

HEAT ENERGY SYSTEMS LARGE VOLUME ELECTRIC WATER HEATERS 125 THRU 8000 GALLON CAPACITY

ENERGY EFFICIENCY

ASHRAE 90A-1980

With energy costs continuing to rise, energy consuming equipment must be made as efficient as possible.

This is especially important because new and more stringent conservation and efficiency standards are being proposed and adopted regularly.

In an electric water heater, the conversion of electricity to heat in the water is virtually 100% efficient. The principal heat losses, which reduce overall efficiency, are radiant losses from the pressure vessel and its flanges. At the factory, we insulate each tank and enclose it with a steel jacket to reduce these radiant losses to less than 4 watts per square foot of tank surface.



STANDARD FEATURES

- Polymerized Epoxy Tank Lining
- NEMA I Control Panel
- Factory Fusing
- Magnetic contactors
- Probe type low water cut-off
- 120V fused control circuit w/step down transformer
- Pilot lights
- Pilot switch
- Main supply lugs
- Auto reset high temperature limit control
- Manual reset limit control
- Incoloy heating elements-75 watts/sq. inch
- One thermostat for each 60 kw up to 240 kw
- 11" x 15" Manway
- UL listed
- ASME Stamped 125 PSI
- National Board Stamped
- Fiberglass Insulation
- 16 Gauge Enamel Steel Jacket
- ASME Rated Temp. & Press. relief valve
- Blow Down Drain Connection

OPTIONAL ACCESSORIES

- COPPER CLAD TM Tank lining
- SILICA CEMENT Tank lining
- NICKEL CLADTM Tank lining
- SOLID STAINLESS STEEL Tank
- Time Delay sequencer
- Modulating step control
- ASME Stamped 150 PSI working pressure
- Tank temperature gauge
- Tank pressure gauge
- Automatic Reset Expansion Control Valve
- Drain Valve
- COPPER CLAD[™] Openings
- Flanged Openings

VERTICAL

Available 125 thru 8000 Gallon Capacity

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MODEL NO.	GALLONS STORAGE	INLET & OUTLET SIZES	DRAIN PIPE SIZES	A	в	С	D	E	F	G	APPROX WEIGHT
HN 125 V	125	2	1	30	48	34	28	60	16½	14	1400
HN 250 V	250	2	1	30	86	44	38	97	18½	19	1700
HN 350 V	350	3	1	36	84	50	44	95	19 ³ /4	22	2100
HN 500 V	500	3	11/2	42	92	56	50	105	201/ 2	25	3000
HN 750 V	750	3	11/2	48	100	62	56	113	21 ½	29	3400
HN 1000V	1000	3	11/2	54	112	68	62	125	221/ 4	31	4500
HN 1250V	1250	3	11/2	60	112	74	68	125	23³/ ₄	34	5400
HN 1500V	1500	4	11/2	60	136	74	68	149	233/4	34	6200
HN 2000V	2000	4	11/2	72	115	86	80	128	25 ¹ /4	40	7000
HN 2500V	2500	4	11/2	84	118	98	92	130	27 ¹ / ₄	46	7700
HN 3000V	3000	4	1½	84	139	98	92	151	27 ¹ / ₄	46	8500

Dimensions, location of openings, storage capacity on this specification sheet are to simplify the selection of equipment; larger or smaller sizes are available upon request. Please contact your HESCO representative for specific information. Refer to *Electrical Control Panel Sizes* chart for dimensions. Add 20% total weight for cement lining.

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Electrical Control Panel Sizes

	208V / 240V			480V					
	30-210KW	240-420KW	480-600KW	30-210KW	240-420KW	480-600KW			
LENGTH	52"	60"	60"	52"	52"	60"			
WIDTH	10"	10"	10"	10"	10"	10"			
HEIGHT	48"	48"	84"	30"	48"	48"			



