ITEM#

IMPERIAL ELECTRIC BOOSTER WATER HEATERS

Models S-6, -7, -9, -12, -13, -15, -17, -18, -24, -27, -30, -36, -39, -40, -45, -54, -57

The Hatco Imperial Electric Booster Water Heater combines quality construction and rugged dependability to provide up to 573 GPH (2169 LPH) of sanitizing rinse water. Dishes and flatware *air-dry* instantly to save time, space, and money. Storage capacity is 16 gallons (60 liters).

FLEXIBILITY

Models available from 6kW to 57kW in 208, 240, and 480 volts with other voltages available. The Imperial Electric Booster Heater thermostats can be lowered to a 140° F (60° C) setting for low-temp dishmachines.

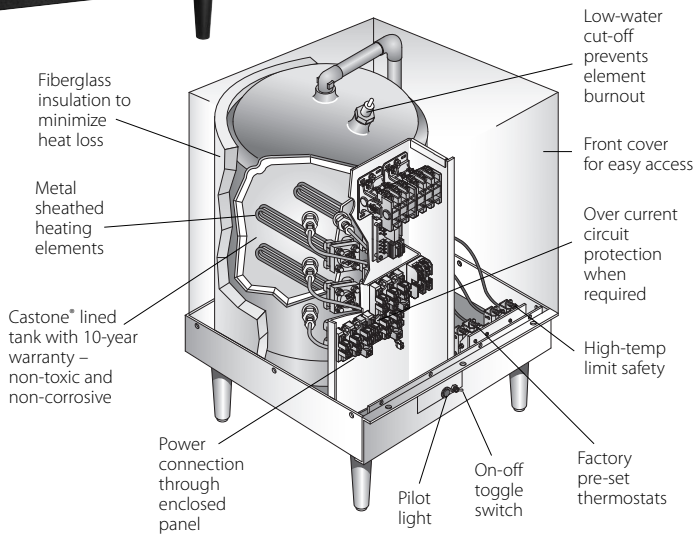
Service area is accessible from the front to permit easy installation, even next to other equipment.

QUALITY

The following features assure the finest performance for years to come:

- All models include a Castone® lined tank with a 10-year limited warranty.
- Features include a temperature/pressure relief valve, a pressure reducing valve, two temperature/pressure gauges, a high-temperature limit control, pilot indicator light, On-Off switch, and a low-water cut-off to prevent element burnout due to low water condition.
- Each booster has a built-in heat trap and fiberglass insulation to minimize heat loss.
- Hatco electric booster heaters are factory pre-plumbed and pre-wired with calibrated immersion thermostats and high-temperature limit switch.
- A stainless steel front panel and powder- coated silver-gray hammertone body is standard on all Imperial models.

Model S-54



Water Temperature Recovery Table

Imperial Model	40° F (22° C) Rise	70° F (39° C) Rise
S-6	60 gph (227 lph)	34 gph (129 lph)
S-7	70 gph (265 lph)	40 gph (151 lph)
S-9	90 gph (341 lph)	52 gph (197 lph)
S-12	120 gph (454 lph)	69 gph (261 lph)
S-13	135 gph (511 lph)	77 gph (292 lph)
S-15	151 gph (572 lph)	86 gph (326 lph)
S-17	173 gph (655 lph)	99 gph (375 lph)
S-18	181 gph (685 lph)	103 gph (390 lph)
S-24	241 gph (912 lph)	138 gph (522 lph)
S-27	271 gph (1026 lph)	155 gph (587 lph)
S-30	301 gph (1139 lph)	172 gph (651 lph)
S-36	361 gph (1367 lph)	206 gph (780 lph)
S-39	391 gph (1480 lph)	224 gph (848 lph)
S-40	407 gph (1541 lph)	232 gph (878 lph)
S-45	452 gph (1711 lph)	258 gph (977 lph)
S-54	542 gph (2052 lph)	310 gph (1174 lph)
S-57	573 gph (2169 lph)	326 gph (1234 lph)

WATER QUALITY REQUIREMENTS

Incoming water in excess of 3.0 grains of hardness per gallon (GPG) (.75 grains of hardness per liter) must be treated and softened before being supplied to booster heater(s). Water containing over 3.0 GPG (.75 GPL) will decrease the efficiency and reduce the operating life of the unit.

Note: Product failure caused by liming or sediment buildup is not covered under warranty.

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Form No. S Spec Sheet

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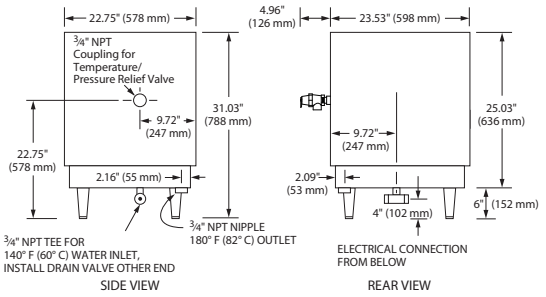
ITEM#

IMPERIAL ELECTRIC BOOSTER WATER HEATERS

Models S-6, -7, -9, -12, -13, -15, -17, -18, -24, -27, -30, -36, -39, -40, -45, -54, -57



DIMENSIONS

23.625"W† x 22.75"D x 31.125"H with 6" (152 mm) legs (598 x 578 x 788 mm).

† Add 5" (127 mm) for pressure relief valve.

