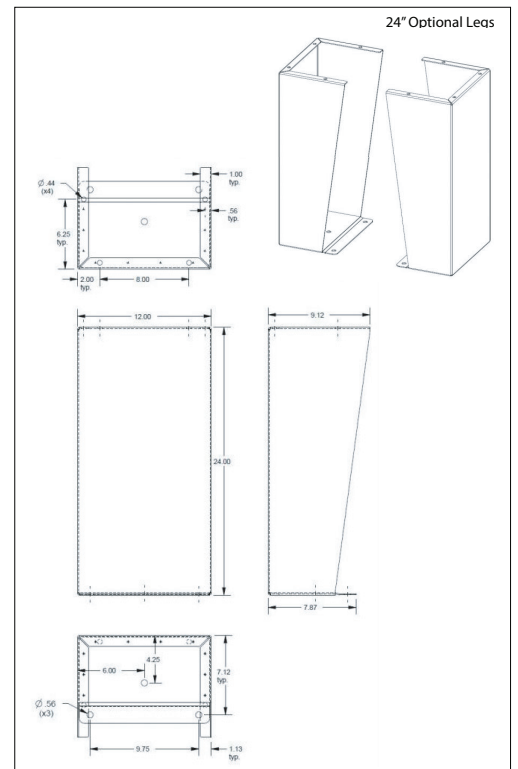
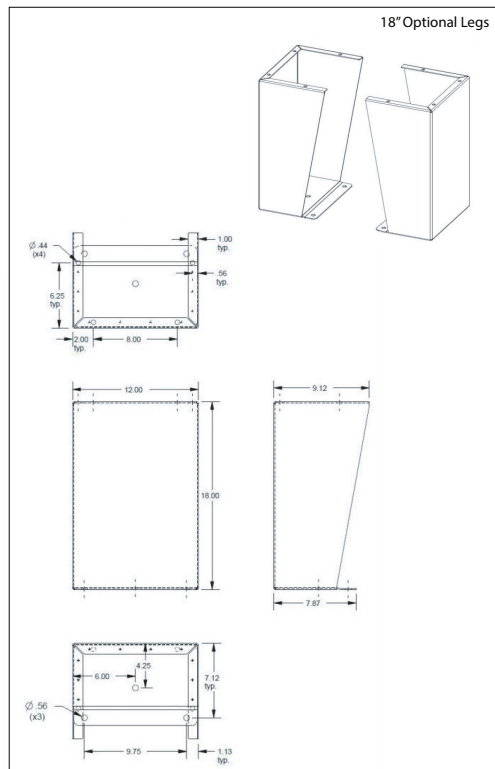
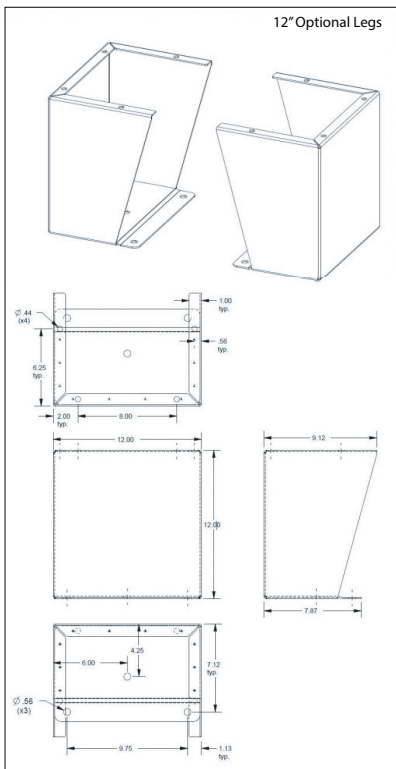
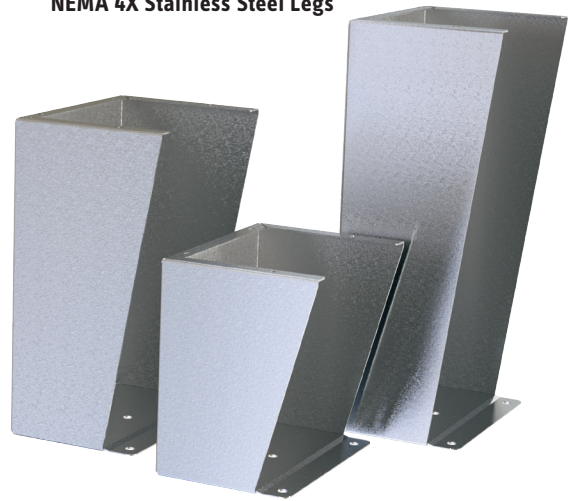
# Options

Description	Color	Dimensions	Applicable Plus Models
Floor Stand Legs	White	12" high	All NEMA 4
		18" high	
		24" high	
Floor Stand Legs	Stainless	12" high	All NEMA 4X
		18" high	
		24" high	

**NEMA 4 White Legs**



**NEMA 4X Stainless Steel Legs**



# Quote/Order Checklist

Date \_\_\_\_\_ Manufacturer's Rep. or Wholesaler \_\_\_\_\_

Company Name \_\_\_\_\_

Company Address \_\_\_\_\_  
ADDRESS CITY STATE/PROVINCE ZIP/P.C.

Company Contact Person \_\_\_\_\_

Contact Phone \_\_\_\_\_ Email \_\_\_\_\_

Project Installation Address \_\_\_\_\_  
CITY STATE/PROVINCE COUNTRY

**Application / Intended Use** \_\_\_\_\_

**Fluid To Be Heated:**  CITY WATER  WELL WATER  CAUSTIC/ DE-IONIZED WATER  RECIRCULATING WATER **Min. ambient temp. at heater location:** \_\_\_\_\_  
FOR OUTDOOR INSTALLATION FROST PROTECTION (°F or °C?)

Winter Inlet Water Temperature at Installation Address \_\_\_\_\_ (°F or °C?) Required Outlet Water Temperature \_\_\_\_\_ (°F or °C?)

Minimum Water Flow Required \_\_\_\_\_ Maximum Water Flow Required \_\_\_\_\_  
GALLONS PER MINUTE (GPM) GALLONS PER MINUTE (GPM)

Inlet Water Pipe Size \_\_\_\_\_ Outlet Water Pipe Size \_\_\_\_\_ Max. System Static Pressure \_\_\_\_\_

**Specify the maximum amperage available for each 3-phase voltage available at the installation site:**

3-Phase Voltage:	208 Volt	240 Volt	480 Volt Delta	480 Volt Wye	575 Volt
Amperage Available:	_____ Amps	_____ Amps	_____ Amps	_____ Amps	_____ Amps



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Due to our continuous process of engineering and technological advancement, specifications may change without notice.