

Commercial Electric

GOLD SERIES COMMERCIAL ELECTRIC WATER HEATER

Designed for use as a recovery heater having its own storage tank. Note: Not recommended for sanitizing water applications.

FEATURES

 Meets the standby loss requirements of the U.S. Department of Energy and current edition of AHRAE/IES 90.1.

GOLD ELEMENTS

• DRE models ship with the Goldenrod 24K gold plated elements (see element availability chart). Patented Goldenrod elements provide long life and superior scaling resistance. Low watt density means lower surface temperature to minimize scale buildup and more surface to heat water. Goldenrod elements carry a one-year warranty against failure due to lime scale build-up.

GLASSLINED TANK

• Three sizes: 50, 80 and 119 gallon capacity. Tank interior is coated with glass specially developed by A. O. Smith for water heater use. Tanks rated at 150 PSI (1034 kPa) working pressure

FUSING

• Protects all elements, thermostats, and internal wiring circuits against excess current flow. Meets National Electrical Code requirements that non-ASME tanks must have internal fusing when current draw exceeds 48 amps. Available as an option on Canadian built heaters.

STANDARD VOLTAGES

• 208, 240 and 480V single-phase and three-phase delta. Convertible from threephase to single-phase (in field) and vice versa. 277V single-phase also available.

TERMINAL BLOCK

 Factory installed. Just bring the electrical service to the heater and connect to block.

CONTROLS

• One temperature control (adjustable through a range of 120° to 181°F) and manual reset high temperature cut-off per element. Thermostat step control may be achieved by varying settings on individual temperature controls. Located behind hinged control compartment door for quick, easy access.

OTHER STANDARD FEATURES

- Surface mounted thermostats
- Simplified circuitry, color coded for ease of service
- Two anode rods for maximum corrosion protection
- Cabinet has bonderized undercoat with baked enamel finish
- Bottom inlet and top outlet openings
- Brass drain valve
- CSA Certified and ASME rated T&P relief valve
- Single panel control box
- Foam insulation reduces costly heat loss.

3-YEAR LIMITED TANK / 1-YEAR **LIMITED PARTS WARRANTY**

 For complete warranty information, consult written warranty or go to hotwater.com.



MODELS DRE-52, 80, 120









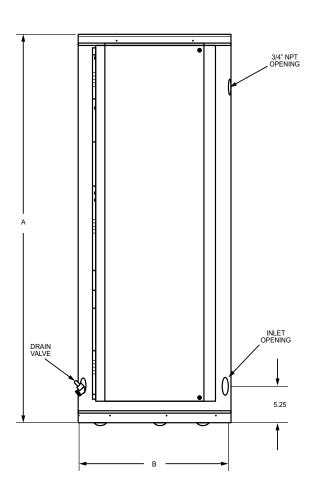


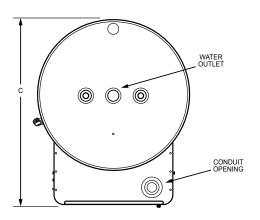
OPTIONAL



OPTIONS

- UL and cUL listed conversion kits to adjust voltage and kW requirements in the field before and after installation
- ASME 160 psi (1103 kPa) tank construction
- International voltages 220, 380, 400, 415, 575, and 600 volts, three phase available with Y connected elements
- MANIFOLD KITS for multiple tank installations. Two heaters -part # 9003429205, three heaters- part # 9003430205 and four heaterspart # 9003431205





DIMENSIONS

Model Number	Tank Capacity				Dimei	Inlet/Outlet	Approx. Shipping Weight				
			Α		В				С		(NPT)
	gal.	litre	Inches	cm	Inches	cm	Inches	cm	Inches	lbs	kG
DRE-52	50	189	55-3/4	142	21-3/4	55.2	27	68.6	1-1/4	265	120
DRE-80	80	302	60-1/4	153	25-1/2	64.8	31	78.7	1-1/4	280	127
DRE-120	119	450	62-1/4	158.1	29-1/2	75	35	88.9	1-1/4	390	177

For ASME Construction add "A" to the model number (example: DRE 52A 24).



