

# STATESMAN™

## Premium Heavy Duty Electric Water Heater



- **Meets or exceeds the requirements of ASHRAE/IES-90.1-1999.**
- **ASME Tank Construction** – 125 psi working pressure (65 thru 120 gallons), 150 psi working pressure (5 thru 50 gallons).
- **Foam Insulated** – To meet rigorous state codes.
- **Glass-Lined Tank** – Ten tank sizes available; 5 to 120 gallon. Tank interior is coated with glass specifically developed for water heater use. Tank cabinet has a baked enamel finish.
- **Incoloy Immersion Heaters** – Heavy-duty medium watt density elements (three/immersion heater) have incoloy sheathing and prewired leads: provide excellent protection against oxidation and scaling. Input ranges from 3KW to 90KW available (see accompanying chart).
- **Standard Voltages** – 208, 240 and 480 volt single and three phase. Single phase 208 and 240 are convertible to three phase. All 208 and 240 volt at 24KW and below are supplied phase convertible (single to three and vice versa). 277 volt single phase also available. Consult factory for 120 volt power circuit availability.
- **Terminal Block** – To accept copper or aluminum leads (on units with more than one contactor).
- **Immersion Thermostat** – Close differential immersion type thermostat provides the accurate temperature control required for commercial applications (adjustable through a range of 95° to 180°F).
- **120 Volt Control Circuit** – 120 volt control circuit powered by fused transformer.
- **Magnetic Contactors** – Heavy-duty UL rated for 100,000 cycles.
- **Power Circuit Fusing (120 amp current draw and above)** – Meets National Electric Code and UL requirements that water heaters must have internal fusing when current draw exceeds 120 amps.

### ■ Limited Warranty Outline

- If the tank should leak any time during the first three years, under the terms of the warranty, State Water Heaters will repair or replace the heater; installation, labor, handling and local delivery extra.
- **This Outline Is NOT A Warranty.** For complete information, consult the written warranty or State Water Heaters.
- Warranty does not apply to product installed out-side of the United States of America or its territorial possessions and Canada.

### ■ Other Standard Features

- Simplified circuitry, color-coded for ease of service
  - Anode rod for corrosion protection
  - Immersion manual reset high limit
  - Brass drain valve
  - Hinged control compartment door
  - ASME T & P relief valve
- **Optional International Voltages** - 380, 415, 575 and 600 volts three-phase available with Y connected elements.

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### Optional Equipment & Construction

- **Silicon Bronze Tank** – Available for deionized water.
- **Stainless Steel Tank** – Available for deionized water.
- **150 or 160 PSI Working Pressure** – Available when required. Must be specified at time of order.
- **Handhole Cleanout** – 4" x 6" size.
- **Combination Temperature/Pressure Gauge** – Dial type combination gauge (shipped loose).

### Control Options:

- **Low Water Cutoff** – Probe type electric low water cutoff prevents energizing of elements in the event of low water condition.
- **Override Switches** – A simple form of load control allows all or part of unit input to be controlled manually. Up to one override switch per contactor is available.
- **Indicating/Pilot Lights** – For indicating element operation and/or switch closure. Up to one indicating light available for each switch and/or contactor is available.
- **Thermostat Step** – The simplest form of modulation. Allows elements to be stepped on in groups or individually by specifying additional thermostats (up to 1 per contactor).

### Control Options Continued:

- **Sequencer** – Two or three step time delay sequencer provides for stepping of elements in groups or individually (maximum of 1 step per contactor).
- **Modulating Step** – Solid state electronic control device that modulates input to match load through progressive sequencing of steps (up to 3 steps with maximum of 1 per contactor).
- **Time Clock** – Seven day clock may be programmed for up to 14 on/off operations per week. Skip a day feature allows for weekend shutdown.
- **Immersion Auto Reset High Limit** – Adjustable automatic reset type. Provides additional protection against high temperature conditions.
- **Safety Door Interlock** – Prevents openings of control panel door when heater power supply is energized.  
**NOTE:** Once door is open, the heater may be energized if necessary for service diagnosis.
- **Pressure Limit Switches** – Both high and low pressure limit switches available.
- **Power Circuit Fusing** – Sub-divides internal circuitry with maximum of 60 amp fuses. Supplied as standard when required by NEC and UL.
- **Alarm Horn** – Horns may be furnished to warn of any condition in the heater for which sensors have been specified.