Working Pressure of Tanks: 150 psi (1034 kPa) – tested at 300 psi (2069 kPa).

VOLTAGE

208, 240, and 480 volts available. Export voltages available.

SPECIFICATIONS

			1-Phase		3-Phase		
Model	kW	Volts	Amps	Breaker/ Fuse Size	Amps	Breaker/ Fuse Size	Shipping Weight
S-6*	6	208	29	40	25*	40	200 lbs. (91 kg)
		240	25	40	22*	30	
		480	–	–	11*	15	
S-7*	7	208	34	50	29*	40	200 lbs. (91 kg)
		240	29	40	25*	40	
		480	–	–	13*	20	
S-9*	9	208	43	60	38*	50	200 lbs. (91 kg)
		240	38	50	33*	50	
		480	–	–	16*	20	
S-12	12	208	58	90	33	50	200 lbs. (91 kg)
		240	50	70	29	40	
		480	–	–	14.5	20	
S-13	13.5	208	65	90	38	50	200 lbs. (91 kg)
		240	56.3	90	33	50	
		480	–	–	16.3	30	
S-15	15	208	72	90	41.7	60	200 lbs. (91 kg)
		240	62.5	90	36.1	50	
		480	–	–	18.1	30	
S-17‡	17.2	208	–	–	47.9	60	200 lbs. (91 kg)
S-18§	18	208	86.5	125	–	–	200 lbs. (91 kg)
		240	75	100	43.4	60	
		480	–	–	21.7	30	
S-24	24	208	115.4	150	67.7	90	214 lbs. (97 kg)
		240	100	125	57.8	90	
		480	–	–	29.9	40	
S-27	27	208	129.8	175	75	100	214 lbs. (97 kg)
		240	112.5	150	65	90	
		480	–	–	32.5	50	

			1-Phase		3-Phase		
Model	kW	Volts	Amps	Breaker/ Fuse Size	Amps	Breaker/ Fuse Size	Shipping Weight
S-30	30	208	144	200	83.3	125	214 lbs. (97 kg)
		240	125	175	72.3	100	
		480	–	–	36	50	
S-36	36	208	173	225	100	125	214 lbs. (97 kg)
		240	150	200	86.7	125	
		480	–	–	43.3	60	
S-39	39	208	187.5	250	108	150	214 lbs. (97 kg)
		240	163.5	225	94	125	
		480	–	–	47	60	
S-40	40.5	208	–	–	112	150	224 lbs. (102 kg)
		240	–	–	97	125	
		480	–	–	49	60	
S-45·	45	208	–	–	125	175	224 lbs. (102 kg)
		240	188	250	108	150	
		480	–	–	54	70	
S-54··	54	208	–	–	150	200	224 lbs. (102 kg)
		240	–	–	130	175	
		480	–	–	65	90	
S-57··	57	208	–	–	158.4	200	224 lbs. (102 kg)
		240	–	–	137.3	175	
		480	–	–	68.6	90	

* Only 6, 7, & 9kW Models, 208 and 240 volts only, can be field converted to single phase (units are shipped 3-phase open delta). Larger branch circuit required than for balanced 3-phase of equal kW. (Balanced 3-phase available, consult factory.)

‡ 17.2kW models available in 208V 3-phase only.

§ 18kW models not available in 208V 3-phase.

· Not available in 208V single phase.

·· Not available in 208V or 240V single phase.

OPTIONS (NOT FOR RETROFIT)

- ❑ All Stainless Steel Body and Base
- ❑ Security Package

ACCESSORIES

- ❑ Blended Phosphate Water Treatment System (Not for potable water use)
- ❑ Shock Absorber – To Reduce Water Hammer
- ❑ Back Pressure Relief Valve
- ❑ Brass Pressure Reducing Valve with Bypass
- ❑ Floor Mounting Hardware
- ❑ Adjustable Stainless Steel Legs 6" to 7" (152 to 178 mm)

PRODUCT SPECS

Electric Booster Water Heater

The Electric Booster Water Heater to supply the final 180°F (82°C) rinse for the dishwasher shall be an Imperial Model ... as manufactured for commercial use by the Hatco Corporation, Milwaukee, WI 53234 U.S.A.

With 24/7 service (U.S. and Canada only), the booster shall have the capacity to heat ... gph (lph) from ....°F to 180° F (... °C to 82° C) and it shall be rated at ... kW, ... volts, ... phase. The tank shall be designed for a working pressure of 150 psi (1034 kPa) and include a Hatco Castone® lining.

The heater shall be complete with all internal plumbing, including ¾" NPT pipe and fittings for inlet and outlet. All controls shall be built-in, including contactors and prewired in accordance with UL #1453 and 422.11 NEL 2002. Proper surface mounting circuit breaker or fused disconnect switch shall be provided by electrical contractor.

Electric heating elements shall be metal sheathed, controlled by ambient compensating thermostats. The booster shall be protected with high temperature limit switch (ECO) and low-water cut-off.

The heater shall consist of stainless steel front and silver-gray hammertone body with standard 6" (152 mm) legs (or stainless steel body, base, and stainless steel adjustable legs).

The heater shall include a temperature/pressure relief valve, high-temperature pressure reducing valve with bypass, and two indicating temperature/pressure gauges.

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Form No. S Spec Sheet

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Water Heater Data

PLUMBING DATA

Dielectric couplings should be used in connecting dissimilar metals, such as galvanized to copper, to prevent electrolysis.

