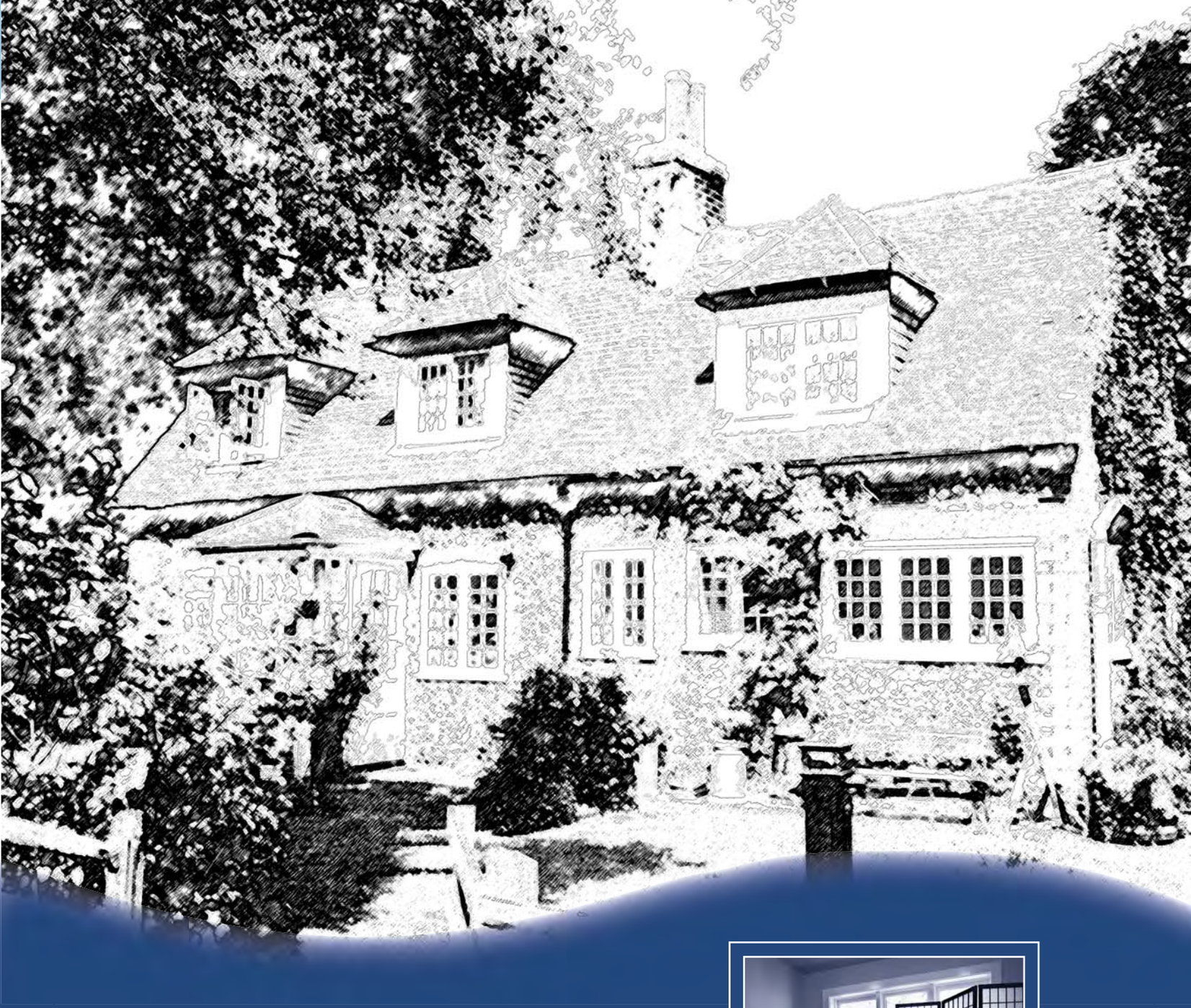


GENESIS GSW
WATER-TO-WATER

WATER-TO-WATER SYSTEMS
SIZES 036, 060, AND 120 [8.7, 13.5 and 26.9 kW]

Genesis Water-To-Water (GSW) Series Features

The Genesis Water-To-Water (GSW) Series
The GSW water-to-water series offers high efficiency with advanced features, extremely quiet operation and application flexibility at competitive prices. As ClimateMaster's most adaptable R-22 refrigerant units, the GSW series can be used for radiant floor heating, snow/ice melt, chilled water for fan coils, industrial process control, potable hot water generation, hot/chilled water for make-up air, and many other types of HVAC and industrial applications.

Available in sizes 036 [8.7 kW], 060 [13.5 kW] and 120 [26.9 kW] the GSW series offers a wide range of units for most any installation. The GSW has an extended range refrigerant circuit, capable of ground loop (geothermal) applications as well as water loop (boiler-tower) applications. Standard features are many. Microprocessor controls, galvanized steel cabinet, powder coat paint and TXV refrigerant metering device are just some of the features of the flexible GSW series.

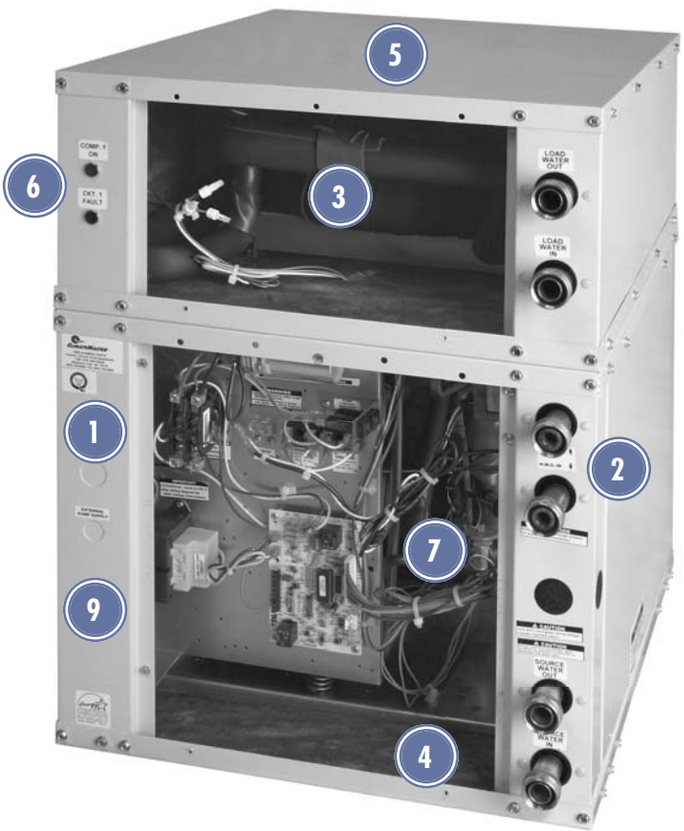
ClimateMaster's exclusive double isolation compressor mounting system makes the GSW series the quietest water-to-water unit on the market. Compressors are mounted on vibration isolation springs to a heavy gauge mounting plate, which is then isolated from the cabinet base with rubber grommets for maximized vibration/sound attenuation. Options such as double-wall load heat exchanger (for potable hot water generation) allow customized design solutions.

The GSW Series water-to-water heat pumps are designed to meet the challenges of today's HVAC demands with a high efficiency, high value solution.

Unit Features
- Sizes 036 [8.7 kW], 060 [13.5 kW], and 120 [26.9 kW]
- Copeland scroll compressors
- Dual refrigeration circuits on size 120
- Exceeds ASHRAE 90.1 efficiencies
- Galvanized steel construction with epoxy powder coat paint
- Unique double isolation compressor mounting with vibration isolation springs for quiet operation
- Insulated compressor compartment
- TXV metering device
- Extended range (20 to 120°F, -6.7 to 48.9°C) operation
- Microprocessor controls standard
- 1" swivel-type water connections for distributor (residential) models 036 & 060
- Flush securely-mounted corner post water connections (no backup wrench required) for model 120
- Compressor "run" and "fault" lights on the front of the cabinet
- Seven Safeties Standard
- Wide variety of options including double-wall load heat exchanger and HWG (hot water generator - desuperheater)

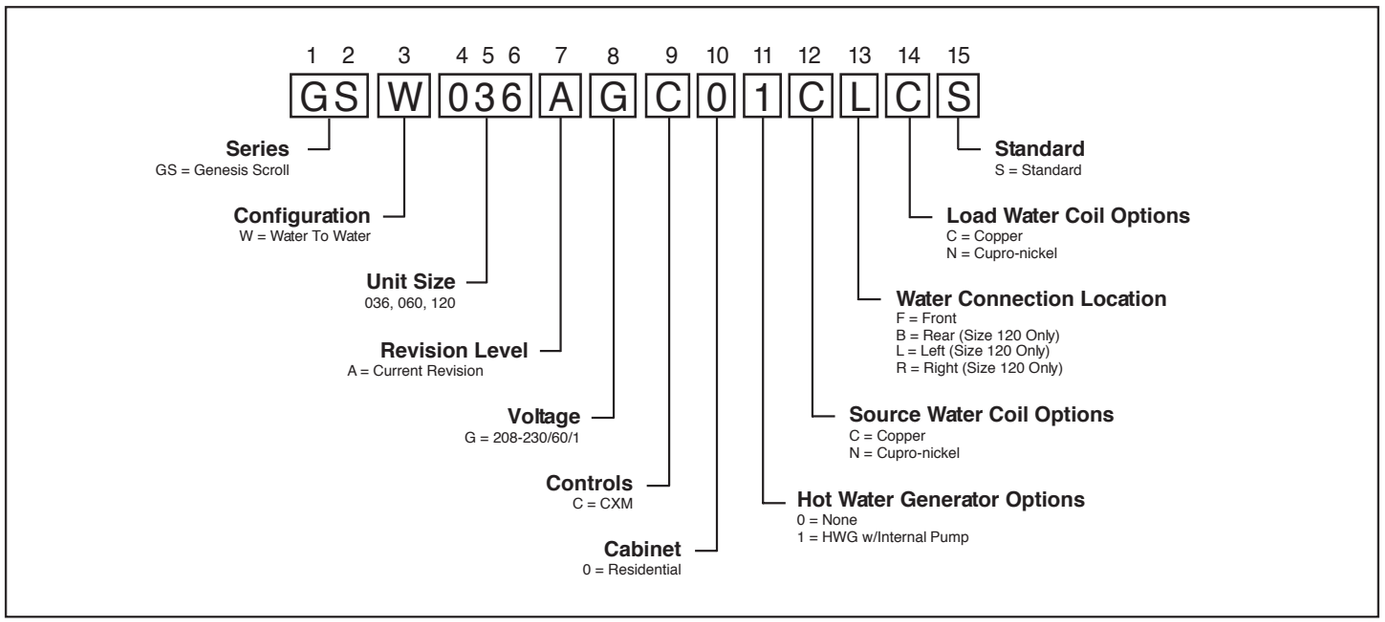
Genesis Water-To-Water (GSW) Series Features

1. Copeland™ High Efficient Scroll Compressor
2. Optional Hot Water Generator With Internal Pump
3. Fully Insulated Water and Refrigerant Lines
4. Fully Insulated Compressor Section
5. Stackable Powder Coated Steel Cabinet For Long Life
6. System Operating/Fault LED Lights
7. Reversing Valve Allows For Hot or Chilled Water Operation
8. Exclusive Double Spring And Grommet Compressor Isolation For Ultra Quiet Operation
9. Five Easy, Lift-out Service Access Panels With Stainless Steel Front Panels



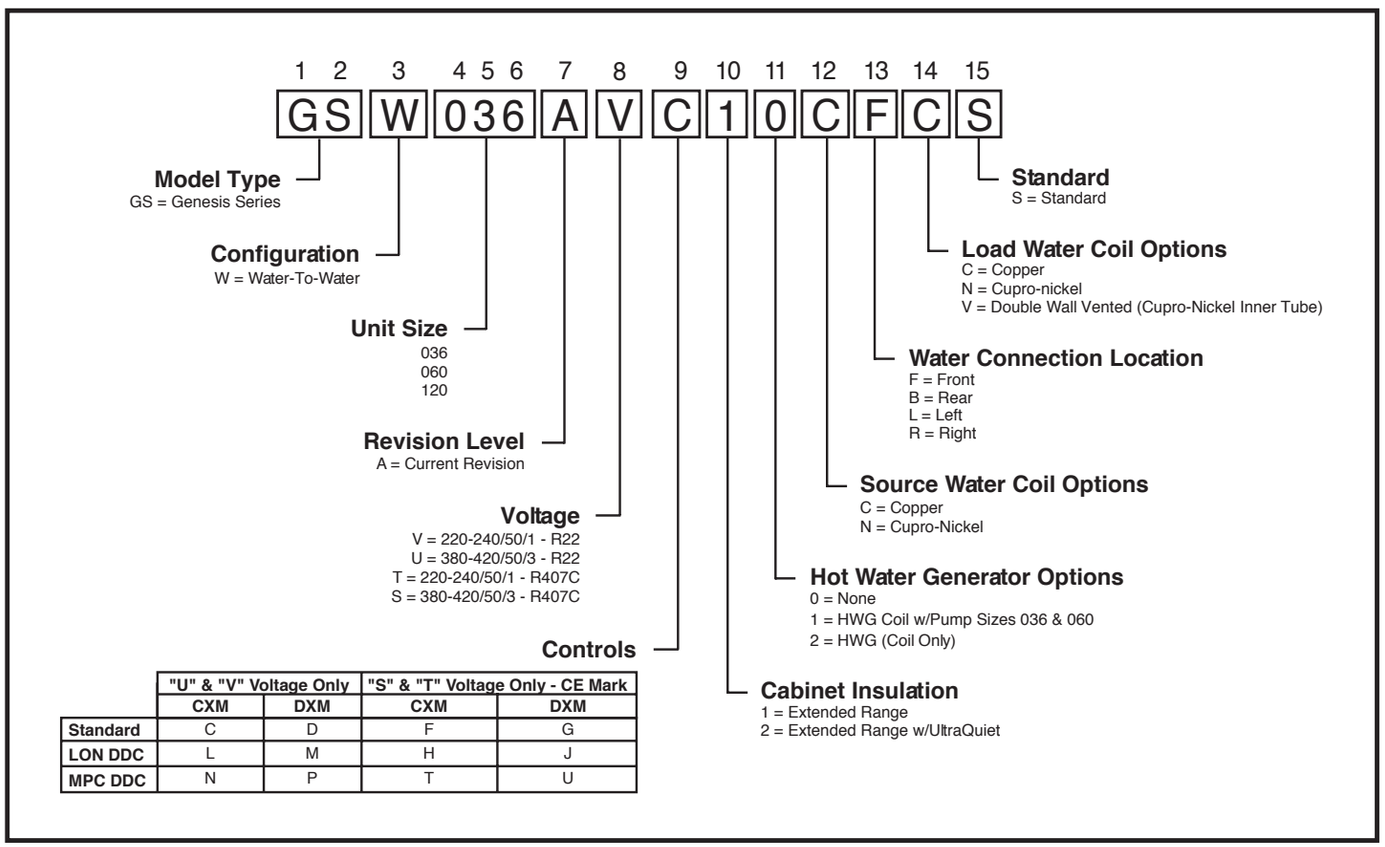
Model Key

60Hz Units



Rev.: 02/27/06D

50Hz Units



	"U" & "V" Voltage Only		"S" & "T" Voltage Only - CE Mark	
	CXM	DXM	CXM	DXM
Standard	C	D	F	G
LON DDC	L	M	H	J
MPC DDC	N	P	T	U

Rev.: 03/06/06D

ARI/ISO/ASHRAE/ANSI 13256-2 Performance

60Hz Units
ASHRAE/ARI/ISO 13256-2. English (IP) Units

Model	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
	Cooling		Heating		Cooling		Heating		Cooling		Heating	
	Indoor 53.6°F Outdoor 86°F		Indoor 104°F Outdoor 68°F		Indoor 53.6°F Outdoor 59°F		Indoor 104°F Outdoor 50°F		Indoor 53.6°F Outdoor 77°F		Indoor 104°F Outdoor 32°F	
	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP	Capacity Btuh	EER Btuh/W	Capacity Btuh	COP
GSW036	29,800	14.3	43,000	5.0	31,200	20.6	33,400	4.0	29,800	16.2	27,200	3.3
GSW060	44,400	12.0	63,300	4.2	49,200	17.5	53,000	3.5	46,100	13.6	40,900	2.9
GSW120	88,600	11.6	126,900	4.1	98,100	16.9	106,200	3.5	91,800	13.2	82,000	2.8

All ratings based upon 208V operation
Indoor coil also called "Load" and outdoor coil also called "Source"

50Hz Units
ASHRAE/ARI/ISO 13256-2. Metric (SI) Units

Model	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
	Cooling		Heating		Cooling		Heating		Cooling		Heating	
	Indoor 12°C Outdoor 30°C		Indoor 40°C Outdoor 20°C		Indoor 12°C Outdoor 15°C		Indoor 40°C Outdoor 10°C		Indoor 12°C Outdoor 25°C		Indoor 40°C Outdoor 0°C	
	Capacity Watts	EER W/W	Capacity Watts	COP	Capacity Watts	EER W/W	Capacity Watts	COP	Capacity Watts	EER W/W	Capacity Watts	COP
GSW036	7,760	4.3	10,320	4.4	8,400	6.5	8,100	3.5	7,990	5.0	6,450	2.8
GSW060	12,230	3.8	15,690	4.1	14,600	5.1	14,600	3.6	12,300	4.2	12,020	3.0
GSW120	24,360	3.7	31,440	4.0	24,710	4.9	26,790	3.5	24,510	4.1	21,210	2.9

All ratings based upon 208V operation
Indoor coil also called "Load" and outdoor coil also called "Source"

Performance Data (60Hz) — GSW036 - Cooling

SOURCE				LOAD																							
EWT	Flow			EWT	Flow 5.0 gpm							Flow 7.0 gpm							Flow 9.0 gpm								
	GPM	WPD			TC	Power	HR	LWT	EER	WPD		TC	Power	HR	LWT	EER	WPD		TC	Power	HR	LWT	EER	WPD			
°F		PSI	FT	°F	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT		
50	5.0	2.6	6.1	50	28.9	1.34	33.4	38.5	21.5	2.3	5.3	30.5	1.35	35.1	41.3	22.6	3.7	8.5	31.4	1.35	36.0	43.0	23.3	5.3	12.3		
				60	33.3	1.36	37.9	46.7	24.5	2.0	4.5	35.0	1.36	39.7	50.0	25.7	3.4	7.8	36.0	1.37	40.7	52.0	26.3	5.1	11.7		
				70	37.4	1.38	42.1	55.0	27.2	1.6	3.7	39.2	1.38	43.9	58.8	28.3	2.9	6.7	40.2	1.39	45.0	61.1	29.0	4.6	10.6		
				80	41.3	1.39	46.0	63.5	29.6	1.5	3.5	43.0	1.40	47.8	67.7	30.7	2.8	6.4	44.1	1.41	48.9	70.2	31.3	4.3	10.0		
				90	44.7	1.41	49.6	72.1	31.7	1.3	3.0	46.5	1.42	51.3	76.7	32.6	2.5	5.8	47.4	1.43	52.3	79.5	33.2	3.9	8.9		
	7.0	4.1	9.5	50	29.2	1.28	33.6	38.3	22.9	2.3	5.3	30.8	1.28	35.2	41.2	24.0	3.7	8.5	31.8	1.29	36.2	42.9	24.7	5.3	12.3		
				60	33.7	1.29	38.1	46.5	26.1	2.0	4.5	35.5	1.30	39.9	49.9	27.3	3.4	7.8	36.5	1.30	40.9	51.9	28.0	5.1	11.7		
				70	37.9	1.31	42.4	54.8	29.0	1.6	3.7	39.7	1.32	44.2	58.7	30.1	2.9	6.7	40.7	1.32	45.2	60.9	30.8	4.6	10.6		
				80	41.8	1.33	46.3	63.3	31.5	1.5	3.5	43.6	1.34	48.1	67.6	32.6	2.8	6.4	44.6	1.34	49.2	70.1	33.3	4.3	10.0		
				90	45.3	1.35	49.9	71.9	33.7	1.3	3.0	47.1	1.36	51.7	76.6	34.7	2.5	5.8	48.0	1.36	52.7	79.3	35.3	3.9	8.9		
	9.0	6.0	13.8	50	29.5	1.24	33.7	38.2	23.8	2.3	5.3	31.2	1.24	35.4	41.1	25.1	3.7	8.5	32.1	1.25	36.4	42.9	25.8	5.3	12.3		
				60	34.1	1.25	38.3	46.4	27.2	2.0	4.5	35.8	1.26	40.1	49.8	28.4	3.4	7.8	36.8	1.26	41.1	51.8	29.2	5.1	11.7		
				70	38.3	1.27	42.6	54.7	30.2	1.6	3.7	40.1	1.28	44.5	58.5	31.4	2.9	6.7	41.1	1.28	45.5	60.9	32.1	4.6	10.6		
				80	42.2	1.29	46.6	63.1	32.8	1.5	3.5	44.0	1.29	48.4	67.4	34.0	2.8	6.4	45.0	1.30	49.5	70.0	34.7	4.3	10.0		
				90	45.8	1.30	50.2	71.7	35.1	1.3	3.0	47.5	1.31	52.0	76.4	36.2	2.5	5.8	48.5	1.32	53.0	79.2	36.8	3.9	8.9		
70	5.0	2.3	5.4	50	27.4	1.70	33.2	39.0	16.1	2.3	5.3	29.0	1.70	34.8	41.7	17.0	3.7	8.5	29.9	1.71	35.7	43.4	17.5	5.3	12.3		
				60	32.0	1.72	37.8	47.2	18.6	2.0	4.5	33.6	1.72	39.5	50.4	19.5	3.4	7.8	34.6	1.73	40.5	52.3	20.0	5.1	11.7		
				70	36.2	1.74	42.1	55.5	20.8	1.6	3.7	37.9	1.75	43.9	59.2	21.7	2.9	6.7	38.9	1.75	44.9	61.4	22.2	4.6	10.6		
				80	40.0	1.76	46.0	64.0	22.7	1.5	3.5	41.8	1.77	47.8	68.1	23.5	2.8	6.4	42.8	1.78	48.8	70.5	24.0	4.3	10.0		
				90	43.5	1.79	49.6	72.6	24.3	1.3	3.0	45.2	1.81	51.4	77.1	25.0	2.5	5.8	46.2	1.82	52.3	79.7	25.4	3.9	8.9		
	7.0	3.6	8.4	50	27.8	1.62	33.3	38.9	17.2	2.3	5.3	29.3	1.62	34.9	41.6	18.1	3.7	8.5	30.3	1.63	35.8	43.3	18.6	5.3	12.3		
				60	32.4	1.63	37.9	47.1	19.8	2.0	4.5	34.1	1.64	39.7	50.3	20.7	3.4	7.8	35.0	1.65	40.7	52.2	21.3	5.1	11.7		
				70	36.6	1.65	42.3	55.4	22.1	1.6	3.7	38.4	1.66	44.0	59.0	23.1	2.9	6.7	39.4	1.67	45.1	61.2	23.6	4.6	10.6		
				80	40.5	1.68	46.2	63.8	24.2	1.5	3.5	42.3	1.69	48.1	67.9	25.0	2.8	6.4	43.3	1.70	49.1	70.4	25.5	4.3	10.0		
				90	44.1	1.70	49.9	72.4	25.9	1.3	3.0	45.8	1.72	51.6	76.9	26.6	2.5	5.8	46.7	1.73	52.6	79.6	27.0	3.9	8.9		
	9.0	5.4	12.6	50	28.0	1.57	33.4	38.8	17.9	2.3	5.3	29.6	1.57	35.0	41.5	18.8	3.7	8.5	30.6	1.58	36.0	43.2	19.4	5.3	12.3		
				60	32.7	1.58	38.1	46.9	20.6	2.0	4.5	34.4	1.59	39.8	50.2	21.6	3.4	7.8	35.4	1.60	40.8	52.1	22.2	5.1	11.7		
				70	37.0	1.60	42.5	55.2	23.1	1.6	3.7	38.8	1.61	44.3	58.9	24.0	2.9	6.7	39.8	1.62	45.3	61.2	24.6	4.6	10.6		
				80	40.9	1.63	46.5	63.6	25.2	1.5	3.5	42.7	1.64	48.3	67.8	26.1	2.8	6.4	43.7	1.65	49.3	70.3	26.6	4.3	10.0		
				90	44.5	1.65	50.2	72.2	27.0	1.3	3.0	46.2	1.67	51.9	76.8	27.8	2.5	5.8	47.2	1.68	52.9	79.5	28.2	3.9	8.9		
90	5.0	1.8	4.1	50	26.0	2.16	33.4	39.6	12.0	2.3	5.3	27.4	2.17	34.8	42.2	12.6	3.7	8.5	28.3	2.18	35.7	43.7	13.0	5.3	12.3		
				60	30.4	2.19	37.8	47.9	13.9	2.0	4.5	31.9	2.19	39.4	50.9	14.5	3.4	7.8	32.8	2.20	40.3	52.7	14.9	5.1	11.7		
				70	34.4	2.21	42.0	56.2	15.6	1.6	3.7	36.1	2.21	43.6	59.7	16.3	2.9	6.7	37.0	2.22	44.6	61.8	16.7	4.6	10.6		
				80	38.3	2.22	45.8	64.7	17.2	1.5	3.5	39.9	2.23	47.5	68.6	17.9	2.8	6.4	40.9	2.23	48.5	70.9	18.3	4.3	10.0		
				90	41.8	2.24	49.4	73.3	18.7	1.3	3.0	43.4	2.24	51.1	77.6	19.4	2.5	5.8	44.4	2.25	52.0	80.1	19.8	3.9	8.9		
	7.0	3.1	7.1	50	26.4	2.06	33.4	39.5	12.8	2.3	5.3	27.8	2.07	34.8	42.1	13.4	3.7	8.5	28.6	2.07	35.7	43.6	13.8	5.3	12.3		
				60	30.7	2.08	37.9	47.7	14.8	2.0	4.5	32.3	2.09	39.4	50.8	15.5	3.4	7.8	33.2	2.09	40.4	52.6	15.9	5.1	11.7		
				70	34.9	2.10	42.0	56.0	16.6	1.6	3.7	36.5	2.11	43.7	59.6	17.3	2.9	6.7	37.5	2.11	44.7	61.7	17.7	4.6	10.6		
				80	38.7	2.12	45.9	64.5	18.3	1.5	3.5	40.4	2.12	47.7	68.5	19.0	2.8	6.4	41.4	2.13	48.6	70.8	19.5	4.3	10.0		
				90	42.3	2.13	49.6	73.1	19.9	1.3	3.0	44.0	2.14	51.3	77.4	20.6	2.5	5.8	44.9	2.14	52.2	80.0	21.0	3.9	8.9		
	9.0	4.9	11.3	50	26.6	2.00	33.4	39.4	13.3	2.3	5.3	28.1	2.00	34.9	42.0	14.0	3.7	8.5	28.9	2.01	35.8	43.6	14.4	5.3	12.3		
				60	31.1	2.02	37.9	47.6	15.4	2.0	4.5	32.6	2.03	39.5	50.7	16.1	3.4	7.8	33.6	2.03	40.5	52.5	16.5	5.1	11.7		
				70	35.2	2.04	42.2	55.9	17.3	1.6	3.7	36.9	2.04	43.9	59.5	18.1	2.9	6.7	37.8	2.05	44.8	61.6	18.5	4.6	10.6		
				80	39.1	2.05	46.1	64.4	19.1	1.5	3.5	40.8	2.06	47.8	68.3	19.8	2.8	6.4	41.8	2.06	48.8	70.7	20.3	4.3	10.0		
				90	42.7	2.06	49.8	72.9	20.7	1.3	3.0	44.4	2.07	51.5	77.3	21.5	2.5	5.8	45.4	2.07	52.4	79.9	21.9	3.9	8.9		
110	5.0	1.4	3.2	50	23.7	2.79	33.2	40.5	8.5	2.3	5.3	24.9	2.80	34.5	42.9	8.9	3.7	8.5	25.7	2.81	35.3	44.3	9.1	5.3	12.3		
				60	28.0	2.82	37.6	48.8	9.9	2.0	4.5	29.4	2.83	39.0	51.6	10.4	3.4	7.8	30.2	2.84	39.9	53.3	10.7	5.1	11.7		
				70	32.1	2.85	41.8	57.2	11.3	1.6	3.7	33.7	2.85	43.4	60.4	11.8	2.9	6.7	34.6	2.86	44.3	62.3	12.1	4.6	10.6		
				80	36.1	2.86	45.8	65.6	12.6	1.5	3.5	37.7	2.87	47.5	69.2	13.2	2.8	6.4	38.7	2.87	48.5	71.4	13.5	4.3	10.0		
				90	39.9	2.87	49.7	74.1	13.9	1.3	3.0	41.6	2.88	51.5	78.1	14.5	2.5	5.8	42.7	2.88	52.5	80.5	14.8	3.9	8.9		
	7.0	2.6	5.9	50	24.0	2.66	33.0	40.4	9.0	2.3	5.3	25.2	2.67	34.3	42.8	9.5	3.7	8.5	26.0	2.67	35.1	44.2	9.7	5.3	12.3		
				60	28.3	2.69	37.5	48.7	10.5	2.0	4.5	29.8	2.70	38.9	51.5	11.0	3.4	7.8	30.6	2.70	39.8	53.2	11.3	5.1	11.7		
				70	32.5	2.71	41.7	57.0	12.0	1.6	3.7	34.1	2.72	43.3	60.3	12.5	2.9	6.7	35.0	2.72	44.3	62.2	12.9	4.6	10.6		
				80	36.5	2.73	45.8	65.4	13.4	1.5	3.5	38.2	2.73	47.5	69.1	14.0	2.8	6.4	39.2	2.73	48.5	71.3	14.3	4.3	10.0		
				90	40.4	2.74	49.7	73.9	14.7	1.3	3.0	42.1	2.74	51.5	78.0	15.4	2.5	5.8	43.2	2.74	52.5	80.4	15.8	3.9	8.9		
	9.0	4.2	9.7	50	24.2	2.58	33.0	40.3	9.4	2.3	5.3	25.5	2.59	34.3	42.7	9.9	3.7	8.5	26.3	2.59	35.1	44.2	10.1	5.3	12.3		
				60	28.6	2.60	37.5	48.6	11.0	2.0	4.5	30.1	2.61	39.0	51.4	11.5	3.4	7.8	30.9	2.62	39.8	53.1	11.8	5.1	11.7		
				70	32.8	2.63	41.8	56.9	12.5	1.6	3.7	34.4	2.63	43.4	60.2	13.1	2.9	6.7	35.4	2.64	44.4	62.1	13.4	4.6	10.6		
				80	36.9	2.64	45.9	65.2	14.0	1.5	3.5	38.6	2.65	47.6	69.0	14.6	2.8	6.4	39.6	2.65	48.7	71.2	14.9	4.3	10.0		
				90	40.8	2.65	49.8	73.7	15.4	1.3	3.0	42.6	2.66	51.6	77.8	16.0	2.5	5.8	43.6	2.66	52.7	80.3	16.4	3.9	8.9		

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.
Performance stated is at the rated power supply, performance may vary as the power supply varies from the rated.

