



Air-Cooled Series R[™] Rotary Liquid Chiller

Model RTAC

140 to 500Tons (60 Hz)

140 to 400Tons (50 Hz)

Built For the Industrial and Commercial Markets





Features and Benefits

Table 1. RTAC efficiency vs Ashrae 90.1

Tonnage	RTAC - Exceeding the Efficiency Standard					
	Full Load Efficiency (EER*)			Part Load Efficiency (EER*)		
	ASHRAE 90.1	Standard Efficiency	High Efficiency	ASHRAE 90.1	Standard Efficiency	High Efficiency
140	9.6	9.7	10.3	10.4	13.5	14.0
155	9.6	9.8	10.4	10.4	13.6	14.1
170	9.6	9.9	10.4	10.4	13.9	14.4
185	9.6	9.7	10.3	10.4	13.7	14.2
200	9.6	9.6	10.1	10.4	13.3	13.9
225	9.6	9.6	10.2	10.4	13.4	14.0
250	9.6	9.6	10.1	10.4	13.6	13.8
275	9.6	9.8	10.5	10.4	13.3	13.7
300	9.6	9.6	10.2	10.4	13.3	13.6
350	9.6	9.6	10.5	10.4	13.1	15.3
400	9.6	9.6	10.1	10.4	14.6	14.5
450	9.6	9.6	n/a	10.4	14.7	
500	9.6	9.6	n/a	10.4	14.9	

COP = EER/3.414.
Efficiencies given for 60 Hz units

ASHRAE Standard 90.1 and RTAC World Class Energy Efficiency...

The importance of energy efficiency cannot be understated. Fortunately, ASHRAE has created a guideline emphasizing its importance. Nonetheless, energy is often dismissed as an operational cost over which the owner has little control. That perception results in missed opportunities for energy efficiency, reduced utility bills, and higher profits. Lower utility bills directly affect profitability. Every dollar saved in energy goes directly to the bottom line. Trane's RTAC is one way to maximize your profits.

ASHRAE Standard 90.1 & Executive Order - New technology applied to the design, controls, and manufacturing have created excellent efficiency levels in the RTAC that are helping to push industry

minimums to new heights. All Trane air-cooled chillers meet the new efficiency levels mandated by ASHRAE Standard 90.1. This new standard requires higher efficiencies than past technologies can deliver. The US Federal Government has adopted standard 90.1 and, in some cases, requires even higher efficiencies. Federal Executive Order mandates energy consuming devices procured must be in the top 25% of their class. In the case of chillers, that product standard is ASHRAE 90.1. Trane's RTAC meets and exceeds the efficiency requirements of 90.1, while the high efficiency RTAC can meet the "stretch goals" of Executive Order.

Precise Capacity Control. Trane's patented unloading system allows the compressor to modulate infinitely and exactly match building loads. At the same time chilled water temperatures will be maintained within +/- 1/2°F [0.28°C] of setpoint. Reciprocating and screw chillers with stepped capacity control do well to maintain chilled water temperatures within 2°F [1.1°C] of setpoint. Stepped control also results in overcooling your space because rarely does the capacity of the machine match the building load. The result can be 10% higher energy bills. Trane's RTAC optimizes the part load performance of your machine for energy efficiency, precise control for process applications, and your personal comfort regardless of the weather outside.



High Efficiency Horizontal and Vertical Water-Source Comfort System

Axiom™
1/2 - 5 Tons — 60 HZ — Model GEH/GEV





Performance Data 006-Cooling

Table P2: GEH/GEV 006 Cooling Performance

Cooling performance data is tabulated at 80.6 F DB/66.2 F WB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 1.5
Rated CFM: 190

Maximum CFM: 152
Maximum CFM: 228

EWT	GPM	Total Mbtuh	Sen Mbtuh	SHR	Power kW	EER	Reject Mbtuh	LWT	Feet Head
45	1.0	8.4	5.5	0.66	0.46	18.3	10.0	65.0	1.5
45	1.2	8.4	5.6	0.66	0.45	18.8	10.0	61.6	2.1
45	1.4	8.5	5.6	0.66	0.45	18.8	10.0	59.3	2.7
45	1.5	8.5	5.6	0.66	0.44	19.3	10.0	58.3	3.0
45	1.6	8.5	5.6	0.66	0.44	19.3	10.0	57.5	3.4
45	1.7	8.5	5.6	0.66	0.43	19.7	10.0	56.7	3.7
45	1.8	8.5	5.6	0.66	0.43	19.8	10.0	56.1	4.1
55	1.0	8.0	5.4	0.68	0.46	17.3	9.5	74.1	1.4
55	1.2	8.0	5.4	0.68	0.45	17.8	9.5	70.9	2.0
55	1.4	8.0	5.5	0.68	0.45	17.9	9.6	68.7	2.6
55	1.5	8.1	5.5	0.68	0.44	18.3	9.6	67.8	2.9
55	1.6	8.1	5.5	0.68	0.44	18.4	9.6	67.0	3.2
55	1.7	8.1	5.5	0.68	0.44	18.4	9.6	66.3	3.5
55	1.8	8.1	5.6	0.69	0.43	18.8	9.6	65.6	3.9
68	1.0	7.4	5.3	0.71	0.50	14.9	9.2	86.3	1.4
68	1.2	7.5	5.3	0.71	0.49	15.3	9.2	83.3	1.9
68	1.4	7.6	5.4	0.71	0.48	15.7	9.2	81.1	2.4
68	1.5	7.6	6.0	0.80	0.48	15.8	9.2	80.3	2.7
68	1.6	7.6	5.4	0.71	0.47	16.2	9.2	79.5	3.0
68	1.7	7.6	5.4	0.71	0.47	16.2	9.2	78.9	3.3
68	1.8	7.7	5.5	0.71	0.47	16.3	9.3	78.3	3.6
77	1.0	7.1	5.2	0.73	0.55	12.9	9.0	95.0	1.3
77	1.2	7.2	5.2	0.73	0.54	13.3	9.0	92.1	1.8
77	1.4	7.3	5.3	0.73	0.53	13.7	9.1	90.0	2.3
77	1.5	7.3	5.3	0.73	0.53	13.7	9.1	89.2	2.6
77	1.6	7.3	5.3	0.73	0.52	14.1	9.1	88.4	2.9
77	1.7	7.3	5.4	0.73	0.52	14.1	9.1	87.8	3.1
77	1.8	7.4	5.4	0.73	0.52	14.2	9.1	87.2	3.4
86	1.0	6.8	5.1	0.74	0.61	11.2	8.9	103.9	1.3
86	1.2	6.9	5.2	0.75	0.60	11.5	8.9	101.0	1.7
86	1.4	7.0	5.2	0.75	0.59	11.8	9.0	98.9	2.2
86	1.5	7.0	5.3	0.75	0.59	11.9	9.0	98.1	2.5
86	1.6	7.0	5.3	0.75	0.59	11.9	9.1	97.4	2.7
86	1.7	7.1	5.3	0.75	0.58	12.2	9.1	96.7	3.0
86	1.8	7.1	5.3	0.75	0.58	12.2	9.1	96.1	3.3
95	1.0	6.5	5.0	0.76	0.67	9.8	8.8	112.8	1.2
95	1.2	6.6	5.1	0.77	0.67	9.9	8.9	109.9	1.6
95	1.4	6.7	5.2	0.77	0.66	10.2	9.0	107.9	2.1
95	1.5	6.7	5.2	0.77	0.65	10.4	9.0	107.0	2.4
95	1.6	6.8	5.2	0.77	0.65	10.4	9.0	106.3	2.6
95	1.7	6.8	5.3	0.77	0.65	10.5	9.0	105.7	2.9
95	1.8	6.9	5.3	0.77	0.64	10.7	9.0	105.1	3.2
105	1.0	6.2	4.9	0.79	0.74	8.4	8.8	122.7	1.2
105	1.2	6.3	5.0	0.79	0.74	8.6	8.9	119.9	1.6
105	1.4	6.4	5.1	0.79	0.73	8.8	8.9	117.8	2.0
105	1.5	6.5	5.1	0.79	0.72	9.0	8.9	117.0	2.2
105	1.6	6.5	5.2	0.79	0.72	9.1	9.0	116.3	2.5
105	1.7	6.6	5.2	0.79	0.72	9.1	9.0	115.7	2.8
105	1.8	6.6	5.2	0.79	0.71	9.3	9.0	115.1	3.0
115	1.0	6.0	4.9	0.81	0.84	7.1	8.8	132.9	1.1
115	1.2	6.1	5.0	0.82	0.83	7.3	8.9	130.0	1.5
115	1.4	6.2	5.1	0.82	0.82	7.5	9.0	128.0	1.9
115	1.5	6.2	5.1	0.82	0.82	7.6	9.0	127.2	2.2
115	1.6	6.3	5.1	0.82	0.81	7.7	9.0	126.4	2.4
115	1.7	6.3	5.2	0.82	0.81	7.8	9.1	125.8	2.7
115	1.8	6.4	5.2	0.82	0.81	7.9	9.1	125.2	3.0
120	1.0	5.8	4.8	0.82	0.91	6.4	9.0	138.1	1.0
120	1.2	6.0	4.9	0.83	0.90	6.6	9.0	135.2	1.4
120	1.4	6.1	5.0	0.83	0.90	6.7	9.1	133.2	1.9
120	1.5	6.1	5.1	0.83	0.89	6.9	9.1	132.3	2.1
120	1.6	6.2	5.1	0.83	0.89	6.9	9.2	131.6	2.4
120	1.7	6.2	5.2	0.83	0.88	7.0	9.2	131.0	2.6
120	1.8	6.2	5.2	0.83	0.88	7.1	9.3	130.4	2.9



Performance Data 006-Heating

Table P3: GEH/GEV 006 Heating Performance

Heating performance data is tabulated at 68 F DB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 1.5
Rated CFM: 190

Maximum CFM: 152
Maximum CFM: 228

EWT	GPM	Htg Cap Mbtuh	Absorb Mbtuh	Power kW	COP	LWT	Feet Head
25	1.0	5.0	3.2	0.52	2.8	18.5	1.5
25	1.2	5.2	3.4	0.52	2.9	19.4	2.2
25	1.4	5.2	3.4	0.53	2.9	20.2	3.0
25	1.5	5.2	3.4	0.53	2.9	20.5	3.4
25	1.6	5.2	3.3	0.53	2.8	20.8	3.8
25	1.7	5.2	3.4	0.53	2.9	21.1	4.2
25	1.8	5.2	3.4	0.53	2.9	21.2	4.6
32	1.0	5.5	3.6	0.54	3.0	24.7	1.5
32	1.2	5.7	3.8	0.54	3.1	25.6	2.1
32	1.4	5.7	3.9	0.54	3.1	26.5	2.9
32	1.5	5.7	3.8	0.55	3.0	26.9	3.2
32	1.6	5.7	3.8	0.55	3.0	27.2	3.6
32	1.7	5.7	3.8	0.55	3.0	27.5	4.0
32	1.8	5.8	3.9	0.55	3.1	27.7	4.5
45	1.0	6.5	4.6	0.57	3.3	35.9	1.5
45	1.2	6.7	4.8	0.57	3.5	37.0	2.1
45	1.4	6.8	4.9	0.57	3.5	38.0	2.7
45	1.5	6.8	4.9	0.57	3.5	38.5	3.0
45	1.6	6.8	4.9	0.58	3.5	38.9	3.4
45	1.7	6.9	4.9	0.58	3.5	39.2	3.7
45	1.8	6.9	5.0	0.58	3.5	39.5	4.1
55	1.0	7.4	5.4	0.59	3.7	44.3	1.4
55	1.2	7.6	5.6	0.60	3.7	45.7	2.0
55	1.4	7.7	5.7	0.60	3.8	46.9	2.6
55	1.5	7.8	5.7	0.60	3.8	47.4	2.9
55	1.6	7.8	5.7	0.60	3.8	47.8	3.2
55	1.7	7.8	5.8	0.60	3.8	48.2	3.5
55	1.8	7.9	5.8	0.60	3.8	48.5	3.9
68	1.0	8.5	6.4	0.62	4.0	55.2	1.4
68	1.2	8.8	6.6	0.63	4.1	56.9	1.9
68	1.4	8.9	6.7	0.63	4.1	58.4	2.4
68	1.5	8.9	6.8	0.63	4.1	59.0	2.7
68	1.6	8.9	6.8	0.63	4.2	59.5	3.0
68	1.7	9.0	6.8	0.63	4.2	60.0	3.3
68	1.8	9.0	6.9	0.63	4.2	60.4	3.6
75	1.0	9.1	6.9	0.64	4.1	61.2	1.4
75	1.2	9.3	7.2	0.64	4.3	63.0	1.8
75	1.4	9.4	7.3	0.64	4.3	64.6	2.3
75	1.5	9.5	7.3	0.64	4.3	65.3	2.6
75	1.6	9.5	7.3	0.65	4.3	65.9	2.9
75	1.7	9.5	7.3	0.65	4.3	66.4	3.2
75	1.8	9.6	7.3	0.65	4.3	66.8	3.5
86	1.0	9.8	7.5	0.66	4.3	70.9	1.3
86	1.2	10.1	7.8	0.66	4.5	72.9	1.7
86	1.4	10.2	7.9	0.67	4.4	74.7	2.2
86	1.5	10.2	7.9	0.67	4.5	75.4	2.5
86	1.6	10.2	7.9	0.67	4.5	76.1	2.7
86	1.7	10.2	7.9	0.67	4.5	76.6	3.0
86	1.8	10.2	8.0	0.67	4.5	77.1	3.3

Table P4: 006 Fan Correction Factors

Entering CFM	Cooling Capacity	Sensible Capacity	Cooling Input Watts	Heating Capacity	Heating Input Watts
152	0.974	0.892	0.965	0.972	1.032
162	0.981	0.920	0.973	0.979	1.023
171	0.987	0.945	0.981	0.986	1.016
181	0.994	0.973	0.991	0.993	1.008
190	1.000	1.000	1.000	1.000	1.000
209	1.012	1.051	1.020	1.013	0.984
218	1.018	1.077	1.030	1.020	0.977
228	1.025	1.105	1.042	1.027	0.968



Performance Data 009-Cooling

Table P5: GEH/GEV 009 Cooling Performance

Cooling performance data is tabulated at 80.6 F DB/66.2 F WB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 2.1
Rated CFM: 285