All Hatco Booster Water Heaters require ¾" piping.

A check valve should not be installed in the supply line to the booster heater.

All shut-off valves must be gate or ball valves – not globe valves.

ELECTRICAL DATA

$$\left(\frac{\text{GPH} \times \text{°F Temp. Rise}}{400} = \text{kW}\right)$$

NOTE: GPH is gallons per hour.

SEE BOOSTER HEATER SIZING CHART, PAGES 158-160.

ELECTRICAL FORMULAS

$$\frac{\text{Watts}}{\text{Volts}} = \text{Amps}$$ 1-phase

$$\frac{\text{Watts} \times .86}{\text{Volts}} = \text{Amps}$$ 3-phase (open delta)

$$\frac{\text{Watts}}{\text{Volts} \times 1.73} = \text{Amps}$$ 3-phase (balanced delta)

NOTE: When primary temperatures are less than 100°F consult factory for suitable booster heater.

WATER TEMPERATURE RECOVERY TABLE IN GPH °F RISE

kW	30°	40°	50°	60°	70°	80°	90°	100°
4	54	40	32	27	23	20	18	16
5	67	50	40	33	29	25	22	20
6	80	60	48	40	34	30	27	24
7	94	70	56	47	40	35	31	28
9	120	90	72	60	52	45	40	36
9.9	132	99	79	66	57	50	44	40
10.5	140	105	84	70	60	53	47	42
11.4	153	114	92	76	65	57	51	46
12	161	120	96	80	69	60	54	48
13.5	181	135	108	90	77	68	60	54
15	201	151	120	100	86	75	67	60
17.25	231	173	139	115	99	87	77	69
18	241	181	145	120	103	90	80	72
24	321	241	193	161	138	120	107	96
27	361	271	217	181	155	135	120	108
30	401	301	241	201	172	151	134	120
36	482	361	289	241	206	181	161	145
39	522	391	313	261	224	196	174	157
40.5	542	407	325	271	232	203	181	163
45	602	452	361	301	258	226	201	181
54	723	542	434	361	310	271	241	217
57	763	573	458	381	326	286	254	229

Sizing Chart For Low-Temp Dishmachines

BOOSTERS RATED AT 30°F RISE

Dishwasher Model Number	Electric Compact Booster	Electric Imperial Booster
AMERICAN DISH SERVICE		
AH, AH-3D, AH-3D-S, AHC, AHC-3D, AHC-3D-S, ET-A, ET-AF, ET-AH, ET-A-M, ET-AH-M, ET-A-3, ET-AH-3, L-90-3D, L-90-3D-K, L-90-3D-K-S, L-90-3D-S, L-90-3DC, L-90-3DC-K, L-90-3DC-K-S, L-90-3DC-S, L-90-3DW, L-90-3DW-K, L-90-3DW-K-S, L-90-3DW-S, L-90-3DWC, L-90-3DWC-K, L-90-3DWC-K-S, L-90-3DWC-S, WH, WHC	C-4	S-6
A-3D, A-3D-S, A, AC, AC-3D, AC-3D-S, AH-B, ET-AF-3, ET-AF-M, HT-25, L-60-3D, L-60-3D-K, L-60-3D-K-S, L-60-3D-S, L-60-3DC, L-60-3DC-K, L-60-3DC-K-S, L-60-3DC-S, L-60-3DW, L-60-3DW-K, L-60-3DW-K-S, L-60-3DW-S, L-60-3DWC, L-60-3DWC-K, L-60-3DWC-K-S, L-60-3DWC-S, L-72-3D, L-72-3D-K, L-72-3D-K-S, L-72-3D-S, L-72-3DC, L-72-3DC-K, L-72-3DC-K-S, L-72-3DC-S, L-72-3DW, L-72-3DW-K, L-72-3DW-K-S, L-72-3DW-S, L-72-3DWC, L-72-3DWC-K, L-72-3DWC-K-S, L-72-3DWC-S, W, WC	C-5	S-6
A-B, AD-25, SS-25, 5-AH, 5-AHS	C-6	S-6
AF, AF-3D, AF-3D-S, AF-B, AFC, AFC-3D, AFC-3D-S, AFW, AFWC, 5, 5-S	C-7	S-7
ADC-44, ADC-66, 5-AG, 5-AGS, 5-CD-LF, 5-CD-RF	C-9	S-9
BLAKESLEE		
U21-C	C-4	S-6
D-8-LT	C-6	S-6
DD-8-LT, R-CC64-LT, R-EE-LT	C-12	S-12
Series XF-EE-LT, XF-PEE-LT, XF-LL-LT, XF-PLL-LT, XF-MM-LT, XF-PMM-LT, XF-EEE-LT, XF-LLL-LT, XF-MMM-LT	C-13	S-13
Series R-L-LT, R-PL-LT, R-M-LT, R-PM-LT, F-L-LT, F-PL-LT, F-M-LT, F-PM-LT (single tank)	C-36	S-36
Series "R"&"F"-CC-LT, -EE-LT, -LL-LT, -MM-LT, -LLL-LT, -MMM-LT, -PCC-LT, -PEE-LT, -PLL-LT, -PMM-LT (multi-tank)	C-24	S-24
Series XF-L-LT, XF-PL-LT, XF-M-LT, XF-PM-LT (single tank)	C-54	S-54
Series XF-PEE-LT, XF-PLL-LT, XF-PMM-LT, XF-EEE-LT, XF-LLL-LT, XF-MMM-LT (multi-tank)	C-36	S-36
FA (Flight-A-Round) and RA (Rack-A-Round) use comparable "F" listing.		