Performance Data (60Hz) — GSW036 - Heating

SOURCE				LOAD																								
EWT	Flow			EWT	Flow 5.0 gpm							Flow 7.0 gpm							Flow 9.0 gpm									
	GPM	WPD			HC	Power	HE	LWT	COP	WPD		HC	Power	HE	LWT	COP	WPD		HC	Power	HE	LWT	COP	WPD				
°F		PSI	FT	°F	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT			
20	9.0	9.9	22.9	60	24.1	1.41	19.3	69.6	5.00	2.0	4.5	24.2	1.37	19.5	66.9	5.19	3.4	7.8	24.2	1.34	19.6	65.4	5.29	5.1	11.7			
				80	23.5	1.78	17.5	89.4	3.87	1.5	3.5	23.6	1.72	17.8	86.7	4.03	2.8	6.4	23.7	1.68	17.9	85.2	4.12	4.3	10.0			
				100	23.0	2.29	15.2	109.2	2.94	1.1	2.4	23.1	2.21	15.6	106.6	3.07	2.2	5.2	23.2	2.16	15.8	105.1	3.14	3.6	8.2			
				120	22.6	2.94	12.5	129.0	2.24	0.9	2.1	22.6	2.84	12.9	126.4	2.33	2.0	4.6	22.7	2.78	13.2	125.0	2.39	3.3	7.6			
30	5.0	3.8	8.7	60	25.4	1.42	20.5	70.2	5.22	2.0	4.5	25.5	1.38	20.8	67.3	5.42	3.4	7.8	25.5	1.35	20.9	65.7	5.53	5.1	11.7			
				80	24.8	1.80	18.7	89.9	4.04	1.5	3.5	24.9	1.73	19.0	87.1	4.21	2.8	6.4	25.0	1.70	19.2	85.5	4.31	4.3	10.0			
				100	24.3	2.32	16.4	109.7	3.07	1.1	2.4	24.4	2.23	16.8	107.0	3.20	2.2	5.2	24.4	2.18	17.0	105.4	3.27	3.6	8.2			
				120	23.8	2.97	13.6	129.5	2.34	0.9	2.1	23.8	2.87	14.1	126.8	2.44	2.0	4.6	23.9	2.81	14.3	125.3	2.49	3.3	7.6			
	7.0	5.8	13.5	60	27.2	1.43	22.3	70.9	5.56	2.0	4.5	27.3	1.39	22.6	67.8	5.77	3.4	7.8	27.4	1.36	22.7	66.1	5.89	5.1	11.7			
				80	26.6	1.81	20.4	90.6	4.30	1.5	3.5	26.7	1.75	20.8	87.6	4.48	2.8	6.4	26.8	1.71	20.9	85.9	4.59	4.3	10.0			
				100	26.0	2.33	18.1	110.4	3.27	1.1	2.4	26.1	2.25	18.5	107.5	3.41	2.2	5.2	26.2	2.20	18.7	105.8	3.49	3.6	8.2			
				120	25.5	2.99	15.3	130.2	2.50	0.9	2.1	25.6	2.89	15.7	127.3	2.60	2.0	4.6	25.6	2.83	16.0	125.7	2.65	3.3	7.6			
	9.0	8.5	19.5	60	27.7	1.44	22.8	71.1	5.64	2.0	4.5	27.8	1.39	23.0	67.9	5.84	3.4	7.8	27.8	1.37	23.2	66.2	5.96	5.1	11.7			
				80	27.1	1.82	20.9	90.8	4.36	1.5	3.5	27.2	1.75	21.2	87.8	4.54	2.8	6.4	27.2	1.72	21.4	86.0	4.65	4.3	10.0			
				100	26.5	2.34	18.5	110.6	3.31	1.1	2.4	26.6	2.25	18.9	107.6	3.45	2.2	5.2	26.6	2.21	19.1	105.9	3.53	3.6	8.2			
				120	25.9	3.00	15.7	130.4	2.53	0.9	2.1	26.0	2.90	16.1	127.4	2.63	2.0	4.6	26.0	2.84	16.4	125.8	2.69	3.3	7.6			
40	5.0	3.2	7.4	60	28.2	1.45	23.2	71.3	5.69	2.0	4.5	28.3	1.39	23.6	68.1	5.97	3.4	7.8	28.4	1.36	23.7	66.3	6.12	5.1	11.7			
				80	27.5	1.68	21.8	91.0	4.81	1.5	3.5	27.7	1.60	22.2	87.9	5.07	2.8	6.4	27.7	1.56	22.4	86.2	5.21	4.3	10.0			
				100	26.8	2.16	19.4	110.7	3.64	1.1	2.4	26.9	2.06	19.9	107.7	3.84	2.2	5.2	27.0	2.00	20.2	106.0	3.95	3.6	8.2			
				120	26.0	2.76	16.6	130.4	2.77	0.9	2.1	26.2	2.64	17.2	127.5	2.91	2.0	4.6	26.3	2.57	17.5	125.8	2.99	3.3	7.6			
	7.0	5.0	11.5	60	30.2	1.46	25.2	72.1	6.06	2.0	4.5	30.4	1.40	25.6	68.7	6.35	3.4	7.8	30.4	1.37	25.8	66.8	6.52	5.1	11.7			
				80	29.5	1.69	23.8	91.8	5.12	1.5	3.5	29.7	1.61	24.2	88.5	5.39	2.8	6.4	29.7	1.57	24.4	86.6	5.55	4.3	10.0			
				100	28.8	2.17	21.3	111.5	3.88	1.1	2.4	28.9	2.07	21.8	108.3	4.09	2.2	5.2	29.0	2.02	22.1	106.4	4.21	3.6	8.2			
				120	27.9	2.78	18.5	131.2	2.95	0.9	2.1	28.1	2.66	19.0	128.0	3.10	2.0	4.6	28.2	2.59	19.3	126.3	3.18	3.3	7.6			
	9.0	7.2	16.7	60	30.7	1.47	25.7	72.3	6.14	2.0	4.5	30.9	1.41	26.1	68.8	6.44	3.4	7.8	30.9	1.37	26.3	66.9	6.60	5.1	11.7			
				80	30.0	1.70	24.2	92.0	5.19	1.5	3.5	30.2	1.62	24.6	88.6	5.46	2.8	6.4	30.2	1.58	24.9	86.7	5.62	4.3	10.0			
				100	29.2	2.18	21.8	111.7	3.93	1.1	2.4	29.4	2.08	22.3	108.4	4.14	2.2	5.2	29.5	2.03	22.6	106.5	4.26	3.6	8.2			
				120	28.4	2.79	18.9	131.4	2.99	0.9	2.1	28.5	2.67	19.4	128.2	3.14	2.0	4.6	28.6	2.60	19.8	126.4	3.23	3.3	7.6			
50	5.0	2.6	6.1	60	32.0	1.48	26.9	72.8	6.33	2.0	4.5	32.1	1.42	27.3	69.2	6.64	3.4	7.8	32.2	1.39	27.5	67.2	6.81	5.1	11.7			
				80	31.2	1.88	24.8	92.5	4.88	1.5	3.5	31.4	1.79	25.3	89.0	5.14	2.8	6.4	31.5	1.74	25.5	87.0	5.29	4.3	10.0			
				100	30.4	2.41	22.2	112.2	3.70	1.1	2.4	30.6	2.30	22.7	108.7	3.89	2.2	5.2	30.7	2.24	23.0	106.8	4.01	3.6	8.2			
				120	29.6	3.08	19.0	131.8	2.81	0.9	2.1	29.7	2.95	19.6	128.5	2.95	2.0	4.6	29.8	2.88	20.0	126.6	3.03	3.3	7.6			
	7.0	4.1	9.5	60	34.3	1.49	29.2	73.7	6.74	2.0	4.5	34.5	1.43	29.6	69.9	7.07	3.4	7.8	34.6	1.40	29.8	67.7	7.25	5.1	11.7			
				80	33.5	1.89	27.1	93.4	5.19	1.5	3.5	33.7	1.80	27.5	89.6	5.47	2.8	6.4	33.8	1.76	27.8	87.5	5.63	4.3	10.0			
				100	32.6	2.43	24.3	113.1	3.94	1.1	2.4	32.8	2.32	24.9	109.4	4.15	2.2	5.2	32.9	2.26	25.2	107.3	4.27	3.6	8.2			
				120	31.7	3.11	21.1	132.7	2.99	0.9	2.1	31.9	2.97	21.7	129.1	3.14	2.0	4.6	32.0	2.90	22.1	127.1	3.23	3.3	7.6			
	9.0	6.0	13.8	60	34.9	1.50	29.8	74.0	6.83	2.0	4.5	35.1	1.43	30.2	70.0	7.16	3.4	7.8	35.1	1.40	30.4	67.8	7.34	5.1	11.7			
				80	34.1	1.90	27.6	93.6	5.26	1.5	3.5	34.2	1.81	28.1	89.8	5.54	2.8	6.4	34.3	1.76	28.3	87.6	5.71	4.3	10.0			
				100	33.2	2.44	24.9	113.3	3.99	1.1	2.4	33.4	2.33	25.4	109.5	4.20	2.2	5.2	33.5	2.27	25.7	107.4	4.33	3.6	8.2			
				120	32.2	3.12	21.6	132.9	3.03	0.9	2.1	32.4	2.98	22.2	129.3	3.18	2.0	4.6	32.5	2.91	22.6	127.2	3.27	3.3	7.6			
60	5.0	2.9	6.6	60	35.5	1.50	30.4	74.2	6.94	2.0	4.5	35.7	1.44	30.8	70.2	7.27	3.4	7.8	35.8	1.40	31.0	67.9	7.46	5.1	11.7			
				80	34.7	1.68	28.9	93.9	6.06	1.5	3.5	34.8	1.60	29.4	90.0	6.38	2.8	6.4	34.9	1.56	29.6	87.8	6.57	4.3	10.0			
				100	33.8	2.16	26.4	113.5	4.59	1.1	2.4	33.9	2.06	26.9	109.7	4.84	2.2	5.2	34.0	2.00	27.2	107.6	4.98	3.6	8.2			
				120	32.8	2.76	23.4	133.1	3.49	0.9	2.1	33.0	2.64	24.0	129.4	3.66	2.0	4.6	33.1	2.57	24.3	127.4	3.77	3.3	7.6			
	7.0	3.9	8.9	60	38.1	1.51	32.9	75.2	7.39	2.0	4.5	38.3	1.45	33.3	70.9	7.74	3.4	7.8	38.4	1.41	33.5	68.5	7.94	5.1	11.7			
				80	37.2	1.69	31.4	94.9	6.45	1.5	3.5	37.4	1.61	31.9	90.7	6.80	2.8	6.4	37.5	1.57	32.1	88.3	7.00	4.3	10.0			
				100	36.2	2.17	28.8	114.5	4.89	1.1	2.4	36.4	2.07	29.3	110.4	5.15	2.2	5.2	36.5	2.02	29.6	108.1	5.30	3.6	8.2			
				120	35.2	2.78	25.7	134.1	3.71	0.9	2.1	35.4	2.66	26.3	130.1	3.90	2.0	4.6	35.5	2.59	26.6	127.9	4.01	3.3	7.6			
	9.0	5.0	11.4	60	38.7	1.52	33.6	75.5	7.48	2.0	4.5	38.9	1.45	33.9	71.1	7.84	3.4	7.8	39.0	1.42	34.1	68.7	8.05	5.1	11.7			
				90	37.8	1.70	32.0	105.1	6.53	1.5	3.5	38.0	1.62	32.5	100.9	6.88	2.8	6.4	38.1	1.58	32.7	98.5	7.09	4.3	10.0			
				100	36.8	2.18	29.4	114.7	4.95	1.1	2.4	37.0	2.08	29.9	110.6	5.22	2.2	5.2	37.1	2.03	30.2	108.2	5.37	3.6	8.2			
				120	35.8	2.79	26.3	134.3	3.76	0.9	2.1	36.0	2.67	26.9	130.3	3.95	2.0	4.6	36.1	2.60	27.2	128.0	4.06	3.3	7.6			
70	5.0	2.3	5.4	60	40.3	1.56	35.0	76.1	7.58	2.0	4.5	42.1	1.49	37.1	72.0	8.31	3.4	7.8	42.2	1.44	37.3	69.4	8.57	5.1	11.7			
				80	39.6	1.97	32.9	95.8	5.90	1.5	3.5	41.5	1.87	35.1	91.9	6.52	2.8	6.4	41.6	1.80	35.4	89.2	6.76	4.3	10.0			
				100	38.8	2.53	30.1	115.5	4.50	1.1	2.4	40.6	2.39	32.5	111.6	4.97	2.2	5.2	40.8	2.31	32.9	109.1	5.17	3.6	8.2			
				120	OPERATION NOT RECOMMENDED							39.6	3.07	29.1	131.3	3.77	2.0	4.6	39.7	2.97	29.6	128.8	3.92	3.3	7.6			
	7.0	3.6	8.4	60	43.2	1.57	37.9	77.3	8.08	2.0	4.5	45.2	1.50	40.1	72.9	8.85	3.4	7.8	45.3	1.45	40.3	70.1	9.12	5.1	11.7			
				80	42.5	1.98	35.7	97.0	6.28	1.5	3.5	44.5	1.88	38.1	92.7	6.94	2.8	6.4	44.6	1.82	38.4	89.9	7.20	4.3	10.0			
				100	41.6	2.54	32.9	116.6	4.79	1.1	2.4	43.6	2.41	35.3	112.4	5.30	2.2	5.2	43.7	2.33	35.8	109.7	5.50	3.6	8.2			
				120	OPERATION NOT RECOMMENDED							42.4	3.09	31.9	132.1	4.02	2.0	4.6	42.6	2.99	32.4	129.5	4.17	3.3	7.6			
	9.0	5.4	12.6	60	43.9	1.57	38.6	77.6	8.18	2.0	4.5	46.0	1.50	40.8	73.1	8.96	3.4	7.8	46.0	1.46	41.1	70.2	9.24	5.1	11.7			
				80	43.2	1.99	36.4	97.3	6.37	1.5	3.5	45.2	1.89	38.8	92.9	7.03	2.8	6.4	45.3	1.82	39.1	90.1	7.29	4.3	10.0			
				100	42.3	2.55	33.5	116.9	4.85	1.1	2.4	44.3	2.42	36.0	112.7	5.36	2.2	5.2	44.4	2.34	36.5	109.9	5.57	3.6	8.2			
				120	OPERATION NOT RECOMMENDED							43.1	3.10	32.6	132.3	4.08	2.0	4.6	43.3	3.00	33.1	129.6	4.23	3.3	7.6			

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.
Operation below 60°F EWT requires optional insulated water circuit.
Operation below 40°F EWT is based upon 15% antifreeze solution
See Performance Data Notes for operation in the shaded areas
Performance stated is at the rated power supply, performance may vary as the power supply varies from the rated.

Performance Data (60Hz) — GSW060 - Cooling

SOURCE				LOAD																						
EWT	Flow			EWT	Flow 7.5 gpm							Flow 11.3 gpm							Flow 15.0 gpm						
	GPM	WPD			TC	Power	HR	LWT	EER	WPD		TC	Power	HR	LWT	EER	WPD		TC	Power	HR	LWT	EER	WPD	
°F		PSI	FT	°F	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT
50	7.5	2.2	5.2	50	46.3	2.43	54.5	37.7	19.1	1.8	4.2	48.6	2.45	56.9	41.4	19.9	3.4	8.0	49.7	2.45	58.1	43.4	20.3	5.6	12.9
				60	51.4	2.47	59.8	46.3	20.8	1.6	3.7	53.7	2.48	62.1	50.5	21.6	3.1	7.1	54.8	2.49	63.3	52.7	22.0	5.0	11.6
				70	56.0	2.50	64.5	55.1	22.4	1.4	3.3	58.2	2.52	66.8	59.7	23.1	2.8	6.5	59.3	2.52	67.9	62.1	23.5	4.6	10.6
				80	60.1	2.53	68.7	64.0	23.8	1.3	3.0	62.2	2.54	70.8	69.0	24.5	2.6	5.9	63.1	2.55	71.8	71.6	24.8	4.2	9.7
				90	63.6	2.55	72.3	73.0	25.0	1.1	2.6	65.5	2.56	74.2	78.4	25.6	2.2	5.2	66.4	2.56	75.1	81.2	25.9	3.8	8.8
	11.3	4.0	9.2	50	46.7	2.32	54.6	37.5	20.1	1.8	4.2	49.0	2.34	57.0	41.3	21.0	3.4	8.0	50.2	2.35	58.2	43.3	21.4	5.6	12.9
				60	51.9	2.36	59.9	46.2	22.0	1.6	3.7	54.2	2.38	62.3	50.4	22.8	3.1	7.1	55.4	2.38	63.5	52.6	23.2	5.0	11.6
				70	56.5	2.39	64.7	54.9	23.6	1.4	3.3	58.8	2.41	67.0	59.6	24.4	2.8	6.5	59.9	2.41	68.1	62.0	24.8	4.6	10.6
				80	60.7	2.42	68.9	63.8	25.1	1.3	3.0	62.8	2.43	71.1	68.9	25.8	2.6	5.9	63.8	2.44	72.1	71.5	26.2	4.2	9.7
				90	64.3	2.44	72.6	72.9	26.4	1.1	2.6	66.2	2.45	74.5	78.3	27.1	2.2	5.2	67.0	2.45	75.4	81.1	27.4	3.8	8.8
	15.0	6.1	14.1	50	47.4	2.27	55.2	37.4	20.9	1.8	4.2	49.8	2.29	57.6	41.2	21.8	3.4	8.0	51.0	2.29	58.8	43.2	22.2	5.6	12.9
				60	52.6	2.31	60.5	46.0	22.8	1.6	3.7	55.0	2.32	62.9	50.3	23.7	3.1	7.1	56.2	2.33	64.1	52.5	24.1	5.0	11.6
				70	57.4	2.34	65.4	54.7	24.6	1.4	3.3	59.7	2.35	67.7	59.4	25.4	2.8	6.5	60.8	2.36	68.8	61.9	25.8	4.6	10.6
				80	61.6	2.36	69.6	63.6	26.1	1.3	3.0	63.7	2.37	71.8	68.7	26.8	2.6	5.9	64.7	2.38	72.9	71.4	27.2	4.2	9.7
				90	65.3	2.38	73.4	72.6	27.4	1.1	2.6	67.2	2.39	75.3	78.1	28.1	2.2	5.2	68.1	2.39	76.2	80.9	28.4	3.8	8.8
70	7.5	1.9	4.5	50	43.1	3.04	53.5	38.5	14.2	1.8	4.2	45.4	3.06	55.8	42.0	14.8	3.4	8.0	46.5	3.07	57.0	43.8	15.2	5.6	12.9
				60	48.5	3.09	59.0	47.1	15.7	1.6	3.7	50.8	3.11	61.4	51.0	16.3	3.1	7.1	52.0	3.12	62.6	53.1	16.6	5.0	11.6
				70	53.4	3.14	64.1	55.8	17.0	1.4	3.3	55.8	3.16	66.5	60.1	17.7	2.8	6.5	56.9	3.17	67.7	62.4	18.0	4.6	10.6
				80	57.9	3.18	68.8	64.5	18.2	1.3	3.0	60.2	3.20	71.1	69.3	18.8	2.6	5.9	61.3	3.21	72.3	71.8	19.1	4.2	9.7
				90	62.0	3.22	73.0	73.5	19.3	1.1	2.6	64.2	3.24	75.2	78.6	19.8	2.2	5.2	65.2	3.25	76.3	81.3	20.1	3.8	8.8
	11.3	3.6	8.2	50	43.6	2.91	53.5	38.4	15.0	1.8	4.2	45.8	2.93	55.8	41.9	15.7	3.4	8.0	47.0	2.94	57.0	43.7	16.0	5.6	12.9
				60	49.0	2.96	59.1	46.9	16.6	1.6	3.7	51.3	2.98	61.5	50.9	17.2	3.1	7.1	52.5	2.99	62.7	53.0	17.6	5.0	11.6
				70	54.0	3.00	64.2	55.6	18.0	1.4	3.3	56.3	3.02	66.6	60.0	18.6	2.8	6.5	57.5	3.03	67.8	62.3	19.0	4.6	10.6
				80	58.5	3.04	68.9	64.4	19.2	1.3	3.0	60.8	3.06	71.3	69.2	19.9	2.6	5.9	62.0	3.07	72.4	71.7	20.2	4.2	9.7
				90	62.6	3.08	73.1	73.3	20.4	1.1	2.6	64.8	3.10	75.4	78.5	20.9	2.2	5.2	65.9	3.11	76.5	81.2	21.2	3.8	8.8
	15.0	5.5	12.7	50	44.2	2.84	53.9	38.2	15.6	1.8	4.2	46.5	2.86	56.3	41.8	16.3	3.4	8.0	47.7	2.87	57.5	43.6	16.6	5.6	12.9
				60	49.7	2.89	59.6	46.7	17.2	1.6	3.7	52.1	2.91	62.0	50.8	17.9	3.1	7.1	53.3	2.92	63.3	52.9	18.3	5.0	11.6
				70	54.8	2.93	64.8	55.4	18.7	1.4	3.3	57.2	2.95	67.2	59.9	19.4	2.8	6.5	58.4	2.96	68.5	62.2	19.7	4.6	10.6
				80	59.4	2.97	69.5	64.2	20.0	1.3	3.0	61.7	2.99	71.9	69.1	20.6	2.6	5.9	62.9	3.00	73.1	71.6	21.0	4.2	9.7
				90	63.6	3.01	73.8	73.0	21.1	1.1	2.6	65.8	3.03	76.1	78.4	21.7	2.2	5.2	66.8	3.03	77.2	81.1	22.0	3.8	8.8
90	7.5	1.5	3.5	50	39.9	3.87	53.1	39.4	10.3	1.8	4.2	42.0	3.90	55.3	42.6	10.8	3.4	8.0	43.0	3.91	56.4	44.3	11.0	5.6	12.9
				60	45.2	3.94	58.6	47.9	11.5	1.6	3.7	47.3	3.96	60.8	51.6	11.9	3.1	7.1	48.4	3.97	62.0	53.5	12.2	5.0	11.6
				70	50.0	3.99	63.6	56.7	12.5	1.4	3.3	52.1	4.02	65.8	60.8	13.0	2.8	6.5	53.2	4.03	66.9	62.9	13.2	4.6	10.6
				80	54.4	4.04	68.1	65.5	13.5	1.3	3.0	56.4	4.05	70.2	70.0	13.9	2.6	5.9	57.4	4.06	71.2	72.4	14.1	4.2	9.7
				90	58.2	4.07	72.1	74.5	14.3	1.1	2.6	60.1	4.08	74.0	79.4	14.7	2.2	5.2	60.9	4.08	74.9	81.9	14.9	3.8	8.8
	11.3	3.1	7.1	50	40.3	3.70	53.0	39.2	10.9	1.8	4.2	42.4	3.73	55.1	42.5	11.4	3.4	8.0	43.5	3.74	56.2	44.2	11.6	5.6	12.9
				60	45.7	3.77	58.5	47.8	12.1	1.6	3.7	47.8	3.79	60.7	51.5	12.6	3.1	7.1	48.9	3.80	61.9	53.5	12.9	5.0	11.6
				70	50.5	3.82	63.6	56.5	13.2	1.4	3.3	52.7	3.84	65.8	60.7	13.7	2.8	6.5	53.7	3.85	66.9	62.8	14.0	4.6	10.6
				80	54.9	3.86	68.1	65.4	14.2	1.3	3.0	56.9	3.88	70.2	69.9	14.7	2.6	5.9	57.9	3.88	71.2	72.3	14.9	4.2	9.7
				90	58.8	3.89	72.0	74.3	15.1	1.1	2.6	60.7	3.90	74.0	79.3	15.6	2.2	5.2	61.6	3.90	74.9	81.8	15.8	3.8	8.8
	15.0	5.0	11.6	50	40.9	3.61	53.3	39.1	11.3	1.8	4.2	43.1	3.64	55.5	42.4	11.8	3.4	8.0	44.1	3.65	56.6	44.1	12.1	5.6	12.9
				60	46.4	3.68	58.9	47.6	12.6	1.6	3.7	48.5	3.70	61.2	51.4	13.1	3.1	7.1	49.6	3.71	62.3	53.4	13.4	5.0	11.6
				70	51.3	3.73	64.0	56.3	13.7	1.4	3.3	53.4	3.75	66.3	60.5	14.2	2.8	6.5	54.5	3.76	67.4	62.7	14.5	4.6	10.6
				80	55.7	3.77	68.6	65.1	14.8	1.3	3.0	57.8	3.79	70.7	69.8	15.3	2.6	5.9	58.8	3.80	71.8	72.2	15.5	4.2	9.7
				90	59.7	3.80	72.6	74.1	15.7	1.1	2.6	61.6	3.81	74.6	79.1	16.2	2.2	5.2	62.5	3.81	75.5	81.7	16.4	3.8	8.8
110	7.5	1.3	3.0	50	35.1	4.87	51.8	40.6	7.2	1.8	4.2	37.0	4.90	53.7	43.5	7.5	3.4	8.0	38.0	4.92	54.7	44.9	7.7	5.6	12.9
				60	40.6	4.96	57.5	49.2	8.2	1.6	3.7	42.5	4.99	59.6	52.5	8.5	3.1	7.1	43.5	5.01	60.6	54.2	8.7	5.0	11.6
				70	45.6	5.04	62.8	57.8	9.0	1.4	3.3	47.6	5.07	64.9	61.6	9.4	2.8	6.5	48.7	5.08	66.0	63.5	9.6	4.6	10.6
				80	50.2	5.10	67.6	66.6	9.8	1.3	3.0	52.2	5.13	69.7	70.8	10.2	2.6	5.9	53.3	5.14	70.8	72.9	10.4	4.2	9.7
				90	54.4	5.16	72.0	75.5	10.5	1.1	2.6	56.4	5.18	74.1	80.0	10.9	2.2	5.2	57.3	5.19	75.1	82.4	11.0	3.8	8.8
	11.3	2.8	6.4	50	35.5	4.66	51.4	40.5	7.6	1.8	4.2	37.4	4.69	53.4	43.4	8.0	3.4	8.0	38.3	4.71	54.4	44.9	8.1	5.6	12.9
				60	41.0	4.75	57.2	49.1	8.6	1.6	3.7	43.0	4.77	59.3	52.4	9.0	3.1	7.1	44.0	4.79	60.3	54.1	9.2	5.0	11.6
				70	46.0	4.82	62.5	57.7	9.6	1.4	3.3	48.1	4.85	64.6	61.5	9.9	2.8	6.5	49.1	4.86	65.7	63.4	10.1	4.6	10.6
				80	50.7	4.88	67.4	66.5	10.4	1.3	3.0	52.8	4.91	69.5	70.7	10.8	2.6	5.9	53.8	4.92	70.6	72.8	10.9	4.2	9.7
				90	55.0	4.93	71.8	75.3	11.1	1.1	2.6	56.9	4.96	73.9	79.9	11.5	2.2	5.2	57.9	4.97	74.9	82.3	11.7	3.8	8.8
	15.0	4.6	10.5	50	36.0	4.55	51.6	40.4	7.9	1.8	4.2	37.9	4.58	53.6	43.3	8.3	3.4	8.0	38.9	4.60	54.6	44.8	8.5	5.6	12.9
				60	41.6	4.64	57.4	48.9	9.0	1.6	3.7	43.6	4.67	59.5	52.3	9.3	3.1	7.1	44.6	4.68	60.6	54.0	9.5	5.0	11.6
				70	46.7	4.71	62.8	57.5	9.9	1.4	3.3	48.8	4.74	65.0	61.4	10.3	2.8	6.5	49.9	4.75	66.1	63.3	10.5	4.6	10.6
				80	51.5	4.77	67.7	66.3	10.8	1.3	3.0	53.6	4.80	69.9	70.5	11.2	2.6	5.9	54.6	4.81	71.0	72.7	11.4	4.2	9.7
				90	55.8	4.82	72.2	75.1	11.6	1.1	2.6	57.8	4.84	74.3	79.8	11.9	2.2	5.2	58.8	4.85	75.3	82.2	12.1	3.8	8.8

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.
Performance stated is at the rated power supply, performance may vary as the power supply varies from the rated.