Maximum CFM: 228
Maximum CFM: 342

EWT	GPM	Total Mbtuh	Sen Mbtuh	SHR	Power kW	EER	Reject Mbtuh	LWT	Feet Head
45	1.4	10.6	7.4	0.70	0.56	18.9	12.5	62.9	2.7
45	1.7	10.6	7.4	0.70	0.54	19.6	12.4	59.6	3.8
45	1.9	10.7	7.3	0.68	0.53	20.2	12.5	58.2	4.5
45	2.1	10.7	7.3	0.68	0.52	20.6	12.5	56.9	5.4
45	2.2	10.7	7.3	0.68	0.52	20.6	12.5	56.3	5.8
45	2.3	10.7	7.3	0.68	0.52	20.6	12.5	55.8	6.2
45	2.5	10.7	7.3	0.68	0.52	20.6	12.5	55.0	7.1
55	1.4	10.1	7.1	0.70	0.56	18.0	12.0	72.2	2.6
55	1.7	10.2	7.1	0.70	0.54	18.9	12.0	69.2	3.6
55	1.9	10.2	7.1	0.70	0.53	19.2	12.0	67.6	4.3
55	2.1	10.2	7.1	0.70	0.52	19.6	12.0	66.4	5.0
55	2.2	10.2	7.1	0.70	0.52	19.6	12.0	65.9	5.4
55	2.3	10.2	7.1	0.70	0.52	19.6	12.0	65.4	5.9
55	2.5	10.2	7.1	0.70	0.52	19.6	12.0	64.6	6.7
68	1.4	9.4	6.8	0.72	0.62	15.2	11.5	84.5	2.4
68	1.7	9.5	6.9	0.73	0.60	15.8	11.6	81.6	3.3
68	1.9	9.5	6.9	0.73	0.59	16.1	11.5	80.1	4.0
68	2.1	9.5	6.9	0.73	0.58	16.4	11.5	78.9	4.7
68	2.2	9.5	6.9	0.73	0.57	16.7	11.5	78.4	5.0
68	2.3	9.5	6.9	0.73	0.57	16.7	11.5	78.0	5.4
68	2.5	9.5	6.9	0.73	0.57	16.7	11.5	77.2	6.2
77	1.4	8.9	6.6	0.74	0.68	13.1	11.2	93.1	2.3
77	1.7	9.0	6.7	0.74	0.66	13.6	11.3	90.3	3.1
77	1.9	9.0	6.7	0.74	0.65	13.8	11.2	88.8	3.7
77	2.1	9.0	6.7	0.74	0.64	14.1	11.2	87.7	4.4
77	2.2	9.0	6.7	0.74	0.64	14.1	11.2	87.2	4.8
77	2.3	9.1	6.7	0.74	0.63	14.4	11.3	86.8	5.2
77	2.5	9.0	6.7	0.74	0.63	14.3	11.2	85.9	5.9
86	1.4	8.5	6.4	0.75	0.76	11.2	11.1	101.9	2.2
86	1.7	8.5	6.5	0.76	0.74	11.5	11.0	99.0	3.0
86	1.9	8.5	6.5	0.76	0.73	11.6	11.0	97.6	3.6
86	2.1	8.6	6.5	0.76	0.72	11.9	11.1	96.6	4.2
86	2.2	8.6	6.5	0.76	0.71	12.1	11.0	96.1	4.6
86	2.3	8.6	6.5	0.76	0.71	12.1	11.0	95.6	4.9
86	2.5	8.6	6.5	0.76	0.71	12.1	11.0	94.9	5.7
95	1.4	8.0	6.2	0.78	0.84	9.5	10.9	110.6	2.0
95	1.7	8.1	6.3	0.78	0.82	9.9	10.9	107.9	2.8
95	1.9	8.1	6.3	0.78	0.81	10.0	10.9	106.5	3.4
95	2.1	8.1	6.3	0.78	0.80	10.1	10.8	105.4	4.1
95	2.2	8.1	6.3	0.78	0.80	10.1	10.8	104.9	4.4
95	2.3	8.1	6.3	0.78	0.79	10.3	10.8	104.4	4.7
95	2.5	8.1	6.3	0.78	0.79	10.3	10.8	103.7	5.5
105	1.4	7.5	6.0	0.80	0.93	8.1	10.7	120.4	2.0
105	1.7	7.5	6.0	0.80	0.92	8.2	10.6	117.6	2.7
105	1.9	7.6	6.0	0.79	0.90	8.4	10.7	116.3	3.3
105	2.1	7.6	6.0	0.79	0.89	8.5	10.6	115.2	3.9
105	2.2	7.6	6.0	0.79	0.89	8.5	10.6	114.7	4.2
105	2.3	7.6	6.0	0.79	0.88	8.6	10.6	114.3	4.6
105	2.5	7.6	6.0	0.79	0.88	8.6	10.6	113.5	5.3
115	1.4	6.8	5.7	0.84	1.01	6.7	10.3	129.8	1.9
115	1.7	6.8	5.7	0.84	1.00	6.8	10.2	127.1	2.7
115	1.9	6.9	5.7	0.83	0.98	7.0	10.2	125.9	3.2
115	2.1	6.9	5.7	0.83	0.97	7.1	10.2	124.8	3.8
115	2.2	6.9	5.7	0.83	0.97	7.1	10.2	124.4	4.2
115	2.3	6.9	5.7	0.83	0.97	7.1	10.2	124.0	4.5
115	2.5	6.9	5.7	0.83	0.96	7.2	10.2	123.2	5.2
120	1.4	6.2	5.6	0.90	1.04	6.0	9.8	134.1	1.9
120	1.7	6.3	5.5	0.87	1.03	6.1	9.8	131.7	2.6
120	1.9	6.3	5.5	0.87	1.02	6.2	9.8	130.4	3.2
120	2.1	6.4	5.5	0.86	1.01	6.3	9.9	129.5	3.8
120	2.2	6.4	5.5	0.86	1.00	6.4	9.8	129.0	4.2
120	2.3	6.4	5.5	0.86	1.00	6.4	9.8	128.6	4.5
120	2.5	6.4	5.5	0.86	1.00	6.4	9.8	127.9	5.2



Performance Data 009-Heating

Table P6: GEH/GEV 009 Heating Performance

Heating performance data is tabulated at 68 F DB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 2.1
Rated CFM: 285

Maximum CFM: 228
Maximum CFM: 342

EWT	GPM	Htg Cap Mbtuh	Absorb Mbtuh	Power kW	COP	LWT	Feet Head
25	1.4	6.7	4.7	0.60	3.3	18.4	3.0
25	1.7	6.7	4.7	0.60	3.3	19.5	4.2
25	1.9	6.7	4.6	0.61	3.2	20.1	5.1
25	2.1	6.7	4.6	0.61	3.2	20.6	6.0
25	2.2	6.8	4.7	0.61	3.3	20.7	6.5
25	2.3	6.8	4.7	0.61	3.3	20.9	7.0
25	2.5	6.8	4.7	0.61	3.3	21.2	8.1
32	1.4	6.9	4.8	0.62	3.3	25.2	2.9
32	1.7	7.0	4.9	0.62	3.3	26.3	4.1
32	1.9	7.0	4.9	0.63	3.3	26.9	4.9
32	2.1	7.1	5.0	0.63	3.3	27.3	5.8
32	2.2	7.1	5.0	0.63	3.3	27.5	6.3
32	2.3	7.2	5.1	0.63	3.3	27.6	6.7
32	2.5	7.2	5.1	0.63	3.3	28.0	7.7
45	1.4	8.1	5.9	0.66	3.6	36.6	2.7
45	1.7	8.3	6.1	0.66	3.7	37.9	3.8
45	1.9	8.4	6.2	0.66	3.7	38.5	4.5
45	2.1	8.5	6.2	0.67	3.7	39.1	5.4
45	2.2	8.5	6.2	0.67	3.7	39.4	5.8
45	2.3	8.5	6.2	0.67	3.7	39.6	6.2
45	2.5	8.6	6.3	0.67	3.8	40.0	7.1
55	1.4	9.2	6.9	0.68	4.0	45.2	2.6
55	1.7	9.4	7.1	0.69	4.0	46.7	3.6
55	1.9	9.5	7.2	0.69	4.0	47.5	4.3
55	2.1	9.6	7.3	0.69	4.1	48.1	5.0
55	2.2	9.7	7.4	0.69	4.1	48.3	5.4
55	2.3	9.7	7.4	0.69	4.1	48.6	5.9
55	2.5	9.8	7.5	0.69	4.2	49.0	6.7
68	1.4	10.6	8.1	0.72	4.3	56.4	2.4
68	1.7	10.9	8.4	0.72	4.4	58.1	3.3
68	1.9	11.0	8.5	0.72	4.5	59.0	4.0
68	2.1	11.1	8.6	0.73	4.5	59.8	4.7
68	2.2	11.1	8.6	0.73	4.5	60.2	5.0
68	2.3	11.2	8.7	0.73	4.5	60.4	5.4
68	2.5	11.2	8.7	0.73	4.5	61.0	6.2
75	1.4	11.4	8.9	0.73	4.6	62.2	2.3
75	1.7	11.6	9.1	0.74	4.6	64.3	3.2
75	1.9	11.7	9.2	0.74	4.6	65.3	3.8
75	2.1	11.8	9.3	0.74	4.7	66.2	4.5
75	2.2	11.8	9.3	0.74	4.7	66.6	4.8
75	2.3	11.9	9.4	0.74	4.7	66.8	5.2
75	2.5	12.0	9.4	0.75	4.7	67.4	6.0
86	1.4	12.4	9.8	0.76	4.8	71.9	2.2
86	1.7	12.6	10.0	0.76	4.9	74.2	3.0
86	1.9	12.7	10.1	0.76	4.9	75.3	3.6
86	2.1	12.8	10.2	0.76	4.9	76.2	4.2
86	2.2	12.9	10.3	0.77	4.9	76.6	4.6
86	2.3	12.9	10.3	0.77	4.9	77.0	4.9
86	2.5	13.0	10.4	0.77	4.9	77.7	5.7

Table P7: 009 Fan Correction Factors

Entering CFM	Cooling Capacity	Sensible Capacity	Cooling Input Watts	Heating Capacity	Heating Input Watts
228	0.974	0.892	0.965	0.972	1.032
242	0.980	0.918	0.972	0.979	1.024
257	0.987	0.946	0.982	0.986	1.016
271	0.993	0.972	0.991	0.993	1.008
285	1.000	1.000	1.000	1.000	1.000
314	1.013	1.052	1.020	1.014	0.984
328	1.019	1.078	1.030	1.020	0.976
342	1.025	1.105	1.042	1.027	0.968



Performance Data 012-Cooling

Table P8: GEH/GEV 012 Cooling Performance

Cooling performance data is tabulated at 80.6 F DB/66.2 F WB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 2.8
Rated CFM: 380

Maximum CFM: 304
Maximum CFM: 456

EWT	GPM	Total Mbtuh	Sen Mbtuh	SHR	Power kW	EER	Reject Mbtuh	LWT	Feet Head
45	1.8	14.3	10.4	0.73	0.88	16.3	17.3	64.2	4.7
45	2.2	14.4	10.4	0.72	0.85	16.9	17.3	60.7	6.5
45	2.5	14.4	10.5	0.73	0.84	17.1	17.3	58.8	8.0
45	2.8	14.5	10.5	0.72	0.83	17.5	17.3	57.4	9.6
45	2.9	14.5	10.5	0.72	0.82	17.7	17.3	56.9	10.1
45	3.1	14.5	10.5	0.72	0.82	17.7	17.3	56.2	11.2
45	3.4	14.5	10.5	0.72	0.80	18.1	17.2	55.1	13.0
55	1.8	13.9	10.0	0.72	0.80	17.4	16.6	73.5	4.4
55	2.2	13.9	10.0	0.72	0.77	18.1	16.5	70.0	6.1
55	2.5	14.0	10.0	0.71	0.77	18.2	16.6	68.3	7.4
55	2.8	14.1	10.1	0.72	0.75	18.8	16.7	66.9	8.9
55	2.9	14.1	10.1	0.72	0.75	18.8	16.7	66.5	9.4
55	3.1	14.1	10.1	0.72	0.75	18.8	16.7	65.8	10.5
55	3.4	14.1	10.0	0.71	0.72	19.6	16.6	64.7	12.2
68	1.8	13.1	9.6	0.73	0.91	14.4	16.2	86.0	4.1
68	2.2	13.2	9.6	0.73	0.88	15.0	16.2	82.7	5.6
68	2.5	13.2	9.6	0.73	0.88	15.0	16.2	81.0	6.9
68	2.8	13.3	9.7	0.73	0.86	15.5	16.2	79.6	8.3
68	2.9	13.3	9.7	0.73	0.86	15.5	16.2	79.2	8.8
68	3.1	13.3	9.6	0.72	0.86	15.5	16.2	78.5	9.8
68	3.4	13.3	9.6	0.72	0.83	16.0	16.1	77.5	11.3
77	1.8	12.5	9.3	0.74	1.00	12.5	15.9	94.7	3.9
77	2.2	12.6	9.3	0.74	0.97	13.0	15.9	91.5	5.3
77	2.5	12.7	9.4	0.74	0.96	13.2	16.0	89.8	6.6
77	2.8	12.7	9.4	0.74	0.95	13.4	15.9	88.4	7.9
77	2.9	12.8	9.4	0.73	0.95	13.5	16.0	88.1	8.4
77	3.1	12.8	9.4	0.73	0.94	13.6	16.0	87.4	9.4
77	3.4	12.8	9.4	0.73	0.92	13.9	15.9	86.4	10.9
86	1.8	12.0	9.1	0.76	1.08	11.1	15.7	103.5	3.7
86	2.2	12.1	9.1	0.75	1.05	11.5	15.7	100.3	5.1
86	2.5	12.1	9.1	0.75	1.05	11.5	15.7	98.6	6.3
86	2.8	12.2	9.2	0.75	1.03	11.8	15.7	97.3	7.6
86	2.9	12.2	9.2	0.75	1.03	11.8	15.7	96.9	8.1
86	3.1	12.2	9.2	0.75	1.03	11.8	15.7	96.2	9.0
86	3.4	12.2	9.1	0.75	1.00	12.2	15.6	95.2	10.5
95	1.8	11.3	8.8	0.78	1.19	9.5	15.4	112.2	3.5
95	2.2	11.4	8.8	0.77	1.16	9.8	15.4	109.0	4.9
95	2.5	11.5	8.9	0.77	1.15	10.0	15.4	107.4	6.1
95	2.8	11.5	8.9	0.77	1.14	10.1	15.4	106.1	7.4
95	2.9	11.5	8.9	0.77	1.13	10.2	15.4	105.7	7.8
95	3.1	11.6	8.9	0.77	1.13	10.3	15.5	105.0	8.8
95	3.4	11.6	8.9	0.77	1.11	10.5	15.4	104.1	10.2
105	1.8	10.5	8.5	0.81	1.35	7.8	15.1	121.9	3.4
105	2.2	10.6	8.5	0.80	1.31	8.1	15.1	118.8	4.8
105	2.5	10.6	8.6	0.81	1.31	8.1	15.1	117.2	5.9
105	2.8	10.7	8.6	0.80	1.30	8.2	15.1	115.9	7.1
105	2.9	10.7	8.6	0.80	1.29	8.3	15.1	115.5	7.6
105	3.1	10.7	8.6	0.80	1.29	8.3	15.1	114.8	8.5
105	3.4	10.8	8.6	0.80	1.27	8.5	15.1	114.0	9.9
115	1.8	9.6	8.1	0.84	1.49	6.4	14.7	131.5	3.3
115	2.2	9.7	8.1	0.84	1.46	6.6	14.7	128.5	4.6
115	2.5	9.8	8.2	0.84	1.45	6.8	14.8	126.9	5.7
115	2.8	9.9	8.2	0.83	1.44	6.9	14.8	125.7	6.9
115	2.9	9.9	8.2	0.83	1.44	6.9	14.8	125.3	7.4
115	3.1	9.9	8.2	0.83	1.44	6.9	14.8	124.7	8.3
115	3.4	9.9	8.2	0.83	1.41	7.0	14.7	123.7	9.7
120	1.8	9.3	7.9	0.85	1.50	6.2	14.4	136.2	3.2
120	2.2	9.4	7.9	0.84	1.47	6.4	14.4	133.3	4.5
120	2.5	9.5	7.9	0.83	1.46	6.5	14.5	131.7	5.6
120	2.8	9.5	8.0	0.84	1.45	6.6	14.5	130.4	6.8
120	2.9	9.5	8.0	0.84	1.45	6.6	14.5	130.1	7.3
120	3.1	9.6	7.9	0.82	1.44	6.7	14.5	129.5	8.2
120	3.4	9.6	7.9	0.82	1.42	6.8	14.5	128.6	9.6



Performance Data 012-Heating

Table P9: GEH/GEV 012 Heating Performance

Heating performance data is tabulated at 68 F DB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 2.8 Maximum CFM: 304
 Rated CFM: 380 Maximum CFM: 456