Dishwasher Model Number	Electric Compact Booster	Electric Imperial Booster
CHAMPION		
ULD, ULF	C-6	S-6
DLF	C-13	S-13
KL44, KL66	C-36	S-36
CMA DISHMACHINES		
A-1, AH-1, C-1, VAC-1, A-3, AH-3, C-3, L-1C, VAC-3, VAC-4, VAC-5, L-1X	C-4	S-6
A-2, AH-1, AH-2, AH-3, B-3, C-1, C-2, C-3, EVA-1, EVA-2, EVA-3, EVA-4, EVA-5, VAC-2	C-6	S-6
B-1	C-7	S-7
B-2	C-9	S-9
CMA-44L with tank heater, CMA-66L	C-24	S-24
CVA-1, CVA-2, CVA-3, CVA-4	C-6	S-6
CVA-5	C-7	S-7
HOBART		
LX-18C, LX-30C, LX-40C, WM-5C, SR24C	C-4	S-6
LT-1	C-6	S-6
AM-14, AM-14C	C-7	S-7
C44A, CRS66A, CPW80A	C-27	S-27
FT-800	C-30	S-30
JACKSON		
Conserver 24LT, 200LT, ES1000 (Ecolab/Jackson)	C-4	S-6
Conserver 1, Conserver XL, ES2000 (Ecolab/Jackson)	C-9	S-9
Conserver 2, Conserver XL2, ES4000 (Ecolab/Jackson)	C-15	S-15
AJ-44, AJ-66, AJ-80	C-18	S-18
KNIGHT EQUIPMENT LTD.		
KLE-112-HL	C-5	S-6
KLE-117i, KLE-117c, KLE-175GT, KLE-175GTM	C-9	S-9
KLE-235d	C-13	S-13
KLE-175GT Corner, KLE-175GTM Corner	C-12	S-12

Low-Temp Sizing Data

Chemical low-temp dishwashers are most effective when supplied with a 140°F hot water supply. Sometimes this water temperature is not available due to undersized primary water heaters or local safety codes. Hatco can provide a pre-heater for chemical low-temp dishwashers to provide an adequate supply of 140°F hot water for proper operation.

NOTE: When ordering a heater for use with a chemical low-temp dishwasher, thermostat adjustments for low-temp applications are the responsibility of the installer.

To properly size a Hatco heater for low-temp use:

1. Determine the required temperature rise by subtracting the available hot water supply temperature from 140°F. This should be a minimum of 20°F.
2. Determine the water usage by consulting the dishwasher data plate, literature, or NSF listing. This should be shown as gallons per hour (GPH).
3. Use the Hatco formula for sizing or the sizing chart on this page to determine the required kW and select the appropriate Hatco model.

