Commercial
Electric Water Heaters

GOLD XI SERIES

Designed for use as a recovery heater having its own storage tank or booster for supplying sanitizing rinse water for dishwashing.

FEATURES
- Meets or exceeds the requirements of the current edition of ASHRAE/IES 90.1.

ADVANCED ELECTRONIC CONTROL
- Easy to understand text and animated icons display detailed operational and diagnostic information. Fault or alert messages appear if an operational issue occurs.
- Immersion temperature control adjustable through a range of 90°F to 190°F.

ECONOMY MODE OPERATION
- Control system automatically lowers the operating set point by a programmed value during user-defined time periods. Helps reduce operating costs during unoccupied or off - peak demand periods.

LINEAR SEQUENCING
- Banks of heating elements (three elements per bank) are energized according to adjustable (1 to 20°F) differential set points for each bank. First bank on is the last bank off. Helps reduce current surge and provides accurate water temperature control.

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

GLASS-LINED 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. ASME (optional) maximum working pressure is 160 psi.

POWER CIRCUIT FUSING
- Protects elements and contactors from short circuits, overloading or line surges.

STANDARD VOLTAGES
- 208, 240 and 480V single-phase and three-phase delta. Convertible from three-phase to single-phase (in field) and vise versa (except 208V/54 kW). 277V single-phase and 600V three-phase also available.

TERMINAL BLOCK
- Factory installed. Allows for easy service connection to block.

MAGNETIC CONTACTORS
- Heavy-duty; UL rated for 100,000 cycles.

OTHER STANDARD FEATURES
- Immersion style thermostats
- Simplified circuitry, colour-coded for ease of service
- Hinged control compartment door for quick, easy access
- Two anode rods for maximum corrosion protection
- Cabinet has bonderized undercoat with baked enamel finish
- Top outlet, side inlet and relief valve openings
- Nipple and brass drain valve
- CSA Certified and ASME rated T&P relief valve (included with unit for field installation)
- Foam insulation reduces costly heat loss

3-YEAR LIMITED TANK/1-YEAR LIMITED PARTS WARRANTY
- For complete warranty information, consult written warranty or contact A. O. Smith

OPTIONS
- UL and cUL listed conversion kits to adjust voltage and kW requirements in the field before and after installation
- ASME 160 psi tank (1103 kPa) construction
- International voltages - 220, 380, 400, 415, 575, and 600 volts, three phase available with Y connected elements

MODELS
DVE-52, 80, 120

CLASSIFIED UL WATER QUALITY

CSA Low Lead Content

c UL LISTED

ASME HLW (Optional)

GOLDENROD 24K GOLD ELEMENTS

www.hotwater.com | 800-265-8520 Toll-free Canada | A. O. Smith Enterprises Ltd. | 599 Hill Street West | Fergus, ON N1M 2X1

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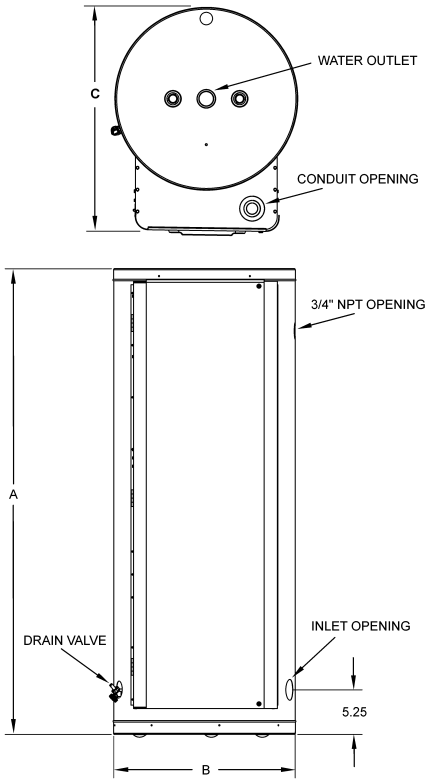

RECOVERY RATE IN GALLONS PER HOUR AT TEMPERATURE RISE OF

STANDARD KW INPUT	BTU/h	30°F 17°C	40°F 22°C	50°F 28°C	60°F 33°C	70°F 39°C	80°F 45°C	90°F 50°C	100°F 56°C	110°F 61°C	120°F 67°C	130°F 72°C	140°F 78°C
6	20,478	82 310	62 233	49 166	41 155	35 133	31 116	27 103	25 93	22 85	21 78	19 72	18 66
9	30,717	123 465	92 349	74 279	62 233	53 199	46 174	41 155	37 140	34 127	31 116	28 107	26 100
12	40,956	164 620	123 465	98 372	82 310	70 266	61 233	55 207	49 186	45 169	41 155	38 143	35 133
13.5	46,075	184 698	138 523	111 419	92 349	79 299	69 262	62 233	55 209	50 190	46 174	43 161	40 150
15	51,195	205 775	154 582	123 465	102 388	88 332	77 291	68 258	61 233	56 211	51 194	47 149	44 166
18	61,434	246 930	184 698	148 558	123 465	105 399	92 349	82 310	74 279	67 254	62 233	57 215	53 199
24	81,912	328 1241	246 930	197 744	164 620	140 532	123 465	109 414	98 372	90 338	82 310	76 286	70 266
27	92,151	369 1396	276 1047	221 938	185 609	158 509	138 523	123 465	111 410	101 391	92 340	85 322	79 299
30	102,390	410 1551	307 1163	246 930	205 775	176 665	154 582	137 517	123 465	112 423	102 388	95 358	88 332
36	122,868	492 1861	369 1396	295 1117	246 930	211 798	184 698	164 620	148 556	134 508	123 465	113 429	105 399
40.5	138,226	554 2094	418 1570	332 1256	277 1047	237 897	208 785	185 698	166 628	151 634	138 582	128 537	119 498
45	153,585	615 2326	461 1745	369 1398	307 1163	263 997	230 872	205 755	184 698	168 634	154 582	142 537	132 498
54	184,302	738 2791	554 2094	443 1675	359 1396	316 1196	277 1047	246 930	221 837	201 761	185 696	170 644	158 598