EWT	GPM	Htg Cap Mbtuh	Absorb Mbtuh	Power kW	COP	LWT	Feet Head
25	1.8	8.0	5.2	0.83	2.8	19.3	5.6
25	2.2	8.2	5.4	0.83	2.9	20.1	7.7
25	2.5	8.3	5.4	0.84	2.9	20.7	9.4
25	2.8	8.4	5.5	0.84	2.9	21.1	11.2
25	2.9	8.4	5.5	0.84	2.9	21.2	11.8
25	3.1	8.5	5.6	0.84	3.0	21.4	13.1
25	3.4	8.5	5.6	0.84	3.0	21.7	15.0
32	1.8	9.2	6.3	0.85	3.2	25.0	5.3
32	2.2	9.3	6.4	0.86	3.2	26.2	7.3
32	2.5	9.4	6.5	0.86	3.2	26.8	8.9
32	2.8	9.5	6.6	0.86	3.2	27.3	10.6
32	2.9	9.6	6.7	0.86	3.3	27.4	11.2
32	3.1	9.6	6.7	0.86	3.3	27.7	12.4
32	3.4	9.7	6.7	0.87	3.3	28.0	14.3
45	1.8	11.0	7.9	0.90	3.6	36.2	4.7
45	2.2	11.2	8.1	0.91	3.6	37.6	6.5
45	2.5	11.3	8.2	0.92	3.6	38.5	8.0
45	2.8	11.4	8.3	0.92	3.6	39.1	9.6
45	2.9	11.4	8.3	0.92	3.6	39.3	10.1
45	3.1	11.4	8.3	0.92	3.6	39.7	11.2
45	3.4	11.5	8.4	0.92	3.7	40.1	13.0
55	1.8	12.1	8.9	0.93	3.8	45.1	4.4
55	2.2	12.3	9.1	0.93	3.9	46.7	6.1
55	2.5	12.4	9.2	0.94	3.9	47.6	7.4
55	2.8	12.4	9.2	0.94	3.9	48.4	8.9
55	2.9	12.5	9.3	0.94	3.9	48.6	9.4
55	3.1	12.5	9.3	0.94	3.9	49.0	10.5
55	3.4	12.6	9.4	0.94	3.9	49.5	12.2
68	1.8	13.2	10.0	0.95	4.1	56.9	4.1
68	2.2	13.4	10.1	0.96	4.1	58.8	5.6
68	2.5	13.5	10.2	0.96	4.1	59.8	6.9
68	2.8	13.5	10.2	0.96	4.1	60.7	8.3
68	2.9	13.6	10.3	0.96	4.2	60.9	8.8
68	3.1	13.6	10.3	0.96	4.2	61.3	9.8
68	3.4	13.7	10.4	0.97	4.1	61.9	11.3
75	1.8	13.7	10.4	0.97	4.1	63.4	3.9
75	2.2	13.9	10.6	0.97	4.2	65.4	5.4
75	2.5	14.0	10.7	0.98	4.2	66.5	6.6
75	2.8	14.1	10.8	0.98	4.2	67.3	8.0
75	2.9	14.1	10.8	0.98	4.2	67.6	8.5
75	3.1	14.2	10.9	0.98	4.2	68.0	9.5
75	3.4	14.3	10.9	0.99	4.2	68.6	11.0
86	1.8	14.6	11.2	0.99	4.3	73.5	3.7
86	2.2	14.8	11.4	1.00	4.3	75.6	5.1
86	2.5	14.9	11.5	1.01	4.3	76.8	6.3
86	2.8	14.9	11.5	1.01	4.3	77.8	7.6
86	2.9	15.0	11.6	1.01	4.4	78.0	8.1
86	3.1	15.0	11.6	1.00	4.4	78.5	9.0
86	3.4	15.1	11.7	1.01	4.4	79.1	10.5

Table P10: 012 Fan Correction Factors

Entering CFM	Cooling Capacity	Sensible Capacity	Cooling Input Watts	Heating Capacity	Heating Input Watts
304	0.974	0.892	0.965	0.972	1.032
323	0.980	0.919	0.973	0.979	1.024
342	0.987	0.945	0.981	0.986	1.016
361	0.993	0.972	0.990	0.993	1.008
380	1.000	1.000	1.000	1.000	1.000
418	1.012	1.051	1.020	1.013	0.984
437	1.019	1.078	1.030	1.020	0.976
456	1.025	1.105	1.042	1.027	0.968



Performance Data 015-Cooling

Table P11: GEH/GEV 015 Cooling Performance

Cooling performance data is tabulated at 80.6 F DB/66.2 F WB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 3.5
Rated CFM: 460

Maximum CFM: 368
Maximum CFM: 552

EWT	GPM	Total Mbtuh	Sen Mbtuh	SHR	Power kW	EER	Reject Mbtuh	LWT	Feet Head
45	2.2	17.0	11.9	0.70	0.78	21.8	19.7	62.9	3.9
45	2.8	17.1	12.0	0.70	0.74	23.1	19.6	59.0	5.7
45	3.1	17.1	11.9	0.70	0.73	23.4	19.6	57.6	6.7
45	3.5	17.1	11.9	0.70	0.72	23.8	19.6	56.2	8.2
45	3.6	17.1	11.8	0.69	0.71	24.1	19.5	55.8	8.5
45	3.8	17.1	11.8	0.69	0.71	24.1	19.5	55.3	9.3
45	4.2	17.1	11.8	0.69	0.72	23.8	19.6	54.3	10.9
55	2.2	16.1	11.4	0.71	0.83	19.4	18.9	72.2	3.7
55	2.8	16.2	11.6	0.72	0.79	20.5	18.9	68.5	5.4
55	3.1	16.3	11.6	0.71	0.78	20.9	19.0	67.2	6.3
55	3.5	16.3	11.5	0.71	0.77	21.2	18.9	65.8	7.7
55	3.6	16.3	11.5	0.71	0.77	21.2	18.9	65.5	8.1
55	3.8	16.3	11.5	0.71	0.77	21.2	18.9	65.0	8.8
55	4.2	16.3	11.5	0.71	0.78	20.9	19.0	64.0	10.3
68	2.2	15.2	10.9	0.72	0.93	16.3	18.4	84.7	3.4
68	2.8	15.3	11.1	0.73	0.90	17.0	18.4	81.1	5.0
68	3.1	15.4	11.1	0.72	0.89	17.3	18.4	79.9	5.9
68	3.5	15.4	11.1	0.72	0.88	17.5	18.4	78.5	7.2
68	3.6	15.3	11.1	0.73	0.88	17.4	18.3	78.2	7.5
68	3.8	15.3	11.1	0.73	0.88	17.4	18.3	77.6	8.2
68	4.2	15.4	11.1	0.72	0.88	17.5	18.4	76.8	9.6
77	2.2	14.5	10.6	0.73	1.02	14.2	18.0	93.4	3.2
77	2.8	14.6	10.8	0.74	1.00	14.6	18.0	89.9	4.7
77	3.1	14.6	10.8	0.74	0.99	14.7	18.0	88.6	5.6
77	3.5	14.6	10.8	0.74	0.98	14.9	17.9	87.3	6.8
77	3.6	14.6	10.8	0.74	0.98	14.9	17.9	87.0	7.2
77	3.8	14.6	10.8	0.74	0.98	14.9	17.9	86.5	7.8
77	4.2	14.6	10.9	0.75	0.98	14.9	17.9	85.6	9.2
86	2.2	13.7	10.4	0.76	1.13	12.1	17.6	102.0	3.0
86	2.8	13.8	10.5	0.76	1.11	12.4	17.6	98.6	4.5
86	3.1	13.8	10.5	0.76	1.10	12.5	17.6	97.4	5.3
86	3.5	13.8	10.3	0.75	1.09	12.7	17.5	96.1	6.5
86	3.6	13.8	10.5	0.76	1.09	12.7	17.5	95.8	6.8
86	3.8	13.8	10.5	0.76	1.08	12.8	17.5	95.2	7.5
86	4.2	13.8	10.5	0.76	1.08	12.8	17.5	94.4	8.8
95	2.2	12.8	10.1	0.79	1.25	10.2	17.1	110.6	2.9
95	2.8	12.9	10.2	0.79	1.23	10.5	17.1	107.3	4.2
95	3.1	13.0	10.2	0.78	1.22	10.7	17.2	106.1	5.1
95	3.5	13.0	10.2	0.78	1.20	10.8	17.1	104.8	6.2
95	3.6	13.0	10.2	0.78	1.20	10.8	17.1	104.6	6.5
95	3.8	12.9	10.2	0.79	1.19	10.8	17.0	104.0	7.1
95	4.2	13.0	10.2	0.78	1.18	11.0	17.0	103.2	8.4
105	2.2	11.9	9.9	0.83	1.39	8.6	16.6	120.2	2.7
105	2.8	12.0	9.9	0.83	1.37	8.8	16.7	117.0	4.0
105	3.1	12.1	9.9	0.82	1.35	9.0	16.7	115.9	4.8
105	3.5	12.1	9.8	0.81	1.33	9.1	16.6	114.6	5.9
105	3.6	12.1	9.8	0.81	1.33	9.1	16.6	114.3	6.2
105	3.8	12.1	9.8	0.81	1.32	9.2	16.6	113.8	6.8
105	4.2	12.1	9.8	0.81	1.30	9.3	16.5	112.9	8.0
115	2.2	11.0	9.7	0.88	1.53	7.2	16.2	129.9	2.6
115	2.8	11.1	9.6	0.86	1.50	7.4	16.2	126.7	3.9
115	3.1	11.2	9.5	0.85	1.49	7.5	16.3	125.6	4.6
115	3.5	11.2	9.4	0.84	1.46	7.7	16.2	124.3	5.7
115	3.6	11.1	9.4	0.85	1.46	7.6	16.1	124.0	6.0
115	3.8	11.1	9.3	0.84	1.44	7.7	16.0	123.5	6.5
115	4.2	11.2	9.3	0.83	1.42	7.9	16.1	122.7	7.7
120	2.2	10.5	9.6	0.91	1.60	6.6	16.0	134.7	2.5
120	2.8	10.6	9.5	0.90	1.57	6.8	16.0	131.5	3.8
120	3.1	10.6	9.4	0.89	1.55	6.8	15.9	130.4	4.5
120	3.5	10.6	9.2	0.87	1.53	6.9	15.8	129.1	5.6
120	3.6	10.6	9.2	0.87	1.52	7.0	15.8	128.9	5.9
120	3.8	10.6	9.1	0.86	1.50	7.1	15.7	128.4	6.4
120	4.2	10.6	9.0	0.85	1.47	7.2	15.6	127.5	7.6



Performance Data 015-Heating

Table P12: GEH/GEV 015 Heating Performance

Heating performance data is tabulated at 68 F DB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 3.5
Rated CFM: 460

Maximum CFM: 368
Maximum CFM: 552

EWT	GPM	Htg Cap Mbtuh	Absorb Mbtuh	Power kW	COP	LWT	Feet Head
25	2.2	9.4	6.5	0.86	3.2	19.1	4.3
25	2.8	9.7	6.7	0.89	3.2	20.2	6.3
25	3.1	9.8	6.8	0.89	3.2	20.6	7.4
25	3.5	9.9	6.9	0.89	3.3	21.1	9.1
25	3.6	10.0	7.0	0.89	3.3	21.1	9.5
25	3.8	10.0	7.0	0.89	3.3	21.3	10.3
25	4.2	10.1	7.0	0.90	3.3	21.7	12.1
32	2.2	10.6	7.5	0.91	3.4	25.2	4.2
32	2.8	10.8	7.6	0.93	3.4	26.6	6.1
32	3.1	11.0	7.8	0.93	3.5	27.0	7.2
32	3.5	11.1	7.9	0.94	3.5	27.5	8.7
32	3.6	11.2	8.0	0.94	3.5	27.6	9.1
32	3.8	11.2	8.0	0.94	3.5	27.8	10.0
32	4.2	11.3	8.1	0.94	3.5	28.1	11.6
45	2.2	12.9	9.6	0.98	3.9	36.3	3.9
45	2.8	13.2	9.8	1.00	3.9	38.0	5.7
45	3.1	13.4	10.0	1.01	3.9	38.6	6.7
45	3.5	13.5	10.1	1.01	3.9	39.3	8.2
45	3.6	13.6	10.2	1.01	3.9	39.4	8.5
45	3.8	13.6	10.2	1.01	3.9	39.7	9.3
45	4.2	13.7	10.2	1.02	3.9	40.1	10.9
55	2.2	14.7	11.2	1.04	4.1	44.9	3.7
55	2.8	15.1	11.5	1.06	4.2	46.8	5.4
55	3.1	15.2	11.6	1.06	4.2	47.5	6.3
55	3.5	15.4	11.8	1.07	4.2	48.3	7.7
55	3.6	15.4	11.8	1.07	4.2	48.5	8.1
55	3.8	15.5	11.9	1.07	4.2	48.8	8.8
55	4.2	15.6	12.0	1.07	4.3	49.3	10.3
68	2.2	16.9	13.2	1.10	4.5	56.0	3.4
68	2.8	17.2	13.4	1.12	4.5	58.4	5.0
68	3.1	17.4	13.5	1.13	4.5	59.3	5.9
68	3.5	17.5	13.6	1.13	4.5	60.2	7.2
68	3.6	17.5	13.6	1.13	4.5	60.4	7.5
68	3.8	17.6	13.7	1.13	4.6	60.8	8.2
68	4.2	17.6	13.7	1.14	4.5	61.5	9.6
75	2.2	17.8	13.9	1.13	4.6	62.3	3.2
75	2.8	18.1	14.2	1.15	4.6	64.8	4.8
75	3.1	18.3	14.4	1.15	4.7	65.7	5.6
75	3.5	18.4	14.4	1.16	4.6	66.7	6.9
75	3.6	18.4	14.4	1.16	4.6	67.0	7.2
75	3.8	18.5	14.5	1.16	4.7	67.3	7.9
75	4.2	18.5	14.5	1.16	4.7	68.1	9.3
86	2.2	18.8	14.9	1.13	4.9	72.4	3.0
86	2.8	19.1	15.2	1.15	4.9	75.1	4.5
86	3.1	19.2	15.2	1.16	4.8	76.1	5.3
86	3.5	19.3	15.3	1.16	4.9	77.2	6.5
86	3.6	19.3	15.3	1.16	4.9	77.4	6.8
86	3.8	19.3	15.3	1.16	4.9	77.9	7.5
86	4.2	19.4	15.4	1.17	4.9	78.6	8.8

Table P13: 015 Fan Correction Factors

Entering CFM	Cooling Capacity	Sensible Capacity	Cooling Input Watts	Heating Capacity	Heating Input Watts
368	0.974	0.892	0.965	0.972	1.032
391	0.980	0.919	0.973	0.979	1.024
414	0.987	0.945	0.981	0.986	1.016
437	0.993	0.972	0.990	0.993	1.008
460	1.000	1.000	1.000	1.000	1.000
506	1.012	1.051	1.020	1.013	0.984
529	1.019	1.078	1.030	1.020	0.976
552	1.025	1.105	1.042	1.027	0.968



Performance Data 018-Cooling

Table P14: GEH/GEV 018 Cooling Performance

Cooling performance data is tabulated at 80.6 F DB/66.2 F WB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 4.2
Rated CFM: 570