Booster Heater Sizing Chart

Dishwasher Model Number	Electric Compact Booster Temperature Rise 40°F	Electric Compact Booster Temperature Rise 70°F	Electric Imperial Booster Temperature Rise 40°F	Electric Imperial Booster Temperature Rise 70°F	Gas Powermite® Booster▲ Temperature Rise 40°F	Gas Powermite® Booster▲ Temperature Rise 70°F
ADAMATION						
CSL-1390, CA-2, CA-3, CA-4, SLAP 44	C-39	(2)C-36	S-39	(2)S-36	PMG-200	(2)PMG-200
CA, CA-1	C-54	(2)C-45	S-54	(2)S-45	PMG-200	(2)PMG-200
ALVEY						
FLC-10, SL-2S			S-6	S-9		
FLC-12, CL-1, CL-1Turntable, SA-5A			S-7	S-12		
FL-2S			S-9	S-13		
KS-70, KS70M SB			S-9	S-15		
SL-2D			S-13	S-18		
FLC-36			S-15	S-27		
KS-88-C			S-18	S-30		
KS-70-N, KS-88-N			S-39	(2)S-40		
AMERICAN DISH SERVICE						
AF-ES, AFC-ES	C-4	C-7	S-4	S-7		
HT-25	C-7	C-12	S-7	S-12		
ADC-44, ADC-66	C-12	C-24	S-12	S-24		PMG-100
BLAKESLEE						
UC-21A, UC-21B	C-4	C-4	S-6	S-6	PMG-60	PMG-60
UC-21	C-6	C-12	S-6	S-12	PMG-60	PMG-60
D-8	C-9	C-13	S-9	S-13	PMG-60	PMG-60
D-9	C-12	C-17	S-12	S-17	PMG-60	PMG-100
Series "R"&"F"-CC, -EE, -LL, -MM, -LLL, -MMM, -PCC, -PEE, -PLL, -PMM (multi-tank) with suffix "LC"	C-13	C-24	S-13	S-24	PMG-200	PMG-200/100
Series XF-EE, XF-LL	C-17	C-30	S-17	S-30	PMG-100	PMG-200
Series XF-LL, XF-PLL, XF-MM, XF-PMM, XF-EEE, XF-LLL, XF-MMM (Multi-tank) with suffix "LC"	C-17	C-30	S-17	S-30	PMG-200	PMG-200/100
DD-8	C-18	C-30	S-18	S-30	PMG-100	PMG-200
Series F-E, FA-EE, FA-PEE, FA-LL, FA-PLL, FA-MM, FA-PMM, F-EEE, FA-EEE, FA-LLL, FA-MMM, F-PE	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
Series R-L, R-PL, R-M, R-PM, F-L, F-PL, F-M, F-PM (single tank)	C-36	C-54	S-36	S-54	PMG-200	(2)PMG-200
Series XF-L, XF-PL, XF-M, XF-PM (single tank)	(2)C-36		(2)S-36			
Series R-E, R-PE, XF-PEE, XF-PLL, XF-PMM, XF-EEE, XF-LLL, XF-MMM (multi-tank) FA (Flight-A-Round) and RA (Rack-A-Round) use comparable "F" listing.	C-45	(2)C-30	S-45	(2)S-30	PMG-200	(2)PMG-200
XF-EE, XF-EE-LT (with LT suffix)	C-17	C-36	S-17	S-36	PMG-100	PMG-200
CHAMPION						
U-H1, UH-200, UH-200B, U-HB	C-4	C-6	S-6	S-6	PMG-60	PMG-60
UL-100, UH-100B, UH-170B, UH-200B, DH-2000	C-6	C-9	S-6	S-9	PMG-60	PMG-60
UL-150	C-4	C-7	S-6	S-7	PMG-60	PMG-60
UH-150, UH-150B, UH-100, UH-100B, DHB-VS	C-5	C-9	S-6	S-9	PMG-60	PMG-60
D-H1, D-HB, D-H1T, D-HBT	C-9	C-13	S-9	S-13	PMG-60	PMG-60
44 DRWS, 66 DRPWWS, 80 DRHDPWWS, 70 DRFFPWWS	C-9	C-13	S-9	S-13	PMG-60	PMG-100
PP-28	C-27	C-45	S-27	S-45	PMG-100	PMG-200
D-H1C, D-H1TC	C-9	C-18	S-9	S-18	PMG-60	PMG-100
DL-1000, DH-1000, DHB-VS	C-6	C-12	S-6	S-12	PMG-60	PMG-60
44DR, 66DRPW, 80DRHDFW, 70DRFFPW, 54DR, 76DRPW, 80DRFFPW, 90DRHDPW	C-12	C-24	S-12	S-24	PMG-60	PMG-100
44-WS, 66 WSPW, 66-WS, 64, 70WSFFPW, 80WSHDPW, 90FFPW, 100HDPW, 86 PW, 84, 106 PW, 120 HDPW, 110 FFPW	C-15	C-24	S-15	S-24	PMG-60	PMG-100
UC-CW6-WS	C-24	C-36	S-24	S-36	PMG-100	PMG-200
US-CW8-WS	C-24	C-39	S-24	S-39	PMG-100	PMG-200
44, 66 PW, 70FFPW, 80HDPW	C-27	C-54	S-27	S-54	PMG-100	PMG-200
54, 76PW, 80FFPW, 90HDPW,	C-24	C-45	S-24	S-45	PMG-100	PMG-200
40-KB, 40-KB-2-2, 40-KFWB, 40-KPRB, 40-KPRB-2-2, 40KPRB-2-3, 44LT, 60-KB, 60-KB-2-2, 60-KFWB, 60-KFWB-2-2, 60-KPRB, 60-KPRB-2-3, 64KB, 64-KB Corner, 64-KPRB, 64-KPRB Corner, 64 Modular, 66LT, 86 Modular	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
44-KB, 44-KB Corner, 44-KPRB, 44-KPRB Corner, 54-KB, 54-KB Corner, 54-KPRB, 54-KPRB Corner, 44 Modular, 66 PW Modular, UC** Series 6' Center, UC-C4	C-36	C-57	S-36	S-57	PMG-200	PMG-200/100
UC-CW4	C-36	(2)C-36	S-36	(2)S-36	PMG-200	PMG-200/100
UC-C	C-45	(2)C-36	S-45	(2)S-36	PMG-200	PMG-200/100
UC**CW Series 6' Center	C-45	(2)C-39	S-45	(2)S-39	PMG-200	(2)PMG-200
W-6-WS, W6	C-45	(2)C-45	S-45	(2)S-40	PMG-200	(2)PMG-200

▲Powermite installations above 2,000 ft. will reduce the above capacities and may require change of pressure and/or orifices in certain models at time of install to meet IAS safety compliance. These modifications are the responsibility of the installer. Consult "Installation and Operating Manual" for sizing adjustments and orifice changes.