Performance Data (60Hz) — GSW060 - Heating

SOURCE				LOAD																						
EWT	Flow			EWT	Flow 7.5 gpm							Flow 11.3 gpm							Flow 15.0 gpm							
	GPM	WPD			HC	Power	HE	LWT	COP	WPD		HC	Power	HE	LWT	COP	WPD		HC	Power	HE	LWT	COP	WPD	
°F		PSI	FT	°F	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT
20	15.0	7.9	18.2	60	36.8	2.53	28.2	69.8	4.26	1.6	3.7	37.2	2.44	28.9	66.6	4.48	3.1	7.1	37.4	2.39	29.3	65.0	4.58	5.0	11.6
				80	35.0	3.17	24.2	89.3	3.24	1.3	3.0	35.2	3.04	24.9	86.2	3.39	2.6	5.9	35.4	2.98	25.2	84.7	3.48	4.2	9.7
				100	33.9	4.01	20.2	109.0	2.48	0.9	2.1	34.0	3.86	20.9	106.0	2.59	1.9	4.5	34.1	3.78	21.2	104.5	2.64	3.5	8.1
				120	33.6	5.08	16.3	129.0	1.94	0.6	1.5	33.6	4.89	17.0	126.0	2.02	1.6	3.6	33.6	4.79	17.3	124.5	2.06	2.9	6.7
30	7.5	3.1	7.2	60	38.2	2.55	29.5	70.2	4.39	1.6	3.7	38.7	2.46	30.3	66.8	4.62	3.1	7.1	38.9	2.41	30.7	65.2	4.73	5.0	11.6
				80	36.3	3.19	25.4	89.7	3.34	1.3	3.0	36.6	3.06	26.1	86.5	3.50	2.6	5.9	36.7	3.00	26.5	84.9	3.58	4.2	9.7
				100	35.2	4.04	21.4	109.4	2.55	0.9	2.1	35.4	3.88	22.1	106.3	2.67	1.9	4.5	35.4	3.81	22.4	104.7	2.73	3.5	8.1
				120	35.0	5.12	17.5	129.3	2.00	0.6	1.5	34.9	4.92	18.1	126.2	2.08	1.6	3.6	34.9	4.83	18.5	124.7	2.12	2.9	6.7
	11.3	5.0	11.5	60	40.5	2.57	31.7	70.8	4.61	1.6	3.7	41.0	2.48	32.5	67.2	4.84	3.1	7.1	41.2	2.43	32.9	65.5	4.96	5.0	11.6
				80	38.5	3.22	27.5	90.3	3.50	1.3	3.0	38.8	3.09	28.2	86.9	3.68	2.6	5.9	38.9	3.03	28.6	85.2	3.76	4.2	9.7
				100	37.3	4.08	23.4	109.9	2.68	0.9	2.1	37.4	3.92	24.1	106.6	2.80	1.9	4.5	37.5	3.84	24.4	105.0	2.86	3.5	8.1
				120	37.0	5.16	19.4	129.9	2.10	0.6	1.5	37.0	4.97	20.1	126.5	2.18	1.6	3.6	37.0	4.87	20.4	124.9	2.23	2.9	6.7
	15.0	7.4	17.0	60	42.3	2.58	33.5	71.3	4.80	1.6	3.7	42.8	2.49	34.3	67.6	5.04	3.1	7.1	43.0	2.44	34.7	65.7	5.16	5.0	11.6
				80	40.2	3.23	29.2	90.7	3.65	1.3	3.0	40.5	3.10	29.9	87.2	3.82	2.6	5.9	40.7	3.04	30.3	85.4	3.92	4.2	9.7
				100	39.0	4.09	25.0	110.4	2.79	0.9	2.1	39.1	3.93	25.7	106.9	2.91	1.9	4.5	39.2	3.86	26.0	105.2	2.98	3.5	8.1
				120	38.7	5.18	21.0	130.3	2.19	0.6	1.5	38.7	4.99	21.6	126.8	2.27	1.6	3.6	38.7	4.89	22.0	125.2	2.32	2.9	6.7
40	7.5	2.7	6.2	60	44.1	2.62	35.1	71.8	4.93	1.6	3.7	44.3	2.48	35.8	67.8	5.23	3.1	7.1	44.3	2.42	36.1	65.9	5.37	5.0	11.6
				80	43.1	3.32	31.8	91.5	3.80	1.3	3.0	43.4	3.14	32.6	87.7	4.05	2.6	5.9	43.5	3.06	33.1	85.8	4.17	4.2	9.7
				100	41.8	4.21	27.5	111.2	2.91	0.9	2.1	42.1	3.99	28.5	107.5	3.10	1.9	4.5	42.3	3.89	29.0	105.6	3.19	3.5	8.1
				120	40.3	5.28	22.2	130.7	2.23	0.6	1.5	40.6	5.03	23.5	127.2	2.37	1.6	3.6	40.8	4.91	24.1	125.4	2.44	2.9	6.7
	11.3	4.4	10.2	60	46.7	2.64	37.7	72.4	5.17	1.6	3.7	46.9	2.50	38.3	68.3	5.49	3.1	7.1	47.0	2.44	38.6	66.3	5.64	5.0	11.6
				80	45.6	3.35	34.2	92.2	3.99	1.3	3.0	45.9	3.17	35.1	88.1	4.25	2.6	5.9	46.0	3.08	35.5	86.1	4.38	4.2	9.7
				100	44.3	4.25	29.8	111.8	3.06	0.9	2.1	44.6	4.03	30.9	107.9	3.25	1.9	4.5	44.8	3.92	31.4	106.0	3.35	3.5	8.1
				120	42.6	5.33	24.5	131.4	2.35	0.6	1.5	43.0	5.07	25.7	127.6	2.49	1.6	3.6	43.2	4.95	26.3	125.8	2.56	2.9	6.7
	15.0	6.6	15.2	60	48.8	2.66	39.7	73.0	5.38	1.6	3.7	49.0	2.51	40.4	68.7	5.71	3.1	7.1	49.1	2.45	40.7	66.5	5.87	5.0	11.6
				80	47.7	3.36	36.2	92.7	4.16	1.3	3.0	48.0	3.18	37.1	88.5	4.42	2.6	5.9	48.1	3.10	37.5	86.4	4.56	4.2	9.7
				100	46.3	4.26	31.7	112.3	3.18	0.9	2.1	46.6	4.04	32.8	108.3	3.38	1.9	4.5	46.8	3.94	33.4	106.2	3.48	3.5	8.1
				120	44.5	5.35	26.3	131.9	2.44	0.6	1.5	45.0	5.09	27.6	128.0	2.59	1.6	3.6	45.1	4.97	28.2	126.0	2.66	2.9	6.7
50	7.5	2.2	5.2	60	50.0	2.67	40.9	73.3	5.50	1.6	3.7	50.3	2.53	41.6	68.9	5.83	3.1	7.1	50.3	2.46	41.9	66.7	5.99	5.0	11.6
				80	48.9	3.38	37.4	93.0	4.24	1.3	3.0	49.2	3.20	38.3	88.7	4.51	2.6	5.9	49.4	3.11	38.7	86.6	4.65	4.2	9.7
				100	47.5	4.28	32.9	112.7	3.25	0.9	2.1	47.8	4.06	34.0	108.5	3.45	1.9	4.5	48.0	3.95	34.5	106.4	3.56	3.5	8.1
				120	45.7	5.37	27.4	132.2	2.49	0.6	1.5	46.1	5.12	28.7	128.2	2.64	1.6	3.6	46.3	5.00	29.3	126.2	2.72	2.9	6.7
	11.3	4.0	9.2	60	53.0	2.69	43.8	74.1	5.77	1.6	3.7	53.2	2.55	44.5	69.4	6.12	3.1	7.1	53.3	2.48	44.8	67.1	6.29	5.0	11.6
				80	51.8	3.41	40.2	93.8	4.45	1.3	3.0	52.1	3.22	41.1	89.2	4.74	2.6	5.9	52.3	3.14	41.6	87.0	4.88	4.2	9.7
				100	50.3	4.32	35.6	113.4	3.41	0.9	2.1	50.7	4.10	36.7	109.0	3.63	1.9	4.5	50.9	3.99	37.2	106.8	3.74	3.5	8.1
				120	48.4	5.42	29.9	132.9	2.62	0.6	1.5	48.9	5.16	31.2	128.6	2.77	1.6	3.6	49.1	5.04	31.9	126.5	2.85	2.9	6.7
	15.0	6.1	14.1	60	55.4	2.70	46.1	74.8	6.00	1.6	3.7	55.6	2.56	46.9	69.8	6.37	3.1	7.1	55.7	2.49	47.2	67.4	6.55	5.0	11.6
				80	54.1	3.42	42.5	94.4	4.64	1.3	3.0	54.5	3.24	43.4	89.6	4.93	2.6	5.9	54.6	3.15	43.9	87.3	5.08	4.2	9.7
				100	52.5	4.34	37.7	114.0	3.55	0.9	2.1	52.9	4.11	38.9	109.4	3.77	1.9	4.5	53.1	4.01	39.5	107.1	3.89	3.5	8.1
				120	50.6	5.44	32.0	133.5	2.72	0.6	1.5	51.0	5.18	33.3	129.0	2.88	1.6	3.6	51.3	5.06	34.0	126.8	2.97	2.9	6.7
60	7.5	2.1	4.8	60	55.5	2.71	46.3	74.8	6.00	1.6	3.7	55.8	2.57	47.0	69.9	6.37	3.1	7.1	55.9	2.50	47.3	67.4	6.55	5.0	11.6
				80	54.3	3.43	42.6	94.5	4.64	1.3	3.0	54.6	3.25	43.5	89.7	4.93	2.6	5.9	54.8	3.16	44.0	87.3	5.08	4.2	9.7
				100	52.7	4.35	37.9	114.1	3.55	0.9	2.1	53.1	4.13	39.0	109.4	3.77	1.9	4.5	53.3	4.02	39.6	107.1	3.89	3.5	8.1
				120	50.7	5.46	32.1	133.5	2.72	0.6	1.5	51.2	5.20	33.4	129.1	2.88	1.6	3.6	51.4	5.08	34.1	126.9	2.97	2.9	6.7
	11.3	3.8	8.7	60	58.8	2.73	49.5	75.7	6.31	1.6	3.7	59.1	2.59	50.2	70.5	6.69	3.1	7.1	59.2	2.52	50.6	67.9	6.88	5.0	11.6
				80	57.5	3.46	45.7	95.3	4.87	1.3	3.0	57.9	3.27	46.7	90.2	5.18	2.6	5.9	58.0	3.19	47.1	87.7	5.34	4.2	9.7
				100	55.8	4.39	40.8	114.9	3.73	0.9	2.1	56.2	4.16	42.0	110.0	3.96	1.9	4.5	56.4	4.05	42.6	107.5	4.08	3.5	8.1
				120	53.7	5.51	34.9	134.3	2.86	0.6	1.5	54.2	5.24	36.3	129.6	3.03	1.6	3.6	54.4	5.12	37.0	127.3	3.12	2.9	6.7
	15.0	5.7	13.3	60	61.4	2.74	52.1	76.4	6.56	1.6	3.7	61.7	2.60	52.8	70.9	6.96	3.1	7.1	61.8	2.53	53.2	68.2	7.15	5.0	11.6
				80	60.1	3.48	48.2	96.0	5.06	1.3	3.0	60.4	3.29	49.2	90.7	5.39	2.6	5.9	60.6	3.20	49.7	88.1	5.55	4.2	9.7
				100	58.3	4.41	43.3	115.5	3.88	0.9	2.1	58.8	4.18	44.5	110.4	4.12	1.9	4.5	59.0	4.07	45.1	107.9	4.25	3.5	8.1
				120	56.1	5.53	37.3	135.0	2.98	0.6	1.5	56.6	5.27	38.7	130.0	3.15	1.6	3.6	56.9	5.14	39.3	127.6	3.24	2.9	6.7
70	7.5	1.9	4.5	60	59.7	2.79	50.2	75.9	6.27	1.6	3.7	60.0	2.61	51.1	70.6	6.73	3.1	7.1	60.2	2.53	51.5	68.0	6.96	5.0	11.6
				80	58.7	3.53	46.7	95.7	4.87	1.3	3.0	59.0	3.31	47.7	90.4	5.23	2.6	5.9	59.2	3.20	48.2	87.9	5.42	4.2	9.7
				100	57.7	4.46	42.5	115.4	3.80	0.9	2.1	58.0	4.18	43.7	110.3	4.06	1.9	4.5	58.1	4.05	44.3	107.8	4.20	3.5	8.1
				120	OPERATION NOT RECOMMENDED							57.0	5.24	39.1	130.1	3.19	1.6	3.6	57.1	5.09	39.7	127.6	3.29	2.9	6.7
	11.3	3.6	8.2	60	63.3	2.82	53.7	76.9	6.59	1.6	3.7	63.6	2.64	54.6	71.3	7.07	3.1	7.1	63.7	2.55	55.0	68.5	7.31	5.0	11.6
				80	62.2	3.56	50.0	96.6	5.12	1.3	3.0	62.5	3.33	51.1	91.1	5.49	2.6	5.9	62.6	3.23	51.6	88.4	5.69	4.2	9.7
				100	61.1	4.49	45.8	116.3	3.99	0.9	2.1	61.4	4.22	47.0	110.9	4.27	1.9	4.5	61.6	4.09	47.6	108.2	4.41	3.5	8.1
				120	OPERATION NOT RECOMMENDED							60.4	5.29	42.3	130.7	3.35	1.6	3.6	60.5	5.14	43.0	128.1	3.45	2.9	6.7
	15.0	5.5	12.7	60	66.1	2.83	56.5	77.6	6.85	1.6	3.7	66.4	2.65	57.4	71.8	7.35	3.1	7.1	66.6	2.56	57.8	68.9	7.61	5.0	11.6
				80	65.0	3.58	52.8	97.3	5.32	1.3	3.0	65.3	3.35	53.9	91.6	5.72	2.6	5.9	65.4	3.24	54.4	88.7	5.92	4.2	9.7
				100	63.9	4.51	48.5	117.0	4.15	0.9	2.1	64.2	4.24	49.7	111.4	4.44	1.9	4.5	64.3	4.11	50.3	108.6	4.59	3.5	8.1
				120	OPERATION NOT RECOMMENDED							63.1	5.31	44.9	131.2	3.48	1.6	3.6	63.2	5.16	45.6	128.4	3.59	2.9	6.7

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.
Operation below 60°F EWT requires optional insulated water circuit.
Operation below 40°F EWT is based upon 15% antifreeze solution
See Performance Data Notes for operation in the shaded areas
Performance stated is at the rated power supply, performance may vary as the power supply varies from the rated.

Performance Data (60Hz) — GSW120 - Cooling

SOURCE				LOAD																						
EWT	Flow			EWT	Flow 15.0 gpm							Flow 22.6 gpm							Flow 30.0 gpm						
	GPM	WPD			TC	Power	HR	LWT	EER	WPD		TC	Power	HR	LWT	EER	WPD		TC	Power	HR	LWT	EER	WPD	
°F		PSI	FT	°F	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT
50	15.0	3.1	7.3	50	92.5	4.85	109.1	37.7	19.1	2.6	5.9	97.1	4.89	113.8	41.4	19.9	4.8	11.1	99.4	4.91	116.2	43.4	20.3	7.8	18.1
				60	102.7	4.93	119.5	46.3	20.8	2.2	5.1	107.3	4.97	124.3	50.5	21.6	4.3	9.9	109.6	4.99	126.6	52.7	22.0	7.0	16.2
				70	111.9	5.00	129.0	55.1	22.4	2.0	4.6	116.4	5.03	133.6	59.7	23.1	3.9	9.0	118.6	5.05	135.8	62.1	23.5	6.4	14.9
				80	120.1	5.06	137.4	64.0	23.8	1.8	4.2	124.3	5.08	141.6	69.0	24.5	3.6	8.3	126.3	5.09	143.7	71.6	24.8	5.9	13.6
				90	127.3	5.10	144.7	73.0	25.0	1.6	3.6	131.0	5.11	148.5	78.4	25.6	3.1	7.2	132.7	5.12	150.2	81.2	25.9	5.3	12.3
	22.6	5.6	12.8	50	93.4	4.64	109.3	37.5	20.1	2.6	5.9	98.1	4.68	114.1	41.3	21.0	4.8	11.1	100.4	4.70	116.5	43.3	21.4	7.8	18.1
				60	103.7	4.72	119.8	46.2	22.0	2.2	5.1	108.4	4.75	124.6	50.4	22.8	4.3	9.9	110.7	4.77	127.0	52.6	23.2	7.0	16.2
				70	113.1	4.78	129.4	54.9	23.6	2.0	4.6	117.6	4.81	134.0	59.6	24.4	3.9	9.0	119.8	4.83	136.2	62.0	24.8	6.4	14.9
				80	121.4	4.84	137.9	63.8	25.1	1.8	4.2	125.6	4.86	142.1	68.9	25.8	3.6	8.3	127.6	4.87	144.2	71.5	26.2	5.9	13.6
				90	128.6	4.88	145.2	72.9	26.4	1.6	3.6	132.3	4.89	149.0	78.3	27.1	3.1	7.2	134.1	4.90	150.8	81.1	27.4	5.3	12.3
	30.0	8.5	19.7	50	94.9	4.54	110.3	37.4	20.9	2.6	5.9	99.6	4.57	115.2	41.2	21.8	4.8	11.1	102.0	4.59	117.6	43.2	22.2	7.8	18.1
				60	105.3	4.61	121.0	46.0	22.8	2.2	5.1	110.0	4.64	125.9	50.3	23.7	4.3	9.9	112.4	4.66	128.3	52.5	24.1	7.0	16.2
				70	114.8	4.67	130.7	54.7	24.6	2.0	4.6	119.3	4.70	135.4	59.4	25.4	3.9	9.0	121.6	4.72	137.7	61.9	25.8	6.4	14.9
				80	123.2	4.73	139.3	63.6	26.1	1.8	4.2	127.4	4.75	143.6	68.7	26.8	3.6	8.3	129.5	4.76	145.7	71.4	27.2	5.9	13.6
				90	130.5	4.76	146.8	72.6	27.4	1.6	3.6	134.3	4.78	150.6	78.1	28.1	3.1	7.2	136.1	4.79	152.4	80.9	28.4	5.3	12.3
70	15.0	2.7	6.3	50	86.3	6.08	107.0	38.5	14.2	2.6	5.9	90.8	6.12	111.7	42.0	14.8	4.8	11.1	93.1	6.14	114.0	43.8	15.2	7.8	18.1
				60	97.0	6.18	118.1	47.1	15.7	2.2	5.1	101.6	6.22	122.9	51.0	16.3	4.3	9.9	104.0	6.25	125.3	53.1	16.6	7.0	16.2
				70	106.9	6.27	128.3	55.8	17.0	2.0	4.6	111.5	6.32	133.1	60.1	17.7	3.9	9.0	113.9	6.34	135.5	62.4	18.0	6.4	14.9
				80	115.9	6.36	137.6	64.5	18.2	1.8	4.2	120.4	6.40	142.3	69.3	18.8	3.6	8.3	122.7	6.42	144.6	71.8	19.1	5.9	13.6
				90	124.0	6.43	146.0	73.5	19.3	1.6	3.6	128.3	6.47	150.4	78.6	19.8	3.1	7.2	130.4	6.49	152.5	81.3	20.1	5.3	12.3
	22.6	5.0	11.5	50	87.2	5.82	107.0	38.4	15.0	2.6	5.9	91.7	5.86	111.7	41.9	15.7	4.8	11.1	94.0	5.88	114.1	43.7	16.0	7.8	18.1
				60	98.0	5.91	118.1	46.9	16.6	2.2	5.1	102.7	5.95	123.0	50.9	17.2	4.3	9.9	105.0	5.97	125.4	53.0	17.6	7.0	16.2
				70	107.9	6.00	128.4	55.6	18.0	2.0	4.6	112.6	6.04	133.3	60.0	18.6	3.9	9.0	115.0	6.06	135.7	62.3	19.0	6.4	14.9
				80	117.0	6.08	137.8	64.4	19.2	1.8	4.2	121.6	6.12	142.5	69.2	19.9	3.6	8.3	123.9	6.14	144.9	71.7	20.2	5.9	13.6
				90	125.3	6.15	146.3	73.3	20.4	1.6	3.6	129.6	6.19	150.7	78.5	20.9	3.1	7.2	131.7	6.21	152.9	81.2	21.2	5.3	12.3
	30.0	7.7	17.8	50	88.5	5.68	107.8	38.2	15.6	2.6	5.9	93.1	5.72	112.6	41.8	16.3	4.8	11.1	95.4	5.74	115.0	43.6	16.6	7.8	18.1
				60	99.4	5.78	119.1	46.7	17.2	2.2	5.1	104.2	5.82	124.0	50.8	17.9	4.3	9.9	106.6	5.84	126.5	52.9	18.3	7.0	16.2
				70	109.6	5.86	129.6	55.4	18.7	2.0	4.6	114.3	5.90	134.5	59.9	19.4	3.9	9.0	116.7	5.92	136.9	62.2	19.7	6.4	14.9
				80	118.8	5.94	139.1	64.2	20.0	1.8	4.2	123.5	5.98	143.9	69.1	20.6	3.6	8.3	125.8	6.00	146.2	71.6	21.0	5.9	13.6
				90	127.1	6.01	147.7	73.0	21.1	1.6	3.6	131.6	6.05	152.2	78.4	21.7	3.1	7.2	133.7	6.07	154.4	81.1	22.0	5.3	12.3
90	15.0	2.1	5.0	50	79.9	7.74	106.3	39.4	10.3	2.6	5.9	84.0	7.79	110.6	42.6	10.8	4.8	11.1	86.1	7.82	112.8	44.3	11.0	7.8	18.1
				60	90.4	7.87	117.3	47.9	11.5	2.2	5.1	94.7	7.92	121.7	51.6	11.9	4.3	9.9	96.8	7.95	123.9	53.5	12.2	7.0	16.2
				70	100.0	7.99	127.3	56.7	12.5	2.0	4.6	104.3	8.03	131.7	60.8	13.0	3.9	9.0	106.4	8.05	133.8	62.9	13.2	6.4	14.9
				80	108.7	8.07	136.3	65.5	13.5	1.8	4.2	112.8	8.11	140.4	70.0	13.9	3.6	8.3	114.7	8.12	142.4	72.4	14.1	5.9	13.6
				90	116.4	8.13	144.1	74.5	14.3	1.6	3.6	120.1	8.15	147.9	79.4	14.7	3.1	7.2	121.9	8.16	149.7	81.9	14.9	5.3	12.3
	22.6	4.3	9.9	50	80.7	7.40	105.9	39.2	10.9	2.6	5.9	84.8	7.45	110.3	42.5	11.4	4.8	11.1	87.0	7.48	112.5	44.2	11.6	7.8	18.1
				60	91.3	7.53	117.0	47.8	12.1	2.2	5.1	95.6	7.58	121.5	51.5	12.6	4.3	9.9	97.8	7.60	123.7	53.5	12.9	7.0	16.2
				70	101.1	7.64	127.1	56.5	13.2	2.0	4.6	105.3	7.68	131.5	60.7	13.7	3.9	9.0	107.4	7.70	133.7	62.8	14.0	6.4	14.9
				80	109.8	7.72	136.2	65.4	14.2	1.8	4.2	113.9	7.75	140.4	69.9	14.7	3.6	8.3	115.9	7.77	142.4	72.3	14.9	5.9	13.6
				90	117.6	7.78	144.1	74.3	15.1	1.6	3.6	121.3	7.80	147.9	79.3	15.6	3.1	7.2	123.1	7.81	149.7	81.8	15.8	5.3	12.3
	30.0	7.0	16.2	50	81.9	7.23	106.5	39.1	11.3	2.6	5.9	86.1	7.28	110.9	42.4	11.8	4.8	11.1	88.3	7.31	113.2	44.1	12.1	7.8	18.1
				60	92.7	7.36	117.8	47.6	12.6	2.2	5.1	97.1	7.41	122.3	51.4	13.1	4.3	9.9	99.2	7.43	124.6	53.4	13.4	7.0	16.2
				70	102.6	7.46	128.0	56.3	13.7	2.0	4.6	106.9	7.50	132.5	60.5	14.2	3.9	9.0	109.0	7.52	134.7	62.7	14.5	6.4	14.9
				80	111.5	7.54	137.2	65.1	14.8	1.8	4.2	115.6	7.58	141.5	69.8	15.3	3.6	8.3	117.6	7.59	143.5	72.2	15.5	5.9	13.6
				90	119.3	7.60	145.3	74.1	15.7	1.6	3.6	123.1	7.62	149.1	79.1	16.2	3.1	7.2	125.0	7.63	151.0	81.7	16.4	5.3	12.3
110	15.0	1.8	4.2	50	70.3	9.75	103.5	40.6	7.2	2.6	5.9	74.0	9.81	107.4	43.5	7.5	4.8	11.1	75.9	9.84	109.5	44.9	7.7	7.8	18.1
				60	81.1	9.92	115.0	49.2	8.2	2.2	5.1	85.1	9.98	119.1	52.5	8.5	4.3	9.9	87.1	10.01	121.3	54.2	8.7	7.0	16.2
				70	91.2	10.08	125.5	57.8	9.0	2.0	4.6	95.2	10.14	129.8	61.6	9.4	3.9	9.0	97.3	10.16	132.0	63.5	9.6	6.4	14.9
				80	100.4	10.21	135.2	66.6	9.8	1.8	4.2	104.5	10.26	139.5	70.8	10.2	3.6	8.3	106.5	10.29	141.6	72.9	10.4	5.9	13.6
				90	108.8	10.32	144.0	75.5	10.5	1.6	3.6	112.8	10.36	148.1	80.0	10.9	3.1	7.2	114.7	10.38	150.1	82.4	11.0	5.3	12.3
	22.6	3.9	9.0	50	71.0	9.32	102.8	40.5	7.6	2.6	5.9	74.7	9.38	106.7	43.4	8.0	4.8	11.1	76.7	9.41	108.8	44.9	8.1	7.8	18.1
				60	81.9	9.49	114.3	49.1	8.6	2.2	5.1	85.9	9.55	118.5	52.4	9.0	4.3	9.9	88.0	9.58	120.7	54.1	9.2	7.0	16.2
				70	92.1	9.64	125.0	57.7	9.6	2.0	4.6	96.2	9.69	129.3	61.5	9.9	3.9	9.0	98.3	9.72	131.5	63.4	10.1	6.4	14.9
				80	101.4	9.76	134.7	66.5	10.4	1.8	4.2	105.5	9.82	139.0	70.7	10.8	3.6	8.3	107.6	9.84	141.2	72.8	10.9	5.9	13.6
				90	109.9	9.87	143.6	75.3	11.1	1.6	3.6	113.9	9.91	147.7	79.9	11.5	3.1	7.2	115.8	9.93	149.7	82.3	11.7	5.3	12.3
	30.0	6.4	14.7	50	72.0	9.11	103.1	40.4	7.9	2.6	5.9	75.9	9.17	107.1	43.3	8.3	4.8	11.1	77.8	9.19	109.2	44.8	8.5	7.8	18.1
				60	83.2	9.27	114.8	48.9	9.0	2.2	5.1	87.2	9.33	119.1	52.3	9.3	4.3	9.9	89.3	9.36	121.2	54.0	9.5	7.0	16.2
				70	93.5	9.42	125.6	57.5	9.9	2.0	4.6	97.7	9.47	130.0	61.4	10.3	3.9	9.0	99.8	9.50	132.2	63.3	10.5	6.4	14.9
				80	102.9	9.54	135.5	66.3	10.8	1.8	4.2	107.1	9.59	139.8	70.5	11.2	3.6	8.3	109.2	9.61	142.0	72.7	11.4	5.9	13.6
				90	111.5	9.64	144.4	75.1	11.6	1.6	3.6	115.6	9.68	148.6	79.8	11.9	3.1	7.2	117.6	9.70	150.7	82.2	12.1	5.3	12.3

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.
Performance stated is at the rated power supply, performance may vary as the power supply varies from the rated.