Maximum CFM: 456
Maximum CFM: 684

EWT	GPM	Total Mbtuh	Sen Mbtuh	SHR	Power kW	EER	Reject Mbtuh	LWT	Feet Head
45	2.7	22.4	15.7	0.70	1.11	20.2	26.2	64.4	4.7
45	3.3	22.7	15.9	0.70	1.06	21.4	26.3	60.9	6.4
45	3.7	22.8	15.8	0.69	1.04	21.9	26.4	59.2	7.5
45	4.2	22.8	15.9	0.70	1.03	22.1	26.3	57.5	9.1
45	4.4	22.9	15.9	0.69	1.02	22.5	26.4	57.0	9.8
45	4.6	22.9	16.0	0.70	1.01	22.7	26.4	56.5	10.4
45	5.0	22.9	16.0	0.70	1.01	22.7	26.4	55.5	11.8
55	2.7	21.6	15.6	0.72	1.21	17.9	25.7	74.1	4.3
55	3.3	22.0	15.7	0.71	1.17	18.8	26.0	70.8	5.8
55	3.7	22.0	15.7	0.71	1.14	19.3	25.9	69.0	6.9
55	4.2	22.1	15.8	0.71	1.13	19.6	26.0	67.4	8.3
55	4.4	22.1	15.8	0.71	1.12	19.7	25.9	66.8	8.9
55	4.6	22.1	15.9	0.72	1.12	19.7	25.9	66.3	9.6
55	5.0	22.2	15.9	0.72	1.11	20.0	26.0	65.4	10.9
68	2.7	19.9	15.1	0.76	1.34	14.9	24.5	86.2	3.8
68	3.3	20.3	15.2	0.75	1.30	15.6	24.7	83.0	5.2
68	3.7	20.3	15.2	0.75	1.28	15.9	24.7	81.4	6.2
68	4.2	20.4	15.3	0.75	1.26	16.2	24.7	79.8	7.6
68	4.4	20.4	15.3	0.75	1.26	16.2	24.7	79.2	8.2
68	4.6	20.4	15.3	0.75	1.25	16.3	24.7	78.7	8.8
68	5.0	20.5	15.3	0.75	1.24	16.5	24.7	77.9	10.0
77	2.7	19.0	14.5	0.76	1.47	12.9	24.0	94.8	3.6
77	3.3	19.3	14.7	0.76	1.43	13.5	24.2	91.7	4.9
77	3.7	19.3	14.7	0.76	1.40	13.8	24.1	90.0	5.9
77	4.2	19.4	14.7	0.76	1.39	14.0	24.1	88.5	7.2
77	4.4	19.5	14.7	0.75	1.38	14.1	24.2	88.0	7.8
77	4.6	19.5	14.8	0.76	1.38	14.1	24.2	87.6	8.3
77	5.0	19.5	14.8	0.76	1.37	14.2	24.2	86.7	9.5
86	2.7	18.2	13.9	0.76	1.62	11.2	23.7	103.6	3.3
86	3.3	18.5	14.0	0.76	1.57	11.8	23.9	100.5	4.7
86	3.7	18.5	14.0	0.76	1.55	11.9	23.8	98.9	5.6
86	4.2	18.6	14.1	0.76	1.54	12.1	23.9	97.4	6.9
86	4.4	18.6	14.1	0.76	1.53	12.2	23.8	96.9	7.4
86	4.6	18.7	14.2	0.76	1.52	12.3	23.9	96.4	8.0
86	5.0	18.7	14.2	0.76	1.52	12.3	23.9	95.6	9.1
95	2.7	17.3	13.3	0.77	1.77	9.8	23.3	112.4	3.2
95	3.3	17.6	13.4	0.76	1.73	10.2	23.5	109.3	4.4
95	3.7	17.7	13.4	0.76	1.71	10.4	23.5	107.8	5.4
95	4.2	17.8	13.5	0.76	1.70	10.5	23.6	106.3	6.6
95	4.4	17.8	13.5	0.76	1.69	10.5	23.6	105.8	7.1
95	4.6	17.8	13.5	0.76	1.68	10.6	23.5	105.3	7.7
95	5.0	17.8	13.5	0.76	1.68	10.6	23.5	104.5	8.8
105	2.7	16.1	12.8	0.80	1.96	8.2	22.8	122.0	3.0
105	3.3	16.5	13.0	0.79	1.92	8.6	23.1	119.1	4.2
105	3.7	16.5	12.9	0.78	1.89	8.7	23.0	117.5	5.1
105	4.2	16.6	13.0	0.78	1.88	8.8	23.0	116.0	6.4
105	4.4	16.6	13.0	0.78	1.87	8.9	23.0	115.5	6.9
105	4.6	16.6	13.1	0.79	1.87	8.9	23.0	115.1	7.4
105	5.0	16.7	13.1	0.78	1.86	9.0	23.1	114.3	8.5
115	2.7	15.2	12.8	0.84	2.16	7.0	22.6	131.9	2.8
115	3.3	15.5	12.9	0.83	2.12	7.3	22.7	128.9	4.1
115	3.7	15.5	12.9	0.83	2.09	7.4	22.6	127.4	4.9
115	4.2	15.6	13.0	0.83	2.08	7.5	22.7	125.9	6.1
115	4.4	15.6	13.0	0.83	2.07	7.5	22.7	125.4	6.6
115	4.6	15.6	13.1	0.84	2.07	7.5	22.7	125.0	7.2
115	5.0	15.7	13.1	0.83	2.06	7.6	22.7	124.2	8.3
120	2.7	15.1	13.1	0.87	2.28	6.6	22.9	137.1	2.8
120	3.3	15.4	13.2	0.86	2.24	6.9	23.1	134.1	4.0
120	3.7	15.5	13.2	0.85	2.21	7.0	23.0	132.6	4.9
120	4.2	15.6	13.2	0.85	2.20	7.1	23.1	131.1	6.0
120	4.4	15.6	13.3	0.85	2.19	7.1	23.1	130.6	6.6
120	4.6	15.6	13.3	0.85	2.19	7.1	23.1	130.1	7.1
120	5.0	15.6	13.3	0.85	2.18	7.2	23.0	129.3	8.1



Performance Data 018-Heating

Table P15: GEH/GEV 018 Heating Performance

Heating performance data is tabulated at 68 F DB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 4.2
Rated CFM: 570

Maximum CFM: 456
Maximum CFM: 684

EWT	GPM	Htg Cap Mbtuh	Absorb Mbtuh	Power kW	COP	LWT	Feet Head
25	2.7	12.5	8.2	1.26	2.9	18.9	5.4
25	3.3	12.7	8.4	1.27	2.9	19.9	7.6
25	3.7	12.9	8.6	1.27	3.0	20.4	9.2
25	4.2	13.0	8.7	1.27	3.0	20.9	11.2
25	4.4	13.0	8.7	1.27	3.0	21.1	12.1
25	4.6	13.1	8.8	1.27	3.0	21.2	12.9
25	5.0	13.1	8.8	1.27	3.0	21.5	14.7
32	2.7	13.6	9.2	1.29	3.1	25.2	5.3
32	3.3	13.9	9.5	1.30	3.1	26.3	7.2
32	3.7	14.1	9.6	1.31	3.2	26.8	8.6
32	4.2	14.2	9.7	1.31	3.2	27.4	10.4
32	4.4	14.3	9.8	1.31	3.2	27.5	11.2
32	4.6	14.3	9.8	1.31	3.2	27.7	11.9
32	5.0	14.3	9.8	1.31	3.2	28.1	13.5
45	2.7	16.2	11.5	1.37	3.5	36.5	4.7
45	3.3	16.5	11.8	1.38	3.5	37.9	6.4
45	3.7	16.7	12.0	1.38	3.5	38.5	7.5
45	4.2	16.9	12.2	1.39	3.6	39.2	9.1
45	4.4	17.0	12.3	1.39	3.6	39.4	9.8
45	4.6	17.0	12.3	1.39	3.6	39.7	10.4
45	5.0	17.1	12.4	1.39	3.6	40.1	11.8
55	2.7	18.3	13.4	1.43	3.7	45.1	4.3
55	3.3	18.7	13.8	1.44	3.8	46.6	5.8
55	3.7	18.9	14.0	1.44	3.8	47.4	6.9
55	4.2	19.2	14.3	1.45	3.9	48.2	8.3
55	4.4	19.2	14.3	1.45	3.9	48.5	8.9
55	4.6	19.3	14.4	1.45	3.9	48.8	9.6
55	5.0	19.3	14.3	1.46	3.9	49.3	10.9
68	2.7	21.2	16.1	1.51	4.1	56.1	3.8
68	3.3	21.6	16.4	1.52	4.2	58.0	5.2
68	3.7	21.9	16.7	1.53	4.2	59.0	6.2
68	4.2	22.1	16.8	1.54	4.2	60.0	7.6
68	4.4	22.2	16.9	1.54	4.2	60.3	8.2
68	4.6	22.2	16.9	1.54	4.2	60.6	8.8
68	5.0	22.3	17.0	1.54	4.2	61.2	10.0
75	2.7	22.7	17.4	1.55	4.3	62.1	3.6
75	3.3	23.1	17.7	1.57	4.3	64.2	5.0
75	3.7	23.3	17.9	1.57	4.3	65.3	6.0
75	4.2	23.6	18.2	1.58	4.4	66.3	7.3
75	4.4	23.7	18.3	1.58	4.4	66.7	7.8
75	4.6	23.7	18.3	1.59	4.4	67.0	8.4
75	5.0	23.8	18.4	1.59	4.4	67.6	9.6
86	2.7	24.6	19.1	1.62	4.4	71.8	3.3
86	3.3	25.1	19.5	1.64	4.5	74.1	4.7
86	3.7	25.4	19.8	1.64	4.5	75.3	5.6
86	4.2	25.6	20.0	1.65	4.5	76.5	6.9
86	4.4	25.7	20.1	1.65	4.6	76.8	7.4
86	4.6	25.7	20.0	1.66	4.5	77.3	8.0
86	5.0	25.8	20.1	1.66	4.6	77.9	9.1

Table P16: 018 Fan Correction Factors

Entering CFM	Cooling Capacity	Sensible Capacity	Cooling Input Watts	Heating Capacity	Heating Input Watts
456	0.974	0.892	0.965	0.972	1.032
485	0.981	0.919	0.973	0.979	1.024
513	0.987	0.945	0.981	0.986	1.016
542	0.993	0.972	0.991	0.993	1.008
570	1.000	1.000	1.000	1.000	1.000
627	1.012	1.051	1.020	1.013	0.984
656	1.019	1.078	1.030	1.020	0.976
684	1.025	1.105	1.042	1.027	0.968



Performance Data 024-Cooling

Table P17: GEH/GEV 024 Cooling Performance

Cooling performance data is tabulated at 80.6 F DB/66.2 F WB entering air at ARI/ISO 13256-1 rated CFM. For ARI/ISO 13256-1 certified ratings, see Table P1. See Performance correction tables to correct performance at conditions other than those tabulated. Data shown is for unit performance only. Interpolation is permissible. Extrapolation is not.

Rated GPM: 5.5
Rated CFM: 760

Maximum CFM: 608
Maximum CFM: 912

EWT	GPM	Total Mbtuh	Sen Mbtuh	SHR	Power kW	EER	Reject Mbtuh	LWT	Feet Head
45	3.6	30.4	21.8	0.72	1.69	18.0	36.2	65.1	4.7
45	4.4	30.7	21.7	0.71	1.65	18.6	36.3	61.5	6.4
45	5.0	30.9	21.8	0.71	1.62	19.1	36.4	59.6	7.9
45	5.5	31.0	21.7	0.70	1.61	19.3	36.5	58.3	9.1
45	5.8	31.0	21.7	0.70	1.60	19.4	36.5	57.6	9.9
45	6.1	31.1	21.7	0.70	1.59	19.6	36.5	57.0	10.7
45	6.6	31.2	21.6	0.69	1.58	19.7	36.6	56.1	12.0
55	3.6	29.6	20.8	0.70	1.79	16.5	35.7	74.8	4.5
55	4.4	29.9	20.8	0.70	1.74	17.2	35.8	71.3	6.1
55	5.0	30.0	20.9	0.70	1.72	17.4	35.9	69.4	7.4
55	5.5	30.1	21.0	0.70	1.70	17.7	35.9	68.1	8.6
55	5.8	30.2	21.0	0.70	1.69	17.9	36.0	67.4	9.3
55	6.1	30.2	21.0	0.70	1.68	18.0	35.9	66.8	10.1
55	6.6	30.3	21.0	0.69	1.67	18.1	36.0	65.9	11.3
68	3.6	27.5	20.0	0.73	1.97	14.0	34.2	87.0	4.1
68	4.4	27.8	20.0	0.72	1.92	14.5	34.4	83.6	5.6
68	5.0	28.0	20.1	0.72	1.89	14.8	34.5	81.8	6.8
68	5.5	28.1	20.2	0.72	1.88	14.9	34.5	80.6	7.9
68	5.8	28.1	20.2	0.72	1.87	15.0	34.5	79.9	8.6
68	6.1	28.2	20.3	0.72	1.86	15.2	34.6	79.3	9.3
68	6.6	28.3	20.3	0.72	1.85	15.3	34.6	78.5	10.5
77	3.6	26.2	19.4	0.74	2.11	12.4	33.4	95.6	3.8
77	4.4	26.5	19.4	0.73	2.07	12.8	33.6	92.3	5.3
77	5.0	26.7	19.5	0.73	2.04	13.1	33.7	90.5	6.4
77	5.5	26.8	19.6	0.73	2.02	13.3	33.7	89.3	7.5
77	5.8	26.8	19.7	0.74	2.02	13.3	33.7	88.6	8.1
77	6.1	26.9	19.7	0.73	2.01	13.4	33.8	88.1	8.8
77	6.6	27.0	19.7	0.73	1.99	13.6	33.8	87.3	10.0
86	3.6	24.6	18.8	0.76	2.26	10.9	32.3	104.0	3.6
86	4.4	24.9	18.8	0.76	2.22	11.2	32.5	100.8	4.9
86	5.0	25.1	18.9	0.75	2.20	11.4	32.6	99.1	6.1
86	5.5	25.2	19.0	0.75	2.18	11.6	32.6	97.9	7.1
86	5.8	25.2	19.0	0.75	2.17	11.6	32.6	97.3	7.7
86	6.1	25.3	19.1	0.75	2.17	11.7	32.7	96.8	8.3
86	6.6	25.3	19.1	0.75	2.15	11.8	32.6	95.9	9.5
95	3.6	22.8	18.2	0.80	2.41	9.5	31.0	112.3	3.3
95	4.4	23.1	18.1	0.78	2.38	9.7	31.2	109.3	4.6
95	5.0	23.2	18.2	0.78	2.36	9.8	31.3	107.6	5.7
95	5.5	23.3	18.3	0.79	2.34	10.0	31.3	106.4	6.7
95	5.8	23.4	18.4	0.79	2.33	10.0	31.4	105.9	7.3
95	6.1	23.4	18.4	0.79	2.32	10.1	31.3	105.3	7.9
95	6.6	23.5	18.4	0.78	2.31	10.2	31.4	104.6	9.0
105	3.6	20.7	17.5	0.85	2.57	8.1	29.5	121.5	3.1
105	4.4	21.0	17.4	0.83	2.54	8.3	29.7	118.6	4.4
105	5.0	21.2	17.5	0.83	2.52	8.4	29.8	117.0	5.4
105	5.5	21.3	17.6	0.83	2.50	8.5	29.8	115.9	6.4
105	5.8	21.3	17.7	0.83	2.50	8.5	29.8	115.4	6.9
105	6.1	21.4	17.7	0.83	2.49	8.6	29.9	114.9	7.6
105	6.6	21.4	17.7	0.83	2.48	8.6	29.9	114.1	8.6
115	3.6	18.8	16.9	0.90	2.70	7.0	28.0	130.7	2.9
115	4.4	19.1	16.7	0.87	2.67	7.2	28.2	128.0	4.2
115	5.0	19.2	16.9	0.88	2.66	7.2	28.3	126.4	5.2
115	5.5	19.3	16.9	0.88	2.64	7.3	28.3	125.4	6.1
115	5.8	19.4	17.0	0.88	2.64	7.3	28.4	124.9	6.7
115	6.1	19.4	17.0	0.88	2.63	7.4	28.4	124.4	7.3
115	6.6	19.5	17.1	0.88	2.62	7.4	28.4	123.7	8.3
120	3.6	17.9	16.5	0.92	2.74	6.5	27.3	135.3	2.9
120	4.4	18.2	16.4	0.90	2.73	6.7	27.5	132.7	4.1
120	5.0	18.4	16.5	0.90	2.71	6.8	27.7	131.2	5.1
120	5.5	18.5	16.6	0.90	2.70	6.9	27.7	130.2	6.0
120	5.8	18.5	16.7	0.90	2.70	6.9	27.7	129.7	6.6
120	6.1	18.6	16.7	0.90	2.69	6.9	27.8	129.2	7.2
120	6.6	18.6	16.7	0.90	2.68	6.9	27.8	128.5	8.2