Booster Heater Sizing Chart

Dishwasher Model Number	Electric Compact Booster Temperature Rise 40°F	Electric Compact Booster Temperature Rise 70°F	Electric Imperial Booster Temperature Rise 40°F	Electric Imperial Booster Temperature Rise 70°F	Gas Powermite® Booster▲ Temperature Rise 40°F	Gas Powermite® Booster▲ Temperature Rise 70°F
CMA DISHMACHINES						
CMA-180	C-7	C-12	S-7	S-12		
CMA-44/66	C-24	C-36	S-24	S-36	PMG-100	PMG-200
CMA-44H with tank heater, CMA-66H	C-36	C-45	S-36	S-45	PMG-100	PMG-200
EST-44/66	C-12	C-24	S-12	S-24	PMG-60	PMG-100
HOBART						
AM-15F	C-4	C-6	S-6	S-9	PMG-60	PMG-60
LXiC, LXiGC, LX-18C, LX-30C, LX-40C, AM-15F	C-4	C-7	S-6	S-6	PMG-60	PMG-60
LX-30, SR24, SR24H	C-4	C-7	S-6	S-7	PMG-60	PMG-60
LX-18, AM-14F, AM-15, AM-15T	C-5	C-9	S-6	S-9	PMG-60	PMG-60
WM-5C	C-6	C-9	S-6	S-9		PMG-100
WM-5 (Without sump heater)	C-7	C-12	S-7	S-12		
AM-14T, AM-14TC	C-7	C-12	S-7	S-12	PMG-60	PMG-60
AM-14, AM-14C	C-9	C-12	S-9	S-12	PMG-60	
AM-12, AM-12C*	C-9	C-12	S-9	S-12	PMG-60	PMG-100
UW-50			S-15	S-24		
OR **Opti-RinSe C44A,CRS-66A,CCS-66A, CPW-80A, C54A, CRS-76A, CCS-76A, CPW-90A, C64A, CRS-86A, CCS-86A, CPW-100A, C88A, CRS-110A, CCS-11-0A, CPW-124A**	C-15	C-27	S-15	S-27	PMG-100	PMG-200
C-54A, CRS-76A, CPW-90A, CCS-76A	C-39	(2)C-36	S-39	(2)S-36	PMG-200	PMG-200/100
C-44A, CRS-66A, CCS-66A, CPW-80A, C-64A, CRS-86A, CCS-86A, CPW-100A	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
C-88A, CRS-110A, CPW-124A, CCS-110A	C-36	C-54	S-36	S-54	PMG-200	PMG-200/100
Opti-RinSe C44AW, CRS-66AW, CCS-66AW, CPW-80AW	C-9	C-15	S-9	S-15	PMG-60	PMG-100
OR **C-44AW, CRS-66AW, CPW-80AW, CCS-66AW**	C-12	C-24	S-12	S-24	PMG-100	PMG-100
C-44, CRS-66, CPW-80	C-36	C-54	S-36	S-54	PMG-200	PMG-200/100
CL44e, CL66e	C-13	C-24	S-13	S-24	PMG-100	PMG-200
CLPS66e	C-15	C-30	S-15	S-30	PMG-100	PMG-200
C-54, CRS-76, CPW-90	C-54	(2)C-39	S-54	(2)S-39	PMG-200/100	(2)PMG-200
C-64W, CRS-86W, CPW-100W, C-88W, CRS-110W, CPW-124W, CCS-86W	C-24	C-36	S-24	S-36	PMG-100	PMG-200
C-64, CRS-86, CPW-100	C-45	(2)C-36	S-45	(2)S-36	PMG-200	PMG-200/100
FT800W, FT-900W	C-24	C-39	S-24	S-39	PMG-200	PMG-200
FT-600, FT-700	C-54	(2)C-39	S-54	(2)S-39	PMG-200/100	(2)PMG-200
FT800	C-39	(2)C-39	S-39	(2)S-39	PMG-200	(2)PMG-200
FT900	C-36	C-57	S-36	S-57	PMG-200	PMG-200/100
FT800S, FT-900S	C-39	(2)C-36	S-39	(2)S-36	PMG-200	PMG-200/100
UTW-28, UTW-28C			S-18	S-36		
FRC and FR (Fast Rack Series) use comparable "C" line listing.						
INSINGER						
GS 302, GS-14	C-4	C-4	S-6	S-6	PMG-60	PMG-60
45SA-5	C-4	C-7	S-6	S-7	PMG-60	PMG-60
Commander 18-5 Series, CS-5, CS-5C, CS-5CH, CS-5H, Ensign 40-2	C-6	C-12	S-6	S-12	PMG-60	PMG-100
Commander 18-6 Series, 18-6H	C-6	C-12	S-6	S-12	PMG-60	PMG-100
Commander 18-6, 18-6H (Built-In)	ABB-13.5	ABB-13.5				
Admiral 44-4, 66-4, Speeder 64, 86-3, Clipper (all)	C-15	C-27	S-15	S-27	PMG-100	PMG-200
Admiral 44-4, 66-4 (Built-In)	ABB-15-8	ABB-27-8				
135-20, 185-20, 250-20, 60-20, 85-20, R-106-2	C-24	C-45	S-24	S-45	PMG-100	PMG-200
Century (all)	C-24	C-45	S-24	S-45	PMG-100	PMG-200
Trac 878	C-24	C-36	S-24	S-36	PMG-100	PMG-200
Century 14, Clipper RC-##-RPW-W	C-24	C-39	S-24	S-39	PMG-100	PMG-200
Super 106-2,Trac 321, Trac 321-2/RPW	C-27	C-45	S-27	S-45	PMG-100	PMG-200
Defender Flight Machine	C-36	C-54	S-36	S-54	PMG-200	(2)PMG-200
Master RC 3-tank Flight Machine	C-15	C-27	S-15	S-27	PMG-200	(2)PMG-200
Master RC 4-tank Flight Machine	C-36	C-57	S-36	S-57		
CA-3①			S-9	S-24	PMG-200	
DA-3①			(2)S-9	(2)S-24		
For outdated models, consult factory for correct booster.						

* Model AM-12 with serial no. 12-067-357 or below and model AM-12C with serial no. 12-067-537 or below require slightly larger booster than listed.

OR C Models with serial no. 85-1041605 or greater use Opti-RinSe.

Shaded area indicates older models prior to Opti-RinSe.

