

## 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.

### BOOSTER HEATER SIZING FORMULA

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

NOTE: GPH is gallons per hour.

### ELECTRICAL FORMULAS

$$\text{Watts} = \text{Amps}$$

$$\text{Volts} \quad \text{1-phase}$$

$$\frac{\text{Watts} \times .86}{\text{Volts}} = \text{Amps}$$

$$\text{3-phase (open delta)}$$

$$\frac{\text{Watts}}{\text{Volts} \times 1.73} = \text{Amps}$$

$$\text{3-phase (balanced delta)}$$

### 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

### SEE BOOSTER HEATER SIZING CHART – PAGES 2-4

NOTE: When primary temperatures are less than 85°F consult factory for suitable booster heater.

## Sizing Chart For Low-Temp Dishmachines

BOOSTERS RATED AT 30°F RISE

Dishwasher Model Number	Electric Compact Booster	Electric Imperial Booster	Dishwasher Model Number	Electric Compact Booster	Electric Imperial Booster
<b>AMERICAN DISH SERVICE</b>			<b>CHAMPION</b>		
AH, AH-3D, AH-3D-S, AHC, AHC-3D, AHC-3D-S, ET-A, T-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	ULD, ULF	C-6	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	DLF	C-13	S-13
A-B, AD-25, SS-25, 5-AH, 5-AHS	C-6	S-6	KL44, KL66	C-36	S-36
AF, AF-3D, AF-3D-S, AF-B, AFC, AFC-3D, AFC-3D-S, AFW, AFWC, 5, 5-S	C-7	S-7	<b>GMA DISHMACHINES</b>		
ADC-44, ADC-66, 5-AG, 5-AGS, 5-CD-LF, 5-CD-RF	C-9	S-9	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
<b>BLAKESLEE</b>			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
U21-C	C-4	S-6	B-1	C-7	S-7
D-8-LT	C-6	S-6	B-2	C-9	S-9
DD-8-LT, R-CC64-LT, R-EE-LT	C-12	S-12	CMA-44L with tank heater, CMA-66L	C-24	S-24
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	CVA-1, CVA-2, CVA-3, CVA-4	C-6	S-6
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	CVA-5	C-7	S-7
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	<b>HOBART</b>		
Series XF-L-LT, XF-PL-LT, XF-M-LT, XF-PM-LT (single tank)	C-54	S-54	LX-18C, LX-30C, LX-40C, WM-5C, SR24C	C-4	S-6
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	LT-1	C-6	S-6
FA (Flight-A-Round) and RA (Rack-A-Round) use comparable "F" listing.			AM-14, AM-14C	C-7	S-7
			C44A, CRS66A, CPW80A	C-27	S-27
			FT-800	C-30	S-30
			<b>JACKSON</b>		
			Conservor 24LT, 200LT, ES1000 (Ecolab/Jackson)	C-4	S-6
			Conservor 1, Conservor XL, ES2000 (Ecolab/Jackson)	C-9	S-9
			Conservor 2, Conservor XL2, ES4000 (Ecolab/Jackson)	C-15	S-15
			AJ-44, AJ-66, AJ-80	C-18	S-18
			<b>KNIGHT EQUIPMENT LTD.</b>		
			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:

- Determine the required temperature rise by subtracting the available hot water supply temperature from 140°F. This should be a minimum of 30°F.
- Determine the water usage by consulting the dishwasher data plate, literature, or NSF listing. This should be shown as gallons per hour (GPH).
- 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		Electric Imperial Booster Temperature Rise		Gas Powermite® Booster <sup>▲</sup> Temperature Rise	
	40°F	70°F	40°F	70°F	40°F	70°F
<b>ADAMATION</b>						
CSL-1390, CA-2, CA-3, CA-4, SLAP 44 CA, CA-1	C-39 C-54	(2)C-36 (2)C-45	S-39 S-54	(2)S-36 (2)S-45	PMG-200 PMG-200	(2)PMG-200 (2)PMG-200
<b>ALVEY</b>						
FLC-10, SL-2S			S-6	S-9		
FLC-12, CL-1, CL-1 Turntable, 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		
<b>AMERICAN DISH SERVICE</b>						
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
<b>BLAKESLEE</b>						
UC-21A, UC-21B	C-4	C-4	S-6	S-6	PMG-100	PMG-100
UC-21	C-6	C-12	S-6	S-12	PMG-100	PMG-100
D-8	C-9	C-13	S-9	S-13	PMG-100	PMG-100
D-9	C-12	C-17	S-12	S-17	PMG-100	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
<b>CHAMPION</b>						
U-H1, UH-200, UH-200B, U-HB	C-4	C-6	S-6	S-6	PMG-100	PMG-100
UL-100, UH-100B, UH-170B, UH-200B, DH-2000	C-6	C-9	S-6	S-9	PMG-100	PMG-100
UL-150	C-4	C-7	S-6	S-7	PMG-100	PMG-100
UH-150, UH-150B, UH-100, UH-100B, DHB-VS	C-5	C-9	S-6	S-9	PMG-100	PMG-100
D-H1, D-HB, D-H1T, D-HBT	C-9	C-13	S-9	S-13	PMG-100	PMG-100
44 DRWS, 66 DRPWW, 80 DRHPWW, 70 DRFFPWW	C-9	C-13	S-9	S-13	PMG-100	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-100	PMG-100
DL-1000, DH-1000, DHB-VS	C-6	C-12	S-6	S-12	PMG-100	PMG-100
44DR, 66DRPW, 80DRHDFW, 70DRFFPW, 54DR, 76DRPW, 80DRFFPW, 90DRHDPW	C-12	C-24	S-12	S-24	PMG-100	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-100	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