Performance Data Electrical

E1-Electrical performance

Model No.	Volts	Total FLA	Comp RLA (ea)	Comp LRA (ea)	No. of Compres.	Cmp MCC	Blower Motor FLA	Blower Motor HP	Fan Motor Num	Minimum Circuit Ampacity	Maximum Overcurrent Protective Device	Electric Heat kW	Electric Heat Amps
006	115/60/1	6.8	5.70	36.2	1	9.1	1.20	1/12	1	8.3	15	0	0
	208/60/1	3.4	2.80	17.7	1	4.6	0.60	1/12	1	4.1	15	0	0
	208/60/1	4.48	2.8	17.7	1	4.6	0.60	1/12	1	5.6	15	0.82	3.9
	230/60/1	3.4	2.80	17.7	1	4.6	0.60	1/12	1	4.1	15	0	0
	230/60/1	4.88	2.8	17.7	1	4.6	0.60	1/12	1	6.1	15	1.00	4.3
	220-240/50/1	3.6	3.10	18.8	1	5.2	0.52	1/12	1	4.4	15	0	0
	220-240/50/1	7.3	3.1	18.8	1	5.2	0.52	1/12	1	9.2	15	1.64	6.8
	265/60/1	3.0	2.45	15.0	1	3.9	0.52	1/12	1	3.6	15	0	0
009	265/60/1	5.5	2.5	15.0	1	3.9	0.52	1/12	1	6.9	15	1.33	5.0
	115/60/1	8.3	7.20	45.6	1	10.9	1.20	1/12	1	10.2	15	0	0
	208/60/1	4.0	3.40	22.2	1	6.4	0.60	1/12	1	4.9	15	0	0
	208/60/1	6.48	3.4	22.2	1	6.4	0.60	1/12	1	8.1	15	1.23	5.9
	230/60/1	4.0	3.40	22.2	1	6.4	0.60	1/12	1	4.9	15	0	0
	230/60/1	7.08	3.4	22.2	1	6.4	0.60	1/12	1	8.9	15	1.50	6.5
	220-240/50/1	5.0	4.30	22.2	1	6.6	0.72	1/8	1	6.1	15	0	0
	220-240/50/1	9.72	4.3	22.2	1	6.6	0.72	1/8	1	12.2	15	2.17	9.0
	265/60/1	3.6	3.10	18.8	1	5.2	0.52	1/12	1	4.4	15	0	0
	265/60/1	8.0	3.1	18.8	1	5.2	0.52	1/12	1	10.0	15	2.00	7.5
	012	115/60/1	12.2	10.60	56.7	1	16.0	1.57	1/8	1	14.8	25	0
208/60/1		5.7	5.00	27.9	1	8.3	0.70	1/8	1	7.0	15	0	0
208/60/1		8.5	5.0	27.9	1	8.3	0.70	1/8	1	10.6	15	1.63	7.8
230/60/1		5.7	5.00	27.9	1	8.3	0.70	1/8	1	7.0	15	0	0
230/60/1		9.4	5.0	27.9	1	8.3	0.70	1/8	1	11.8	15	2.00	8.7
220-240/50/1		5.5	4.80	27.0	1	8.5	0.72	1/8	1	6.7	15	0	0
220-240/50/1		12.02	4.8	27.0	1	8.5	0.72	1/8	1	15.0	15	2.70	11.3
265/60/1		5.0	4.30	22.2	1	6.6	0.72	1/8	1	6.1	15	0	0
265/60/1		10.72	4.3	22.2	1	6.6	0.72	1/8	1	13.4	15	2.65	10.0
015 - Std Static		220-240/50/1	7.1	6.3	32.0	1	10.0	0.80	1/8	1	8.7	15	0
	220-240/50/1	14.5	6.3	32.0	1	10.0	0.80	1/8	1	18.1	20	3.28	13.7
015 - Hi Static	208/60/1	6.1	5.40	29.0	1	9.2	0.70	1/8	1	7.5	15	0	0
	208/60/1	10.3	5.4	29.0	1	9.2	0.70	1/8	1	12.9	15	2.00	9.6
	230/60/1	6.1	5.40	29.0	1	9.2	0.70	1/8	1	7.5	15	0	0
	230/60/1	11.6	5.4	29.0	1	9.2	0.70	1/8	1	14.5	15	2.50	10.9
	220-240/50/1	7.8	6.30	32.0	1	10.0	1.53	1/3	1	9.4	15	0	0
	220-240/50/1	15.23	6.3	32.0	1	10.0	1.53	1/3	1	19.0	20	3.28	13.7
	265/60/1	5.5	4.80	27.0	1	8.5	0.72	1/8	1	6.7	15	0	0
018 - Std Static	265/60/1	13.22	4.8	27.0	1	8.5	0.72	1/8	1	16.5	20	3.30	12.5
	208/60/1	8.5	7.6	45.0	1	13.0	0.9	1/8	1	10.4	15	0	0
	208/60/1	12.7	7.6	45.0	1	13.0	0.90	1/8	1	15.9	20	2.46	11.8
	230/60/1	8.5	7.6	45.0	1	13.0	0.90	1/8	1	10.4	15	0	0
	230/60/1	13.9	7.6	45.0	1	13.0	0.90	1/8	1	17.4	20	3.0	13.0
	265/60/1	7.1	6.3	32.0	1	10.0	0.80	1/8	1	8.7	15	0	0
018 - Hi Static	265/60/1	15.9	6.3	32.0	1	10.0	0.80	1/8	1	19.9	20	4.00	15.1
	208/60/1	9.4	7.60	45.0	1	13.0	2.10	1/3	1	11.6	15	0	0
	208/60/1	13.6	7.6	45.0	1	13.0	2.10	1/3	1	17.4	20	2.46	11.8
	230/60/1	9.4	7.60	45.0	1	13.0	2.10	1/3	1	11.6	15	0	0
	230/60/1	14.8	7.6	45.0	1	13.0	2.10	1/3	1	18.9	20	3.00	13.0
	220-240/50/1	11.4	9.90	55.0	1	13.8	1.53	1/3	1	13.9	20	0	0
	220-240/50/1	19.63	9.9	55.0	1	13.8	1.53	1/3	1	24.5	25	4.35	18.1
	265/60/1	7.8	6.30	32.0	1	10.0	1.53	1/3	1	9.4	15	0	0
	265/60/1	16.63	6.3	32.0	1	10.0	1.53	1/3	1	20.8	25	4.00	15.1
	380-415/50/3	4.9	3.90	25.0	1	5.4	0.95	1/3	1	5.8	15	0	0
	380-415/50/3	11.45	3.9	25.0	1	5.4	0.95	1/3	1	14.3	15	4.35	10.5



Performance Data Electrical

E2-Electrical performance (continued)

Model No.	Volts	Total FLA	Comp RLA (ea)	Comp LRA (ea)	No. of Compres.	Cmp MCC	Blower Motor FLA	Blower Motor HP	Fan Motor Num	Minimum Circuit Ampacity	Maximum Overcurrent Protective Device	Electric Heat kW	Electric Heat Amps	
024	208/60/1	12.7	10.90	56.0	1	15.3	2.10	1/3	1	15.7	25	0	0	
	208/60/1	17.5	10.9	56.0	1	15.3	2.10	1/3	1	22.3	25	3.26	15.7	
	230/60/1	12.7	10.90	56.0	1	15.3	2.10	1/3	1	15.7	25	0	0	
	230/60/1	19.2	10.9	56.0	1	15.3	2.10	1/3	1	24.0	25	4.00	17.4	
	220-240/50/1	12.4	10.90	58.0	1	15.3	1.53	1/3	1	15.2	25	0	0	
	220-240/50/1	24.03	10.9	58.0	1	15.3	1.53	1/3	1	30.0	35	5.40	22.5	
	265/60/1	11.4	9.90	55.0	1	13.8	1.53	1/3	1	13.9	20	0	0	
	265/60/1	21.53	9.9	55.0	1	13.8	1.53	1/3	1	26.9	30	5.30	20.0	
	208/60/3	9.3	7.50	51.0	1	10.5	1.80	1/3	1	11.2	15	0	0	
	208/60/3	10.8	7.5	51.0	1	10.5	1.80	1/3	1	13.5	15	3.26	9.0	
	230/60/3	9.3	7.50	51.0	1	10.5	1.80	1/3	1	11.2	15	0	0	
	230/60/3	11.8	7.5	51.0	1	10.5	1.80	1/3	1	14.8	15	4.00	10.0	
	380-415/50/3	5.0	4.00	28.0	1	5.6	0.95	1/3	1	6.0	15	0	0	
	380-415/50/3	8.45	4.0	28.0	1	5.6	0.95	1/3	1	10.6	15	5.40	7.5	
	460/60/3	4.9	3.90	25.0	1	5.4	0.95	1/3	1	5.8	15	0	0	
	460/60/3	7.65	3.9	25.0	1	5.4	0.95	1/3	1	9.6	15	5.30	6.7	
030	208/60/1	14.2	12.40	61.0	1	17.4	2.10	1/3	1	17.6	30	0	0	
	208/60/1	21.5	12.4	61.0	1	17.4	2.10	1/3	1	27.3	30	4.10	19.7	
	230/60/1	14.2	12.40	61.0	1	17.4	2.10	1/3	1	17.6	30	0	0	
	230/60/1	23.5	12.4	61.0	1	17.4	2.10	1/3	1	29.8	30	5.00	21.7	
	220-240/50/1	16.4	13.60	64.0	1	19.1	2.77	1/2	1	19.8	30	0	0	
	220-240/50/1	29.97	13.6	64.0	1	19.1	2.77	1/2	1	37.5	40	6.52	27.2	
	265/60/1	12.4	10.90	58.0	1	15.3	1.53	1/3	1	15.2	25	0	0	
	265/60/1	26.43	10.9	58.0	1	15.3	1.53	1/3	1	33.0	35	6.60	24.9	
	208/60/3	9.5	7.70	55.0	1	10.8	1.80	1/3	1	11.4	15	0	0	
	208/60/3	13.2	7.7	55.0	1	10.8	1.80	1/3	1	16.5	20	4.10	11.4	
	230/60/3	9.5	7.70	55.0	1	10.8	1.80	1/3	1	11.4	15	0	0	
	230/60/3	14.4	7.7	55.0	1	10.8	1.80	1/3	1	18.0	20	5.00	12.6	
	380-415/50/3	6.6	4.90	33.0	1	6.9	1.70	1/2	1	7.8	15	0	0	
	380-415/50/3	10.8	4.9	33.0	1	6.9	1.70	1/2	1	13.5	15	6.52	9.1	
	460/60/3	5.0	4.00	28.0	1	5.6	0.95	1/3	1	6.0	15	0	0	
	460/60/3	9.25	4.0	28.0	1	5.6	0.95	1/3	1	11.6	15	6.60	8.3	
036	208/60/1	19.3	16.00	82.0	1	22.4	3.60	1/2	1	23.6	35	0	0	
	208/60/1	26.87	16.0	82.0	1	22.4	3.60	1/2	1	34.0	35	4.90	23.6	
	230/60/1	19.3	16.00	82.0	1	22.4	3.60	1/2	1	23.6	35	0	0	
	230/60/1	29.37	16.0	82.0	1	22.4	3.60	1/2	1	37.1	40	6.00	26.1	
	265/60/1	16.4	13.60	64.0	1	19.1	2.77	1/2	1	19.8	30	0	0	
	265/60/1	32.77	13.6	64.0	1	19.1	2.77	1/2	1	41.0	45	7.95	30.0	
	208/60/3	13.7	10.40	65.5	1	14.6	3.60	1/2	1	16.6	25	0	0	
	208/60/3	16.87	10.4	65.5	1	14.6	3.60	1/2	1	21.5	25	4.90	13.6	
	230/60/3	13.7	10.40	65.5	1	14.6	3.60	1/2	1	16.6	25	0	0	
	230/60/3	18.37	10.4	65.5	1	14.6	3.60	1/2	1	23.4	25	6.00	15.1	
	380-415/50/3	6.5	4.80	40.0	1	6.7	1.70	1/2	1	7.7	15	0	0	
	380-415/50/3	11.6	4.8	40.0	1	6.7	1.70	1/2	1	14.5	15	7.15	9.9	
	460/60/3	6.6	4.90	33.0	1	6.9	1.70	1/2	1	7.8	15	0	0	
	460/60/3	11.7	4.9	33.0	1	6.9	1.70	1/2	1	14.6	15	7.95	10.0	
	GEV 040	208/60/1	19.4	16.1	82.0	1	22.5	3.60	1/2	1	23.7	35	0	0
		208/60/1	29.27	16.1	82.0	1	22.5	3.60	1/2	1	37.0	40	5.40	26.0
230/60/1		19.4	16.1	82.0	1	22.5	3.60	1/2	1	23.7	35	0	0	
230/60/1		31.97	16.1	82.0	1	22.5	3.60	1/2	1	40.4	45	6.60	28.7	
265/60/1		17.8	15.0	83.0	1	21.0	2.77	1/2	1	21.5	35	0	0	
265/60/1		35.97	15.0	83.0	1	0.0	2.77	1/2	1	45.0	45	8.80	33.2	
208/60/3		13.3	10.0	70.0	1	14.0	3.60	1/2	1	16.1	25	0	0	
208/60/3		18.27	10.0	70.0	1	14.0	3.60	1/2	1	23.3	25	5.40	15.0	
230/60/3		13.3	10.0	70.0	1	14.0	3.60	1/2	1	16.1	25	0	0	
230/60/3		19.87	10.0	70.0	1	14.0	3.60	1/2	1	25.3	30	6.60	16.6	
460/60/3		6.8	5.1	33.0	1	7.1	1.70	1/2	1	8.1	15	0	0	
460/60/3		12.7	5.1	33.0	1	7.1	1.70	1/2	1	15.9	20	8.80	11.0	



High Efficiency Water-to-Water Water-Source Comfort System

2 through 6 Tons – 60 HZ
20 Tons – 60 HZ



WSHP-PRC009-EN



Performance Data EXWA 240-Heating

Table P-13: 240 Heating Performance

Performance data is tabulated under ARI/ISO 13256-2.

Antifreeze correction factors may be found on page 47.