HORIZONTAL

Available 125 thru 8000 Gallon Capacity

GALLONS STORAGE	INLET & OUTLET SIZES	DRAIN PIPE	A							
	0.220	SIZES		В	С	D	E	F	G	APPROX WEIGHT
250	2	1	30	86	100	38	41	13	101/2	1700
350	3	1	36	84	98	44	47	13	21 ³ / ₄	2100
500	3	11/2	42	92	106	50	55	15	22 ¹ / ₂	3000
750	3	11/2	42	132	146	50	55	15	22 ¹ / ₂	3400
1000	3	11/2	54	112	126	62	67	15	24 ¹ / ₄	4500
1200	3	11/2	54	130	144	62	67	15	241/4	5600
1500	4	11/2	60	136	150	68	73	15	25 ³ /4	6200
2000	4	11/2	72	115	129	80	85	15	271/4	7000
2500	4	11/2	72	144	158	80	85	15	271/4	7700
3000	4	1 ¹ / ₂	72	176	190	80	85	15	27 ¹ / ₄	8500
	500 750 1000 1200 1500 2000 2500	500 3 750 3 1000 3 1200 3 1500 4 2000 4 2500 4	500 3 $1\frac{1}{2}$ 750 3 $1\frac{1}{2}$ 1000 3 $1\frac{1}{2}$ 1200 3 $1\frac{1}{2}$ 1500 4 $1\frac{1}{2}$ 2000 4 $1\frac{1}{2}$ 2500 4 $1\frac{1}{2}$	5003 $1\frac{1}{2}$ 427503 $1\frac{1}{2}$ 4210003 $1\frac{1}{2}$ 5412003 $1\frac{1}{2}$ 5415004 $1\frac{1}{2}$ 6020004 $1\frac{1}{2}$ 7225004 $1\frac{1}{2}$ 72	5003 $1\frac{1}{2}$ 42927503 $1\frac{1}{2}$ 4213210003 $1\frac{1}{2}$ 5411212003 $1\frac{1}{2}$ 5413015004 $1\frac{1}{2}$ 6013620004 $1\frac{1}{2}$ 7211525004 $1\frac{1}{2}$ 72144	5003 $1\frac{1}{2}$ 42921067503 $1\frac{1}{2}$ 4213214610003 $1\frac{1}{2}$ 5411212612003 $1\frac{1}{2}$ 5413014415004 $1\frac{1}{2}$ 6013615020004 $1\frac{1}{2}$ 7211512925004 $1\frac{1}{2}$ 72144158	500 3 $1\frac{1}{2}$ 42 92 106 50 750 3 $1\frac{1}{2}$ 42 132 146 50 1000 3 $1\frac{1}{2}$ 54 112 126 62 1200 3 $1\frac{1}{2}$ 54 130 144 62 1500 4 $1\frac{1}{2}$ 60 136 150 68 2000 4 $1\frac{1}{2}$ 72 115 129 80 2500 4 $1\frac{1}{2}$ 72 144 158 80	500 3 $11/_2$ 42 92 106 50 55 750 3 $11/_2$ 42 132 146 50 55 1000 3 $11/_2$ 54 112 126 62 67 1200 3 $11/_2$ 54 130 144 62 67 1500 4 $11/_2$ 60 136 150 68 73 2000 4 $11/_2$ 72 115 129 80 85 2500 4 $11/_2$ 72 144 158 80 85	5003 $1\frac{1}{2}$ 42921065055157503 $1\frac{1}{2}$ 4213214650551510003 $1\frac{1}{2}$ 5411212662671512003 $1\frac{1}{2}$ 5413014462671515004 $1\frac{1}{2}$ 6013615068731520004 $1\frac{1}{2}$ 72115129808515	5003 $1\frac{1}{2}$ 4292106505515 $22\frac{1}{2}$ 7503 $1\frac{1}{2}$ 42132146505515 $22\frac{1}{2}$ 10003 $1\frac{1}{2}$ 54112126626715 $24\frac{1}{4}$ 12003 $1\frac{1}{2}$ 54130144626715 $24\frac{1}{4}$ 15004 $1\frac{1}{2}$ 60136150687315 $25\frac{3}{4}$ 20004 $1\frac{1}{2}$ 72115129808515 $27\frac{1}{4}$ 25004 $1\frac{1}{2}$ 72144158808515 $27\frac{1}{4}$



In keeping with our policy of continuous product improvements, we reserve the right to make minor changes without prior notice.



Recovery Table

KW	мвтин	CONTROL	GP	H@	AMPS@			
	IND TOT	STEPS	100°F RISE	140°F RISE	480V	208V	240V	
30	102	1	123	88	36	84	72	
60	205	2	246	176	72	167	144	
90	307	3	369	263	108	250	216	
120	410	4	492	351	145	333	290	
150	512	5	615	439	181	417	834	
180	615	6	737	527	217	500	1000	
210	717	7	860	614	253	583	1166	
240	819	8	983	702	289	666	1332	
270	922	8	1106	790	325	750	1500	
300	1020	8	1229	878	361	833	1666	
360	1230	8	1475	1053	433	1000	2000	
420	1430	8	1721	1230	505	1170	2340	
480	1640	8	1967	1404	578	1330	2660	
540	1840	8	2210	1580	650	1500	3000	
600	2050	8	2460	1760	722	1660	3320	

Other KW rating available in increments of five (5) KW.

COPPER CLAD™

Recommended for maximum tank life. Undoubtedly the finest tank lining available in the industry today. After the tank is completely fabricated from first quality ASME grade steel, the entire tank interior is lined with pure moleten copper which serves to protect the tank from corrosion under all types and temperatures of potable water. The copper lining is then coated with two separate applications of Polymerized Epoxy coating, which is force cured, and may be field repaired should the lining ever become damaged. This coverage at a thickness of 10-12 mils (dry film), offers added protection against corrosion and allows smooth tank surfaces to prevent build-up of algae and precipitants on the interior tank surfaces. This lining material meets the requirements of the EPA, USDA, and FDA.

POLYMERIZED EPOXY

A high water resistant Polymerized Epoxy material. After the tank is completely fabricated from first quality ASME grade steel, the entire tank interior is lined with two separate applications of Polymerized Epoxy coating, which is force cured, and may be field repaired should the lining ever become damaged. This coverage, at a thickness of 10-12 mils (dry film), offers protection against corrosion and allows smooth tank surfaces to prevent build-up of algae and percipitants on the interior tank surfaces. This lining material meets the requirements of the EPA, USDA, and FDA.

ALUMINUM SILICATE CEMENT

A competitively priced lining that offers excellent coverage of the interior tank surface, applied at a minimum thickness of 5/8". It is equal or superior to other cement linings available throughout the industry. As in the case of the other cement linings, it requires annual inspection to fulfill warranty requirements.

NICKEL CLAD™

All of the exacting procedures used for COPPER CLADTM are used in the application of NICKEL CLADTM linings. For use where Nickel is required to meet the job Specifications.

SOLID STAINLESS STEEL TANK

Available in 304, 316 stainless steel, depending upon the needs of the application. For use with de-ionized reverse osmosis, distilled water, and chemical solutions. Consult the factory for applications.

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