Performance Data (60Hz) — GSW120 - Heating

SOURCE				LOAD																						
EWT	Flow			EWT	Flow 15.0 gpm							Flow 22.6 gpm							Flow 30.0 gpm						
	GPM	WPD			HC	Power	HE	LWT	COP	WPD		HC	Power	HE	LWT	COP	WPD		HC	Power	HE	LWT	COP	WPD	
°F		PSI	FT	°F	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT
20	30.0	11.1	25.5	60	73.6	5.06	56.3	69.8	4.26	2.2	5.1	74.4	4.88	57.8	66.6	4.48	4.3	9.9	74.9	4.79	58.5	65.0	4.58	7.0	16.2
				80	69.9	6.33	48.3	89.3	3.24	1.8	4.2	70.5	6.08	49.7	86.2	3.39	3.6	8.3	70.7	5.96	50.4	84.7	3.48	5.9	13.6
				100	67.8	8.03	40.4	109.0	2.48	1.3	2.9	68.1	7.71	41.7	106.0	2.59	2.7	6.3	68.2	7.56	42.4	104.5	2.64	4.9	11.3
				120	67.3	10.16	32.6	129.0	1.94	0.9	2.1	67.3	9.77	33.9	126.0	2.02	2.2	5.1	67.3	9.59	34.6	124.5	2.06	4.0	9.3
30	15.0	4.3	10.0	60	76.5	5.10	59.1	70.2	4.39	2.2	5.1	77.3	4.91	60.6	66.8	4.62	4.3	9.9	77.8	4.82	61.3	65.2	4.73	7.0	16.2
				80	72.7	6.38	50.9	89.7	3.34	1.8	4.2	73.2	6.13	52.3	86.5	3.50	3.6	8.3	73.5	6.01	53.0	84.9	3.58	5.9	13.6
				100	70.4	8.09	42.9	109.4	2.55	1.3	2.9	70.7	7.77	44.2	106.3	2.67	2.7	6.3	70.8	7.62	44.9	104.7	2.73	4.9	11.3
				120	69.9	10.23	35.0	129.3	2.00	0.9	2.1	69.9	9.84	36.3	126.2	2.08	2.2	5.1	69.9	9.66	36.9	124.7	2.12	4.0	9.3
	22.6	7.0	16.2	60	81.0	5.15	63.4	70.8	4.61	2.2	5.1	81.9	4.95	65.0	67.2	4.84	4.3	9.9	82.4	4.86	65.8	65.5	4.96	7.0	16.2
				80	76.9	6.44	55.0	90.3	3.50	1.8	4.2	77.5	6.18	56.4	86.9	3.68	3.6	8.3	77.8	6.06	57.2	85.2	3.76	5.9	13.6
				100	74.6	8.16	46.8	109.9	2.68	1.3	2.9	74.9	7.84	48.1	106.6	2.80	2.7	6.3	75.0	7.69	48.8	105.0	2.86	4.9	11.3
				120	74.0	10.32	38.8	129.9	2.10	0.9	2.1	74.0	9.93	40.1	126.5	2.18	2.2	5.1	74.0	9.74	40.8	124.9	2.23	4.0	9.3
	30.0	10.3	23.8	60	84.6	5.17	67.0	71.3	4.80	2.2	5.1	85.6	4.97	68.6	67.6	5.04	4.3	9.9	86.1	4.88	69.4	65.7	5.16	7.0	16.2
				80	80.4	6.46	58.3	90.7	3.65	1.8	4.2	81.0	6.21	59.8	87.2	3.82	3.6	8.3	81.3	6.09	60.5	85.4	3.92	5.9	13.6
				100	77.9	8.19	50.0	110.4	2.79	1.3	2.9	78.2	7.87	51.4	106.9	2.91	2.7	6.3	78.4	7.72	52.1	105.2	2.98	4.9	11.3
				120	77.3	10.36	42.0	130.3	2.19	0.9	2.1	77.3	9.97	43.3	126.8	2.27	2.2	5.1	77.3	9.78	43.9	125.2	2.32	4.0	9.3
40	15.0	3.7	8.6	60	88.2	5.24	70.3	71.8	4.93	2.2	5.1	88.5	4.97	71.6	67.8	5.23	4.3	9.9	88.7	4.84	72.2	65.9	5.37	7.0	16.2
				80	86.2	6.64	63.5	91.5	3.80	1.8	4.2	86.7	6.28	65.3	87.7	4.05	3.6	8.3	87.0	6.11	66.1	85.8	4.17	5.9	13.6
				100	83.7	8.42	54.9	111.2	2.91	1.3	2.9	84.3	7.98	57.1	107.5	3.10	2.7	6.3	84.6	7.77	58.1	105.6	3.19	4.9	11.3
				120	80.5	10.56	44.5	130.7	2.23	0.9	2.1	81.3	10.06	46.9	127.2	2.37	2.2	5.1	81.6	9.82	48.1	125.4	2.44	4.0	9.3
	22.6	6.2	14.3	60	93.4	5.29	75.3	72.4	5.17	2.2	5.1	93.8	5.01	76.7	68.3	5.49	4.3	9.9	93.9	4.88	77.3	66.3	5.64	7.0	16.2
				80	91.3	6.70	68.4	92.2	3.99	1.8	4.2	91.8	6.34	70.2	88.1	4.25	3.6	8.3	92.1	6.17	71.1	86.1	4.38	5.9	13.6
				100	88.6	8.49	59.6	111.8	3.06	1.3	2.9	89.3	8.05	61.8	107.9	3.25	2.7	6.3	89.6	7.84	62.8	106.0	3.35	4.9	11.3
				120	85.3	10.65	48.9	131.4	2.35	0.9	2.1	86.1	10.15	51.4	127.6	2.49	2.2	5.1	86.4	9.91	52.6	125.8	2.56	4.0	9.3
	30.0	9.2	21.3	60	97.5	5.31	79.4	73.0	5.38	2.2	5.1	97.9	5.03	80.8	68.7	5.71	4.3	9.9	98.1	4.90	81.4	66.5	5.87	7.0	16.2
				80	95.4	6.73	72.4	92.7	4.16	1.8	4.2	95.9	6.36	74.2	88.5	4.42	3.6	8.3	96.2	6.19	75.1	86.4	4.56	5.9	13.6
				100	92.6	8.52	63.5	112.3	3.18	1.3	2.9	93.3	8.08	65.7	108.3	3.38	2.7	6.3	93.6	7.87	66.7	106.2	3.48	4.9	11.3
				120	89.1	10.70	52.6	131.9	2.44	0.9	2.1	89.9	10.19	55.1	128.0	2.59	2.2	5.1	90.3	9.95	56.4	126.0	2.66	4.0	9.3
50	15.0	3.1	7.3	60	100.1	5.34	81.9	73.3	5.50	2.2	5.1	100.5	5.05	83.3	68.9	5.83	4.3	9.9	100.7	4.92	83.9	66.7	5.99	7.0	16.2
				80	97.9	6.76	74.8	93.0	4.24	1.8	4.2	98.4	6.39	76.6	88.7	4.51	3.6	8.3	98.7	6.22	77.5	86.6	4.65	5.9	13.6
				100	95.0	8.56	65.8	112.7	3.25	1.3	2.9	95.7	8.12	68.0	108.5	3.45	2.7	6.3	96.0	7.91	69.0	106.4	3.56	4.9	11.3
				120	91.4	10.75	54.7	132.2	2.49	0.9	2.1	92.3	10.24	57.3	128.2	2.64	2.2	5.1	92.7	9.99	58.6	126.2	2.72	4.0	9.3
	22.6	5.6	12.8	60	106.0	5.38	87.6	74.1	5.77	2.2	5.1	106.4	5.10	89.0	69.4	6.12	4.3	9.9	106.6	4.97	89.7	67.1	6.29	7.0	16.2
				80	103.6	6.82	80.4	93.8	4.45	1.8	4.2	104.3	6.45	82.3	89.2	4.74	3.6	8.3	104.5	6.27	83.1	87.0	4.88	5.9	13.6
				100	100.6	8.64	71.1	113.4	3.41	1.3	2.9	101.3	8.19	73.4	109.0	3.63	2.7	6.3	101.7	7.98	74.5	106.8	3.74	4.9	11.3
				120	96.8	10.84	59.8	132.9	2.62	0.9	2.1	97.7	10.33	62.5	128.6	2.77	2.2	5.1	98.1	10.08	63.7	126.5	2.85	4.0	9.3
	30.0	8.5	19.7	60	110.7	5.40	92.3	74.8	6.00	2.2	5.1	111.2	5.12	93.7	69.8	6.37	4.3	9.9	111.4	4.99	94.4	67.4	6.55	7.0	16.2
				80	108.3	6.85	84.9	94.4	4.64	1.8	4.2	108.9	6.47	86.8	89.6	4.93	3.6	8.3	109.2	6.30	87.7	87.3	5.08	5.9	13.6
				100	105.1	8.68	75.5	114.0	3.55	1.3	2.9	105.9	8.23	77.8	109.4	3.77	2.7	6.3	106.3	8.01	78.9	107.1	3.89	4.9	11.3
				120	101.1	10.89	64.0	133.5	2.72	0.9	2.1	102.1	10.37	66.7	129.0	2.88	2.2	5.1	102.5	10.12	68.0	126.8	2.97	4.0	9.3
60	15.0	2.9	6.7	60	111.1	5.42	92.6	74.8	6.00	2.2	5.1	111.5	5.13	94.0	69.9	6.37	4.3	9.9	111.7	5.00	94.7	67.4	6.55	7.0	16.2
				80	108.6	6.87	85.2	94.5	4.64	1.8	4.2	109.3	6.49	87.1	89.7	4.93	3.6	8.3	109.6	6.32	88.0	87.3	5.08	5.9	13.6
				100	105.4	8.70	75.7	114.1	3.55	1.3	2.9	106.2	8.25	78.0	109.4	3.77	2.7	6.3	106.6	8.04	79.2	107.1	3.89	4.9	11.3
				120	101.4	10.92	64.2	133.5	2.72	0.9	2.1	102.4	10.40	66.9	129.1	2.88	2.2	5.1	102.8	10.15	68.2	126.9	2.97	4.0	9.3
	22.6	5.3	12.2	60	117.6	5.47	99.0	75.7	6.31	2.2	5.1	118.1	5.18	100.5	70.5	6.69	4.3	9.9	118.3	5.04	101.1	67.9	6.88	7.0	16.2
				80	115.0	6.93	91.4	95.3	4.87	1.8	4.2	115.7	6.55	93.4	90.2	5.18	3.6	8.3	116.0	6.37	94.3	87.7	5.34	5.9	13.6
				100	111.6	8.78	81.7	114.9	3.73	1.3	2.9	112.5	8.32	84.1	110.0	3.96	2.7	6.3	112.9	8.10	85.2	107.5	4.08	4.9	11.3
				120	107.4	11.01	69.9	134.3	2.86	0.9	2.1	108.4	10.49	72.6	129.6	3.03	2.2	5.1	108.9	10.24	74.0	127.3	3.12	4.0	9.3
	30.0	8.0	18.6	60	122.9	5.49	104.2	76.4	6.56	2.2	5.1	123.4	5.20	105.7	70.9	6.96	4.3	9.9	123.6	5.06	106.4	68.2	7.15	7.0	16.2
				80	120.2	6.95	96.4	96.0	5.06	1.8	4.2	120.9	6.58	98.4	90.7	5.39	3.6	8.3	121.2	6.40	99.4	88.1	5.55	5.9	13.6
				100	116.6	8.81	86.6	115.5	3.88	1.3	2.9	117.5	8.35	89.0	110.4	4.12	2.7	6.3	117.9	8.14	90.2	107.9	4.25	4.9	11.3
				120	112.2	11.06	74.5	135.0	2.98	0.9	2.1	113.3	10.53	77.3	130.0	3.15	2.2	5.1	113.8	10.28	78.7	127.6	3.24	4.0	9.3
70	15.0	2.7	6.3	60	119.5	5.58	100.4	75.9	6.27	2.2	5.1	120.1	5.23	102.2	70.6	6.73	4.3	9.9	120.4	5.07	103.1	68.0	6.96	7.0	16.2
				80	117.5	7.07	93.4	95.7	4.87	1.8	4.2	118.0	6.61	95.5	90.4	5.23	3.6	8.3	118.3	6.40	96.5	87.9	5.42	5.9	13.6
				100	115.4	8.91	85.0	115.4	3.80	1.3	2.9	116.0	8.37	87.5	110.3	4.06	2.7	6.3	116.3	8.11	88.6	107.8	4.20	4.9	11.3
				120	OPERATION NOT RECOMMENDED							114.0	10.49	78.2	130.1	3.19	2.2	5.1	114.3	10.19	79.5	127.6	3.29	4.0	9.3
	22.6	5.0	11.5	60	126.5	5.63	107.3	76.9	6.59	2.2	5.1	127.2	5.27	109.2	71.3	7.07	4.3	9.9	127.5	5.11	110.0	68.5	7.31	7.0	16.2
				80	124.4	7.13	100.1	96.6	5.12	1.8	4.2	125.0	6.67	102.2	91.1	5.49	3.6	8.3	125.3	6.46	103.3	88.4	5.69	5.9	13.6
				100	122.3	8.99	91.6	116.3	3.99	1.3	2.9	122.9	8.44	94.1	110.9	4.27	2.7	6.3	123.1	8.18	95.2	108.2	4.41	4.9	11.3
				120	OPERATION NOT RECOMMENDED							120.7	10.58	84.6	130.7	3.35	2.2	5.1	121.0	10.27	86.0	128.1	3.45	4.0	9.3
	30.0	7.7	17.8	60	132.2	5.65	112.9	77.6	6.85	2.2	5.1	132.8	5.29	114.8	71.8	7.35	4.3	9.9	133.2	5.13	115.7	68.9	7.61	7.0	16.2
				80	130.0	7.15	105.6	97.3	5.32	1.8	4.2	130.6	6.70	107.7	91.6	5.72	3.6	8.3	130.9	6.48	108.8	88.7	5.92	5.9	13.6
				100	127.7	9.02	96.9	117.0	4.15	1.3	2.9	128.3	8.47	99.4	111.4	4.44	2.7	6.3	128.6	8.21	100.6	108.6	4.59	4.9	11.3
				120	OPERATION NOT RECOMMENDED							126.1	10.62	89.9	131.2	3.48	2.2	5.1	126.4	10.31	91.2	128.4	3.59	4.0	9.3

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.
Operation below 60°F EWT requires optional insulated water circuit.
Operation below 40°F EWT is based upon 15% antifreeze solution
See Performance Data Notes for operation in the shaded areas
Performance stated is at the rated power supply, performance may vary as the power supply varies from the rated.

Performance Data (50Hz - R407c) — GSW036 - Cooling

SOURCE			LOAD																			
ESWT	Flow	WPD	ELWT	Flow 0.32 l/s						Flow 0.44 l/s						Flow 0.57 l/s					
°C	l/s	kPa	°C	TC kW	PI kW	HR kW	LWT °C	EER W/W	WPD kPa	TC kW	PI kW	HR kW	LWT °C	EER W/W	WPD kPa	TC kW	PI kW	HR kW	LWT °C	EER W/W	WPD kPa
10	0.32	18.2	10	7.5	1.10	8.6	4.3	6.78	15.9	7.8	1.11	8.9	5.8	7.08	25.4	8.0	1.11	9.1	6.6	7.25	36.8
			15	8.5	1.11	9.6	8.6	7.62	13.6	8.9	1.12	10.0	10.2	7.93	23.1	9.1	1.12	10.2	11.2	8.10	34.9
			20	9.4	1.13	10.6	12.8	8.38	11.0	9.8	1.13	11.0	14.7	8.68	20.0	10.1	1.14	11.2	15.8	8.85	31.5
			25	10.3	1.14	11.5	17.2	9.06	10.6	10.7	1.15	11.9	19.2	9.34	19.2	11.0	1.15	12.1	20.4	9.51	29.8
			30	11.2	1.16	12.3	21.5	9.65	9.0	11.5	1.16	12.7	23.8	9.91	17.2	11.8	1.17	12.9	25.0	10.06	26.7
	0.44	28.2	10	7.6	1.05	8.6	4.3	7.21	15.9	7.9	1.05	9.0	5.7	7.52	25.4	8.1	1.06	9.2	6.6	7.71	36.8
			15	8.6	1.06	9.7	8.5	8.10	13.6	9.0	1.07	10.0	10.1	8.43	23.1	9.2	1.07	10.3	11.1	8.61	34.9
			20	9.6	1.07	10.6	12.7	8.91	11.0	10.0	1.08	11.0	14.6	9.23	20.0	10.2	1.08	11.3	15.7	9.41	31.5
			25	10.5	1.09	11.6	17.1	9.63	10.6	10.9	1.09	12.0	19.1	9.94	19.2	11.1	1.10	12.2	20.3	10.11	29.8
			30	11.3	1.10	12.4	21.4	10.26	9.0	11.7	1.11	12.8	23.7	10.54	17.2	11.9	1.11	13.0	25.0	10.70	26.7
	0.57	41.3	10	7.6	1.02	8.7	4.2	7.51	15.9	8.0	1.02	9.0	5.7	7.84	25.4	8.2	1.02	9.2	6.5	8.03	36.8
			15	8.7	1.03	9.7	8.4	8.44	13.6	9.1	1.03	10.1	10.1	8.78	23.1	9.3	1.04	10.3	11.1	8.98	34.9
			20	9.7	1.04	10.7	12.7	9.28	11.0	10.1	1.05	11.1	14.5	9.62	20.0	10.3	1.05	11.3	15.7	9.81	31.5
			25	10.6	1.05	11.6	17.0	10.03	10.6	11.0	1.06	12.0	19.1	10.35	19.2	11.2	1.06	12.3	20.3	10.53	29.8
			30	11.4	1.07	12.5	21.4	10.69	9.0	11.8	1.07	12.9	23.6	10.99	17.2	12.0	1.08	13.1	24.9	11.15	26.7
20	0.32	16.0	10	7.1	1.40	8.5	4.6	5.09	15.9	7.4	1.40	8.8	6.0	5.32	25.4	7.7	1.40	9.1	6.8	5.46	36.8
			15	8.1	1.41	9.6	8.8	5.78	13.6	8.5	1.41	9.9	10.4	6.02	23.1	8.7	1.42	10.2	11.3	6.16	34.9
			20	9.1	1.42	10.5	13.1	6.40	11.0	9.5	1.43	10.9	14.9	6.64	20.0	9.7	1.44	11.2	15.9	6.77	31.5
			25	10.0	1.44	11.5	17.4	6.94	10.6	10.4	1.45	11.9	19.4	7.17	19.2	10.6	1.46	12.1	20.5	7.29	29.8
			30	10.8	1.46	12.3	21.8	7.41	9.0	11.2	1.47	12.7	23.9	7.61	17.2	11.4	1.48	12.9	25.2	7.71	26.7
	0.44	25.1	10	7.2	1.33	8.5	4.6	5.41	15.9	7.5	1.33	8.9	5.9	5.66	25.4	7.7	1.33	9.1	6.7	5.81	36.8
			15	8.2	1.34	9.6	8.7	6.15	13.6	8.6	1.35	10.0	10.3	6.40	23.1	8.8	1.35	10.2	11.3	6.55	34.9
			20	9.2	1.36	10.6	13.0	6.81	11.0	9.6	1.36	11.0	14.8	7.06	20.0	9.8	1.37	11.2	15.9	7.20	31.5
			25	10.1	1.37	11.5	17.3	7.38	10.6	10.5	1.38	11.9	19.3	7.62	19.2	10.8	1.39	12.1	20.5	7.75	29.8
			30	11.0	1.39	12.4	21.7	7.88	9.0	11.4	1.40	12.8	23.9	8.09	17.2	11.6	1.41	13.0	25.1	8.20	26.7
	0.57	37.5	10	7.3	1.29	8.5	4.5	5.64	15.9	7.6	1.29	8.9	5.9	5.90	25.4	7.8	1.29	9.1	6.7	6.05	36.8
			15	8.3	1.30	9.6	8.7	6.41	13.6	8.7	1.31	10.0	10.3	6.67	23.1	8.9	1.31	10.2	11.2	6.83	34.9
			20	9.3	1.31	10.6	12.9	7.09	11.0	9.7	1.32	11.0	14.7	7.36	20.0	9.9	1.33	11.3	15.8	7.50	31.5
			25	10.2	1.33	11.6	17.2	7.70	10.6	10.6	1.34	12.0	19.2	7.94	19.2	10.9	1.35	12.2	20.4	8.08	29.8
			30	11.1	1.35	12.4	21.6	8.21	9.0	11.5	1.36	12.8	23.8	8.43	17.2	11.7	1.37	13.0	25.1	8.55	26.7
30	0.32	12.2	10	6.7	1.78	8.5	4.9	3.79	15.9	7.0	1.78	8.8	6.2	3.95	25.4	7.2	1.79	9.0	7.0	4.05	36.8
			15	7.7	1.79	9.5	9.1	4.31	13.6	8.1	1.80	9.9	10.6	4.49	23.1	8.3	1.80	10.1	11.5	4.59	34.9
			20	8.7	1.81	10.5	13.4	4.80	11.0	9.0	1.81	10.9	15.1	4.98	20.0	9.2	1.82	11.1	16.1	5.09	31.5
			25	9.6	1.82	11.4	17.7	5.25	10.6	9.9	1.83	11.8	19.6	5.43	19.2	10.1	1.83	12.0	20.7	5.54	29.8
			30	10.4	1.83	12.2	22.1	5.67	9.0	10.8	1.84	12.6	24.2	5.85	17.2	11.0	1.84	12.8	25.4	5.96	26.7
	0.44	21.3	10	6.8	1.69	8.5	4.8	4.03	15.9	7.1	1.70	8.8	6.1	4.20	25.4	7.3	1.70	9.0	6.9	4.31	36.8
			15	7.8	1.71	9.5	9.1	4.58	13.6	8.2	1.71	9.9	10.6	4.77	23.1	8.4	1.72	10.1	11.5	4.88	34.9
			20	8.8	1.72	10.5	13.3	5.10	11.0	9.1	1.73	10.9	15.0	5.29	20.0	9.4	1.73	11.1	16.1	5.41	31.5
			25	9.7	1.73	11.4	17.7	5.58	10.6	10.1	1.74	11.8	19.6	5.78	19.2	10.3	1.74	12.0	20.7	5.89	29.8
			30	10.5	1.75	12.3	22.0	6.03	9.0	10.9	1.75	12.6	24.1	6.22	17.2	11.1	1.75	12.8	25.3	6.33	26.7
	0.57	33.8	10	6.9	1.64	8.5	4.8	4.19	15.9	7.2	1.65	8.9	6.1	4.38	25.4	7.4	1.65	9.0	6.9	4.49	36.8
			15	7.9	1.66	9.6	9.0	4.77	13.6	8.3	1.66	9.9	10.5	4.97	23.1	8.5	1.66	10.1	11.4	5.08	34.9
			20	8.9	1.67	10.5	13.3	5.31	11.0	9.2	1.67	10.9	15.0	5.52	20.0	9.5	1.68	11.1	16.0	5.63	31.5
			25	9.8	1.68	11.5	17.6	5.82	10.6	10.2	1.69	11.8	19.5	6.02	19.2	10.4	1.69	12.1	20.6	6.14	29.8
			30	10.6	1.69	12.3	21.9	6.28	9.0	11.0	1.70	12.7	24.0	6.48	17.2	11.2	1.70	12.9	25.3	6.60	26.7
40	0.32	9.4	10	6.1	2.29	8.4	5.4	2.67	15.9	6.4	2.30	8.7	6.5	2.78	25.4	6.6	2.30	8.9	7.2	2.85	36.8
			15	7.1	2.32	9.4	9.6	3.07	13.6	7.4	2.32	9.7	11.0	3.20	23.1	7.6	2.32	9.9	11.8	3.28	34.9
			20	8.1	2.33	10.4	13.9	3.46	11.0	8.4	2.34	10.8	15.4	3.60	20.0	8.6	2.34	11.0	16.4	3.68	31.5
			25	9.0	2.35	11.3	18.2	3.83	10.6	9.4	2.35	11.7	19.9	3.98	19.2	9.6	2.35	11.9	21.0	4.07	29.8
			30	9.9	2.36	12.2	22.5	4.19	9.0	10.3	2.36	12.6	24.4	4.35	17.2	10.5	2.36	12.9	25.6	4.45	26.7
	0.44	17.6	10	6.2	2.18	8.4	5.3	2.84	15.9	6.5	2.19	8.7	6.5	2.96	25.4	6.6	2.19	8.8	7.2	3.03	36.8
			15	7.2	2.20	9.4	9.5	3.27	13.6	7.5	2.21	9.7	10.9	3.40	23.1	7.7	2.21	9.9	11.8	3.48	34.9
			20	8.2	2.22	10.4	13.8	3.68	11.0	8.5	2.23	10.7	15.4	3.83	20.0	8.7	2.23	11.0	16.3	3.91	31.5
			25	9.1	2.23	11.3	18.1	4.08	10.6	9.5	2.24	11.7	19.9	4.23	19.2	9.7	2.24	11.9	20.9	4.33	29.8
			30	10.0	2.24	12.2	22.4	4.46	9.0	10.4	2.25	12.6	24.4	4.63	17.2	10.6	2.25	12.9	25.5	4.73	26.7
	0.57	28.9	10	6.3	2.12	8.4	5.3	2.96	15.9	6.5	2.12	8.7	6.5	3.08	25.4	6.7	2.13	8.8	7.2	3.16	36.8
			15	7.3	2.14	9.4	9.5	3.40	13.6	7.6	2.14	9.7	10.9	3.55	23.1	7.8	2.15	9.9	11.7	3.63	34.9
			20	8.3	2.15	10.4	13.7	3.83	11.0	8.6	2.16	10.8	15.3	3.99	20.0	8.8	2.16	11.0	16.3	4.08	31.5
			25	9.2	2.17	11.4	18.0	4.25	10.6	9.6	2.17	11.7	19.8	4.41	19.2	9.8	2.17	12.0	20.9	4.51	29.8
			30	10.1	2.17	12.3	22.3	4.65	9.0	10.5	2.18	12.7	24.3	4.82	17.2	10.7	2.18	12.9	25.5	4.93	26.7

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.