		Load 30.0 GPM										Load 55.0 GPM					Load 70.0 GPM							
Source EWT	Load EWT	Source GPM	Source WPD Ft Head	Source LWT	Heat Cap Mbtuh	Power kW	Heat Of Absorb	COP	Load LWT	Load WPD Ft Head	Source LWT	Heat Cap Mbtuh	Power kW	Heat Of Absorb	COP	Load LWT	Load WPD Ft Head	Source LWT	Heat Cap Mbtuh	Power kW	Heat Of Absorb	COP	Load LWT	Load WPD Ft Head
30.0	60.0	30.0	4.6	21.5	165.3	10.88	128.2	4.5	71.0	3.4	21.3	165.3	9.95	131.3	4.9	66.0	9.2	21.2	165.3	9.65	132.4	5.0	64.7	13.9
30.0	60.0	55.0	12.6	24.8	180.9	11.02	143.3	4.8	72.1	3.4	24.7	180.9	10.07	146.5	5.3	66.6	9.2	24.6	180.9	9.77	147.6	5.4	65.2	13.9
30.0	60.0	70.0	18.9	25.9	183.5	11.19	145.3	4.8	72.2	3.4	25.8	183.5	10.23	148.6	5.3	66.7	9.2	25.7	183.5	9.92	149.6	5.4	65.2	13.9
30.0	80.0	30.0	4.6	22.3	163.1	14.06	115.1	3.4	90.9	2.9	22.1	163.1	12.85	119.2	3.7	85.9	8.1	22.0	163.1	12.46	120.6	3.8	84.7	12.2
30.0	80.0	55.0	12.6	25.3	178.5	14.23	129.9	3.7	91.9	2.9	25.1	178.5	13.00	134.1	4.0	86.5	8.1	25.1	178.5	12.61	135.5	4.1	85.1	12.2
30.0	80.0	70.0	18.9	26.2	181.0	14.45	131.7	3.7	92.1	2.9	26.1	181.0	13.21	135.9	4.0	86.6	8.1	26.1	181.0	12.82	137.3	4.1	85.2	12.2
30.0	100.0	30.0	4.6	23.4	160.9	18.07	99.2	2.6	110.8	2.6	23.0	160.9	16.51	104.6	2.9	105.9	7.3	22.9	160.9	16.02	106.2	2.9	104.6	11.0
30.0	100.0	55.0	12.6	25.9	176.1	18.29	113.7	2.8	111.8	2.6	25.7	176.1	16.71	119.1	3.1	106.4	7.3	25.6	176.1	16.21	120.8	3.2	105.1	11.0
30.0	100.0	70.0	18.9	26.7	178.6	18.58	115.2	2.8	112.0	2.6	26.6	178.6	16.98	120.7	3.1	106.5	7.3	26.5	178.6	16.47	122.4	3.2	105.1	11.0
30.0	120.0	30.0	4.6	24.6	158.7	22.98	80.3	2.0	130.7	2.4	24.2	158.7	21.00	87.0	2.2	125.8	6.7	24.1	158.7	20.38	89.1	2.3	124.6	10.1
30.0	120.0	55.0	12.6	26.6	173.7	23.26	94.3	2.2	131.7	2.4	26.3	173.7	21.25	101.2	2.4	126.4	6.7	26.2	173.7	20.62	103.3	2.5	125.0	10.1
30.0	120.0	70.0	18.9	27.3	176.2	23.63	95.6	2.2	131.9	2.4	27.1	176.2	21.59	102.5	2.4	126.5	6.7	27.0	176.2	20.95	104.7	2.5	125.1	10.1
40.0	60.0	30.0	4.1	29.7	193.2	11.51	153.9	4.9	72.9	3.4	29.5	193.2	10.52	157.3	5.4	67.0	9.2	29.4	193.2	10.21	158.4	5.5	65.5	13.9
40.0	60.0	55.0	11.1	33.8	211.4	11.65	171.6	5.3	74.1	3.4	33.6	211.4	10.64	175.1	5.8	67.7	9.2	33.6	211.4	10.33	176.1	6.0	66.0	13.9
40.0	60.0	70.0	16.7	35.0	214.5	11.84	174.1	5.3	74.3	3.4	34.9	214.5	10.81	177.6	5.8	67.8	9.2	34.9	214.5	10.49	178.7	6.0	66.1	13.9
40.0	80.0	30.0	4.1	30.7	189.7	14.62	139.8	3.8	92.7	2.9	30.4	189.7	13.36	144.1	4.2	86.9	8.1	30.3	189.7	12.97	145.4	4.3	85.4	12.2
40.0	80.0	55.0	11.1	34.3	207.5	14.80	157.0	4.1	93.9	2.9	34.1	207.5	13.52	161.4	4.5	87.6	8.1	34.1	207.5	13.12	162.7	4.6	85.9	12.2
40.0	80.0	70.0	16.7	35.5	210.5	15.04	159.2	4.1	94.1	2.9	35.3	210.5	13.74	163.6	4.5	87.7	8.1	35.3	210.5	13.33	165.0	4.6	86.0	12.2
40.0	100.0	30.0	4.1	31.8	186.1	18.61	122.6	2.9	112.5	2.6	31.5	186.1	17.00	128.1	3.2	106.8	7.3	31.3	186.1	16.50	129.8	3.3	105.4	11.0
40.0	100.0	55.0	11.1	34.9	203.7	18.83	139.4	3.2	113.7	2.6	34.7	203.7	17.21	145.0	3.5	107.5	7.3	34.7	203.7	16.69	146.7	3.6	105.9	11.0
40.0	100.0	70.0	16.7	36.0	206.6	19.13	141.3	3.2	113.9	2.6	35.8	206.6	17.48	146.9	3.5	107.6	7.3	35.8	206.6	16.96	148.7	3.6	105.9	11.0
40.0	120.0	30.0	4.1	33.2	182.6	23.52	102.3	2.3	132.3	2.4	32.7	182.6	21.49	109.3	2.5	126.7	6.7	32.6	182.6	20.85	111.4	2.6	125.3	10.1
40.0	120.0	55.0	11.1	35.7	199.8	23.81	118.5	2.5	133.5	2.4	35.4	199.8	21.75	125.6	2.7	127.4	6.7	35.4	199.8	21.11	127.8	2.8	125.8	10.1
40.0	120.0	70.0	16.7	36.6	202.7	24.19	120.1	2.5	133.7	2.4	36.4	202.7	22.10	127.3	2.7	127.5	6.7	36.3	202.7	21.44	129.5	2.8	125.9	10.1
50.0	60.0	30.0	3.7	38.0	221.9	12.08	180.7	5.4	74.8	3.4	37.7	221.9	11.04	184.2	5.9	68.1	9.2	37.6	221.9	10.71	185.4	6.1	66.3	13.9
50.0	60.0	55.0	10.1	42.7	242.8	12.23	201.1	5.8	76.2	3.4	42.6	242.8	11.17	204.7	6.4	68.8	9.2	42.5	242.8	10.84	205.8	6.6	66.9	13.9
50.0	60.0	70.0	15.1	44.2	246.3	12.42	203.9	5.8	76.4	3.4	44.1	246.3	11.35	207.6	6.4	69.0	9.2	44.0	246.3	11.01	208.7	6.6	67.0	13.9
50.0	80.0	30.0	3.7	39.0	217.0	15.14	165.3	4.2	94.5	2.9	38.7	217.0	13.84	169.8	4.6	87.9	8.1	38.6	217.0	13.42	171.2	4.7	86.2	12.2
50.0	80.0	55.0	10.1	43.3	237.4	15.32	185.1	4.5	95.9	2.9	43.1	237.4	14.00	189.6	5.0	88.7	8.1	43.1	237.4	13.59	191.0	5.1	86.8	12.2
50.0	80.0	70.0	15.1	44.6	240.9	15.57	187.8	4.5	96.1	2.9	44.5	240.9	14.23	192.3	5.0	88.8	8.1	44.5	240.9	13.80	193.8	5.1	86.9	12.2
50.0	100.0	30.0	3.7	40.2	212.1	19.11	146.9	3.3	114.2	2.6	39.8	212.1	17.46	152.5	3.6	107.8	7.3	39.7	212.1	16.94	154.3	3.7	106.1	11.0
50.0	100.0	55.0	10.1	44.0	232.1	19.34	166.1	3.5	115.6	2.6	43.8	232.1	17.67	171.8	3.8	108.5	7.3	43.7	232.1	17.14	173.6	4.0	106.7	11.0
50.0	100.0	70.0	15.1	45.2	235.4	19.64	168.4	3.5	115.8	2.6	45.0	235.4	17.95	174.1	3.8	108.6	7.3	45.0	235.4	17.42	176.0	4.0	106.8	11.0
50.0	120.0	30.0	3.7	41.7	207.2	24.04	125.2	2.5	134.0	2.4	41.2	207.2	21.96	132.3	2.8	127.6	6.7	41.0	207.2	21.31	134.5	2.8	126.0	10.1
50.0	120.0	55.0	10.1	44.8	226.7	24.33	143.7	2.7	135.3	2.4	44.5	226.7	22.23	150.8	3.0	128.3	6.7	44.4	226.7	21.57	153.1	3.1	126.6	10.1
50.0	120.0	70.0	15.1	45.8	230.0	24.71	145.7	2.7	135.5	2.4	45.6	230.0	22.58	152.9	3.0	128.5	6.7	45.6	230.0	21.91	155.2	3.1	126.6	10.1
60.0	60.0	30.0	3.4	46.1	251.3	12.60	208.3	5.8	76.8	3.4	45.9	251.3	11.51	212.0	6.4	69.1	9.2	45.8	251.3	11.17	213.2	6.6	67.2	13.9
60.0	60.0	55.0	9.2	51.6	275.0	12.75	231.5	6.3	78.3	3.4	51.4	275.0	11.65	235.2	6.9	70.0	9.2	51.4	275.0	11.30	236.4	7.1	67.9	13.9
60.0	60.0	70.0	13.9	53.3	278.9	12.95	234.7	6.3	78.6	3.4	53.2	278.9	11.84	238.5	6.9	70.1	9.2	53.1	278.9	11.49	239.7	7.1	68.0	13.9
60.0	80.0	30.0	3.4	47.2	245.1	15.62	191.8	4.6	96.4	2.9	46.9	245.1	14.27	196.4	5.0	88.9	8.1	46.8	245.1	13.85	197.8	5.2	87.0	12.2
60.0	80.0	55.0	9.2	52.2	268.1	15.81	214.1	5.0	97.9	2.9	52.0	268.1	14.44	218.8	5.4	89.8	8.1	52.0	268.1	14.01	220.3	5.6	87.7	12.2
60.0	80.0	70.0	13.9	53.8	272.0	16.06	217.2	5.0	98.2	2.9	53.7	272.0	14.67	221.9	5.4	89.9	8.1	53.6	272.0	14.24	223.4	5.6	87.8	12.2
60.0	100.0	30.0	3.4	48.5	238.8	19.58	172.0	3.6	116.0	2.6	48.1	238.8	17.89	177.7	3.9	108.7	7.3	48.0	238.8	17.35	179.6	4.0	106.9	11.0
60.0	100.0	55.0	9.2	53.0	261.3	19.81	193.7	3.9	117.5	2.6	52.7	261.3	18.10	199.5	4.2	109.6	7.3	52.7	261.3	17.56	201.4	4.4	107.5	11.0
60.0	100.0	70.0	13.9	54.4	265.1	20.13	196.4	3.9	117.8	2.6	54.2	265.1	18.39	202.3	4.2	109.7	7.3	54.2	265.1	17.84	204.2	4.4	107.6	11.0
60.0	120.0	30.0	3.4	50.1	232.5	24.53	148.8	2.8	135.7	2.4	49.6	232.5	22.41	156.0	3.0	128.6	6.7	49.4	232.5	21.75	158.3	3.1	126.7	10.1
60.0	120.0	55.0	9.2	53.8	254.4	24.82	169.7	3.0	137.2	2.4	53.6	254.4	22.68	177.0	3.3	129.4	6.7	53.5	254.4	22.01	179.3	3.4	127.4	10.1
60.0	120.0	70.0	13.9	55.1	258.1	25.22	172.0	3.0	137.4	2.4	54.9	258.1	23.04	179.5	3.3	129.5	6.7	54.8	258.1	22.36	181.8	3.4	127.5	10.1



Performance Data Electrical

Table E-1: Electrical performance WPWD/EXWA

Model/MBH	VOLTS-AC/HZ/PH	Min. Util. Volt	Max Util. Volt	Compressor Each RLA	LRA	No. of Comp	Without Desup		With Desup		
							MCA	Max Fuse	Desup RLA	MCA	Max Fuse
WPWD024	208-230/60/1	197	253	11.4	56.0	1	14.3	25	0.4	14.7	25
	220-240/50/1	198	264	9.6	47.0	1	12.0	20	0.4	12.4	20
	265/60/1	239	292	9.6	47.0	1	12.0	20	0.4	12.4	20
WPWD036	208-230/60/1	197	253	15.0	73.0	1	18.8	30	0.4	19.2	30
	208-230/60/3	197	253	10.7	63.0	1	13.4	20	0.4	13.8	20
	220-240/50/1	198	264	14.3	71.0	1	17.9	30	0.4	18.3	30
	265/60/1	239	292	14.3	71.0	1	17.9	30	0.4	18.3	30
	380-415/50/3	342	456	5.0	31.0	1	6.3	15.0	0.4	6.7	15.0
	460/60/3	414	506	5.0	31.0	1	6.3	15	0.4	6.7	15
WPWD042	208-230/60/1	197	253	18.4	95.0	1	23.0	40	0.4	23.4	40
	208-230/60/3	197	253	11.4	77.0	1	14.3	25	0.4	14.7	25
	220-240/50/1	198	264	16.4	83.0	1	20.5	35	0.4	20.9	35
	265/60/1	239	292	16.4	83.0	1	20.5	35	0.4	20.9	35
	380-415/50/3	342	456	5.7	39.0	1	7.1	15.0	0.4	7.5	15.0
	460/60/3	414	506	5.7	39.0	1	7.1	15	0.4	7.5	15
WPWD048	208-230/60/1	197	253	20.4	109.0	1	25.5	45	0.4	25.9	45
	208-230/60/3	197	253	13.9	88.0	1	17.4	30	0.4	17.8	30
	380-415/50/3	342	456	7.1	44.0	1	8.9	15.0	0.4	9.3	15.0
	460/60/3	414	506	7.1	44.0	1	8.9	15	0.4	9.3	15
WPWD060	208-230/60/1	197	253	28.0	169.0	1	35.0	60	0.4	35.4	60
	208-230/60/3	197	253	20.0	123.0	1	25.0	45	0.4	25.4	45
	380-415/50/3	342	456	7.5	49.5	1	9.4	15.0	0.4	9.8	15.0
	460/60/3	414	506	7.5	49.5	1	9.4	15	0.4	9.8	15
	575/60/3	517	633	6.4	40.0	1	8.0	15	0.4	8.4	15
WPWD072	208-230/60/1	197	253	32.1	169.0	1	40.1	70	0.4	40.5	70
	208-230/60/3	197	253	19.3	137.0	1	24.1	40	0.4	24.5	40
	380-415/50/3	342	456	10.0	62.0	1	12.5	20.0	0.4	12.9	20.0
	460/60/3	414	506	10.0	62.0	1	12.5	20	0.4	12.9	20
	575/60/3	517	633	7.8	50.0	1	9.8	15	0.4	10.2	15
EXWA240	208/60/3	197	229	31.7	232.0	2	71.39	100			
	230/60/3	207	253	31.7	261.0	2	71.39	100			
	460/60/3	414	506	14.1	112.0	2	31.73	45			
	575/60/3	518	633	11.2	92.0	2	25.24	35			



A PHI Company

**DISTRICT OF COLUMBIA
TIME METERED GENERAL SERVICE – LOW VOLTAGE SERVICE
SCHEDULE GT LV
UPDATED METERS READ ON AND AFTER MARCH 1, 2006**

	Billing Months of <u>June – October</u> (Summer)	Billing Months of <u>November – May</u> (Winter)
<u>Generation</u>¹		
Kilowatt-hour Charge		
On Peak	\$ 0.08682 per kwh	\$ 0.06889 per kwh
Intermediate	\$ 0.06632 per kwh	\$ 0.07239 per kwh
Off Peak	\$ 0.05645 per kwh	\$ 0.05757 per kwh
Kilowatt Charge		
On Peak	\$ 0.84507 per kw	
Maximum	\$ 0.30248 per kw	\$ 0.30248 per kw
Procurement Cost Adjustment www.pepco.com for monthly rate		
<u>Transmission</u>²		
All kwh	\$ 0.00111 per kwh	\$ 0.00111 per kwh
Kilowatt Charge		
On Peak	\$ 0.71 per kw	
Maximum	\$ 0.59 per kw	\$ 0.59 per kw
<u>Distribution</u>³		
Customer Charge	\$ 20.93 per month	\$ 20.93 per month
All kwh	\$ 0.01029 per kwh	\$ 0.01029 per kwh
Kilowatt Charge		
Maximum	\$ 4.80 per kw	\$ 4.80 per kw
Delivery Tax ⁴	\$ 0.0077 per kwh	\$ 0.0077 per kwh
Public Space Occupancy Surcharge ⁵	\$ 0.00154 per kwh	\$ 0.00154 per kwh
Administrative Credit www.pepco.com for monthly rate		
Reliability Energy Trust Fund ⁶	\$ 0.00065 per kwh	\$ 0.00065 per kwh
Generation Procurement Credit ⁷	\$ 0.00002 per kwh	\$ 0.00002 per kwh

¹ Effective February 8, 2005

² Effective February 8, 2005

³ Effective February 8, 2005

⁴ Effective January 1, 2005

⁵ Effective March 1, 2006

⁶ Effective with the Billing Month of June, 2005

⁷ Effective Billing Month of November, 2005, Rendition Group 11



A PHI Company

DC - GT LV

TIME METERED GENERAL SERVICE - LOW VOLTAGE SCHEDULE "GT LV"

AVAILABILITY

Shall be applicable for either Standard Offer Service when modified by Rider "SOS" or Distribution Service when modified by Rider "SOS" in the District of Columbia portion of the Company's service area to customers whose maximum thirty (30) minute demand equals or exceeds one hundred (100) kilowatts during two (2) or more billing months within twelve (12) consecutive billing months. New customers will be qualified for Schedule "GT LV" based on estimated load and energy consumption using the above criteria. Once a customer's account is established it will remain on Schedule "GT LV" even if the party responsible for the account should change. Removal from Schedule "GT LV" is based solely on the criteria stated in the following paragraph.

Any customer presently on Schedule "GT LV" whose maximum thirty (30) minute demand is less than eighty (80) kilowatts for twelve (12) consecutive billing months, may at the customer's option elect to continue service on this schedule or elect to be served under any other available schedule. If the customer elects to stay on Schedule "GT LV", the customer will remain on Schedule "GT LV" for at least twelve (12) billing months. Rate schedule transfers will be made annually and become effective with the billing month of June.

Available for low voltage electric service at sixty hertz.

Available for standby service when modified by Schedule "S".

Not available for temporary service.

Not available for multiple application to master-metered apartment buildings except for those master-metered apartments served under Schedule "GT LV" prior to December 31, 1982 which will continue to be served under Schedule "GT LV".

CHARACTER OF SERVICE

The service supplied under this schedule normally will be alternating current, sixty hertz, either (i) single phase, three wire, 120/240 volts or 120/208 volts, or (ii) three phase, four wire, 120/208 volts or 265/460 volts.

MONTHLY RATE

	Summer	Winter
Distribution Service Charge		
Customer Charge	\$ 20.93 per month	\$ 20.93 per month
Kilowatt-hour Charge	\$ 0.01029 per kw hr	\$ 0.01029 per kw hr
Kilowatt Charge		
Maximum	\$ 4.80 per kw	\$ 4.80 per kw

Generation and Transmission Service Charges – Customers who do not receive service from an alternative Electric Supplier as defined in the Company's General Terms and Conditions will receive Generation and Transmission Services from the Company under the provisions of Rider "SOS" – Standard Offer Service.



A PHI Company

DC - GT LV

Billing Credit - A monthly billing credit in the amount of \$0.75 per bill will be applied to the bill of each customer receiving generation services from an alternative supplier for each month that the alternative supplier renders a bill to the customer on a consolidated basis for services provided both by Pepco and by the alternative supplier.

BILLING MONTHS

Summer – Billing months of June through October.

Winter – Billing months of November through May.

RATING PERIODS

Weekdays - (Excluding Holidays)

On-Peak Period	12:00 noon	to	8:00 p.m.
Intermediate Period	8:00 a.m.	to	12:00 noon
		and	
Off-Peak Period	8:00 p.m.	to	12:00 midnight
	12:00 midnight	to	8:00 a.m.

Saturdays, Sundays and Holidays

Off-Peak Period All Hours

Holidays

For the purpose of this tariff, holidays will be New Year's Day, Rev. Martin Luther King's Birthday, Presidents' Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day, as designated by the Federal Government.