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

MODEL	TANK CAPACITY		DIMENSIONS						INLET/ OUTLET (NPT)		APPROX. SHIPPING WEIGHT	
			A		B		C					
	USG	L	IN	CM	IN	CM	IN	CM	IN	CM	LB	KG
DVE-52	50	179	55 ¾	142	21 ¾	55.2	27	68.6	1 ¼	3.2	265	120
DVE-80	80	286	60 ¼	153	25 ½	64.8	31	78.7	1 ¼	3.2	280	127
DVE-120	119	426	62 ¼	158.1	29 ½	75.0	35	88.9	1 ¼	3.2	390	177

KW INPUT	MODEL NUMBERS TANK CAPACITY IN GALLONS			NUMBER OF ELEMENTS	ELEMENT WATTAGE	FULL LOAD CURRENT IN AMPERES							
						SINGLE PHASE				THREE PHASE			
	50	80	119			208V	240V	277V	480V	208V	240V	480V	600V
6	DVE-52-6	DVE-80-6	DVE-120-6	3	2,000	28.8	25.0	21.7	12.5	16.7	14.4	7.2	6.0**
9	DVE-52-9	DVE-80-9	DVE-120-9	3	3,000	43.3	37.5	32.5**	18.8	25.0	21.7	10.8	9.0**
12	DVE-52-12	DVE-80-12	DVE-120-12	3	4,000	57.7	50.0	43.3	25.0	33.3	28.9	14.4	12.0
13.5	DVE-52-13.5	DVE-80-13.5	DVE-120-13.5	3	4,500	64.9	56.3	48.7**	28.1	37.5	32.5	16.2	13.5**
15	DVE-52-15	DVE-80-15	DVE-120-15	3	5,000	72.1	62.5	54.2**	31.3	41.6	36.1	18.0	15.0
18	DVE-52-18	DVE-80-18	DVE-120-18	3*	6,000	86.5	75.0	65.0	37.5	50.0	43.3	21.7	18.0
24	DVE-52-24	DVE-80-24	DVE-120-24	6	4,000	115.4	100.0	86.6	50.0	66.6	57.7	28.9	24.0
27	DVE-52-27	DVE-80-27	DVE-120-27	6	4,500	129.8	112.5	97.5**	56.3	74.9	65.0	32.5	27**
30	DVE-52-30	DVE-80-30	DVE-120-30	6	5,000	144.2	125.0	108.3**	62.5	83.3	72.2	36.1	30.0
36	DVE-52-36	DVE-80-36	DVE-120-36	6*	6,000	173.1	150.0	130.0	75.0	99.9	86.6	43.3	36.0
40.5	DVE-52-40.5	DVE-80-40.5	DVE-120-40.5	9	4,500	194.7	168.8	146.2**	84.4	112.4	97.4	48.7	40.5**
45	DVE-52-45	DVE-80-45	DVE-120-45	9	5,000	216.3	187.5	162.5**	93.8	124.9	108.3	54.1	45.0
54	DVE-52-54	DVE-80-54	DVE-120-54	9	6,000	N/A	225.0	194.9	112.5	149.9	129.9	65.0	54.0

*208 volt models may contain three (3) additional elements. ** Elements available in incoloy only. For ASME construction add "A" to the model number (example: DVE-52A-24).

SUGGESTED SPECIFICATION

The heater(s) shall be Gold Xi Commercial Electric Model Number_____as manufactured by A. O. Smith. Heater(s) shall be rated at _____kW _____V _____phase, 60 cycle AC listed by Underwriters' Laboratories and approved to the NSF Standard 5 by UL. Water heater shall have LCD display with built-in diagnostic and troubleshooting information. Tank(s) shall be _____ (50, 80 or 119) gallon capacity with _____ (150 [Std] or 160 [ASME]) psi working pressure and equipped with dual extruded high density anodes. All internal surfaces of the heater(s) exposed to water shall be glass-lined with an alkaline borosilicate composition that has been fused to steel by firing at a temperature range of 1400°F to 1600°F. Electric heating elements shall be 24K Goldenrod low watt density screw-in type with Incoloy sheath and ceramic terminal block. Internal power circuit fusing shall be provided. Element operation shall be linear sequencing through individual magnetic contactors. Control circuit shall be factory fused and include an immersion thermistor temperature probe with built-in ECO control. Control cabinet and jacket shall be of baked enamel finish and shall provide full size control and element compartment for complete service and maintenance performance through front hinged compartment door, and enclose tank with foam insulation. 1 1/4" inlet and outlet connection shall be provided. The heater tank shall have a three year limited warranty and controls and accessories shall have a one year limited warranty as outlined in the written warranty. Fully illustrated instruction manual to be included. Meets current edition of ASHRAE/IES 90.1.

For Technical Information call 888-599-2837. A. O. Smith Enterprises Ltd. reserves the right to make product changes or improvements without prior notice.