## RECOVERY RATES

Standard KW Input	Btu/ Hour	RECOVERY RATE IN GALLONS PER HOUR* - Temperature Rise °F											
		30°	40°	50°	60°	70°	80°	90°	100°	110°	120°	130°	140°
3	10,239	41	31	24	20	17	15	13	12	11	10	10	9
6	20,478	82	62	49	41	35	31	27	25	22	21	19	18
9	30,717	123	92	74	62	53	46	41	37	34	31	28	26
12	40,956	164	123	98	82	70	61	55	49	45	41	38	35
15	51,195	205	154	123	102	88	77	68	61	56	51	47	44
18	61,434	246	184	148	123	105	92	82	74	67	62	57	53
24	81,912	328	246	197	164	140	123	109	98	90	82	76	70
30	102,390	410	308	246	205	176	154	137	123	112	103	95	88
36	122,868	492	369	295	246	211	184	164	148	134	123	113	105
45	153,585	615	461	369	307	263	230	205	184	168	154	142	132
54	184,302	738	554	443	359	316	277	246	221	201	185	170	158
60**	204,780	819	615	492	410	351	307	273	246	223	205	189	176
75**	255,975	1025	768	615	512	439	384	341	307	279	256	236	219
90**	307,170	1229	922	738	615	527	461	410	369	335	307	284	263

\*Figured at 1 KW (3413 Btu) = 4.1 gallons at 100°F temperature rise.

\*\*Available on 50 gallon models or larger.

To determine recovery rate per minute, divide recovery rate per hour by 60.

NSF ratings may be obtained by multiplying above figures by 0.98.

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### SPECIFICATIONS

Model Number	Nominal Gallon Capacity	Maximum KW Input	Maximum Number* of Immersion Heaters	Dimensions In Inches				Inspection Opening	Inlet Outlet Opening	Relief Opening	Approx. Ship. Wt. (Lbs.)
				A	B	C	D				
SSE-5	5	3	1	20 $\frac{1}{4}$	16 $\frac{1}{4}$	20 $\frac{1}{8}$	5	Optional 4" x 6"	3/4	3/4	82
SSE-10	10	6		26 $\frac{1}{8}$	18 $\frac{3}{4}$	22 $\frac{3}{4}$	7				116
SSE-20	20	18	2	27	20 $\frac{1}{2}$	25	8				146
SSE-30	30	24		36	20 $\frac{1}{2}$	25	8				162
SSE-40	40	36		45 $\frac{1}{2}$	20 $\frac{1}{2}$	25	8 $\frac{1}{4}$				206
SSE-50	50	90	5	54 $\frac{1}{2}$	20 $\frac{1}{2}$	25	8		1 $\frac{1}{4}$	3/4	236
SSE-65	65	90		53 $\frac{1}{2}$	26 $\frac{1}{2}$	31	11 $\frac{3}{4}$				294
SSE-80	80	90		52 $\frac{1}{4}$	28	32 $\frac{3}{8}$	12				310
SSE-100	100	90		61	28	32 $\frac{3}{8}$	12				354
SSE-120	119	90		65	30	34 $\frac{1}{4}$	12 $\frac{3}{4}$				420

\*Each immersion heater contains three electric elements.