BILLING DEMANDS

On-Peak (Summer Billing Months Only) - The billing demand shall be the maximum thirty (30) minute demand recorded during the on-peak period of the billing month.

Maximum (All Months) - The billing demand shall be the maximum thirty (30) minute demand recorded during the billing month.

METER READING

Watt-hour meters will be read to the nearest multiple of the meter constant and bills rendered accordingly.

GENERAL TERMS AND CONDITIONS

This schedule is subject in all respects to the Company's "General Terms and Conditions for Furnishing Electric Service" and the Company's "Electric Service Rules and Regulations".

APPLICABLE RIDERS

Standard Offer Service – Large Commercial
Administrative Credit
Reliable Energy Trust Fund
Generation Procurement Credit
Power Factor
Delivery Tax
Public Space Occupancy Surcharge
Excess Facilities
Divestiture Sharing Credit – Non-Residential

Business

Maryland electricity rates to skyrocket

By Kara Rowland
THE WASHINGTON TIMES
March 8, 2006

Electricity rates for Maryland residents will soar this summer, according to the Maryland Public Service Commission.

The commission, which oversees state utilities, announced yesterday that customers served by Potomac Electric Power Co. (Pepco), Baltimore Gas and Electric Co. (BGE) and Delmarva Power will see annual rate increases between 35 percent and 72 percent.

A typical electricity bill for Pepco residential customers will jump by 39 percent, or an average of \$468 a year, starting June 1 under the newly set prices. For DPL customers, the price will rise by 35 percent, or \$464, also on June 1. BGE customers will see an increase of 72 percent, or \$743 annually, starting July 1.

The increases are a result of a competitive bidding process among electricity suppliers to provide what is called "standard offer service," which is set at market rates as utilities buy power from wholesalers. The process is monitored by the Public Service Commission as well as the Office of the People's Counsel, a state utilities watchdog group.

While the Public Service Commission expects the increases based on the bidding process, the agency still must approve the utilities' requests.

Maryland deregulated its electric utilities in 1999, requiring full-service energy providers to separate their supply and distribution businesses. At the time, lawmakers cut residential electricity rates by 6.5 percent below 1993 levels and capped them for six years.

Since then, costs of fuels used to produce electricity, such as oil and natural gas, have increased, touching record-high levels in the days after Hurricane Katrina hit the Gulf Coast on Aug. 29. About one-third of the nation's energy runs through the area's damaged infrastructure.

"Unfortunately, high fuel prices resulting from the recent hurricanes in the Gulf region, terrorist threats and pressure from the global energy market have impacted the price of electricity," Kenneth D. Schisler, chairman of the Public Service Commission, said yesterday.

Electricity rate caps expired for Pepco and Delmarva in 2004, with prices climbing both in 2004 and 2005. The caps will expire for BGE in July.

This is the first year since 1999 that standard offer service prices are being set without the caps.

"BGE does not control the commodity price and so this 72 percent is outside of BGE's control," BGE spokesman Rob Gould said. "The fact is we have not made one cent of profit since 1999 -- it's been strictly a pass through."

BGE's 1.2 million customers in the Baltimore area won't necessarily feel the full impact of the increase. On Monday, the Public Service Commission announced a plan to spread the company's electricity costs over a two-year period, during which time residential customers will see a portion of that increase -- 21 percent -- on their bills.

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ENERGY INFORMATION ADMINISTRATION

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December 18, 1997

Natural Gas Key Factor in Future Electricity Price Reductions; Rapid Technological Advances Able to Slow Carbon Emissions

While increased competition in the electricity generation industry could lower the average price of electricity well into the next century, the Energy Information Administration said today that the amount of future reductions depends on the price of the marginal fuel for generation natural gas. Expanding on baseline projections released last month, EIA's full *Annual Energy Outlook 1998* released today analyzes changes that result from varying economic and market conditions. EIA's latest projections also show that more rapid penetration of more efficient technologies in end-use markets than assumed in the reference case slows growth in energy demand and carbon emissions through 2020.

Increased Competition in Electricity Markets

EIA's latest analysis shows that competition in electricity markets will be a key factor in lowering electricity prices. In addition to improvements in operating efficiency, lower production costs, and retirement of high-cost plants throughout the United States attributable to ongoing restructuring of the electricity industry, competitive pricing practices based on marginal operating costs, including fuel costs, are being introduced in some areas.

EIA's reference case includes ongoing cost reductions attributable to restructuring as well as the transition to competitive pricing in California, New York, and New England where plans to implement restructuring are currently in place. Today's report shows that nationwide, over a 10-year phase-in period, competitive electricity prices would fall below the traditional, regulated average-cost prices through most of the projection period to 2020. Because electricity prices based on marginal costs are more sensitive to changes in the operating costs of the marginal generating units than average-cost electricity prices, how much lower competitive electricity prices would be largely depends on operating costs, including fuel costs.

Assuming slower improvement in natural gas discovery and production technologies than in the reference case, EIA projects natural gas wellhead prices 29 percent higher in 2020 than in the reference case. In contrast, faster improvement *reduces* gas prices 24 percent from the reference case. Higher natural gas prices are reflected in a competitive price of electricity 8 percent higher in 2020 than projected in the reference case; lower gas prices lead to a competitive electricity price 9 percent lower than the reference case price for a range of 1 cent per kilowatthour ([Figure 1](#)).

Renewable Portfolio Standards

A competitive electricity market may slow the penetration of generation technologies with high capital costs, including renewable technologies. Renewable portfolio standards mandating a percentage of

electricity generation to come from qualifying renewable sources have been proposed at both the Federal and State level to encourage use of renewable technologies.

In EIA's analysis, standards that specify 2 percent of generation from nonhydroelectric renewable technologies in 2000, increasing to 5 percent in 2020, boost renewable generation by 32 percent over the reference case in 2020 (Figure 2), leading to electricity prices 2 percent higher, on average, than in the reference case. Total carbon emissions in the 5-percent standard case are 1 percent lower in 2020.

With a 10-percent renewable standard, renewable generation increases by 79 percent from the reference case in 2020. As a result of the higher renewable generation, electricity prices are higher by 5 percent in 2020 than in the reference case, adding about \$3 to the average residential monthly electric bill. Carbon emissions in the 10-percent case are reduced by 3 percent, or 62 million metric tons, in 2020. In either renewable standard case, the price of electricity, in 1996 dollars, would be less than current levels.

Carbon Emissions

EIA's *Outlook* analysis shows that rapid penetration of more efficient technologies in end-use markets can lower energy consumption in 2020 to 111 quadrillion Btu, 7 percent below the reference case projection. As a result, carbon emissions would be 7 percent, or 140 million metric tons, lower than in the reference case (Figure 3). Even with more rapid technology penetration, the carbon emissions in 2020 are 24 percent higher than the 1996 level. Slower technology penetration, characterized by freezing all future end-use technology choices at the efficiency levels available in 1998, results in energy consumption that is 3 percent higher than in the reference case, while carbon emissions are 4 percent, or 73 million metric tons, higher.

EIA's analysis also shows the effects of other assumptions on carbon emissions:

- Extending the life of nuclear generating plants 10 years beyond the retirement dates assumed in the reference case reduces generation from fossil-fired plants and reduces total carbon emissions in 2020 by 2 percent, or 42 million metric tons. Conversely, retiring nuclear plants 10 years before the end of their 40-year license periods could increase emissions by 4 percent, or 74 million metric tons.
- Using more optimistic assumptions on capital, operating, and maintenance costs and capacity factors for renewable generating technologies from the Department of Energy Office of Energy Efficiency and Renewable Energy, increases projected renewable generation and reduces total projected carbon emissions in 2020 by 2 percent, or 30 million metric tons.
- Lower or higher economic growth than assumed in the *Outlook* reference case leads to a range in energy consumption in 2020, from 9 percent below the reference case level of 119 quadrillion Btu to 8 percent above, resulting in carbon emissions that are 10 percent (186 million metric tons) lower or 9 percent (178 million metric tons) higher (Figure 4). (The reference case assumes an average annual growth in the gross domestic product of 1.9 percent; the low and high growth cases assume 1.3 and 2.4 percent annual growth.)

The *Annual Energy Outlook 1998* presents the results of EIA's analysis of the impacts of lower and higher world oil prices, higher electricity demand, variations in the costs of generating technologies, changes in oil and gas resource base assumptions, and variations in coal mining costs. It also includes a discussion of recent and proposed regulatory changes, including air quality and appliance efficiency standards.

The full report can be accessed immediately on EIA's World Wide Web Site (<http://www.eia.doe.gov>). The direct Internet address is: <http://www.eia.doe.gov/oiaf/aeo98/homepage.html>. Assumptions underlying the projections in the *Outlook* and more detailed, regional projections are also available on EIA's Web Site. Published copies of the *Outlook* are available from the U.S. Government Printing Office 202/512-1800 or through EIA's National Energy Information Center, Forrestal Building, Washington, DC 20585, 202/586-8800.

The figures referenced above may be viewed, together with this press release and the November 12, 1997, press release presenting the reference case results, on EIA's Web Site. Copies may also be obtained from EIA's press contact.

The report described in this press release was prepared by the Energy Information Administration, the independent statistical and analytical agency within the U.S. Department of Energy. The information contained in the report and the press release should be attributed to the Energy Information Administration and should not be construed as advocating or reflecting any policy position of the Department of Energy or any other organization.

-EIA-

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Energy Information Administration

4-PIPE FAN COIL UNITS

DESIG	LOCATION AND/OR SERVICE	CONFIGURATION	TYPE (REFER TO SPEC)	NOMINAL UNIT SIZE	AIRFLOW AT MEDIUM SPEED (CFM)	TSP ACROSS FOU (IN W.G.)	CHILLED WATER (30K ETO) COOLING COIL			HOT WATER HEATING COIL			ELECTRICAL			FOU MODEL No. (NOTE 1)		
							MINIMUM SENSIBLE / TOTAL CAPACITY (MBH)	WATER FLOWRATE (GPM)	MAXIMUM WPD (FT HEAD)	No. OF ROOMS	MINIMUM CAPACITY (MBH)	WATER FLOWRATE @180°F EWT (GPM)	MAXIMUM WPD (FT HEAD)	No. OF ROOMS	NOMINAL MOTOR SIZE (HP)		MAXIMUM OPERATING POWER (WATTS)	VOLTS / PHASE / Hz
FOU-1-1 THRU FOU-1-4	DINING ROOM EXPANSION (EX ALF)	VERTICAL FLR-MTD FURRED STACK	STACK	10	890	0.15	21.0 / 29.0	6	12	3	15.0	1.5	10	1	1/4	325	277 / 1 / 60	MODEL 42SG
FOU-2-1 THRU FOU-2-2	ELEVATOR MACHINE ROOMS	HORIZONTAL CABINET	HOR-A	10	500	FREE	10.1 / 14.0	5	5	3	10.0	1	5	1	2 @ 1/15	270	277 / 1 / 60	MODEL 42CG
FOU-3-1 THRU FOU-3-4	LOWER BRIDGES, DAYROOMS	HORIZONTAL CEILING-MTD (HIDDEN)	HOR-B	12	700	0.15	16.1 / 23.1	7	10	3	14.6	1.5	5	1	2 @ 1/8	440	277 / 1 / 60	MODEL 42CE
FOU-4-1 THRU FOU-4-4	UPPER BRIDGES, STAFF ROOMS	HORIZONTAL CEILING-MTD (HIDDEN)	HOR-B	12	700	0.15	18.4 / 26.4	8	10	3	14.6	1.5	5	1	2 @ 1/8	440	277 / 1 / 60	MODEL 42CE
FOU-5-1 THRU FOU-5-6	RESIDENT BEDROOM OR LIVING RM	VERTICAL FLR-MTD FURRED STACK	STACK	4	300	0.15	6.7 / 7.6	1	8	3	9.8	1	5	1	1/20	115	277 / 1 / 60	MODEL 42SG
FOU-6-1 THRU FOU-6-28	RESIDENT BEDROOM OR LIVING RM	VERTICAL FLR-MTD FURRED STACK	STACK	8	500	0.15	10.0 / 10.7	1.5	5	3	9.8	1	5	1	1/6	200	277 / 1 / 60	MODEL 42SG
FOU-7-1 THRU FOU-7-3	RESIDENT BEDROOM OR LIVING RM	VERTICAL FLR-MTD FURRED STACK	STACK	8	500	0.15	11.1 / 12.6	2	5	3	9.8	1	5	1	1/6	200	277 / 1 / 60	MODEL 42SG
FOU-8-1 THRU FOU-8-2	RESIDENT BEDROOM OR LIVING RM	VERTICAL FLR-MTD FURRED STACK	STACK	10	890	0.15	13.7 / 15.2	2	5	3	10.2	1	5	1	1/5	325	277 / 1 / 60	MODEL 42SG
FOU-9-1 THRU FOU-9-12	RESIDENT BEDROOM OR LIVING RM	VERTICAL FLR-MTD FURRED STACK	STACK	12	890	0.15	17.2 / 18.6	3	5	3	12.2	1	5	1	1/4	420	277 / 1 / 60	MODEL 42SG

NOTES

- FOU MODEL NUMBERS ARE BASIS OF DESIGN AND ARE CARRIER UNLESS OTHERWISE NOTED IN SCHEDULE.
- BASE ALL SECTIONS ON FAT = 80F, 48, 67F, 48 CHILLED WATER EMT-45F, HEATING WATER EMT-180F. PERFORMANCE SHALL BE DERATED FOR STATIC PRESSURE DROP SCHEDULED. FOR MEDIUM SPEED FAN OPERATION. AND FOR CHILLED WATER WITH 30% ETHYLENE GLYCOL MIXTURE.
- WHERE TSP IS INDICATED AS "FREE", TSP INCLUDES PRESSURE DROP ACROSS FILTER, COILS AND STAMPED GRILLES, AND SHALL NOT EXCEED 0.10" W.G. WHERE TSP VALUES ARE GIVEN, TSP INCLUDES COILS, FILTER, FIELD INSTALLED GRILLES, DUCTWORK AND ACCESSORIES.
- AIR FLOWRATES AND MINIMUM COIL DUTIES ARE INDICATED FOR OPERATION AT MEDIUM FAN SPEED. UNITS SHALL MEET THIS MINIMUM CRITERIA AT THAT SPEED. MINIMUM ELECTRICAL POWER REQUIREMENTS INDICATED ARE CRITERIA FOR OPERATION AT HIGH FAN SPEED. UNITS SHALL BE WIRED TO MEET THIS MINIMUM CRITERIA AT THAT SPEED.
- PROVIDE THE FOLLOWING FACTORY-FURNISHED OPTIONS:

AIR-COOLED CHILLERS

GENERAL (REFER TO NOTES 1, 2, & 3)

DESIGNATION:	CH-1
LOCATION:	ALF ADDITION ROOF
TYPE:	AIR-COOLED HELICAL ROTARY (SCREW)
REFRIGERANT:	R-134a

CAPACITY (REFER TO NOTE 4)

NOMINAL COOLING CAPACITY (TONS):	140
MIN CAPACITY AT DESIGN CONDITIONS (TONS):	136
QUANTITY OF COMPRESSORS:	2
QUANTITY OF INDEPENDENT REFRIGERATION CKTS:	2
MIN UNLOADING STEPS (EACH COMPRESSOR):	INFINITELY VARIABLE
MIN CHILLER COP:	2.65

EVAPORATOR PERFORMANCE (REFER TO NOTES 5 & 6)

FLUID TYPE:	30% ETHYLENE GLYCOL SOLUTION
ENTERING FLUID TEMPERATURE (°F):	56
LEAVING FLUID TEMPERATURE (°F):	45
FLUID FLOWRATE (GPM):	325
MAXIMUM WATER PRESSURE DROP (FT HEAD):	15
FOULING FACTOR:	.00010

CONDENSER PERFORMANCE

DESIGN AMBIENT TEMPERATURE (°F):	105
AMBIENT TEMPERATURE RANGE (°F):	0 - 115
QUANTITY OF CONDENSER FANS (PER CKT / TOTAL):	5 / 10
FAN MOTOR SIZE (HP, EACH):	2
FAN MOTOR TYPE:	ODP
FIN TYPE:	ALUMINUM SLIT

ELECTRICAL CHARACTERISTICS

MAX POWER INPUT (kW):	181
VOLTS / PHASE / Hz:	460 / 3 / 60 (SINGLE POINT POWER)
FULL LOAD MCA (AMPS PER CKT):	282
STARTER TYPE:	WYE-DELTA

APPROXIMATE PHYSICAL CHARACTERISTICS

(REFER TO NOTE 7)

LENGTH:	16' - 4"
WIDTH:	7' - 5"
HEIGHT:	7' - 9"
OPERATING WEIGHT (LBS, INCL STARTER):	13,000

NOTES:

1. REFER TO CHILLED WATER SCHEMATIC FOR REQUIRED COMMUNICATION POINTS TO BE REPORTED TO THE CCMS.
2. PROVIDE CHILLER WITH LOW AMBIENT HEAD PRESSURE CONTROL, FLOW SWITCH, CONDENSER COIL GUARD, ELECTRONIC EXPANSION VALVE, MINIMUM STEP UNLOADING VALVE, NON-FUSED DISCONNECT SWITCH, SINGLE-POINT POWER CONNECTIONS, COMPRESSOR SOUND ATTENUATION PACKAGE, AND MICROPROCESSOR CONTROLLER WITH DATA LOGGING CAPABILITY. REFER TO SPECIFICATION SECTION 15600 FOR ADDITIONAL REQUIREMENTS.
3. CHILLER EFFICIENCY (C.O.P.) SHALL COMPLY WITH ASHRAE 90.1A GUIDELINES, LATEST EDITION WITH ALL ADDENDA.
4. PROVIDE CHILLER WITH A MINIMUM NUMBER OF REFRIGERATION CIRCUITS AS SCHEDULED. EACH CIRCUIT SHALL BE COMPLETELY INDEPENDENT.
5. SELECT CHILLER WITH ADJUSTED PERFORMANCE FOR USE WITH 30% ETHYLENE GLYCOL MIXTURE. MANUFACTURER DATA INCLUDED WITH SHOP DRAWINGS SHALL INDICATE GLYCOL PERFORMANCE FOR THE CHILLER SUBMITTED.
6. PERFORMANCE INDICATED IS FOR CHILLER SELECTION AT SEA LEVEL WITH STANDARD EVAPORATOR TEMPERATURE RANGE.
7. WHERE SELECTED CHILLER DIMENSIONS EXCEED DIMENSIONS INDICATED IN SCHEDULE, CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ALL CHANGES IN COST AND SCOPE RELATED TO SUPPORTS, ISOLATION MEASURES AND COORDINATION OF PLACEMENT.