Performance Data (50Hz - R407c) — GSW036 - Heating

SOURCE			LOAD																			
ESWT	Flow	WPD	ELWT	Flow 0.32 l/s						Flow 0.44 l/s						Flow 0.57 l/s					
°C	l/s	kPa	°C	HC kW	PI kW	HE kW	LWT °C	COP W/W	WPD kPa	HC kW	PI kW	HE kW	LWT °C	COP W/W	WPD kPa	HC kW	PI kW	HE kW	LWT °C	COP W/W	WPD kPa
-5	0.57	68.2	20	5.8	1.41	4.4	24.4	4.09	13.6	5.8	1.37	4.4	23.1	4.22	23.1	5.8	1.35	4.5	22.4	4.30	34.9
			30	5.7	1.76	3.9	34.3	3.22	10.6	5.7	1.70	4.0	33.1	3.34	19.2	5.7	1.67	4.0	32.4	3.40	29.8
			40	5.6	2.21	3.3	44.2	2.52	7.3	5.6	2.14	3.4	43.0	2.60	15.4	5.6	2.10	3.5	42.3	2.65	24.6
			45	5.5	2.47	3.0	49.2	2.23	6.2	5.5	2.40	3.1	48.0	2.30	13.9	5.5	2.36	3.2	47.3	2.34	22.8
0	0.32	26.1	20	6.1	1.42	4.7	24.6	4.27	13.6	6.1	1.38	4.7	23.3	4.41	23.1	6.1	1.36	4.8	22.6	4.49	34.9
			30	6.0	1.77	4.2	34.5	3.37	10.6	6.0	1.72	4.3	33.2	3.48	19.2	6.0	1.69	4.3	32.5	3.55	29.8
			40	5.9	2.23	3.6	44.4	2.63	7.3	5.9	2.16	3.7	43.2	2.72	15.4	5.9	2.12	3.8	42.5	2.77	24.6
			45	5.8	2.49	3.3	49.4	2.32	6.2	5.8	2.42	3.4	48.1	2.40	13.9	5.8	2.38	3.4	47.5	2.45	22.8
	0.44	40.3	20	6.5	1.44	5.1	25.0	4.55	13.6	6.6	1.39	5.2	23.5	4.70	23.1	6.6	1.37	5.2	22.8	4.78	34.9
			30	6.4	1.78	4.6	34.9	3.59	10.6	6.4	1.73	4.7	33.5	3.71	19.2	6.4	1.70	4.7	32.7	3.78	29.8
			40	6.3	2.24	4.0	44.8	2.80	7.3	6.3	2.17	4.1	43.4	2.90	15.4	6.3	2.14	4.2	42.7	2.95	24.6
			45	6.2	2.51	3.7	49.7	2.48	6.2	6.2	2.44	3.8	48.4	2.56	13.9	6.2	2.39	3.8	47.6	2.61	22.8
	0.57	58.3	20	6.6	1.44	5.2	25.0	4.61	13.6	6.7	1.40	5.3	23.6	4.76	23.1	6.7	1.38	5.3	22.8	4.84	34.9
			30	6.5	1.79	4.7	34.9	3.63	10.6	6.5	1.74	4.8	33.5	3.76	19.2	6.5	1.71	4.8	32.8	3.83	29.8
			40	6.4	2.25	4.1	44.8	2.84	7.3	6.4	2.18	4.2	43.5	2.93	15.4	6.4	2.14	4.3	42.7	2.99	24.6
			45	6.3	2.52	3.8	49.8	2.51	6.2	6.3	2.44	3.9	48.4	2.59	13.9	6.3	2.40	3.9	47.7	2.64	22.8
5	0.32	22.1	20	6.9	1.35	5.5	25.2	5.06	13.6	6.9	1.31	5.6	23.7	5.27	23.1	6.9	1.28	5.6	22.9	5.39	34.9
			30	6.7	1.54	5.2	35.1	4.37	10.6	6.7	1.48	5.3	33.6	4.56	19.2	6.8	1.44	5.3	32.8	4.68	29.8
			40	6.5	1.93	4.6	45.0	3.40	7.3	6.6	1.85	4.7	43.6	3.55	15.4	6.6	1.81	4.8	42.8	3.64	24.6
			45	6.5	2.15	4.3	49.9	3.00	6.2	6.5	2.07	4.4	48.5	3.13	13.9	6.5	2.03	4.5	47.7	3.21	22.8
	0.44	34.3	20	7.4	1.36	6.0	25.6	5.39	13.6	7.4	1.32	6.1	24.0	5.62	23.1	7.4	1.29	6.1	23.1	5.74	34.9
			30	7.2	1.55	5.7	35.5	4.65	10.6	7.2	1.49	5.7	33.9	4.86	19.2	7.2	1.45	5.8	33.1	4.98	29.8
			40	7.0	1.94	5.1	45.3	3.62	7.3	7.1	1.87	5.2	43.8	3.78	15.4	7.1	1.83	5.2	43.0	3.87	24.6
			45	6.9	2.17	4.8	50.3	3.20	6.2	7.0	2.09	4.9	48.8	3.33	13.9	7.0	2.05	4.9	47.9	3.41	22.8
	0.57	49.8	20	7.5	1.37	6.1	25.7	5.46	13.6	7.5	1.32	6.2	24.1	5.69	23.1	7.5	1.29	6.2	23.2	5.82	34.9
			30	7.3	1.55	5.8	35.5	4.71	10.6	7.3	1.49	5.9	34.0	4.92	19.2	7.4	1.46	5.9	33.1	5.04	29.8
			40	7.1	1.95	5.2	45.4	3.67	7.3	7.2	1.87	5.3	43.9	3.83	15.4	7.2	1.83	5.4	43.0	3.92	24.6
			45	7.1	2.18	4.9	50.3	3.24	6.2	7.1	2.10	5.0	48.8	3.38	13.9	7.1	2.05	5.0	48.0	3.46	22.8
10	0.32	18.2	20	7.7	1.48	6.2	25.8	5.20	13.6	7.7	1.42	6.3	24.2	5.42	23.1	7.7	1.39	6.3	23.3	5.54	34.9
			30	7.5	1.84	5.7	35.7	4.09	10.6	7.5	1.77	5.8	34.1	4.27	19.2	7.6	1.73	5.8	33.2	4.37	29.8
			40	7.3	2.30	5.0	45.6	3.18	7.3	7.4	2.22	5.1	44.0	3.32	15.4	7.4	2.17	5.2	43.1	3.40	24.6
			45	7.2	2.58	4.7	50.5	2.81	6.2	7.3	2.48	4.8	48.9	2.93	13.9	7.3	2.43	4.9	48.1	3.00	22.8
	0.44	28.2	20	8.2	1.49	6.8	26.2	5.54	13.6	8.3	1.43	6.8	24.5	5.77	23.1	8.3	1.40	6.9	23.5	5.90	34.9
			30	8.1	1.85	6.2	36.1	4.35	10.6	8.1	1.78	6.3	34.4	4.55	19.2	8.1	1.74	6.4	33.4	4.66	29.8
			40	7.9	2.32	5.5	46.0	3.39	7.3	7.9	2.23	5.7	44.3	3.54	15.4	7.9	2.19	5.7	43.3	3.62	24.6
			45	7.8	2.60	5.2	50.9	2.99	6.2	7.8	2.50	5.3	49.2	3.12	13.9	7.8	2.45	5.4	48.3	3.19	22.8
	0.57	41.3	20	8.4	1.49	6.9	26.4	5.61	13.6	8.4	1.44	7.0	24.6	5.85	23.1	8.4	1.41	7.0	23.5	5.98	34.9
			30	8.2	1.86	6.3	36.2	4.41	10.6	8.2	1.79	6.4	34.5	4.61	19.2	8.2	1.75	6.5	33.5	4.72	29.8
			40	8.0	2.33	5.7	46.1	3.43	7.3	8.0	2.24	5.8	44.3	3.58	15.4	8.1	2.19	5.9	43.4	3.67	24.6
			45	7.9	2.61	5.3	51.0	3.03	6.2	7.9	2.51	5.4	49.3	3.16	13.9	7.9	2.46	5.5	48.3	3.23	22.8
15	0.32	19.7	20	8.4	1.40	7.0	26.4	6.05	13.6	8.5	1.35	7.1	24.6	6.30	23.1	8.5	1.32	7.2	23.6	6.44	34.9
			30	8.3	1.54	6.7	36.3	5.38	10.6	8.3	1.48	6.8	34.5	5.62	19.2	8.3	1.44	6.9	33.5	5.75	29.8
			40	8.1	1.93	6.1	46.1	4.19	7.3	8.1	1.85	6.2	44.4	4.37	15.4	8.1	1.81	6.3	43.4	4.48	24.6
			45	8.0	2.15	5.8	51.0	3.69	6.2	8.0	2.07	5.9	49.3	3.85	13.9	8.0	2.03	6.0	48.4	3.94	22.8
	0.44	26.5	20	9.1	1.41	7.6	26.9	6.44	13.6	9.1	1.35	7.7	24.9	6.71	23.1	9.1	1.33	7.8	23.8	6.86	34.9
			30	8.9	1.55	7.3	36.7	5.73	10.6	8.9	1.49	7.4	34.8	5.98	19.2	8.9	1.45	7.5	33.8	6.13	29.8
			40	8.6	1.94	6.7	46.6	4.46	7.3	8.7	1.87	6.8	44.7	4.65	15.4	8.7	1.83	6.9	43.7	4.77	24.6
			45	8.5	2.17	6.4	51.5	3.93	6.2	8.6	2.09	6.5	49.6	4.10	13.9	8.6	2.05	6.5	48.6	4.20	22.8
	0.57	34.1	20	9.2	1.41	7.8	27.0	6.52	13.6	9.2	1.36	7.9	25.0	6.79	23.1	9.3	1.33	7.9	23.9	6.95	34.9
			30	9.0	1.55	7.5	36.8	5.80	10.6	9.0	1.49	7.5	34.9	6.06	19.2	9.1	1.46	7.6	33.8	6.21	29.8
			40	8.8	1.95	6.8	46.7	4.51	7.3	8.8	1.87	7.0	44.8	4.71	15.4	8.8	1.83	7.0	43.7	4.83	24.6
			45	8.7	2.18	6.5	51.6	3.98	6.2	8.7	2.10	6.6	49.7	4.16	13.9	8.7	2.05	6.7	48.7	4.26	22.8
20	0.32	16.0	20	9.7	1.54	8.2	27.3	6.30	13.6	9.7	1.47	8.3	25.3	6.62	23.1	9.7	1.43	8.3	24.1	6.79	34.9
			30	9.5	1.91	7.6	37.2	5.00	10.6	9.6	1.82	7.8	35.2	5.27	19.2	9.6	1.77	7.8	34.0	5.43	29.8
			40	9.3	2.39	7.0	47.1	3.91	7.3	9.4	2.28	7.1	45.1	4.13	15.4	9.4	2.21	7.2	44.0	4.25	24.6
			45	OPERATION NOT RECOMMENDED						OPERATION NOT RECOMMENDED						OPERATION NOT RECOMMENDED					
	0.44	25.1	20	10.4	1.55	8.8	27.9	6.71	13.6	10.4	1.48	8.9	25.6	7.05	23.1	10.4	1.44	9.0	24.4	7.23	34.9
			30	10.2	1.92	8.3	37.8	5.32	10.6	10.3	1.83	8.4	35.6	5.62	19.2	10.3	1.78	8.5	34.3	5.78	29.8
			40	10.0	2.41	7.6	47.6	4.16	7.3	10.1	2.29	7.8	45.5	4.39	15.4	10.1	2.23	7.9	44.3	4.53	24.6
			45	OPERATION NOT RECOMMENDED						OPERATION NOT RECOMMENDED						OPERATION NOT RECOMMENDED					
	0.57	37.5	20	10.6	1.55	9.0	28.0	6.80	13.6	10.6	1.49	9.1	25.7	7.14	23.1	10.6	1.45	9.2	24.5	7.32	34.9
			30	10.4	1.93	8.5	37.9	5.39	10.6	10.4	1.84	8.6	35.7	5.69	19.2	10.5	1.79	8.7	34.4	5.86	29.8
			40	10.2	2.42	7.8	47.7	4.22	7.3	10.2	2.30	7.9	45.5	4.45	15.4	10.3	2.24	8.0	44.3	4.59	24.6
			45	OPERATION NOT RECOMMENDED						OPERATION NOT RECOMMENDED						OPERATION NOT RECOMMENDED					

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.
Operation below 5°C is based upon 15% antifreeze solution

Performance Data (50Hz - R407c) — GSW060 - Cooling

SOURCE			LOAD																			
ESWT	Flow	WPD	ELWT	Flow 0.47 l/s						Flow 0.71 l/s						Flow 0.95 l/s					
°C	l/s	kPa	°C	TC kW	PI kW	HR kW	LWT °C	EER W/W	WPD kPa	TC kW	PI kW	HR kW	LWT °C	EER W/W	WPD kPa	TC kW	PI kW	HR kW	LWT °C	EER W/W	WPD kPa
10	0.47	15.5	10	11.1	2.09	13.2	4.4	5.33	12.6	11.5	2.10	13.6	6.1	5.51	23.7	11.8	2.08	13.8	7.0	5.65	38.5
			15	12.2	2.11	14.3	8.9	5.75	11.0	12.6	2.13	14.7	10.8	5.91	21.1	12.8	2.11	14.9	11.8	6.06	34.5
			20	13.1	2.14	15.2	13.4	6.10	9.7	13.5	2.16	15.6	15.5	6.24	19.3	13.6	2.13	15.8	16.6	6.40	31.7
			25	13.9	2.18	16.0	18.0	6.38	8.9	14.2	2.19	16.4	20.2	6.49	17.6	14.4	2.16	16.5	21.4	6.65	29.0
			30	14.6	2.21	16.8	22.6	6.58	7.7	14.9	2.23	17.1	25.0	6.66	15.4	15.0	2.19	17.2	26.2	6.83	26.2
	0.71	27.3	10	11.3	2.03	13.3	4.3	5.55	12.6	11.7	2.04	13.8	6.1	5.73	23.7	11.9	2.03	14.0	7.0	5.88	38.5
			15	12.3	2.06	14.4	8.8	5.98	11.0	12.8	2.07	14.8	10.7	6.15	21.1	13.0	2.05	15.0	11.7	6.31	34.5
			20	13.3	2.09	15.4	13.3	6.35	9.7	13.7	2.11	15.8	15.4	6.49	19.3	13.9	2.08	15.9	16.5	6.66	31.7
			25	14.1	2.12	16.2	17.9	6.63	8.9	14.4	2.14	16.6	20.2	6.75	17.6	14.6	2.11	16.7	21.3	6.92	29.0
			30	14.8	2.16	16.9	22.5	6.85	7.7	15.1	2.18	17.3	24.9	6.93	15.4	15.2	2.14	17.4	26.2	7.11	26.2
	0.95	42.0	10	11.5	1.99	13.4	4.2	5.77	12.6	11.9	2.00	13.9	6.0	5.95	23.7	12.1	1.98	14.1	6.9	6.11	38.5
			15	12.5	2.01	14.5	8.7	6.22	11.0	12.9	2.03	15.0	10.7	6.39	21.1	13.2	2.01	15.2	11.7	6.55	34.5
			20	13.5	2.04	15.5	13.2	6.59	9.7	13.9	2.06	15.9	15.3	6.74	19.3	14.1	2.03	16.1	16.4	6.91	31.7
			25	14.3	2.07	16.4	17.8	6.89	8.9	14.7	2.09	16.7	20.1	7.01	17.6	14.8	2.06	16.9	21.3	7.19	29.0
			30	15.0	2.11	17.1	22.4	7.12	7.7	15.3	2.13	17.4	24.9	7.20	15.4	15.4	2.09	17.5	26.1	7.38	26.2
20	0.47	13.4	10	11.1	2.50	13.6	4.4	4.44	12.6	11.5	2.50	14.0	6.1	4.60	23.7	11.7	2.51	14.2	7.0	4.66	38.5
			15	12.1	2.52	14.6	8.9	4.81	11.0	12.5	2.53	15.0	10.8	4.94	21.1	12.7	2.54	15.3	11.8	5.00	34.5
			20	13.0	2.55	15.6	13.4	5.10	9.7	13.4	2.57	16.0	15.5	5.20	19.3	13.6	2.58	16.1	16.6	5.26	31.7
			25	13.8	2.60	16.4	18.0	5.30	8.9	14.1	2.63	16.7	20.3	5.37	17.6	14.3	2.63	16.9	21.4	5.44	29.0
			30	14.4	2.66	17.1	22.7	5.43	7.7	14.7	2.70	17.4	25.1	5.46	15.4	14.8	2.69	17.5	26.2	5.53	26.2
	0.71	24.5	10	11.3	2.43	13.7	4.3	4.62	12.6	11.7	2.44	14.1	6.1	4.78	23.7	11.9	2.45	14.3	7.0	4.85	38.5
			15	12.3	2.46	14.8	8.8	5.00	11.0	12.7	2.47	15.2	10.7	5.14	21.1	12.9	2.48	15.4	11.7	5.21	34.5
			20	13.2	2.49	15.7	13.3	5.30	9.7	13.6	2.51	16.1	15.4	5.41	19.3	13.8	2.52	16.3	16.5	5.47	31.7
			25	14.0	2.54	16.5	17.9	5.52	8.9	14.3	2.56	16.9	20.2	5.59	17.6	14.5	2.56	17.1	21.3	5.66	29.0
			30	14.7	2.59	17.2	22.6	5.65	7.7	14.9	2.63	17.6	25.0	5.68	15.4	15.1	2.62	17.7	26.2	5.75	26.2
	0.95	37.9	10	11.4	2.38	13.8	4.2	4.80	12.6	11.9	2.39	14.2	6.0	4.97	23.7	12.1	2.40	14.5	6.9	5.04	38.5
			15	12.5	2.40	14.9	8.7	5.20	11.0	12.9	2.41	15.3	10.7	5.34	21.1	13.1	2.42	15.5	11.7	5.41	34.5
			20	13.4	2.43	15.8	13.2	5.51	9.7	13.8	2.45	16.2	15.4	5.62	19.3	14.0	2.46	16.4	16.5	5.69	31.7
			25	14.2	2.48	16.7	17.8	5.73	8.9	14.5	2.50	17.1	20.1	5.81	17.6	14.7	2.50	17.2	21.3	5.88	29.0
			30	14.9	2.54	17.4	22.5	5.87	7.7	15.2	2.57	17.7	24.9	5.90	15.4	15.3	2.56	17.9	26.1	5.97	26.2
30	0.47	10.6	10	10.9	3.05	14.0	4.5	3.59	12.6	11.4	3.06	14.4	6.2	3.72	23.7	11.6	3.09	14.7	7.1	3.74	38.5
			15	12.0	3.07	15.0	8.9	3.90	11.0	12.4	3.09	15.5	10.8	4.01	21.1	12.6	3.12	15.7	11.8	4.03	34.5
			20	12.9	3.11	16.0	13.5	4.13	9.7	13.2	3.14	16.4	15.6	4.22	19.3	13.4	3.17	16.6	16.6	4.24	31.7
			25	13.7	3.18	16.8	18.1	4.30	8.9	14.0	3.22	17.2	20.3	4.35	17.6	14.1	3.24	17.4	21.4	4.37	29.0
			30	14.3	3.26	17.6	22.8	4.38	7.7	14.6	3.31	17.9	25.1	4.39	15.4	14.7	3.32	18.0	26.3	4.42	26.2
	0.71	21.1	10	11.1	2.98	14.1	4.4	3.73	12.6	11.5	2.98	14.5	6.1	3.87	23.7	11.7	3.01	14.8	7.0	3.90	38.5
			15	12.2	3.00	15.2	8.9	4.05	11.0	12.6	3.01	15.6	10.8	4.17	21.1	12.8	3.04	15.8	11.8	4.19	34.5
			20	13.1	3.04	16.1	13.4	4.30	9.7	13.4	3.06	16.5	15.5	4.39	19.3	13.6	3.09	16.7	16.6	4.41	31.7
			25	13.9	3.10	17.0	18.0	4.47	8.9	14.2	3.14	17.3	20.2	4.52	17.6	14.3	3.16	17.5	21.4	4.54	29.0
			30	14.5	3.18	17.7	22.7	4.56	7.7	14.8	3.23	18.0	25.0	4.57	15.4	14.9	3.24	18.2	26.2	4.60	26.2
	0.95	34.5	10	11.3	2.91	14.2	4.3	3.88	12.6	11.7	2.91	14.6	6.1	4.02	23.7	11.9	2.95	14.9	7.0	4.05	38.5
			15	12.3	2.93	15.3	8.8	4.21	11.0	12.7	2.94	15.7	10.7	4.33	21.1	13.0	2.97	15.9	11.7	4.36	34.5
			20	13.3	2.97	16.2	13.3	4.47	9.7	13.7	2.99	16.6	15.4	4.56	19.3	13.8	3.02	16.9	16.5	4.58	31.7
			25	14.1	3.03	17.1	17.9	4.64	8.9	14.4	3.07	17.5	20.2	4.70	17.6	14.6	3.08	17.6	21.3	4.72	29.0
			30	14.7	3.11	17.8	22.6	4.74	7.7	15.0	3.16	18.2	25.0	4.75	15.4	15.1	3.17	18.3	26.2	4.78	26.2
40	0.47	8.9	10	10.3	3.76	14.0	4.8	2.73	12.6	10.7	3.78	14.5	6.4	2.83	23.7	10.9	3.75	14.7	7.2	2.91	38.5
			15	11.4	3.82	15.2	9.2	2.99	11.0	11.8	3.85	15.7	11.0	3.08	21.1	12.0	3.81	15.9	12.0	3.16	34.5
			20	12.4	3.89	16.3	13.7	3.19	9.7	12.8	3.92	16.7	15.7	3.27	19.3	13.0	3.88	16.9	16.7	3.36	31.7
			25	13.3	3.97	17.3	18.3	3.35	8.9	13.6	4.01	17.7	20.4	3.40	17.6	13.8	3.95	17.8	21.5	3.50	29.0
			30	14.0	4.06	18.1	22.9	3.46	7.7	14.3	4.10	18.4	25.2	3.49	15.4	14.5	4.03	18.5	26.3	3.59	26.2
	0.71	19.2	10	10.4	3.67	14.1	4.7	2.85	12.6	10.9	3.69	14.6	6.4	2.95	23.7	11.1	3.66	14.8	7.2	3.03	38.5
			15	11.6	3.73	15.3	9.1	3.11	11.0	12.0	3.76	15.8	11.0	3.20	21.1	12.2	3.72	15.9	11.9	3.29	34.5
			20	12.6	3.80	16.4	13.6	3.32	9.7	13.0	3.83	16.8	15.6	3.40	19.3	13.2	3.78	17.0	16.7	3.49	31.7
			25	13.5	3.87	17.4	18.2	3.48	8.9	13.9	3.91	17.8	20.4	3.54	17.6	14.0	3.85	17.9	21.5	3.64	29.0
			30	14.2	3.96	18.2	22.8	3.60	7.7	14.5	4.00	18.5	25.1	3.63	15.4	14.7	3.93	18.6	26.3	3.74	26.2
	0.95	31.4	10	10.6	3.58	14.2	4.6	2.96	12.6	11.0	3.60	14.6	6.3	3.06	23.7	11.3	3.58	14.8	7.2	3.15	38.5
			15	11.8	3.64	15.4	9.1	3.23	11.0	12.2	3.67	15.9	10.9	3.32	21.1	12.4	3.63	16.0	11.9	3.42	34.5
			20	12.8	3.71	16.5	13.5	3.45	9.7	13.2	3.74	16.9	15.6	3.53	19.3	13.4	3.69	17.1	16.6	3.63	31.7
			25	13.7	3.78	17.5	18.1	3.62	8.9	14.1	3.82	17.9	20.3	3.68	17.6	14.2	3.76	18.0	21.4	3.78	29.0
			30	14.4	3.87	18.3	22.7	3.74	7.7	14.8	3.91	18.7	25.0	3.77	15.4	14.9	3.84	18.7	26.2	3.88	26.2

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.

Performance Data (50Hz - R407c) — GSW060 - Heating

SOURCE			LOAD																			
ESWT	Flow	WPD	ELWT	Flow 0.47 l/s						FLOW RATE 0.71 l/s						FLOW RATE 0.95 l/s					
°C	l/s	kPa	°C	HC kW	PI kW	HE kW	LWT °C	COP W/W	WPD kPa	HC kW	PI kW	HE kW	LWT °C	COP W/W	WPD kPa	HC kW	PI kW	HE kW	LWT °C	COP W/W	WPD kPa
-5	0.95	54.5	20	10.2	2.42	7.8	25.2	4.22	11.0	10.3	2.35	8.0	23.5	4.39	21.1	10.4	2.31	8.0	22.6	4.48	34.5
			30	9.6	2.87	6.8	34.9	3.36	8.9	9.7	2.78	7.0	33.3	3.50	17.6	9.8	2.73	7.1	32.5	3.58	29.0
			40	9.0	3.42	5.5	44.5	2.62	6.2	9.1	3.32	5.8	43.0	2.74	13.4	9.1	3.27	5.9	42.3	2.80	24.1
			45	8.6	3.73	4.9	49.3	2.31	4.5	8.7	3.62	5.1	47.9	2.40	10.8	8.8	3.57	5.2	47.2	2.46	19.9
0	0.47	21.4	20	10.6	2.44	8.2	25.4	4.35	11.0	10.7	2.36	8.3	23.6	4.53	21.1	10.8	2.33	8.4	22.7	4.62	34.5
			30	10.0	2.89	7.1	35.1	3.46	8.9	10.1	2.80	7.3	33.4	3.61	17.6	10.2	2.75	7.4	32.6	3.69	29.0
			40	9.3	3.44	5.9	44.7	2.70	6.2	9.4	3.34	6.1	43.2	2.82	13.4	9.5	3.29	6.2	42.4	2.88	24.1
			45	8.9	3.76	5.2	49.5	2.38	4.5	9.1	3.65	5.4	48.0	2.48	10.8	9.1	3.60	5.5	47.3	2.53	19.9
	0.71	34.4	20	11.2	2.46	8.8	25.7	4.57	11.0	11.3	2.38	9.0	23.8	4.76	21.1	11.4	2.35	9.0	22.9	4.85	34.5
			30	10.6	2.91	7.7	35.3	3.63	8.9	10.7	2.82	7.9	33.6	3.79	17.6	10.8	2.78	8.0	32.7	3.87	29.0
			40	9.9	3.47	6.4	45.0	2.84	6.2	10.0	3.37	6.6	43.3	2.96	13.4	10.0	3.32	6.7	42.5	3.03	24.1
			45	9.5	3.79	5.7	49.8	2.50	4.5	9.6	3.68	5.9	48.2	2.60	10.8	9.7	3.63	6.0	47.4	2.66	19.9
	0.95	50.7	20	11.7	2.47	9.3	25.9	4.75	11.0	11.8	2.39	9.5	24.0	4.95	21.1	11.9	2.36	9.5	23.0	5.05	34.5
			30	11.1	2.92	8.1	35.6	3.78	8.9	11.2	2.83	8.4	33.8	3.95	17.6	11.2	2.79	8.5	32.8	4.03	29.0
			40	10.3	3.49	6.8	45.2	2.95	6.2	10.4	3.38	7.0	43.5	3.08	13.4	10.5	3.33	7.2	42.7	3.15	24.1
			45	9.9	3.81	6.1	50.0	2.60	4.5	10.0	3.70	6.3	48.4	2.71	10.8	10.1	3.65	6.4	47.5	2.77	19.9
5	0.47	18.4	20	11.8	2.51	9.3	26.0	4.72	11.0	11.9	2.42	9.5	24.0	4.93	21.1	12.0	2.38	9.6	23.0	5.03	34.5
			30	11.3	2.97	8.3	35.7	3.79	8.9	11.4	2.87	8.5	33.8	3.97	17.6	11.5	2.82	8.6	32.9	4.06	29.0
			40	10.5	3.55	7.0	45.3	2.97	6.2	10.7	3.43	7.2	43.6	3.11	13.4	10.8	3.37	7.4	42.7	3.19	24.1
			45	10.1	3.87	6.2	50.1	2.61	4.5	10.3	3.75	6.5	48.4	2.73	10.8	10.3	3.69	6.6	47.6	2.80	19.9
	0.71	30.5	20	12.5	2.53	10.0	26.3	4.95	11.0	12.6	2.44	10.2	24.2	5.17	21.1	12.7	2.40	10.3	23.2	5.28	34.5
			30	11.9	3.00	8.9	36.0	3.98	8.9	12.1	2.89	9.2	34.0	4.17	17.6	12.1	2.84	9.3	33.1	4.27	29.0
			40	11.1	3.58	7.6	45.6	3.11	6.2	11.3	3.46	7.8	43.8	3.27	13.4	11.4	3.40	8.0	42.9	3.35	24.1
			45	10.7	3.91	6.8	50.4	2.73	4.5	10.9	3.78	7.1	48.6	2.87	10.8	10.9	3.72	7.2	47.8	2.94	19.9
	0.95	45.5	20	13.1	2.54	10.5	26.6	5.16	11.0	13.2	2.45	10.7	24.4	5.38	21.1	13.2	2.41	10.8	23.3	5.50	34.5
			30	12.5	3.01	9.4	36.3	4.14	8.9	12.6	2.91	9.7	34.2	4.34	17.6	12.7	2.85	9.8	33.2	4.44	29.0
			40	11.6	3.59	8.0	45.9	3.24	6.2	11.8	3.47	8.3	44.0	3.40	13.4	11.9	3.41	8.5	43.0	3.48	24.1
			45	11.2	3.92	7.2	50.6	2.85	4.5	11.3	3.80	7.5	48.8	2.99	10.8	11.4	3.74	7.7	47.9	3.06	19.9
10	0.47	15.5	20	13.0	2.57	10.4	26.6	5.06	11.0	13.1	2.47	10.6	24.4	5.29	21.1	13.1	2.42	10.7	23.3	5.41	34.5
			30	12.5	3.05	9.4	36.3	4.09	8.9	12.6	2.93	9.7	34.2	4.31	17.6	12.7	2.87	9.8	33.2	4.41	29.0
			40	11.7	3.65	8.1	45.9	3.22	6.2	11.9	3.51	8.4	44.0	3.39	13.4	12.0	3.45	8.6	43.0	3.49	24.1
			45	11.3	3.99	7.3	50.7	2.83	4.5	11.5	3.85	7.6	48.9	2.99	10.8	11.6	3.78	7.8	47.9	3.07	19.9
	0.71	27.3	20	13.7	2.59	11.2	26.9	5.31	11.0	13.8	2.49	11.3	24.6	5.56	21.1	13.9	2.44	11.4	23.5	5.68	34.5
			30	13.2	3.08	10.1	36.7	4.30	8.9	13.4	2.96	10.4	34.5	4.52	17.6	13.4	2.90	10.5	33.4	4.63	29.0
			40	12.4	3.68	8.8	46.3	3.38	6.2	12.6	3.54	9.1	44.2	3.56	13.4	12.7	3.48	9.2	43.2	3.66	24.1
			45	12.0	4.03	7.9	51.0	2.97	4.5	12.2	3.88	8.3	49.1	3.13	10.8	12.3	3.81	8.5	48.1	3.22	19.9
	0.95	42.0	20	14.4	2.60	11.8	27.3	5.53	11.0	14.5	2.50	12.0	24.8	5.78	21.1	14.5	2.45	12.0	23.7	5.91	34.5
			30	13.8	3.09	10.7	37.0	4.47	8.9	14.0	2.97	11.0	34.7	4.70	17.6	14.0	2.91	11.1	33.5	4.82	29.0
			40	13.0	3.70	9.3	46.6	3.51	6.2	13.2	3.56	9.6	44.4	3.71	13.4	13.3	3.49	9.8	43.4	3.81	24.1
			45	12.5	4.04	8.4	51.3	3.09	4.5	12.7	3.90	8.8	49.3	3.26	10.8	12.8	3.83	9.0	48.2	3.35	19.9
15	0.47	14.3	20	14.0	2.62	11.4	27.1	5.36	11.0	14.1	2.51	11.6	24.7	5.61	21.1	14.1	2.46	11.6	23.6	5.74	34.5
			30	13.6	3.12	10.5	36.9	4.35	8.9	13.7	2.99	10.7	34.6	4.60	17.6	13.8	2.92	10.9	33.5	4.72	29.0
			40	12.9	3.75	9.1	46.5	3.44	6.2	13.1	3.59	9.5	44.4	3.64	13.4	13.2	3.51	9.6	43.3	3.75	24.1
			45	12.4	4.10	8.3	51.3	3.03	4.5	12.6	3.94	8.7	49.2	3.21	10.8	12.7	3.86	8.9	48.2	3.30	19.9
	0.71	26.0	20	14.9	2.64	12.2	27.5	5.62	11.0	14.9	2.53	12.4	25.0	5.89	21.1	14.9	2.48	12.5	23.8	6.02	34.5
			30	14.4	3.15	11.2	37.3	4.57	8.9	14.5	3.01	11.5	34.9	4.83	17.6	14.6	2.95	11.7	33.7	4.95	29.0
			40	13.6	3.78	9.9	46.9	3.61	6.2	13.8	3.62	10.2	44.6	3.82	13.4	13.9	3.54	10.4	43.5	3.93	24.1
			45	13.2	4.14	9.0	51.7	3.18	4.5	13.4	3.97	9.4	49.5	3.37	10.8	13.5	3.89	9.6	48.4	3.47	19.9
	0.95	39.6	20	15.5	2.65	12.9	27.8	5.85	11.0	15.6	2.54	13.0	25.2	6.13	21.1	15.6	2.49	13.1	23.9	6.27	34.5
			30	15.0	3.16	11.9	37.6	4.76	8.9	15.2	3.02	12.2	35.1	5.02	17.6	15.3	2.96	12.3	33.9	5.15	29.0
			40	14.3	3.79	10.5	47.2	3.76	6.2	14.5	3.64	10.8	44.9	3.98	13.4	14.6	3.56	11.0	43.7	4.09	24.1
			45	13.7	4.15	9.6	51.9	3.31	4.5	14.0	3.99	10.0	49.7	3.51	10.8	14.1	3.91	10.2	48.6	3.61	19.9
20	0.47	13.4	20	14.9	2.66	12.2	27.5	5.59	11.0	15.0	2.55	12.4	25.0	5.87	21.1	15.0	2.49	12.5	23.8	6.01	34.5
			30	14.5	3.18	11.3	37.3	4.56	8.9	14.6	3.03	11.6	34.9	4.82	17.6	14.7	2.96	11.7	33.7	4.96	29.0
			40	13.8	3.82	10.0	47.0	3.62	6.2	14.0	3.65	10.4	44.7	3.84	13.4	14.1	3.57	10.5	43.6	3.96	24.1
			45	OPERATION NOT RECOMMENDED						13.6	4.01	9.6	49.6	3.40	10.8	13.7	3.92	9.8	48.5	3.50	19.9
	0.71	24.5	20	15.8	2.69	13.1	28.0	5.87	11.0	15.8	2.57	13.3	25.3	6.17	21.1	15.9	2.51	13.3	24.0	6.31	34.5
			30	15.4	3.21	12.1	37.8	4.79	8.9	15.5	3.06	12.4	35.2	5.07	17.6	15.6	2.99	12.6	33.9	5.21	29.0
			40	14.6	3.86	10.8	47.4	3.80	6.2	14.8	3.68	11.2	45.0	4.03	13.4	14.9	3.60	11.3	43.8	4.15	24.1
			45	OPERATION NOT RECOMMENDED						14.4	4.04	10.4	49.8	3.57	10.8	14.5	3.95	10.6	48.7	3.68	19.9
	0.95	37.9	20	16.5	2.70	13.8	28.3	6.11	11.0	16.5	2.58	14.0	25.6	6.42	21.1	16.6	2.53	14.0	24.2	6.56	34.5
			30	16.0	3.22	12.8	38.1	4.98	8.9	16.2	3.07	13.1	35.4	5.27	17.6	16.3	3.00	13.3	34.1	5.42	29.0
			40	15.3	3.87	11.4	47.7	3.95	6.2	15.5	3.70	11.8	45.2	4.20	13.4	15.6	3.61	12.0	43.9	4.32	24.1
			45	OPERATION NOT RECOMMENDED						15.1	4.06	11.0	50.1	3.71	10.8	15.2	3.97	11.2	48.8	3.82	19.9