RECOVERY RATE IN GALLONS PER HOUR AT TEMPERATURE RISE OF

Standard	BTU/	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F	110°F	120°F	130°F	140°F
kW Input	Hour	17°C	22°C	28°C	33°C	39°C	45°C	50°C	56°C	61°C	67°C	72°C	78°C
6		82	62	49	41	35	31	27	25	22	21	19	18
6	20,478	310	233	166	155	133	116	103	93	85	78	72	66
9	30,717	123	92	74	62	53	46	41	37	34	31	28	26
9		465	349	279	223	199	174	155	140	127	116	107	100
12	40,956	164	123	98	82	70	61	55	49	45	41	38	35
12	40,930	620	465	372	310	266	233	207	186	169	155	143	133
13.5	46.075	184	138	111	92	79	69	62	55	50	46	43	40
13.5	40,075	698	523	419	349	299	262	233	209	190	174	161	150
15	51,195	205	154	123	102	88	77	68	61	56	51	47	44
15		775	582	465	388	332	291	258	233	211	194	149	166
18	61,434	246	184	148	123	105	92	82	74	67	62	57	53
10		930	698	558	465	399	349	310	279	254	233	215	199
24	81,912	328	246	197	164	140	123	109	98	90	82	76	70
24		1241	930	744	620	532	465	414	372	338	310	286	266
27	92,151	369	276	221	185	158	138	123	111	101	92	85	79
21		1396	1047	938	609	509	523	465	410	391	340	322	299
30	102,390	410	307	246	205	176	154	137	123	112	102	95	88
30		1551	1163	930	775	665	582	517	465	423	388	358	332
36	122,868	492	369	295	246	211	184	164	148	134	123	113	105
30		1861	1396	1117	930	798	698	620	556	508	465	429	399
40.5	138,226	554	418	332	277	237	208	185	166	151	138	128	119
40.5		2094	1570	1256	1047	897	785	698	628	634	582	537	498
45	153,585	615	461	369	307	263	230	205	184	168	154	142	132
45		2326	1745	1398	1163	997	872	755	698	634	582	537	498
54	184,302	738	554	443	359	316	277	246	221	20	185	170	158
54		2791	2094	1675	1396	1196	1047	930	837	761	696	644	598

Figured at 1 kW (3413 BTU) = 4.1 Gallons at 100° F temperature rise.

	Model Numbers Tank Capacity in Gallons			Number of	Element Wattage	Full Load Current in Amperes							
kW Input							Single	Phase	Three Phase				
	50	80	119	Elements	3	208V	240V	277V	480V	208V	240V	480V	
6	DRE-52-6	DRE-80-6	DRE-120-6	3	2,000	28.8	25	21.7	12.5	16.7	14.4	7.2	
9	DRE-52-9	DRE-80-9	DRE-120-9	3	3,000	43.3	37.5	**32.5	18.8	25	21.7	10.8	
12	DRE-52-12	DRE-80-12	DRE-120-12	3	4,000	57.7	50	43.3	25	33.3	28.9	14.4	
13.5	DRE-52-13.5	DRE-80-13.5	DRE-120-13.5	3	4,500	64.9	56.3	**48.7	28.1	37.5	32.5	16.2	
15	DRE-52-15	DRE-80-15	DRE-120-15	3	5,000	72.1	62.5	**54.2	31.3	41.6	36.1	18	
18	DRE-52-18	DRE-80-18	DRE-120-18	3*	6,000	86.5	75	65	37.5	50	43.3	21.7	
24	DRE-52-24	DRE-80-24	DRE-120-24	6	4,000	115.4	100	86.6	50	66.6	57.7	28.9	
27	DRE-52-27	DRE-80-27	DRE-120-27	6	4,500	129.8	112.5	**97.5	56.3	74.9	65	32.5	
30	DRE-52-30	DRE-80-30	DRE-120-30	6	5,000	144.2	125	**108.3	62.5	83.3	72.2	36.1	
36	DRE-52-36	DRE-80-36	DRE-120-36	6*	6,000	173.1	150	130	75	99.9	86.6	43.3	
40.5	N/A	DRE-80-40.5	DRE-120-40.5	9	4,500	194.7	168.8	**146.2	84.4	112.4	97.4	48.7	
45	N/A	DRE-80-45	DRE-120-45	9	5,000	216.3	187.5	**162.5	93.8	124.9	108.3	54.1	
54	N/A	DRE-80-54	DRE-120-54	9	6,000	N/A	225	194.9	112.5	149.9	129.9	65	

^{*208} volt models may contain three (3) additional elements.

** Elements available in incoloy only.

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SUGGESTED SPECIFICATION