SEMI-INSTANTANEOUS STEAM-FIRED DOMESTIC WATER HEATERS

DESIG	LOCATION	SERVICE	DOMESTIC WATER-SIDE					STEAM-SIDE HEATING					REMARKS
			WATER FLOWRATE (GPM)	EWT (°F)	LWT (°F)	WPD (FT W.G.)	TUBE FOULING FACTOR	STORAGE TANK CAPACITY (GALS)	STM PRESSURE TO CONTROL VALVE (PSIG)	MAX PRESSURE DROP AT VALVE (PSIG)	STEAM FLOWRATE @ 50 PSIG (LB./HR)	MAIN TRAP (LB./HR)	
DWH-1	EAST PENTHOUSE	DOMESTIC HOT WATER SYSTEM	55	40	140	---	0.0005	45	10	6	2850	8550	MODEL YA5SSH1036
DWH-2	EAST PENTHOUSE	DOMESTIC HOT WATER SYSTEM	55	40	140	---	0.0005	45	10	6	2850	8550	MODEL YA5SSH1036

NOTES:

- HEATER MODEL NUMBERS SCHEDULED ARE BASIS OF DESIGN AND ARE OEMLINE UNLESS OTHERWISE NOTED IN SCHEDULE.
- ALL UNITS SHALL BE A COMPLETE HORIZONTAL SKID-MOUNTED FACTORY PACKAGE. UNITS SHALL BE FACTORY-FURNISHED WITH PILOT-OPERATED TEMPERATURE REGULATOR, STAINLESS STEEL TANK, TUBES AND THREADED OPENINGS, MAIN AND AUXILIARY FAT STEAM TRAPS, STEAM AND CONDENSATE STRAINERS, VACUUM BREAKER, COPPER TUBE SHEET, DOUBLE SOLENOID SAFETY SYSTEM, AND FIELD PROGRAMMABLE DIGITAL ELECTRONIC CONTROL PANEL (120-VOLT).

SHELL & TUBE STEAM-TO-WATER CONVERTERS

DESIG	LOCATION	SERVICE	PHYSICAL CHARACTERISTICS					TUBE-SIDE (WATER)					SHELL-SIDE (STEAM)					REMARKS
			APPROX SIZE, DIA x LTH (INCHES)	NUMBER OF TUBE PASSES	HEATING SURFACE AREA (SF)	MINIMUM HEATING CAPACITY (MBH)	WATER FLOWRATE (GPM)	EWT (°F)	LWT (°F)	MAX WPD (FT W.G.)	TUBE FOULING FACTOR	STM PRESS TO CTRL VALVE (PSIG)	STEAM FLOWRATE @ 10 PSIG (LB./HR)	TRAP CAPACITY (LB./HR)				
CONV-1	EAST PENTHOUSE	HEATING WATER SYSTEM	24 x 50	2	324	2200	220	160	180	2.0	.005	10	2300	6900	MODEL E24208-S			
CONV-2	EAST PENTHOUSE	HEATING WATER SYSTEM	24 x 50	2	324	2200	220	160	180	2.0	.005	10	2300	6900	MODEL E24208-S			

NOTES:

- MODEL NUMBERS ARE BASIS OF DESIGN AND ARE TACO UNLESS OTHERWISE NOTED IN SCHEDULE. REFER TO SPECIFICATION SECTION 15600 AND TO DETAILS FOR ADDITIONAL REQUIREMENTS.
- PROVIDE ALL UNITS WITH FLANGED CONNECTIONS.
- PERFORMANCE BASED ON 3/4-INCH O.D. COPPER TUBES, 0.035-INCH THICKNESS.

DUPLEX STEAM CONDENSATE RECEIVER PUMPSET

DESIG	LOCATION	SERVICE	PUMPS & MOTORS										RECEIVER		REMARKS
			PUMP / MOTOR QUANTITY	CAPACITY, EACH PUMP (GPM)		DISCHARGE PRESSURE (PSIG)		DISCHARGE SIZE (INCHES)		MOTOR HP (SPEED (RPM))		VOLTS / PHASE / Hz		MATERIAL	
CR-1	STEAM PIT (BFP ROOM)	ALF ADDITION	2	45	30	2	1-1/2	1750	460 / 3 / 60	CAST IRON	45	2-1/2	MODEL VES-303		

NOTES:

- MODEL NUMBERS ARE BASIS OF DESIGN AND ARE SKIDMORE UNLESS OTHERWISE NOTED IN SCHEDULE. REFER TO SPECIFICATION SECTION 15600 AND TO DETAILS FOR ADDITIONAL REQUIREMENTS.
- PROVIDE PACKAGE WITH UNIT-MOUNTED CONTROL PANEL WITH STARTERS, DISCONNECT, AND MECHANICAL ALTERNATOR FOR LEAD/LAG CONTROL. ALL POWER AND CONTROL WIRING SHALL BE PRE-WIRED AT THE FACTORY.

ENERGY RECOVERY AIR HANDLING UNIT SCHEDULE

DESIGN	LOCATION	SERVICE	DUTY TYPE	ESP / TSP (IN W.G.)		FANS (REFER TO FAN SCHEDULE FOR DUTY)	FILTERS (REFER TO FILTER SCHEDULE FOR DUTY)	AIR VOLUMES (CFM)		DESICCANT TYPE	OVERALL EFFICIENCY (%)	MAX APD (IN W.G.)	DUTY TYPE	SUMMER			WINTER			
				OUTSIDE / SUPPLY AIR	RETURN / EXHAUST AIR			WHEEL PURGE	TOTAL (FAN)					OA / EA VOLUME	EAT (°F)	WB (°F)	DB (°F)	WB (°F)	EAT (°F)	WB (°F)
ERV-1	CENTER ROOF	VENTILATION/MIX/CLIP AIR	OUTSIDE / SUPPLY AIR RETURN / EXHAUST AIR	2.0 / 7.0	2.0 / 5.0	ST-ERV1 ET-ERV1	FB-ERV1-SA FB-ERV1-EA	AHU TO BUILDING 7500 7000	WHEEL PURGE 900 900	TOTAL (FAN) 8400 7900	OA / EA VOLUME 8400 7900	3A SIEVE	50	OUTSIDE / SUPPLY AIR RETURN / EXHAUST AIR	95 75	78 50	85 ---	71 ---	10 70	40 ---

CHILLED WATER (30K ETO) COOLING COIL

COOLING AIRFLOW (CFM)	MIN SENSIBLE TOTAL CAP (MBH)	MIN ROWS / MAX FPI	EAT		LAT		APPROX L x H SIZE (INCHES)	MAXIMUM FACE VEL (FPM)	MAX APD (IN W.G.)	EMT (°F)	LMT (°F)	WATER FLOWRATE (GPM)	MAX WPD (FT HEAD)	HEATING AIRFLOW (CFM)	MINIMUM CAPACITY (MBH)	MIN ROWS / MAX FPI	EAT		LAT		APPROX L x H SIZE (INCHES)	MAXIMUM FACE VEL (FPM)	MAX APD (IN W.G.)	EMT (°F)	LMT (°F)	WATER FLOWRATE (GPM)	MAX WPD (FT HEAD)	REMARKS
			(°F)	(°F)	(°F)	(°F)											(°F)	(°F)	(°F)	(°F)								
7500	202.5 / 300	6 / 10	85.0	71.0	80.0	59.5	54 x 42	480	1.0	45	57	55	15	7500	400	2 / 7	10	59.4	54 x 42	480	0.3	180	180	40	5	REFER TO NOTES 1 THRU 5 AND TO SECTION 15600		

HOT WATER HEATING COIL

- NOTES:**
1. BASIS OF DESIGN: SERCO PACKAGED ROOFTOP AHU MODEL ERHC. PACKAGE SUPPLY AIRSTREAM SHALL INCLUDE OUTSIDE AIR INTAKE HOOD AND AUTOMATIC CONTROL DAMPER, BLOW-THRU SUPPLY AIR FAN, PLEATED PREFILTERS, FINAL CARTRIDGE FILTERS, TOTAL ENERGY RECOVERY WHEEL, HOT WATER PREHEAT COIL, AND CHILLED WATER COOLING COIL. PACKAGE RETURN AIRSTREAM SHALL INCLUDE PLEATED FILTERS UPSTREAM OF WHEEL AND EXHAUST AIR FAN DOWNSTREAM OF WHEEL.
 2. REFER TO FAN AND FILTER SCHEDULES FOR ADDITIONAL SELECTION REQUIREMENTS. REFER TO SPECIFICATION SECTION 15600 FOR COMPLETE AHU REQUIREMENTS.
 3. PROVIDE AHU WITH THE FOLLOWING OPTIONS: 12-INCH HIGH PREFABRICATED ROOF CURB AND DIGITAL CONTROL PANEL BY AHU MANUFACTURER, OSHA SAFETY CAGE AROUND BOTH FAN AND MOTOR, ENERGY WHEEL FREEZE PROTECTION THRU VFC CONTROL, ALL ACCESS DOORS 18 INCHES WIDE, ADDITIONAL ACCESS DOORS AS INDICATED ON PLANS, SECONDARY SUPPLY FILTERS AS SCHEDULED, AND ADDITIONAL OPTIONS AS SPECIFIED.
 4. FAN SELECTIONS SHALL BE BASED ON DIRTY FILTER PRESSURE DROPS SCHEDULED (REFER TO FILTER SCHEDULE). SUPPLY AND RETURN FAN PRESSURE DROPS INCLUDE ADDITIONAL LOSSES OF 0.2" W.G. FOR INTERNAL CASINGS, 0.2" W.G. FOR AIC DAMPER AND 0.2" W.G. (SUPPLY) OR 0.6" W.G. (RETURN) FOR AIR OPENINGS / DUCT CONNECTIONS. PROVIDE MINIMUM FAN SIZES AND CAPACITIES SCHEDULED REGARDLESS OF INTERNAL AHU PERFORMANCE SUBMITTED.
 5. HEATING COIL SHALL BE "INCREASED CAPACITY" COIL. MINIMUM REQUIRED DUTY INDICATED IS FOR OPERATION WITHOUT ENERGY WHEEL. COOLING COIL SHALL BE "STANDARD CAPACITY" COIL WITH ADJUSTED PERFORMANCE FOR USE WITH 30K ENTIRELINE QLVCOIL MIXTURE. BOTH COILS SHALL BE CONSTRUCTED WITHOUT ENHANCEMENT DEVICES TO ACHIEVE THE SCHEDULED DUTIES.

PUMPS

DESIG	LOCATION	SERVICE	TYPE (REFER TO SPEC)	WATER FLOWRATE (GPM)	HEAD (FEET)	APPROX IMPELLER DIA (INCHES)	SUCTION x DISCHARGE (IN x IN)	MIN PUMP EFFICIENCY (%)	PUMP SPEED (RPM)	BHP / MOTOR HP	VOLTS / PHASE / Hz	REMARKS
P-CH1	WEST PENTHOUSE	CHILLED WATER SYSTEM	C	360	90	10.1	4 x 4	74	1750	11.4 / 15	460 / 3 / 60	SERIES 4300 MODEL 4x4x11.5 (NOTES 1, 2, 3 & 4)
P-CH2	WEST PENTHOUSE	CHILLED WATER SYSTEM	C	360	90	10.1	4 x 4	74	1750	11.4 / 15	460 / 3 / 60	SERIES 4300 MODEL 4x4x11.5 (NOTES 1, 2, 3 & 4)
P-HW1	EAST PENTHOUSE	HEATING WATER SYSTEM	C	220	70	8.8	3 x 3	72	1750	5.8 / 7-1/2	460 / 3 / 60	SERIES 4300 MODEL 3x3x10 (NOTES 1, 2, & 5)
P-HW2	EAST PENTHOUSE	HEATING WATER SYSTEM	C	220	70	8.8	3 x 3	72	1750	5.8 / 7-1/2	460 / 3 / 60	SERIES 4300 MODEL 3x3x10 (NOTES 1, 2, & 5)
P-DW1	EAST PENTHOUSE	DOMESTIC HOT WATER SYSTEM	B	21	30	6.0	1-1/2 x 1-1/2	47	1750	---	1/2120 / 1 / 60	SERIES 4380 MODEL 1.5x1.5x6 (NOTES 1 & 2); ALL-BRONZE CONSTRUCTION
P-DW2	EAST PENTHOUSE	DOMESTIC HOT WATER SYSTEM	B	21	30	6.0	1-1/2 x 1-1/2	47	1750	---	1/2120 / 1 / 60	SERIES 4380 MODEL 1.5x1.5x6 (NOTES 1 & 2); ALL-BRONZE CONSTRUCTION
P-ERU1	DAYROOM 412	ERU-1 PHC CIRCULATOR	B	40	12	5.5	2 x 2	64	1150	---	1/3120 / 1 / 60	SERIES 4380 MODEL 2x2x6 (NOTES 1 & 2)

NOTES:

1. PUMP MODEL NUMBERS SCHEDULED ARE BASIS OF DESIGN AND ARE ARMSTRONG UNLESS OTHERWISE NOTED IN SCHEDULE.
2. REFER TO SYSTEM PIPING SCHEMATICS AND TO SPECIFICATION SECTIONS 15300 & 15600 FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
3. SELECT CHILLED WATER PUMPS WITH ADJUSTED PERFORMANCE FOR USE WITH 30% ETHYLENE GLYCOL MIXTURE. PUMP MANUFACTURER CURVE PRINTOUT INCLUDED WITH SHOP DRAWINGS SHALL INDICATE GLYCOL PERFORMANCE FOR THE PUMP SUBMITTED.
4. THE SCHEDULED CHILLED WATER PUMP FLOWRATE INCLUDES AN ADDITIONAL .35 GPM WHICH SHALL BE BYPASSED THROUGH ITS RESPECTIVE SYSTEM BYPASS FILTER. REFER TO SPECIFICATION SECTION 15050 FOR FILTER REQUIREMENTS.
5. THE SCHEDULED HEATING WATER PUMP FLOWRATE INCLUDES AN ADDITIONAL .20 GPM WHICH SHALL BE BYPASSED THROUGH ITS RESPECTIVE SYSTEM BYPASS FILTER. REFER TO SPECIFICATION SECTION 15050 FOR FILTER REQUIREMENTS.