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.
Operation below 5°C is based upon 15% antifreeze solution

Performance Data (50Hz - R407c) — GSW120 - Cooling

SOURCE			LOAD																			
ESWT	Flow	WPD	ELWT	Flow 0.95 l/s						Flow 1.43 l/s						Flow 1.89 l/s					
°C	l/s	kPa	°C	TC kW	PI kW	HR kW	LWT °C	EER W/W	WPD kPa	TC kW	PI kW	HR kW	LWT °C	EER W/W	WPD kPa	TC kW	PI kW	HR kW	LWT °C	EER W/W	WPD kPa
10	0.95	15.5	10	22.2	4.17	26.4	4.4	5.33	17.6	23.1	4.19	27.3	6.1	5.51	33.2	23.5	4.16	27.7	7.0	5.65	53.9
			15	24.3	4.23	28.5	8.9	5.75	15.4	25.1	4.25	29.4	10.8	5.91	29.6	25.5	4.21	29.7	11.8	6.06	48.3
			20	26.1	4.29	30.4	13.4	6.10	13.6	26.9	4.32	31.2	15.5	6.24	27.0	27.3	4.27	31.6	16.6	6.40	44.4
			25	27.7	4.35	32.1	18.0	6.38	12.4	28.4	4.39	32.8	20.2	6.49	24.7	28.8	4.33	33.1	21.4	6.65	40.5
			30	29.1	4.42	33.5	22.6	6.58	10.7	29.7	4.46	34.2	25.0	6.66	21.6	30.0	4.39	34.4	26.2	6.83	36.7
	1.43	27.3	10	22.6	4.07	26.7	4.3	5.55	17.6	23.4	4.09	27.5	6.1	5.73	33.2	23.9	4.06	27.9	7.0	5.88	53.9
			15	24.7	4.12	28.8	8.8	5.98	15.4	25.5	4.15	29.7	10.7	6.15	29.6	25.9	4.11	30.0	11.7	6.31	48.3
			20	26.5	4.18	30.7	13.3	6.35	13.6	27.3	4.21	31.5	15.4	6.49	27.0	27.7	4.16	31.9	16.5	6.66	44.4
			25	28.2	4.25	32.4	17.9	6.63	12.4	28.9	4.28	33.2	20.2	6.75	24.7	29.2	4.22	33.4	21.3	6.92	40.5
			30	29.5	4.31	33.9	22.5	6.85	10.7	30.2	4.35	34.5	24.9	6.93	21.6	30.4	4.28	34.7	26.2	7.11	36.7
	1.89	42.0	10	22.9	3.98	26.9	4.2	5.77	17.6	23.8	4.00	27.8	6.0	5.95	33.2	24.2	3.97	28.2	6.9	6.11	53.9
			15	25.0	4.03	29.1	8.7	6.22	15.4	25.9	4.05	29.9	10.7	6.39	29.6	26.3	4.01	30.3	11.7	6.55	48.3
			20	26.9	4.09	31.0	13.2	6.59	13.6	27.7	4.11	31.9	15.3	6.74	27.0	28.1	4.07	32.2	16.4	6.91	44.4
			25	28.6	4.15	32.7	17.8	6.89	12.4	29.3	4.18	33.5	20.1	7.01	24.7	29.6	4.12	33.8	21.3	7.19	40.5
			30	30.0	4.21	34.2	22.4	7.12	10.7	30.6	4.25	34.9	24.9	7.20	21.6	30.9	4.18	35.1	26.1	7.38	36.7
20	0.95	13.4	10	22.2	5.05	27.2	4.4	4.40	17.6	23.0	5.06	28.1	6.1	4.55	33.2	23.4	5.09	28.5	7.0	4.61	53.9
			15	24.2	5.04	29.3	8.9	4.81	15.4	25.0	5.06	30.1	10.8	4.94	29.6	25.4	5.08	30.5	11.8	5.00	48.3
			20	26.0	5.11	31.1	13.4	5.10	13.6	26.8	5.15	31.9	15.5	5.20	27.0	27.1	5.16	32.3	16.6	5.26	44.4
			25	27.6	5.20	32.8	18.0	5.30	12.4	28.2	5.25	33.5	20.3	5.37	24.7	28.5	5.25	33.8	21.4	5.44	40.5
			30	28.9	5.32	34.2	22.7	5.43	10.7	29.4	5.39	34.8	25.1	5.46	21.6	29.7	5.37	35.0	26.2	5.53	36.7
	1.43	24.5	10	22.5	4.92	27.4	4.3	4.57	17.6	23.4	4.94	28.3	6.1	4.73	33.2	23.8	4.96	28.7	7.0	4.79	53.9
			15	24.6	4.91	29.5	8.8	5.00	15.4	25.4	4.94	30.3	10.7	5.14	29.6	25.8	4.96	30.8	11.7	5.21	48.3
			20	26.4	4.98	31.4	13.3	5.30	13.6	27.2	5.02	32.2	15.4	5.41	27.0	27.5	5.03	32.6	16.5	5.47	44.4
			25	28.0	5.07	33.1	17.9	5.52	12.4	28.7	5.13	33.8	20.2	5.59	24.7	29.0	5.12	34.1	21.3	5.66	40.5
			30	29.3	5.19	34.5	22.6	5.65	10.7	29.9	5.26	35.1	25.0	5.68	21.6	30.1	5.24	35.4	26.2	5.75	36.7
	1.89	37.9	10	22.9	4.81	27.7	4.2	4.75	17.6	23.7	4.82	28.5	6.0	4.92	33.2	24.1	4.85	29.0	6.9	4.98	53.9
			15	25.0	4.80	29.8	8.7	5.20	15.4	25.8	4.83	30.6	10.7	5.34	29.6	26.2	4.84	31.0	11.7	5.41	48.3
			20	26.8	4.87	31.7	13.2	5.51	13.6	27.6	4.91	32.5	15.4	5.62	27.0	28.0	4.91	32.9	16.5	5.69	44.4
			25	28.4	4.96	33.4	17.8	5.73	12.4	29.1	5.01	34.1	20.1	5.81	24.7	29.4	5.01	34.4	21.3	5.88	40.5
			30	29.7	5.07	34.8	22.5	5.87	10.7	30.3	5.14	35.5	24.9	5.90	21.6	30.6	5.12	35.7	26.1	5.97	36.7
30	0.95	10.6	10	21.9	6.10	28.0	4.5	3.59	17.6	22.7	6.11	28.8	6.2	3.72	33.2	23.1	6.18	29.3	7.1	3.74	53.9
			15	23.9	6.15	30.1	8.9	3.90	15.4	24.7	6.18	30.9	10.8	4.01	29.6	25.1	6.24	31.4	11.8	4.03	48.3
			20	25.8	6.23	32.0	13.5	4.13	13.6	26.5	6.28	32.8	15.6	4.22	27.0	26.9	6.34	33.2	16.6	4.24	44.4
			25	27.3	6.36	33.7	18.1	4.30	12.4	28.0	6.43	34.4	20.3	4.35	24.7	28.3	6.47	34.7	21.4	4.37	40.5
			30	28.6	6.53	35.1	22.8	4.38	10.7	29.1	6.63	35.8	25.1	4.39	21.6	29.4	6.65	36.0	26.3	4.42	36.7
	1.43	21.1	10	22.2	5.95	28.2	4.4	3.73	17.6	23.1	5.96	29.0	6.1	3.87	33.2	23.5	6.03	29.5	7.0	3.90	53.9
			15	24.3	6.00	30.3	8.9	4.05	15.4	25.1	6.03	31.1	10.8	4.17	29.6	25.5	6.09	31.6	11.8	4.19	48.3
			20	26.1	6.08	32.2	13.4	4.30	13.6	26.9	6.13	33.0	15.5	4.39	27.0	27.3	6.18	33.4	16.6	4.41	44.4
			25	27.7	6.20	33.9	18.0	4.47	12.4	28.4	6.28	34.7	20.2	4.52	24.7	28.7	6.31	35.0	21.4	4.54	40.5
			30	29.0	6.37	35.4	22.7	4.56	10.7	29.6	6.47	36.0	25.0	4.57	21.6	29.8	6.48	36.3	26.2	4.60	36.7
	1.89	34.5	10	22.6	5.82	28.4	4.3	3.88	17.6	23.4	5.83	29.2	6.1	4.02	33.2	23.8	5.89	29.7	7.0	4.05	53.9
			15	24.7	5.86	30.5	8.8	4.21	15.4	25.5	5.89	31.4	10.7	4.33	29.6	25.9	5.95	31.9	11.7	4.36	48.3
			20	26.5	5.94	32.5	13.3	4.47	13.6	27.3	5.99	33.3	15.4	4.56	27.0	27.7	6.04	33.7	16.5	4.58	44.4
			25	28.1	6.06	34.2	17.9	4.64	12.4	28.8	6.13	34.9	20.2	4.70	24.7	29.1	6.17	35.3	21.3	4.72	40.5
			30	29.5	6.22	35.7	22.6	4.74	10.7	30.0	6.32	36.3	25.0	4.75	21.6	30.3	6.34	36.6	26.2	4.78	36.7
40	0.95	8.9	10	20.6	7.52	28.1	4.8	2.73	17.6	21.4	7.56	29.0	6.4	2.83	33.2	21.9	7.50	29.4	7.2	2.91	53.9
			15	22.8	7.64	30.5	9.2	2.99	15.4	23.7	7.70	31.4	11.0	3.08	29.6	24.1	7.62	31.7	12.0	3.16	48.3
			20	24.8	7.78	32.6	13.7	3.19	13.6	25.6	7.85	33.5	15.7	3.27	27.0	26.0	7.75	33.8	16.7	3.36	44.4
			25	26.6	7.94	34.5	18.3	3.35	12.4	27.3	8.02	35.3	20.4	3.40	24.7	27.6	7.90	35.5	21.5	3.50	40.5
			30	28.0	8.11	36.1	22.9	3.46	10.7	28.6	8.20	36.9	25.2	3.49	21.6	28.9	8.06	37.0	26.3	3.59	36.7
	1.43	19.2	10	20.9	7.34	28.2	4.7	2.85	17.6	21.8	7.38	29.1	6.4	2.95	33.2	22.2	7.32	29.5	7.2	3.03	53.9
			15	23.2	7.46	30.6	9.1	3.11	15.4	24.0	7.51	31.5	11.0	3.20	29.6	24.5	7.43	31.9	11.9	3.29	48.3
			20	25.2	7.59	32.8	13.6	3.32	13.6	26.0	7.66	33.7	15.6	3.40	27.0	26.4	7.56	34.0	16.7	3.49	44.4
			25	27.0	7.74	34.7	18.2	3.48	12.4	27.7	7.82	35.5	20.4	3.54	24.7	28.1	7.70	35.8	21.5	3.64	40.5
			30	28.5	7.91	36.4	22.8	3.60	10.7	29.1	8.00	37.1	25.1	3.63	21.6	29.4	7.86	37.2	26.3	3.74	36.7
	1.89	31.4	10	21.2	7.17	28.4	4.6	2.96	17.6	22.1	7.21	29.3	6.3	3.06	33.2	22.5	7.15	29.7	7.2	3.15	53.9
			15	23.5	7.29	30.8	9.1	3.23	15.4	24.4	7.34	31.7	10.9	3.32	29.6	24.8	7.26	32.1	11.9	3.42	48.3
			20	25.6	7.42	33.0	13.5	3.45	13.6	26.4	7.48	33.9	15.6	3.53	27.0	26.8	7.39	34.2	16.6	3.63	44.4
			25	27.4	7.57	34.9	18.1	3.62	12.4	28.1	7.64	35.8	20.3	3.68	24.7	28.5	7.53	36.0	21.4	3.78	40.5
			30	28.9	7.73	36.6	22.7	3.74	10.7	29.5	7.82	37.3	25.0	3.77	21.6	29.8	7.68	37.5	26.2	3.88	36.7

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.

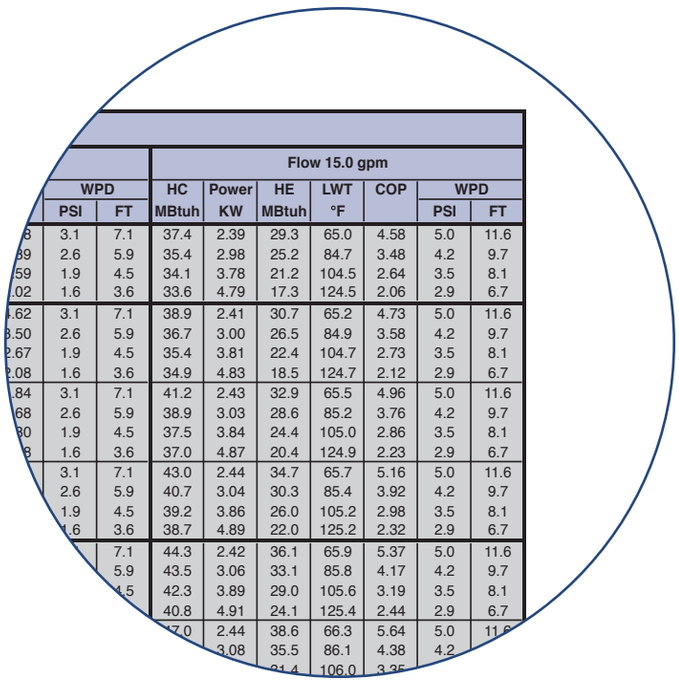
Performance Data (50Hz - R407c) — GSW120 - Heating

SOURCE			LOAD																			
ESWT	Flow	WPD	ELWT	Flow 0.95 l/s						Flow 1.43 l/s						Flow 1.89 l/s					
°C	l/s	kPa	°C	HC kW	PI kW	HE kW	LWT °C	COP W/W	WPD kPa	HC kW	PI kW	HE kW	LWT °C	COP W/W	WPD kPa	HC kW	PI kW	HE kW	LWT °C	COP W/W	WPD kPa
-5	1.89	76.3	20	20.4	4.84	15.6	25.2	4.22	15.4	20.6	4.69	15.9	23.5	4.39	29.6	20.7	4.62	16.1	22.6	4.48	48.3
			30	19.2	5.73	13.5	34.9	3.36	12.4	19.5	5.55	13.9	33.3	3.50	24.7	19.6	5.47	14.1	32.5	3.58	40.5
			40	17.9	6.83	11.1	44.5	2.62	8.7	18.1	6.63	11.5	43.0	2.74	18.8	18.3	6.53	11.7	42.3	2.80	33.8
			45	17.2	7.46	9.7	49.3	2.31	6.3	17.4	7.25	10.2	47.9	2.40	15.2	17.5	7.15	10.4	47.2	2.46	27.8
0	0.95	29.9	20	21.2	4.88	16.3	25.4	4.35	15.4	21.4	4.73	16.7	23.6	4.53	29.6	21.5	4.66	16.9	22.7	4.62	48.3
			30	20.0	5.77	14.2	35.1	3.46	12.4	20.2	5.60	14.6	33.4	3.61	24.7	20.3	5.51	14.8	32.6	3.69	40.5
			40	18.6	6.88	11.7	44.7	2.70	8.7	18.9	6.68	12.2	43.2	2.82	18.8	19.0	6.58	12.4	42.4	2.88	33.8
			45	17.9	7.51	10.3	49.5	2.38	6.3	18.1	7.30	10.8	48.0	2.48	15.2	18.2	7.20	11.0	47.3	2.53	27.8
	1.43	48.2	20	22.5	4.92	17.5	25.7	4.57	15.4	22.7	4.77	17.9	23.8	4.76	29.6	22.8	4.70	18.1	22.9	4.85	48.3
			30	21.2	5.83	15.3	35.3	3.63	12.4	21.4	5.64	15.8	33.6	3.79	24.7	21.5	5.56	16.0	32.7	3.87	40.5
			40	19.7	6.94	12.8	45.0	2.84	8.7	20.0	6.74	13.2	43.3	2.96	18.8	20.1	6.64	13.5	42.5	3.03	33.8
			45	18.9	7.58	11.3	49.8	2.50	6.3	19.2	7.37	11.8	48.2	2.60	15.2	19.3	7.26	12.0	47.4	2.66	27.8
	1.89	71.0	20	23.5	4.94	18.5	25.9	4.75	15.4	23.7	4.79	18.9	24.0	4.95	29.6	23.8	4.72	19.1	23.0	5.05	48.3
			30	22.1	5.85	16.3	35.6	3.78	12.4	22.4	5.67	16.7	33.8	3.95	24.7	22.5	5.58	16.9	32.8	4.03	40.5
			40	20.6	6.97	13.6	45.2	2.95	8.7	20.9	6.77	14.1	43.5	3.08	18.8	21.0	6.67	14.3	42.7	3.15	33.8
			45	19.8	7.61	12.2	50.0	2.60	6.3	20.0	7.40	12.6	48.4	2.71	15.2	20.2	7.29	12.9	47.5	2.77	27.8
5	0.95	25.7	20	23.7	5.01	18.6	26.0	4.72	15.4	23.9	4.84	19.0	24.0	4.93	29.6	23.9	4.76	19.2	23.0	5.03	48.3
			30	22.5	5.95	16.6	35.7	3.79	12.4	22.8	5.74	17.0	33.8	3.97	24.7	22.9	5.64	17.3	32.9	4.06	40.5
			40	21.0	7.09	14.0	45.3	2.97	8.7	21.4	6.86	14.5	43.6	3.11	18.8	21.5	6.74	14.8	42.7	3.19	33.8
			45	20.2	7.74	12.4	50.1	2.61	6.3	20.5	7.50	13.0	48.4	2.73	15.2	20.7	7.38	13.3	47.6	2.80	27.8
	1.43	42.7	20	25.1	5.06	20.0	26.3	4.95	15.4	25.3	4.88	20.4	24.2	5.17	29.6	25.4	4.80	20.6	23.2	5.28	48.3
			30	23.9	6.00	17.9	36.0	3.98	12.4	24.1	5.79	18.3	34.0	4.17	24.7	24.3	5.69	18.6	33.1	4.27	40.5
			40	22.3	7.15	15.1	45.6	3.11	8.7	22.6	6.92	15.7	43.8	3.27	18.8	22.8	6.80	16.0	42.9	3.35	33.8
			45	21.4	7.81	13.6	50.4	2.73	6.3	21.7	7.56	14.2	48.6	2.87	15.2	21.9	7.44	14.4	47.8	2.94	27.8
	1.89	63.7	20	26.2	5.08	21.1	26.6	5.16	15.4	26.4	4.90	21.5	24.4	5.38	29.6	26.5	4.82	21.7	23.3	5.50	48.3
			30	24.9	6.02	18.9	36.3	4.14	12.4	25.2	5.81	19.4	34.2	4.34	24.7	25.3	5.71	19.6	33.2	4.44	40.5
			40	23.3	7.18	16.1	45.9	3.24	8.7	23.6	6.94	16.7	44.0	3.40	18.8	23.8	6.83	17.0	43.0	3.48	33.8
			45	22.3	7.84	14.5	50.6	2.85	6.3	22.7	7.59	15.1	48.8	2.99	15.2	22.9	7.47	15.4	47.9	3.06	27.8
10	0.95	21.7	20	26.0	5.13	20.8	26.6	5.06	15.4	26.1	4.94	21.2	24.4	5.29	29.6	26.2	4.84	21.3	23.3	5.41	48.3
			30	25.0	6.10	18.9	36.3	4.09	12.4	25.2	5.86	19.4	34.2	4.31	24.7	25.4	5.75	19.6	33.2	4.41	40.5
			40	23.5	7.30	16.2	45.9	3.22	8.7	23.8	7.02	16.8	44.0	3.39	18.8	24.0	6.89	17.1	43.0	3.49	33.8
			45	22.6	7.98	14.6	50.7	2.83	6.3	23.0	7.69	15.3	48.9	2.99	15.2	23.2	7.55	15.6	47.9	3.07	27.8
	1.43	38.3	20	27.5	5.18	22.3	26.9	5.31	15.4	27.7	4.98	22.7	24.6	5.56	29.6	27.7	4.89	22.9	23.5	5.68	48.3
			30	26.4	6.16	20.3	36.7	4.30	12.4	26.7	5.91	20.8	34.5	4.52	24.7	26.9	5.80	21.1	33.4	4.63	40.5
			40	24.9	7.37	17.5	46.3	3.38	8.7	25.3	7.09	18.2	44.2	3.56	18.8	25.4	6.95	18.5	43.2	3.66	33.8
			45	23.9	8.05	15.9	51.0	2.97	6.3	24.3	7.76	16.6	49.1	3.13	15.2	24.5	7.62	16.9	48.1	3.22	27.8
	1.89	58.8	20	28.7	5.20	23.5	27.3	5.53	15.4	28.9	5.00	23.9	24.8	5.78	29.6	29.0	4.91	24.1	23.7	5.91	48.3
			30	27.6	6.18	21.4	37.0	4.47	12.4	27.9	5.94	22.0	34.7	4.70	24.7	28.1	5.82	22.2	33.5	4.82	40.5
			40	26.0	7.40	18.6	46.6	3.51	8.7	26.4	7.12	19.3	44.4	3.71	18.8	26.6	6.98	19.6	43.4	3.81	33.8
			45	25.0	8.08	16.9	51.3	3.09	6.3	25.4	7.79	17.6	49.3	3.26	15.2	25.6	7.65	18.0	48.2	3.35	27.8
15	0.95	20.1	20	28.0	5.24	22.8	27.1	5.36	15.4	28.2	5.02	23.2	24.7	5.61	29.6	28.2	4.92	23.3	23.6	5.74	48.3
			30	27.2	6.25	20.9	36.9	4.35	12.4	27.5	5.97	21.5	34.6	4.60	24.7	27.6	5.84	21.7	33.5	4.72	40.5
			40	25.8	7.49	18.3	46.5	3.44	8.7	26.1	7.18	19.0	44.4	3.64	18.8	26.3	7.03	19.3	43.3	3.75	33.8
			45	24.8	8.21	16.6	51.3	3.03	6.3	25.3	7.88	17.4	49.2	3.21	15.2	25.5	7.71	17.8	48.2	3.30	27.8
	1.43	36.4	20	29.7	5.28	24.4	27.5	5.62	15.4	29.8	5.06	24.8	25.0	5.89	29.6	29.9	4.96	24.9	23.8	6.02	48.3
			30	28.8	6.30	22.5	37.3	4.57	12.4	29.1	6.02	23.0	34.9	4.83	24.7	29.2	5.89	23.3	33.7	4.95	40.5
			40	27.3	7.56	19.7	46.9	3.61	8.7	27.7	7.24	20.4	44.6	3.82	18.8	27.9	7.09	20.8	43.5	3.93	33.8
			45	26.3	8.28	18.0	51.7	3.18	6.3	26.8	7.94	18.8	49.5	3.37	15.2	27.0	7.78	19.2	48.4	3.47	27.8
	1.89	55.5	20	31.0	5.30	25.7	27.8	5.85	15.4	31.2	5.08	26.1	25.2	6.13	29.6	31.2	4.98	26.2	23.9	6.27	48.3
			30	30.1	6.32	23.8	37.6	4.76	12.4	30.4	6.05	24.3	35.1	5.02	24.7	30.5	5.92	24.6	33.9	5.15	40.5
			40	28.5	7.59	20.9	47.2	3.76	8.7	28.9	7.27	21.7	44.9	3.98	18.8	29.1	7.12	22.0	43.7	4.09	33.8
			45	27.5	8.31	19.2	51.9	3.31	6.3	28.0	7.97	20.0	49.7	3.51	15.2	28.2	7.81	20.4	48.6	3.61	27.8
20	0.95	18.7	20	29.8	5.33	24.5	27.5	5.59	15.4	29.9	5.10	24.8	25.0	5.87	29.6	30.0	4.99	25.0	23.8	6.01	48.3
			30	29.0	6.36	22.6	37.3	4.56	12.4	29.3	6.07	23.2	34.9	4.82	24.7	29.4	5.93	23.5	33.7	4.96	40.5
			40	27.6	7.65	20.0	47.0	3.62	8.7	28.0	7.30	20.7	44.7	3.84	18.8	28.2	7.13	21.1	43.6	3.96	33.8
			45	OPERATION NOT RECOMMENDED						27.2	8.01	19.2	49.6	3.40	15.2	27.4	7.84	19.6	48.5	3.50	27.8
	1.43	34.4	20	31.6	5.37	26.2	28.0	5.87	15.4	31.7	5.14	26.5	25.3	6.17	29.6	31.7	5.03	26.7	24.0	6.31	48.3
			30	30.7	6.42	24.3	37.8	4.79	12.4	31.0	6.12	24.9	35.2	5.07	24.7	31.1	5.98	25.1	33.9	5.21	40.5
			40	29.3	7.71	21.6	47.4	3.80	8.7	29.7	7.36	22.3	45.0	4.03	18.8	29.9	7.20	22.7	43.8	4.15	33.8
			45	OPERATION NOT RECOMMENDED						28.8	8.08	20.7	49.8	3.57	15.2	29.0	7.90	21.1	48.7	3.68	27.8
	1.89	53.1	20	33.0	5.40	27.6	28.3	6.11	15.4	33.1	5.16	27.9	25.6	6.42	29.6	33.1	5.05	28.1	24.2	6.56	48.3
			30	32.1	6.44	25.6	38.1	4.98	12.4	32.4	6.14	26.2	35.4	5.27	24.7	32.5	6.00	26.5	34.1	5.42	40.5
			40	30.6	7.74	22.8	47.7	3.95	8.7	31.0	7.39	23.6	45.2	4.20	18.8	31.2	7.22	24.0	43.9	4.32	33.8
			45	OPERATION NOT RECOMMENDED						30.1	8.12	22.0	50.1	3.71	15.2	30.3	7.94	22.4	48.8	3.82	27.8

Interpolation is permissible, extrapolation is not.
All performance data is based upon the lower voltage of dual voltage rated units.
All performance data is based upon a load coaxial heat exchanger of single-walled copper construction. For vented double-walled performance consult the factory.
Operation below 5°C is based upon 15% antifreeze solution

Performance Data Selection Notes

For operation in the shaded area when water is used in lieu of an anti-freeze solution, the LWT (Leaving Water Temperature) must be calculated. Flow must be maintained to a level such that the LWT is maintained above 40°F [4.4°C] when the JW3 jumper is not clipped (see example below). This is due to the potential of the refrigerant temperature being as low as 32°F [0°C] with 40°F [4.4°C] LWT, which may lead to a nuisance cutout due to the activation of the Low Temperature Protection. JW3 should never be clipped for standard range equipment or systems without antifreeze.