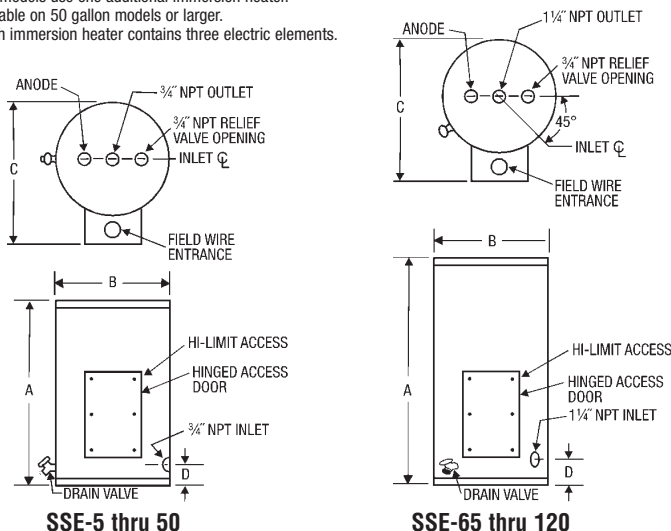
### STANDARD KW INPUTS

Standard KW Ratings	Immersion Heaters***		Number of 50A Contactors			Full Load Current In Amperes						
						Single Phase			Three Phase			
						208V	240V	277V	480V	208V	240V	480V
3	1	3,000	1	1	1	14.4	12.5	10.8	6.3	8.3	7.2	3.6
6	1	6,000				28.8	25.0	21.2	12.5	16.7	14.4	7.2
9	1	9,000				43.3	37.5	32.5	18.8	25.0	21.7	10.8
12	1	12,000				57.7	50.0	43.3	25.0	33.3	28.9	14.4
15	1	15,000				72.1	62.5	54.2	31.3	41.6	36.1	18.0
18	1*	18,000	2	2	1	86.5	75.0	65.0	37.5	50.0	43.3	21.7
24	2	12,000				115.4	100.0	86.6	50.0	66.6	57.7	28.9
30	2	15,000				144.2	125.0	108.3	62.5	83.3	72.2	36.1
36	2*	18,000	3	3	2	173.1	150.0	130.0	75.0	99.9	86.6	43.3
45	3	15,000				216.3	187.5	162.5	93.8	124.9	108.3	54.1
54	3	18,000	4	4	3	N/A	225.0	194.9	112.5	149.9	129.9	65.0
60**	4	15,000				N/A	250.0	216.6	125	166.7	145	72
75**	5	15,000				N/A	312.5	270.8	156	208.4	181	90
90**	5	18,000	5	5	3	N/A	375.0	324.9	188	250	217	108

\*208V models use one additional immersion heater.

\*\*Available on 50 gallon models or larger.

\*\*\*Each immersion heater contains three electric elements.



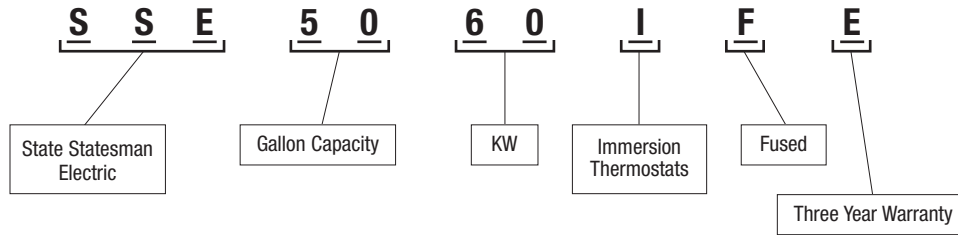
**CEC ASME**



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### Statesman Electric Water Heater Model Number Break Down



#### SUGGESTED SPECIFICATIONS

The heater shall be a glass-lined Statesman Premium commercial electric model No. \_\_\_\_\_ as manufactured by State Water Heaters. Heater should be rated at \_\_\_\_\_ KW, \_\_\_\_\_ volts, \_\_\_\_\_ phase, 50/60 cycle AC and constructed in accordance with ASME Code, shall bear appropriate symbol and be listed with the National Board as required. Heater shall be listed with Underwriters' Laboratories and approved by National Sanitation Foundation. All internal surfaces of the tank shall be glass-lined with an alkaline borosilicate composition that has been fused-to-steel by firing at a temperature of 1600°F. Tank shall be cathodically protected with adequate extruded magnesium rod. The entire vessel is to be enclosed in a round steel enclosure with baked enamel finish. Control compartment to be hinged and shall house 120 volt control circuit transformer, transformer fusing, magnetic contactor(s), immersion style operating thermostat(s), high limit thermostat(s), element fusing per N.E.C., and commercial grade incoloy sheathed flange mounted elements with prewired terminal leads. Temperature controls include limiting switch which will require resetting manually in the event the temperature reaches 190°F. Foam insulation shall exceed latest requirements of ASHRAE 90.1-1999 for heat loss efficiency. Heater shall include ASME T & P relief valve and drain valve.

In keeping with our policy of continuous product improvement, specifications are subject to change without prior notice.



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The Expert's Choice® EC/SSE/1004

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