<sup>▲</sup>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		Electric Imperial Booster Temperature Rise		Gas Powermite® Booster* Temperature Rise	
	40°F	70°F	40°F	70°F	40°F	70°F
<b>CMA DISHMACHINES</b>						
AH, C, B*	C-9					
CMA-180	C-5	C-9	S-5	S-9		
CMA-180T	C-9	C-13	S-9	S-13		
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
EAH/EC*, GLX/L1X/L1X16/L1C	C-4					
EST*	C-5					
EST-44/66	C-12	C-24	S-12	S-24	PMG-100	PMG-100
<b>HOBART</b>						
AM-15F	C-4	C-6	S-6	S-9	PMG-100	PMG-100
LXiC, LXiGC, LX-18C, LX-30C, LX-40C, AM-15F	C-4	C-7	S-6	S-6	PMG-100	PMG-100
LX-30, SR24, SR24H	C-4	C-7	S-6	S-7	PMG-100	PMG-100
LX-18, AM-14F, AM-15, AM-15T	C-5	C-9	S-6	S-9	PMG-100	PMG-100
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-100	PMG-100
AM-14, AM-14C	C-9	C-17 or C-18	S-9	S-17 or S-18	PMG-100	PMG-100
AM-12, AM-12C*	C-9	C-12	S-9	S-12	PMG-100	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-100	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.						
<b>INSINGER</b>						
GS 302, GS-14	C-4	C-4	S-6	S-6	PMG-100	PMG-100
45SA-5	C-9	C-18	S-9	S-18	PMG-100	PMG-100
Commander 18-5 Series, CS-5, CS-5C, CS-5CH, CS-5H, Ensign 40-2	C-6	C-12	S-6	S-12	PMG-100	PMG-100
Commander 18-6 Series, 18-6H	C-6	C-12	S-6	S-12	PMG-100	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, Gallymaster & Modular	C-54		S-54			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
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-3 <sup>3</sup>			S-9	S-24	PMG-200	
DA-3 <sup>3</sup>			(2)S-9	(2)S-24		

\* 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.

\* All cycles

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.

<sup>3</sup> Consult factory - special plumbing may apply.



# Booster Heater Sizing Chart

Dishwasher Model Number	Electric Compact Booster Temperature Rise		Electric Imperial Booster Temperature Rise		Gas Powermite® Booster <sup>A</sup> Temperature Rise	
	40°F	70°F	40°F	70°F	40°F	70°F
<b>JACKSON</b>						
JP-24, JP-24B, JP-24F, JP-24BF	C-4	C-6	S-6	S-6	PMG-100	PMG-100
24B Series		C-4		S-6		PMG-100
10AB, 10APRB		C-5		S-6		PMG-100
44CE <sup>*</sup> , 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-100	PMG-100
200B		C-6		S-6		PMG-100
Tempstar GPX						PMG-100
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
<sup>*</sup> Model #44CE w/SN1999 or below requires larger booster than listed.						
<b>KNIGHT EQUIPMENT LTD.</b>						
KLE-112-HL	C-7	C-12	S-7	S-12	PMG-100	PMG-100
<b>MEIKO</b>						
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
<b>METALWASH/INTEDGE</b>						
FW4	C-12	C-18	S-12	S-18	PMG-100	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		
<b>STERO</b>						
ER-44, ER-44-10, ER-66S, ER-76S, ER-76SC	C-15	C-24	S-15	S-24	PMG-100	PMG-100
ER-64, ER-86S, ER-94S, ER-94SC	C-15	C-24	S-15	S-24	PMG-100	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-100	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-100	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-100	
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

<sup>A</sup> 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.

### BOOSTER HEATER SIZING FORMULA

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

NOTE: GPH is gallons per hour.

## Electrical Ratings For Hatco Water Heaters

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

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

### USE COPPER WIRE ONLY

#### ELECTRICAL FORMULAS

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

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

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

Watts	Volts	Phase	Amps	Breaker or Fuse size
<b>24kW</b>	208	1	115.4	150
	208	3	66.7	90
	240	1	100	125
	240	3	57.8	90
<b>27kW</b>	480	3	29.9	40
	600	3	23.2	30
	208	1	129.8	175
	208	3	75	100
	240	1	112.5	150
<b>30kW</b>	240	3	65	90
	480	3	32.5	50
	600	3	26.1	40
	208	1	144	200
	208	3	83.3	125
<b>36kW</b>	240	1	125	175
	240	3	72.3	100
	480	3	36	50
	600	3	29	40
	208	1	173	225
	208	3	100	125
<b>39kW</b>	240	1	150	200
	240	3	86.7	125
	480	3	43.3	60
	600	3	34.8	50
	208	1	187.5	250
<b>40.5kW</b>	208	3	108	150
	240	1	163.5	225
	240	3	94	125
	480	3	47	60
	600	3	37.7	50
	208	3	112.5	150
<b>45kW</b>	240	3	97.5	125
	480	3	48.8	70
	600	3	39	50
	208	3	125	175
	240	1	188	250
<b>54kW</b>	240	3	108	150
	480	3	54	70
	600	3	43.5	60
	208	3	150	200
	240	3	130	175
<b>57kW</b>	480	3	65	90
	600	3	52.1	70
	208	3	158.4	200
	240	3	137.3	175
	480	3	68.6	90
600	3	54.9	70	

### Water Quality Requirements

Water supply in excess of 3.0 grains of hardness per gallon (GPG) must be treated and softened before being used. Water containing over 3.0 GPG 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.