			Flow 15.0 gpm						
	WPD		HC	Power	HE	LWT	COP	WPD	
	PSI	FT	MBtuh	KW	MBtuh	°F		PSI	FT
8	3.1	7.1	37.4	2.39	29.3	65.0	4.58	5.0	11.6
39	2.6	5.9	35.4	2.98	25.2	84.7	3.48	4.2	9.7
.59	1.9	4.5	34.1	3.78	21.2	104.5	2.64	3.5	8.1
.02	1.6	3.6	33.6	4.79	17.3	124.5	2.06	2.9	6.7
4.62	3.1	7.1	38.9	2.41	30.7	65.2	4.73	5.0	11.6
3.50	2.6	5.9	36.7	3.00	26.5	84.9	3.58	4.2	9.7
2.67	1.9	4.5	35.4	3.81	22.4	104.7	2.73	3.5	8.1
2.08	1.6	3.6	34.9	4.83	18.5	124.7	2.12	2.9	6.7
.84	3.1	7.1	41.2	2.43	32.9	65.5	4.96	5.0	11.6
.68	2.6	5.9	38.9	3.03	28.6	85.2	3.76	4.2	9.7
30	1.9	4.5	37.5	3.84	24.4	105.0	2.86	3.5	8.1
8	1.6	3.6	37.0	4.87	20.4	124.9	2.23	2.9	6.7
	3.1	7.1	43.0	2.44	34.7	65.7	5.16	5.0	11.6
	2.6	5.9	40.7	3.04	30.3	85.4	3.92	4.2	9.7
	1.9	4.5	39.2	3.86	26.0	105.2	2.98	3.5	8.1
	1.6	3.6	38.7	4.89	22.0	125.2	2.32	2.9	6.7
		7.1	44.3	2.42	36.1	65.9	5.37	5.0	11.6
		5.9	43.5	3.06	33.1	85.8	4.17	4.2	9.7
		4.5	42.3	3.89	29.0	105.6	3.19	3.5	8.1
			40.8	4.91	24.1	125.4	2.44	2.9	6.7
			47.0	2.44	38.6	66.3	5.64	5.0	11.6
				3.08	35.5	86.1	4.38	4.2	
					31.4	106.0	3.35		

Example (I.P. Units):

At 50°F EST (Entering Source Water Temperature) and 9.0 gpm, a GSW036 (60HZ) unit has a HE of 20,000 Btuh (120°F ELT, 9.0 GPM). To calculate LWT, rearrange the formula for HE as follows:

HE = TD x GPM x 500, where HE = Heat of Extraction (Btuh); TD = temperature difference (EWT - LWT); and GPM = U.S. Gallons per Minute.

TD = HE / (GPM x 500)

TD = 20,000 / (5.0 x 500)

TD = 8°F

LWT = EWT - TD

LWT = 50 - 8 = 42°F (2°F above the minimum)

In this example, as long as the EWT does not fall below 50°F, the system will operate as designed. For EWTs below 50°F, higher flow rates will be required (open loop systems, for example, require higher flow rates when EWT is below 50°F).

Example (S.I. Units):

At 10°C EST (Entering Source Water Temperature) and 0.32 l/s, a GSW036 (50Hz) unit has a HE of 4.5 kW (45°C ELT, 0.57 l/s). To calculate LWT, rearrange the formula for HE as follows:

HE = TD x l/s x 4.18, where HE = Heat of Extraction (kW); TD = Temperature Difference (EWT - LWT); and l/s = water flow in liters per second.

TD = HE / (l/s x 4.18)

TD = 4.5 / (0.32 x 4.18)

TD = 3.4°C

LWT = EWT - TD

LWT = 10 - 3.4 = 6.6°C (2.2°C above the minimum)

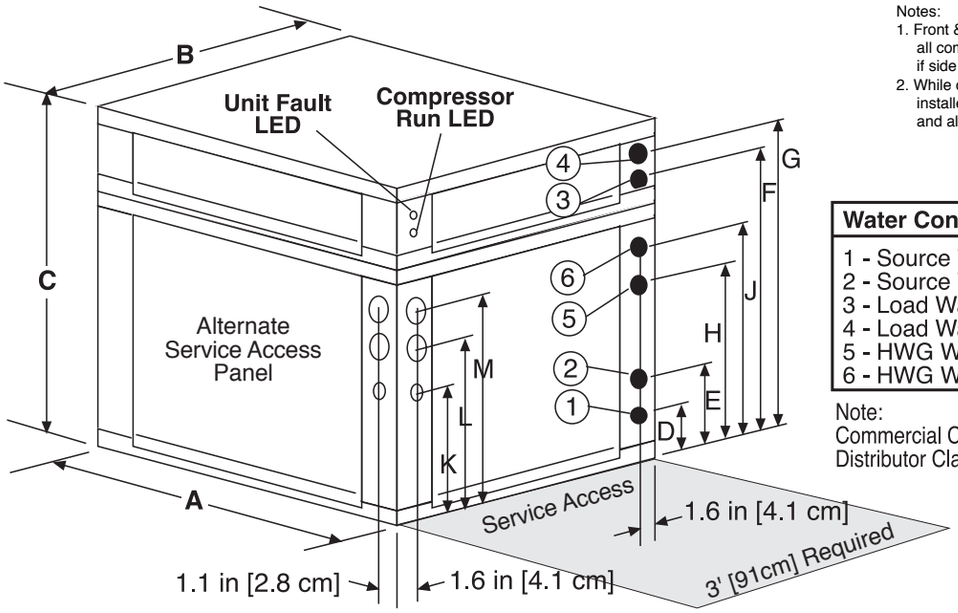
In this example, as long as the EWT does not fall below 10°C, the system will operate as designed. For EWTs below 10°C, higher flow rates will be required (open loop systems, for example, require higher flow rates when EWT is below 10°C).

Physical Data

Model	036	060	120
Compressor (qty)	Scroll (1)		Scroll (2)
Factory Charge R22 (oz) [kg] 60Hz	48 [1.36]	64 [1.81]	(2) 64 [1.81]
Factory Charge R407c (oz) [kg] 50Hz	46 [1.31]	66 [1.88]	(2) 66 [1.88]
Indoor/Load Water Connection Size			
Residential Swivel (in)	1	1	-
Commercial IPT (in)	3/4	1	1-1/2
Outdoor/Source Water Connection Size			
Residential Swivel (in)	1	1	-
Commercial IPT (in)	3/4	1	1-1/2
Hot Water Generator Connection Size			
Residential Swivel (in)	1	1	-
Commercial IPT (in)	1/2	1/2	1/2
Weight - Operating, (lbs) [kg]	236 [107]	343 [156]	725 [329]
Weight - Packaged, (lbs) [kg]	255 [116]	362 [164]	765 [347]

Spring mounted compressor
Balanced Port Expansion Valve (TXV)
Insulated Source and Load Water Coils with optional water/refrigerant circuit insulation package
Compressor on (green) and fault (red) light
Check serial plate for refrigerant type

Dimensions - GSW036 & GSW060



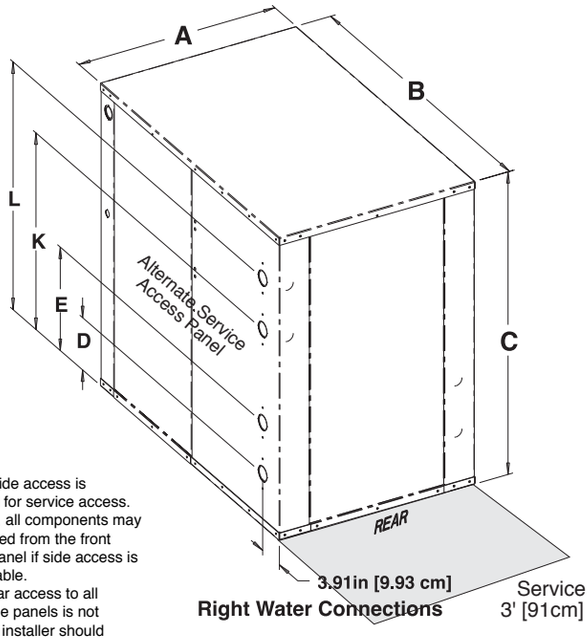
Notes:
1. Front & Side access is preferred for service access. However, all components may be serviced from the front access panel if side access is not available.
2. While clear access to all removable panels is not required, installer should take care to comply with all building codes and allow adequate clearance for future field service.

Water Connection	036	060
1 - Source Water In	3/4" IPT	1" IPT
2 - Source Water Out	3/4" IPT	1" IPT
3 - Load Water In	3/4" IPT	1" IPT
4 - Load Water Out	3/4" IPT	1" IPT
5 - HWG Water In	1/2" IPT	1/2" IPT
6 - HWG Water Out	1/2" IPT	1/2" IPT

Note:
Commercial Class Connections Shown
Distributor Class Utilizes 1" Swivel Throughout

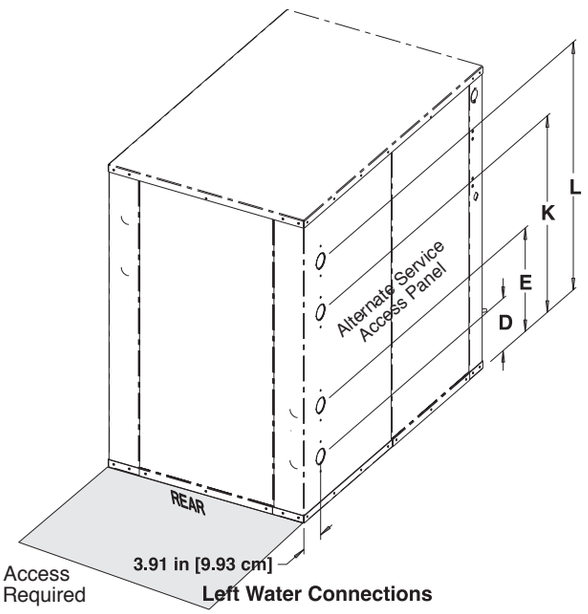
Model		Overall Cabinet			Water Connections						Electrical Knockouts		
					1	2	3	4	5	6			
		A	B	C	D	E	F	G	H	J	K	L	M
		Width	Depth	Height	Source (Outdoor) Water In	Source (Outdoor) Water Out	Load (Indoor) Water In	Load (Indoor) Water Out	HWG In	HWG Out	Low Voltage	External Pump	Power Supply
036	in.	25.6	22.4	29.5	2.4	5.4	22.7	26.1	13.9	16.9	5.6	9.6	12.1
	cm.	65.1	56.8	74.9	6.1	13.7	57.5	66.3	35.3	42.9	15.2	24.1	30.5
060	in.	30.6	25.4	33.0	2.4	5.4	26.8	30.9	15.6	18.9	8.1	11.6	14.1
	cm.	77.8	64.5	83.8	6.1	13.7	68.1	78.4	40.4	48.0	20.3	29.2	35.6

Dimensions - GSW120



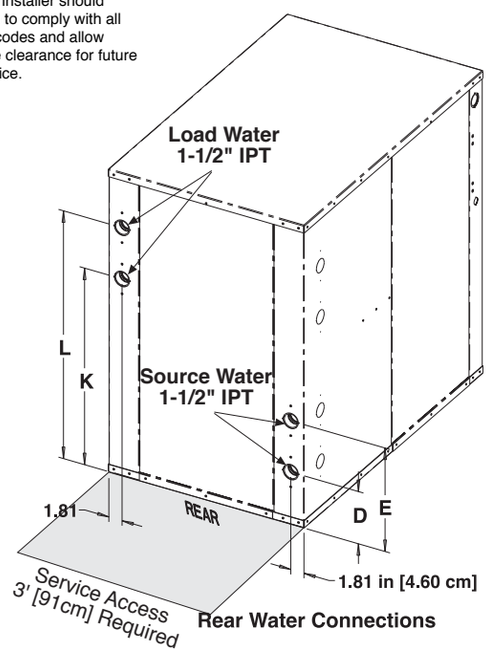
Right Water Connections

Service Access
3' [91cm] Required

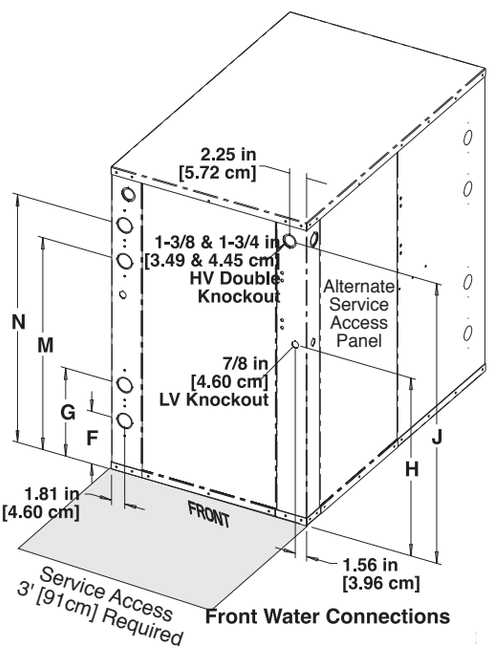


Left Water Connections

Notes:
1. Front & Side access is preferred for service access. However, all components may be serviced from the front access panel if side access is not available.
2. While clear access to all removable panels is not required, installer should take care to comply with all building codes and allow adequate clearance for future field service.



Rear Water Connections



Front Water Connections

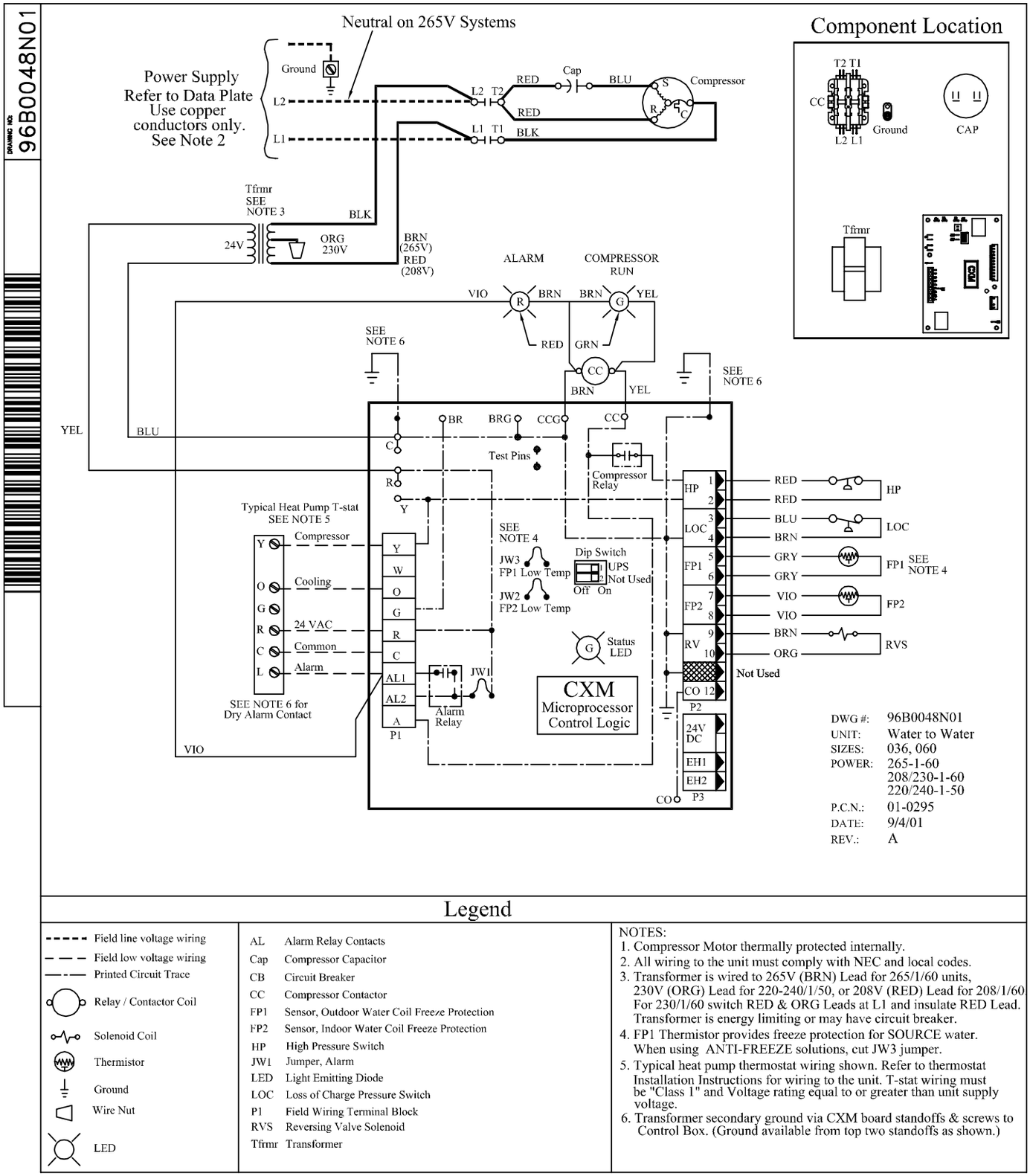
Model		Overall Cabinet			Source Water Connections				Electrical Knockouts		Load Water Connections			
		A	B	C	D	E	F	G	H	J	K	L	M	N
		Width	Depth	Height	Source (Outdoor) Water In	Source (Outdoor) Water Out	Source (Outdoor) Water In	Source (Outdoor) Water Out	Low Voltage	Power Supply	Load (Indoor) Water In	Load (Indoor) Water Out	Load (Indoor) Water In	Load (Indoor) Water Out
120	in.	26.0	41.1	40.1	6.9	13.7	6.9	11.7	23.6	37.1	26.0	32.8	28.1	32.8
	cm.	66.0	104.5	101.9	17.6	34.8	17.6	29.6	59.9	94.1	66.2	83.4	71.3	83.4

Electrical Data

Model	Voltage Code	Voltage	Min/Max Voltage	Compressor			HWG Pump FLA	Ext Loop Pump FLA	Total Unit FLA	Min Circuit Amps	Max Fuse/ HACR
				QTY	RLA	LRA					
GSW036 Residential	G	208-230/60/1	197/254	1	15.0	73.0	0.4	4.0	19.4	23.2	35
	T	220-240/50/1	198/264	1	14.3	74.0	0.4	-	14.7	18.3	30
	S	380-420/50/3	342/462	1	5.4	35.0	0.4	-	5.8	7.2	15
GSW036 Commercial	G	208-230/60/1	197/254	1	15.0	73.0	-	-	15.0	18.8	30
	E	265/60/1	239/292	1	14.3	71.0	-	-	14.3	17.9	30
	H	208-230/60/3	197/254	1	10.7	63.0	-	-	10.7	13.4	20
	F	460/60/3	414/506	1	5.0	310	-	-	5.0	6.3	15
	T	220-240/50/1	198/264	1	14.3	74.0	-	-	14.3	17.9	30
	S	380-420/50/3	342/462	1	5.4	35.0	-	-	5.4	6.8	15
GSW060 Residential	G	208-230/60/1	197/254	1	28.0	169.0	0.4	4.0	32.4	39.4	60
	S	380-420/50/3	342/462	1	8.2	61.8	0.4	-	8.5	10.6	15
GSW060 Commercial	G	208-230/60/1	197/254	1	28.0	169.0	-	-	28.0	35.0	60
	H	208-230/60/3	197/254	1	19.3	123.0	-	-	19.3	24.1	40
	F	460/60/3	414/506	1	7.5	49.5	-	-	7.5	9.4	15
	N	575/60/3	518/633	1	6.4	40.0	-	-	6.4	8.0	15
	S	380-420/50/3	342/462	1	8.2	61.8	-	-	8.2	10.3	15
GSW120 Commercial	G	208-230/60/1	197/254	2	28.0	169.0	-	-	56.0	63.0	90
	H	208-230/60/3	197/254	2	19.3	123.0	-	-	38.6	43.4	60
	F	460/60/3	414/506	2	7.5	49.5	-	-	15.0	16.9	20
	N	575/60/3	518/633	2	6.4	40.0	-	-	12.8	14.4	20
	S	380-420/50/3	342/462	2	8.2	61.8	-	-	16.4	18.5	25

HACR circuit breaker in USA only
Residential units come standard with 75VA transformer, HWG pump, and HWG connections

GSW036 & GSW060 Electrical Wiring Diagram - 96B0048N01



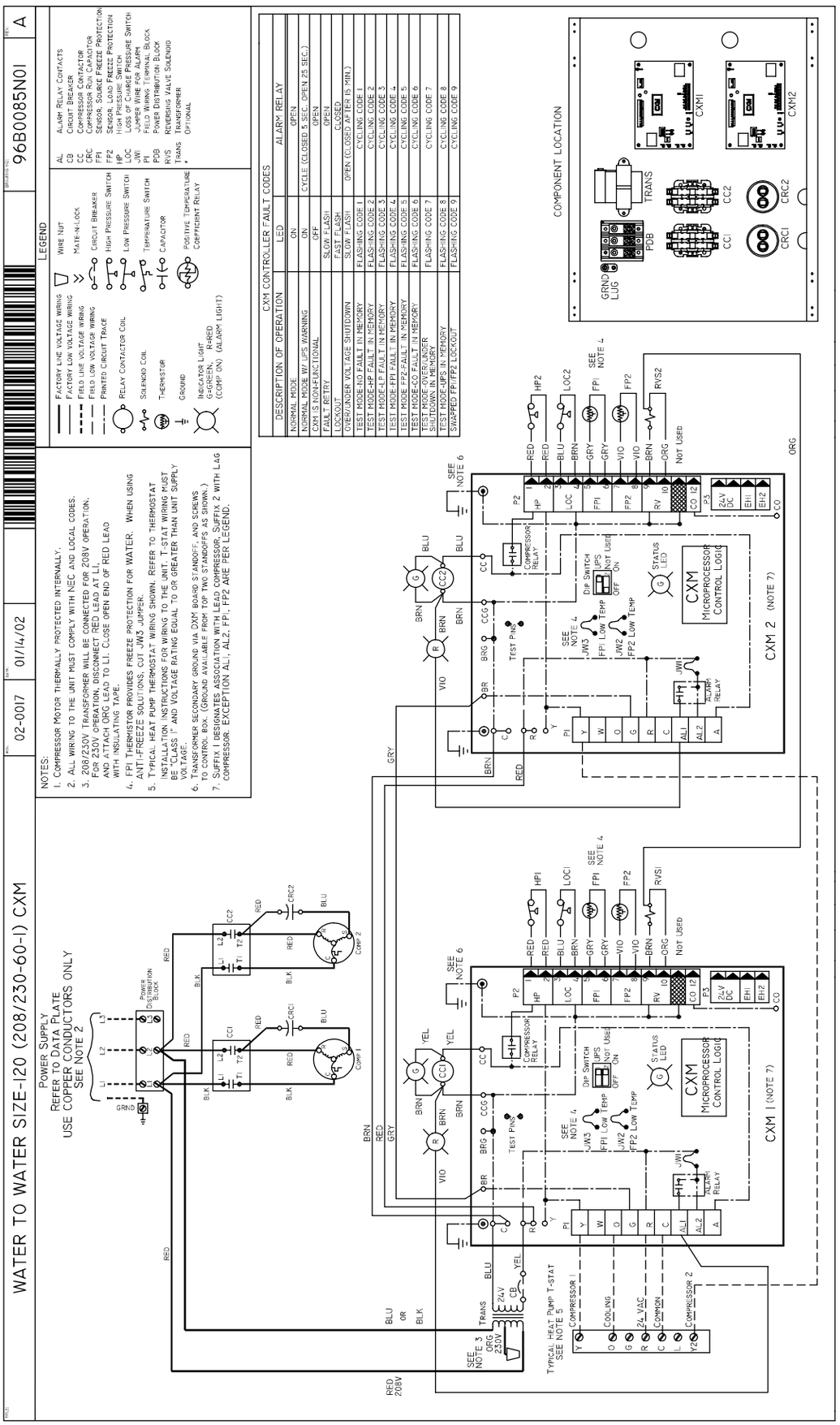
Legend

- Field line voltage wiring
- Field low voltage wiring
- Printed Circuit Trace
- Relay / Contactor Coil
- Solenoid Coil
- Thermistor
- Ground
- Wire Nut
- LED

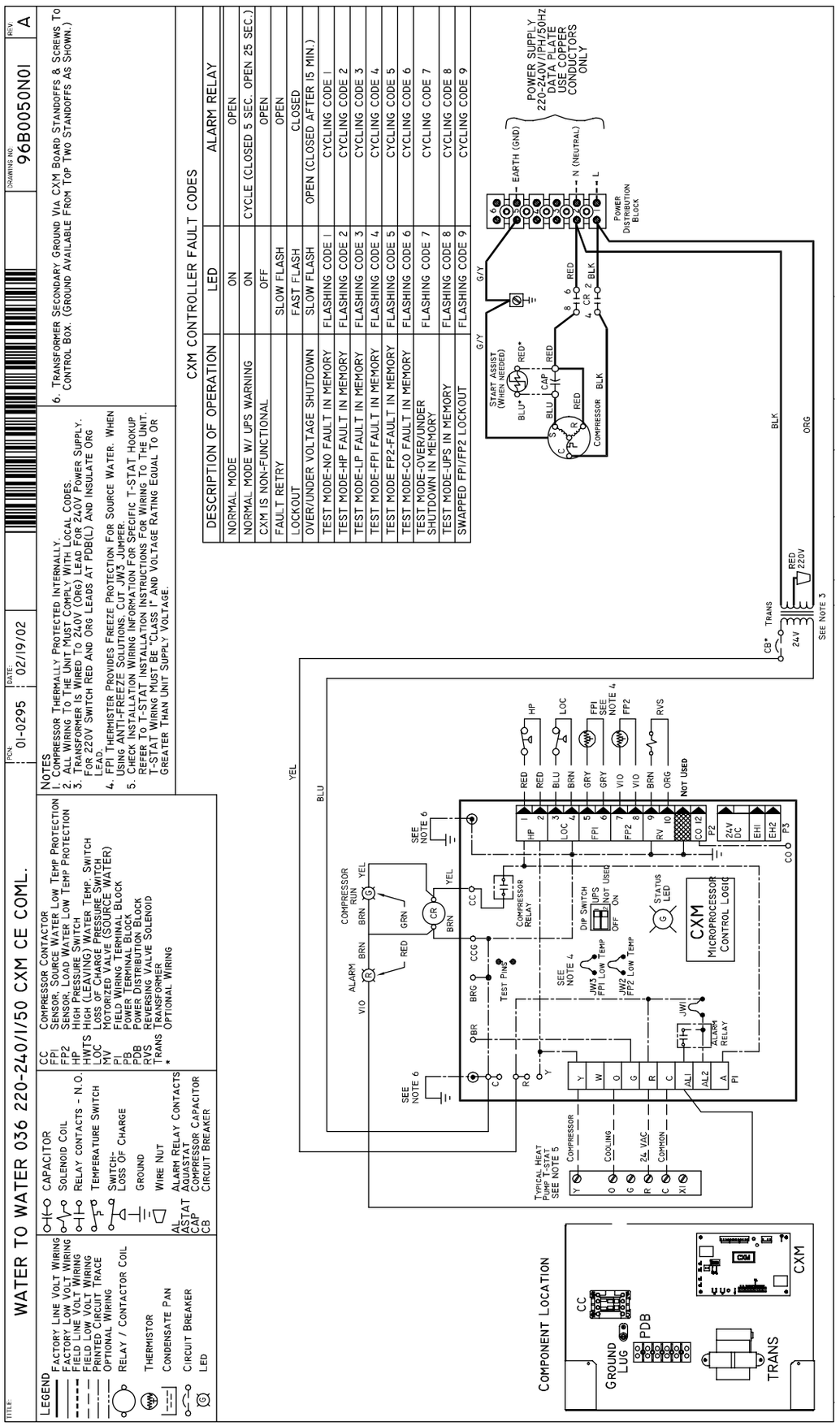
AL	Alarm Relay Contacts
Cap	Compressor Capacitor
CB	Circuit Breaker
CC	Compressor Contactor
FP1	Sensor, Outdoor Water Coil Freeze Protection
FP2	Sensor, Indoor Water Coil Freeze Protection
HP	High Pressure Switch
JW1	Jumper, Alarm
LED	Light Emitting Diode
LOC	Loss of Charge Pressure Switch
P1	Field Wiring Terminal Block
RVS	Reversing Valve Solenoid
Tfrmr	Transformer

NOTES:
1. Compressor Motor thermally protected internally.
2. All wiring to the unit must comply with NEC and local codes.
3. Transformer is wired to 265V (BRN) Lead for 265/1/60 units, 230V (ORG) Lead for 220-240/1/50, or 208V (RED) Lead for 208/1/60 For 230/1/60 switch RED & ORG Leads at L1 and insulate RED Lead. Transformer is energy limiting or may have circuit breaker.
4. FP1 Thermistor provides freeze protection for SOURCE water. When using ANTI-FREEZE solutions, cut JW3 jumper.
5. Typical heat pump thermostat wiring shown. Refer to thermostat Installation Instructions for wiring to the unit. T-stat wiring must be "Class 1" and Voltage rating equal to or greater than unit supply voltage.
6. Transformer secondary ground via CXM board standoffs & screws to Control Box. (Ground available from top two standoffs as shown.)