▲ Powermite installations above 2,000 ft. will reduce the above capacities and may require change of pressure and/or orifices in certain models at time of install to meet IAS safety compliance. These modifications are the responsibility of the installer. Consult "Installation and Operating Manual" for sizing adjustments and orifice changes.

① Consult factory - special plumbing may apply.

Booster Heater Sizing Chart

Dishwasher Model Number	Electric Compact Booster Temperature Rise 40°F	Electric Compact Booster Temperature Rise 70°F	Electric Imperial Booster Temperature Rise 40°F	Electric Imperial Booster Temperature Rise 70°F	Gas Powermite® Booster▲ Temperature Rise 40°F	Gas Powermite® Booster▲ Temperature Rise 70°F
JACKSON						
JP-24, JP-24B, JP-24F, JP-24BF	C-4	C-6	S-6	S-6	PMG-60	PMG-60
24B Series		C-4		S-6		PMG-60
10AB, 10APRB		C-5		S-6		PMG-60
44CE*, 66 CERPW	C-30	C-54	S-30	S-54	PMG-200	
54CE, 76 CERPW	C-36	(2)C-30	S-36	(2)S-30	PMG-200	
64CE, 86 CERPW	C-27	C-39	S-27	S-39	PMG-200	
100	C-12	C-24	S-12	S-24	PMG-100	
100B, 100PRB, 150B, 150PRB		C-9		S-9		
150	C-12	C-18	S-12	S-18		PMG-100
200	C-7	C-12	S-7	S-12	PMG-60	PMG-60
200B		C-6		S-6		PMG-60
Tempstar GPX						PMG-60
Tempstar, Tempstar SDS, Tempstar HH	C-6	C-12	S-6	S-12	PMG-100	PMG-100
TS-44, TS-66	C-24	C-36	S-24	S-36	PMG-100	PMG-200
AJ-44, AJ-66, AJ-80, WH-44, ES-4400, ES-6600 (ECOLAB/JACKSON)	C-24	C-45	S-24	S-45	PMG-100	PMG-200
AJ-54, AJ-76, AJ-90	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
AJ-64, AJ-86, AJ-100	C-24	C-39	S-24	S-39	PMG-100	PMG-200
* Model #44CE w/SN1999 or below requires larger booster than listed.						
KNIGHT EQUIPMENT LTD.						
KLE-112-HL	C-7	C-12	S-7	S-12	PMG-60	PMG-60
MEIKO						
K-44, K-66, K-80	C-24	C-36	S-24	S-36	PMG-100	PMG-200
K-54, K-76, K-90, K-64, K-86, K-100	C-24	C-45	S-24	S-45	PMG-100	PMG-200
METALWASH/INTEDGE						
FW4	C-12	C-18	S-12	S-18	PMG-60	PMG-100
RS-30A, RS-28L			S-15	S-24		
RT-74, RT-60, RT-42B, RT-42BC			S-27	S-40		
RS-2R			S-30	S-45		
STERO						
ER-44, ER-44-10, ER-66S, ER-76S, ER-76SC	C-15	C-24	S-15	S-24	PMG-60	PMG-100
ER-64, ER-86S, ER-94S, ER-94SC	C-15	C-24	S-15	S-24	PMG-60	PMG-100
SCT-44-10-LW, SCT-44-LW, SCT-66S-LW, SCT-76S-LW, SCT-76SC-LW, SCT-90S-LW	C-15	C-24	S-15	S-24	PMG-60	PMG-100
SC-1-2-4-LW, SC-1-6-4-LW, SC-2-4-LW, SC-5-2-4-LW, SC-5-6-4-LW, SC-6-4-LW	C-15	C-24	S-15	S-24	PMG-100	PMG-200
SCT-64, SCT-86S, SCT-94S, SCT-94SC	C-24	C-45	S-24	S-45	PMG-100	PMG-200
SCT-108S, SCT-108SC, SCT-76, SCT-94SM	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
SC-6-4, SCT-44, SCT-44-10, SCT-66S, SCT-76S, SCT-76SC, SCT-90S	C-36	C-54	S-36	S-54	PMG-200	PMG-200/100
SCT-120S, SCT-120SC, SCT-120SM, SCT-150SM	C-36	C-57	S-36	S-57	PMG-200	PMG-200/100
STW-110, SC-1-2-7-4, SC-1-6-3-4, SC-1-6-7-4, SC-2-7-4, SC-5-2-7-4, SC-5-6-3-4, SC-5-6-7-4, SC-6-3-4, SC-6-7-4	C-30	C-54	S-30	S-54	PMG-200	PMG-200/100
SC-1-2-4, SC-1-6-4, SC-2-4, SC-5-2-4, SC-5-6-4	C-36	(2)C-57	S-36	(2)S-57	PMG-200	(2)PMG-200
SCT-44-10-SC-1-3-4, SCT-44-10-3-4, SCT-44-SC-1-3-4, SCT-44-SC-3-4, SCT-54-SC-1-3-4, SCT-54-SC-3-4, SCT-76S-SC-3-4	C-36	C-54	S-36	S-54	PMG-200	(2)PMG-200
STPC (Four tank)	C-24	C-45	S-24	S-45	PMG-100	PMG-200
STPCW (Four tank)	C-27	C-45	S-27	S-45	PMG-100	PMG-200
STPC	C-30	C-54	S-27	S-54	PMG-200	PMG-200/100
STPCW	C-36	(2)C-30	S-36	(2)S-30	PMG-200	PMG-200/100
SD-2RA, SDRA, SDRA-PACK	C-12	C-18	S-12	S-18	PMG-60	PMG-100
U-31-A, U-31-AC			S-24	S-45	PMG-100	PMG-200
U-31-A2			(2)S-24	(2)S-45	PMG-200	(2)PMG-200
STBUW-1	C-45	(2)C-36	S-45	(2)S-36		
SC-2-3-4, SC-5-2-3-4	C-30	C-45	S-30	S-45	PMG-200	
SC20-1 (low temp.)	C-12		S-12		PMG-60	
SC20-2 (low temp.)	C-12	C-24	S-12	S-24		PMG-100
SC-2-8, SC-2-9, SC-1-2-8, SC-5-6-8, SC-6-8, SC-6-9, SC-1-6-8, SC-5-6-9, SC-5-2-9, SC-1-6-9, SC-5-2-8 (low temp.)	C-18	C-36	S-18	S-36	PMG-100	PMG-200

▲Powermite installations above 2,000 ft. will reduce the above capacities and may require change of pressure and/or orifices in certain models at time of install to meet IAS safety compliance. These modifications are the responsibility of the installer. Consult "Installation and Operating Manual" for sizing adjustments and orifice changes.

This selector chart is based on 40°F and 70°F temperature rises, 20 psi flow pressure, and minimum rinse cycle timer setting in NSF listing.

All booster heaters are rated at 100% of the capacity of the dishwashers as recommended by the National Sanitation Foundation. Where make-up water for wash tank is provided from final rinse supply, chart recommendations are based upon this additional demand (not over 2 GPM) as required by NSF.

All sizings shown are that of the dishwasher manufacturers. Hatco Corporation is not responsible for incorrect sizing applications.

ELECTRICAL DATA

$$\left(\frac{\text{GPH x °F Temp. Rise}}{400} = \text{kW}\right)$$

NOTE: GPH is gallons per hour.

Electrical Ratings For Hatco Water Heaters

Watts	Volts	Phase	Amps	Breaker or Fuse size
4kW	208	1	19	30
	240	1	17	30
	480	1	8	15
5kW	208	1	24	30
	240	1	21	30
	480	1	10	15
6kW	208	1	29	40
	208	3	25†	40
	240	1	25	40
	240	3	22†	30
	480	3	11†	15
	600	3	5.7	15
7kW	208	1	34	50
	208	3	29†	40
	240	1	29	40
	240	3	25†	40
	480	3	13†	20
	600	3	6.7	15
9kW	208	1	43	60
	208	3	38†	50
	240	1	38	50
	240	3	33†	50
	480	3	16.3†	30
	600	3	8.7	15
9.9kW	208	1	47.5	60
	208	3 (BAL.)	27.5	40
10.4kW	208	3 (BAL.)	28.8	40
11.4kW	240	1	47.5	60
	240	3 (BAL.)	27.5	40
	480	3 (BAL.)	13.7	20
12kW	208	1	58	90
	208	3	33	50
	240	1	50	70
	240	3	29	40
	480	3	14.5	20
	600	3	11.6	20
13.5kW	208	1	65	90
	208	3	38	50
	240	1	56.3	90
	240	3	33	50
	480	3	16.3	30
	600	3	13	20
15kW	208	1	72	90
	208	3	41.7	60
	240	1	62.5	90
	240	3	36.1	50
	480	3	18.1	30
	600	3	14.5	20
17.25kW	208	3	47.9	60
18kW	208	1	86.5	125
	240	1	75	100
	240	3	43.4	60
	480	3	21.7	30
	600	3	17	30

Watts	Volts	Phase	Amps	Breaker or Fuse size
24kW	208	1	115.4	150
	208	3	66.7	90
	240	1	100	125
	240	3	57.8	90
	480	3	29.9	40
	600	3	23	30
27kW	208	1	129.8	175
	208	3	75	100
	240	1	112.5	150
	240	3	65	90
	480	3	32.5	50
	600	3	26	40
30kW	208	1	144	200
	208	3	83.3	125
	240	1	125	175
	240	3	72.3	100
	480	3	36	50
	600	3	28.9	40
36kW	208	1	173	225
	208	3	100	125
	240	1	150	200
	240	3	86.7	125
	480	3	43.3	60
	600	3	34.7	50
39kW	208	1	187.5	250
	208	3	108	150
	240	1	163.5	225
	240	3	94	125
	480	3	47	60
	600	3	37.6	50
40.5kW	208	3	112.5	150
	240	3	97.5	125
	480	3	48.8	70
	600	3	39	50
45kW	208	3	125	175
	240	1	188	250
	240	3	108	150
	480	3	54	70
	600	3	43.4	60
54kW	208	3	150	200
	240	3	130	175
	480	3	65	90
	600	3	52	70
57kW	208	3	158.4	200
	240	3	137.3	175
	480	3	68.6	90
	600	3	54.9	70

† Open Delta (unbalanced load) amperage of high leg indicated.

USE COPPER WIRE ONLY

ELECTRICAL FORMULAS

$\frac{\text{Watts}}{\text{Volts}} = \text{Amps}$ 1-phase

$\frac{\text{Watts x .86}}{\text{Volts}} = \text{Amps}$ 3-phase (open delta)

$\frac{\text{Watts}}{\text{Volts x 1.73}} = \text{Amps}$ 3-phase (balanced delta)