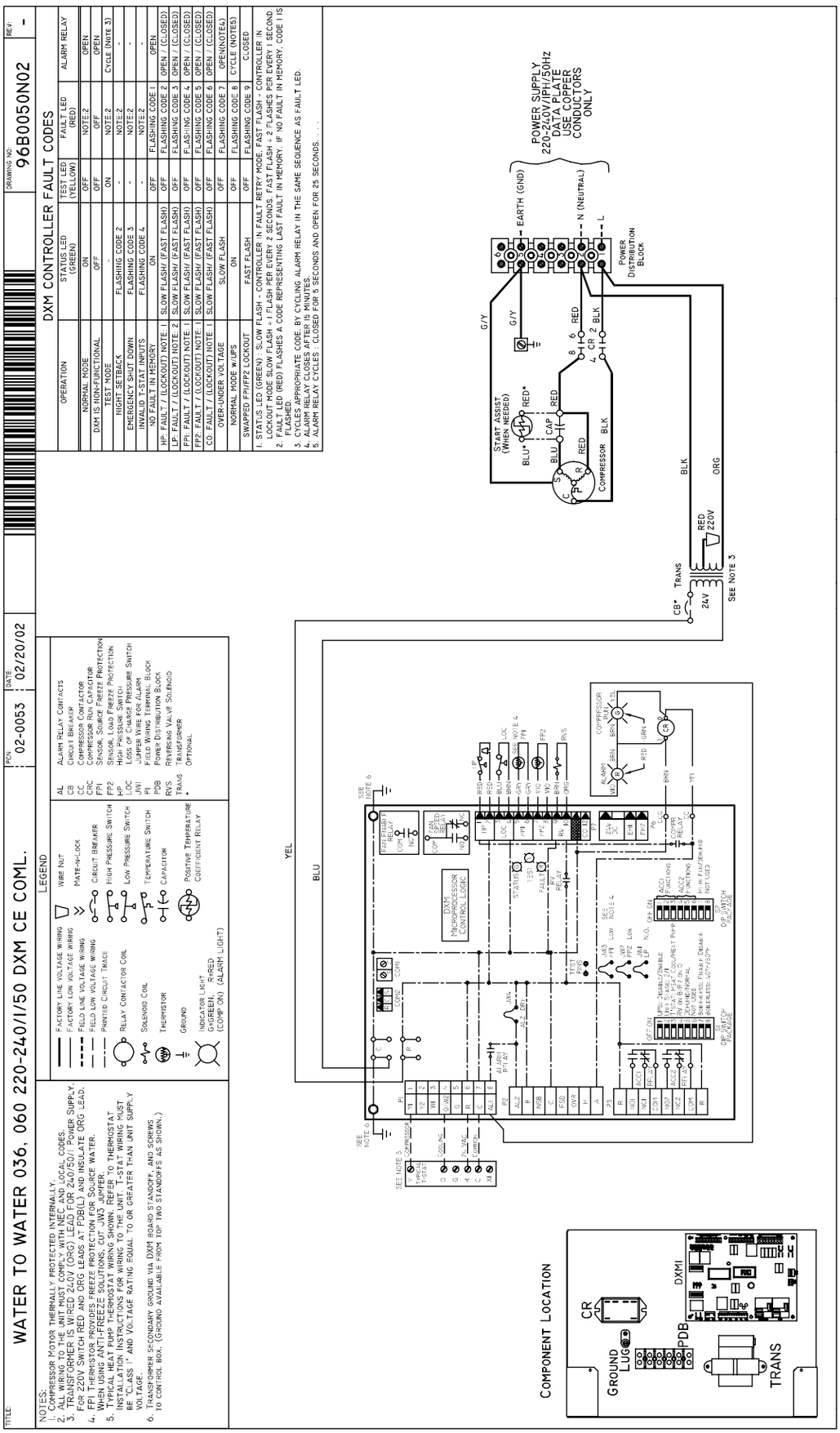
GSW120 Electrical Wiring Diagram - 96B0085N01



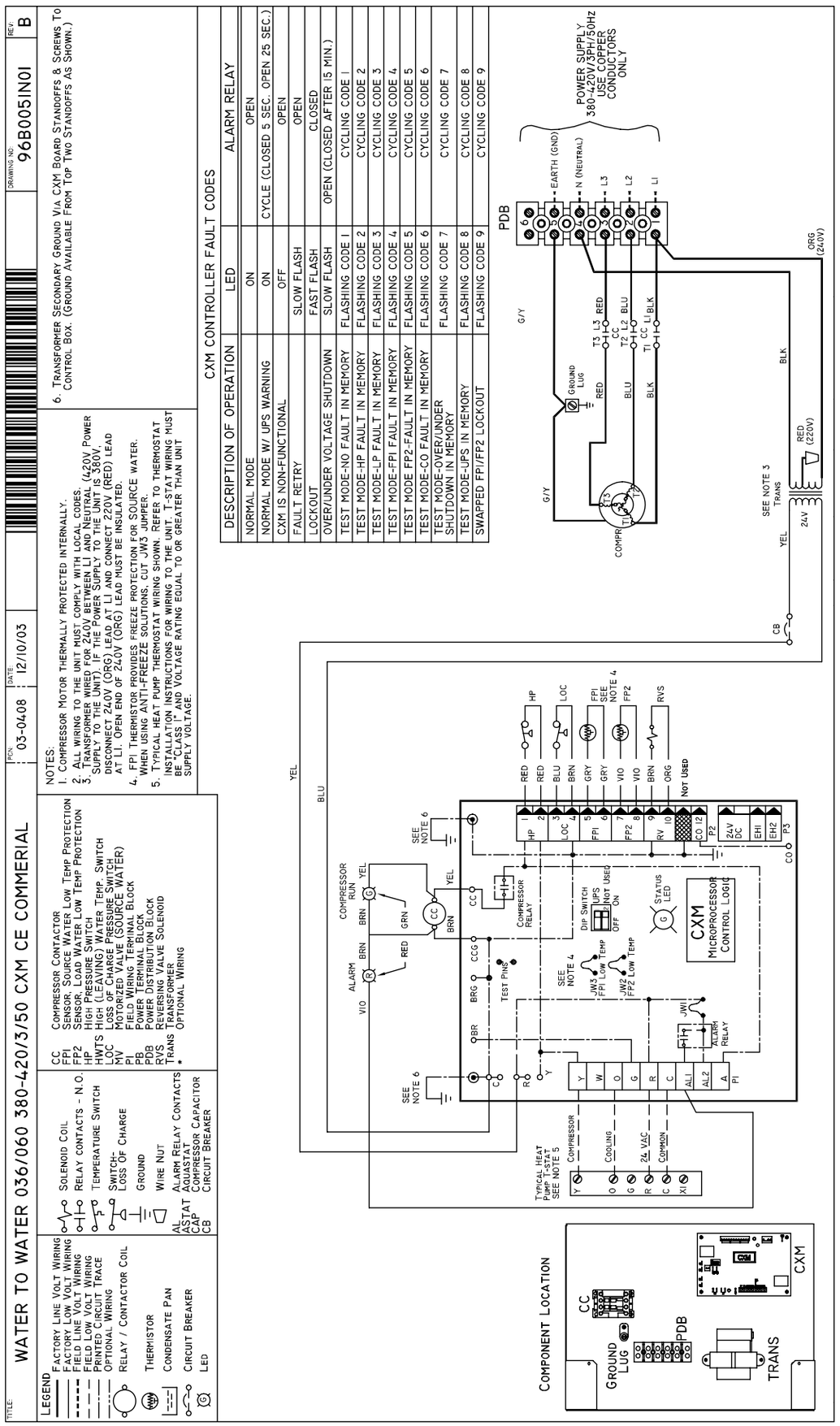
GSW036 & GSW060 Electrical Wiring Diagram - 220-240/50/1
CXM CE Mark - 96B0050N01



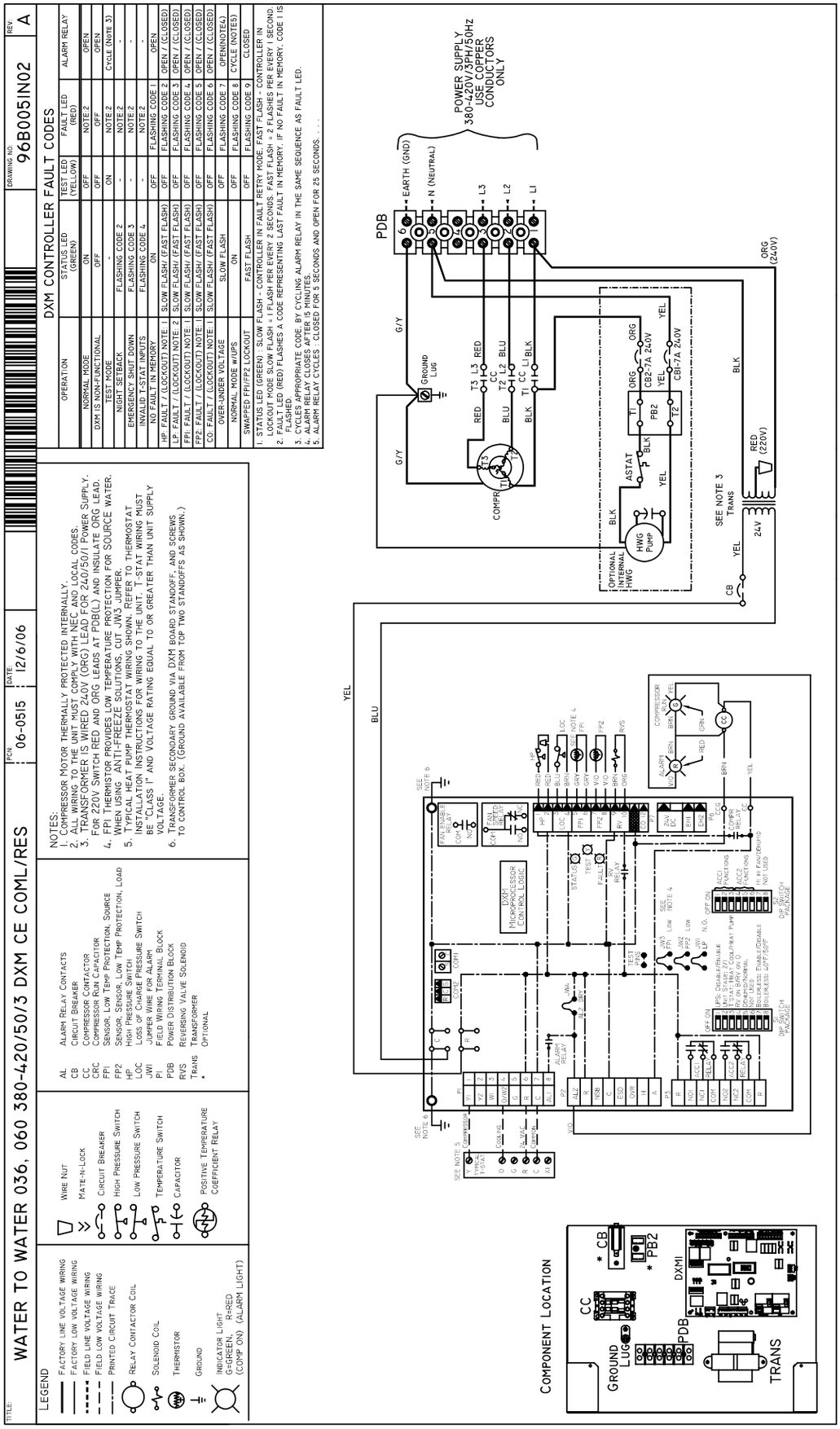
GSW036 & GSW060 Electrical Wiring Diagram - 220-240/50/1
DXM CE Mark - 96B0050N02



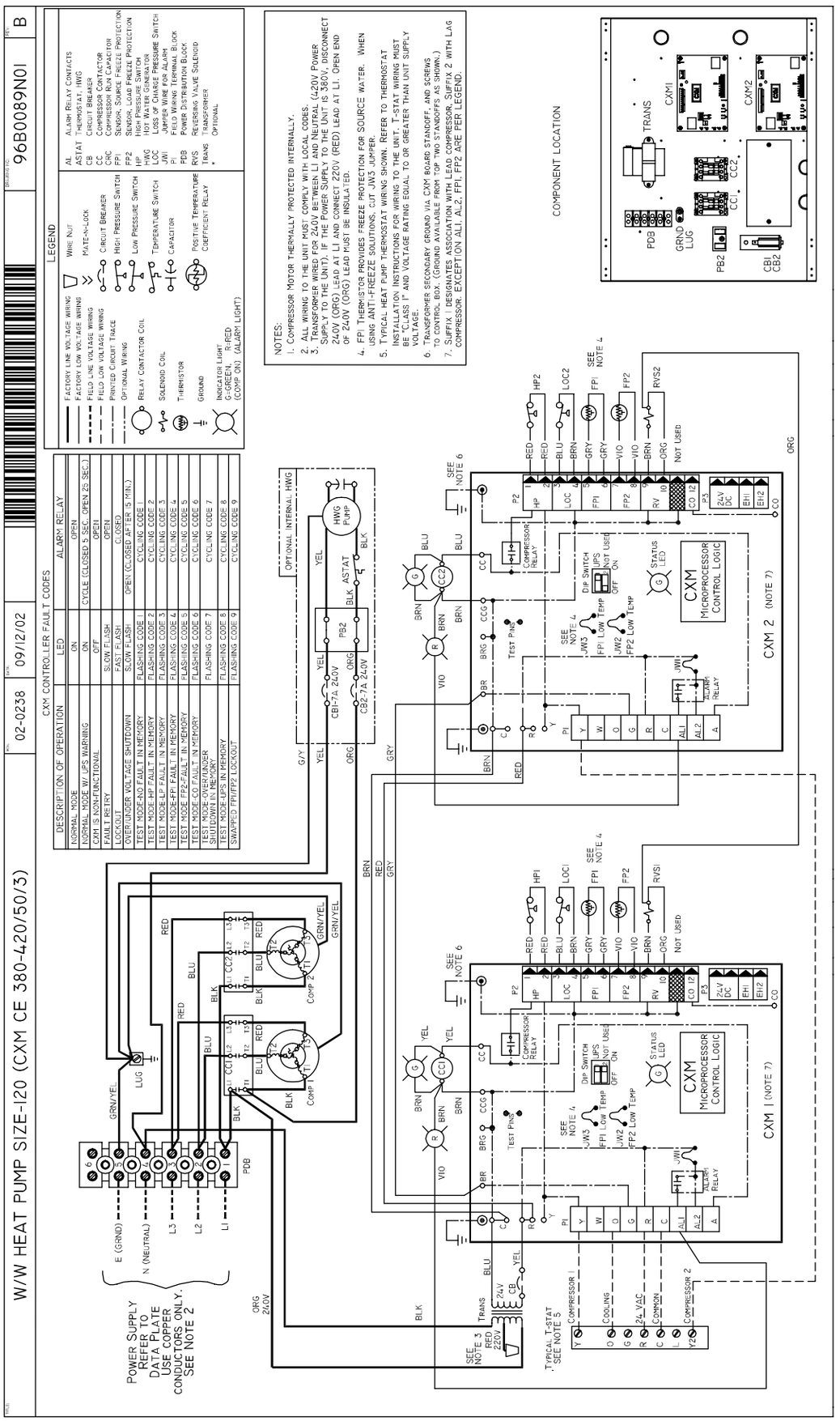
GSW036 & GSW060 Electrical Wiring Diagram - 380-420/50/3
CXM CE Mark - 96B0051N01



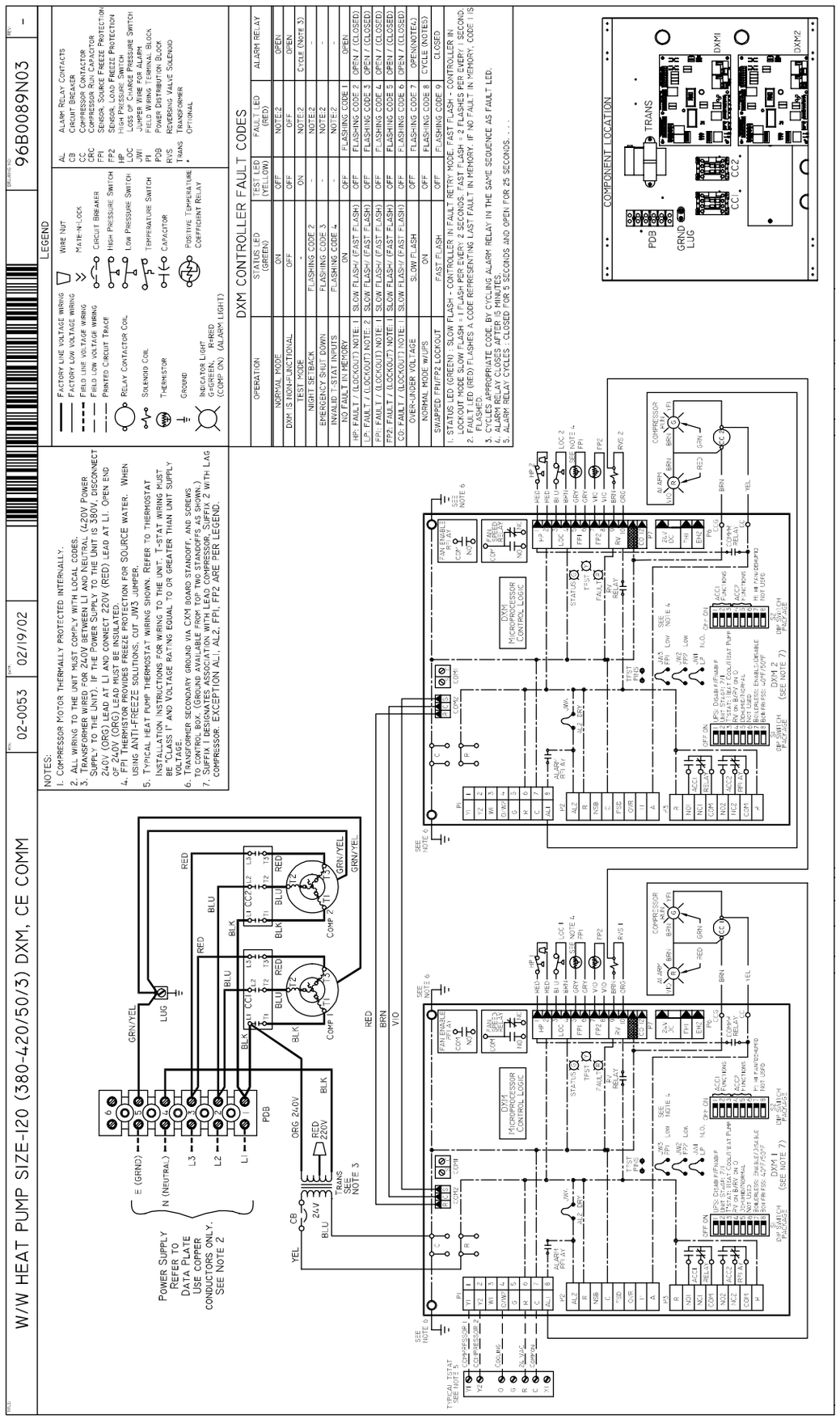
GSW036 & GSW060 Electrical Wiring Diagram - 380-420/50/3 DXM CE Mark - 96B0051N02



GSW120 Electrical Wiring Diagram - 380-420/50/3
CXM CE Mark - 96B0089N01



GSW120 Electrical Wiring Diagram - 380-420/50/3
DXM CE Mark - 96B0089N03



Engineering Guide Specifications

General
The water-to-water heating/cooling units shall be supplied completely factory built for an entering source water temperature range from 20° to 110°F [-6.7° to 43.3°C] and entering (heating) load water temperature range from 60° to 120°F [15.6° to 48.9°C] or entering (cooling) load water temperature range of 50° to 90°F [10.0° to 32.2°C] as standard. All equipment listed in this section must be rated in accordance with American Air Conditioning and Refrigeration Institute / International Standards Organization (ARI / ISO) and Canadian Standards Association (CSA-US). The units shall have ARI / ISO and CSA-US labels.

All units shall be fully quality tested by factory run testing under normal operating conditions and water flow rates as described herein. Quality control system shall automatically perform via computer: triple leak check, pressure tests, evacuate and accurately charge system, perform detailed heating and cooling mode tests, and quality cross check all operational and test conditions to pass/fail data base. Detailed report card will ship with each unit displaying all test performance data. Note: If unit fails on any cross check, system shall not be allowed unit to ship. Serial numbers will be recorded by factory and furnished to contractor on report card for ease of unit warranty status. Each unit shall be pallet mounted and shipped in clear shrink wrap for visual shipping damage inspection.

The units shall be warranted by the manufacturer against defects in materials and workmanship for a period of five years on all parts, and ten years on the compressor and refrigerant circuit parts with a service labor allowance during the first 30 days. An optional extended warranty is available for the Genesis™ Series units, which adds a labor allowance and trip charge. Furnish and install ClimateMaster "Genesis" Water Source Heat Pumps, as indicated on the plans. Equipment shall be completely assembled, piped and internally wired. Capacities and characteristics as listed in the schedule and the specifications that follow.

Casing and Cabinet
All units must have a minimum of three access panels for serviceability of compressor compartment. The heat pumps shall be fabricated from heavy gauge galvanized steel with powder coat paint finish. The color will be Polar Ice. Both sides of the steel shall be painted for added protection. All interior surfaces shall be lined with 1/2 inch [12.7mm] thick, dual density, acoustic type glass fiber insulation. Insulation placement shall be designed in a manner that will eliminate any exposed edges.

Cabinets shall have separate holes and knockouts for entrance of line voltage and low voltage control wiring. All factory-installed wiring passing through factory knockouts and openings shall be protected from sheet metal edges at openings by plastic ferrules.

Unit(s) shall have exterior indicator lights showing, 1) compressor operation (on/off) and 2) unit "fault" status. Contractor shall be responsible for providing control circuitry and indicator lights for units not providing this feature.

Refrigerant Circuit
Units shall have a sealed refrigerant circuit including a high efficiency scroll compressor designed for heat pump operation, a thermostatic expansion valve for refrigerant metering, a reversing valve, coaxial (tube in tube) refrigerant to water heat exchangers, and safety controls including a high pressure switch, low pressure switch (loss of charge), and low water temperature sensors. Access fittings shall be factory installed on high and low pressure refrigerant lines to facilitate field service. GSW120 units shall have 2 independent refrigeration circuits. Activation of any safety device shall prevent compressor operation via a microprocessor lockout circuit.

Hermetic compressors shall be internally sprung. The compressor(s) shall have a dual level vibration isolation system. The compressor(s) will be mounted on computer selected vibration isolation springs to a large heavy gauge compressor mounting tray plate, which is then isolated from the cabinet base with rubber grommets for maximized vibration attenuation. Compressor shall have thermal overload protection. Refrigerant to water heat exchangers shall be of copper inner water tube and steel refrigerant outer tube design, rated to withstand 450 PSIG [3101 kPa] working refrigerant pressure and 450 PSIG [3101 kPa] working water pressure. Plate to plate heat exchangers are not acceptable.

Refrigerant metering shall be accomplished by thermostatic expansion valve only. Expansion valves shall be dual port balanced types with external equalizer for optimum refrigerant metering. Units shall be designed and tested for operating ranges of entering water temperatures from 20° to 110°F [-6.7° to 43.3°C]. Reversing valve shall be four-way solenoid activated refrigerant valve, which shall default to heating mode should the solenoid fail to function.

Electrical
CXM Control - A microprocessor-based compressor controller (CXM) shall be provided to monitor and control unit operation. The control shall provide compressor sequencing (GSW120), high and low pressure monitoring, field selectable water coil low temperature sensing, over/under voltage monitoring, and unit performance sentinel (UPS). The control shall also provide for water valve connection, a test mode, short cycle protection, random start-up, as well as fault LED, fault memory, and intelligent fault retry.

The control shall employ quick attach harness assemblies for low voltage connections to the control board to aid in troubleshooting or replacement. An integral terminal block with screw terminals shall be provided on the control for all field low voltage connections. A circuit breaker protected 75VA transformer (50VA for commercial units) shall be employed. Line voltage box lugs shall be provided for unit wiring. Units shall have knockouts for entrance of low and line voltage wiring. The fan motor and control box shall be harness plug-connected for easy removal.

Accessories & Warranty

Piping
For GSW036 and GSW060, supply and return water connections (and optional HWG connections) shall be of gasketed brass swivel union type and provide a working pressure rating to 450 psi [3101 kPa]. For GSW120 units, copper threaded fittings are mechanically fastened to the cabinet, eliminating the need to use a back-up wrench when making field piping connections. The threaded copper adaptors shall be low-temperature soldered to prevent misshaping or weakening of the fitting, eliminating potential start-up piping leaks. All water piping shall be insulated to prevent condensation at low liquid temperatures.

Accessories & Options

Hot Water Generator
An optional heat reclaiming desuperheater coil of vented double-wall copper construction suitable for potable water shall be provided. The coil and hot water circulating pump shall be factory mounted inside the unit. A high limit and low compressor discharge line temperature switch shall be provided to disable the pump when these conditions occur.

Cupro-Nickel Heat Exchanger
An optional corrosion resistant CuNi coaxial heat exchanger shall be factory installed in lieu of standard copper construction.

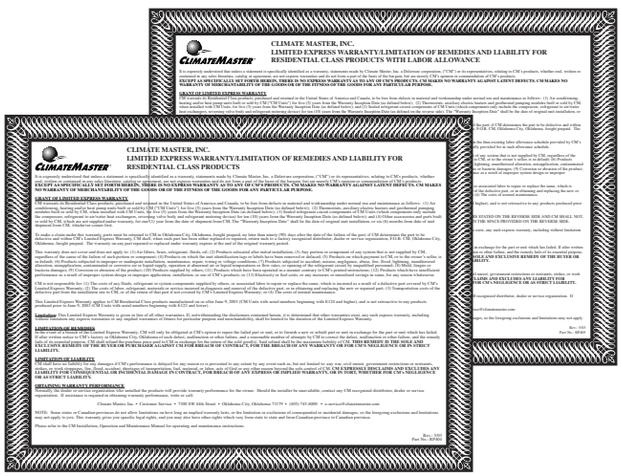
Double-Walled Load Heat Exchanger
An optional double-walled load side heat exchanger shall be factory installed when unit is dedicated to providing domestic hot water.

Flow Controller (field installed)
A self-contained module shall provide all fluid pumping, fill and connection requirements for ground-source closed-loop systems up to 20 GPM. The Flow Controller shall provide 1" pump isolation valves and 3-way service valves. Pump heads shall be removable from the volute for easy replacement. The Flow Controller shall be enclosed in a polystyrene case and fully insulated with urethane foam to prevent condensation. The Flow Controller shall have a 5-year warranty on all parts.

Hose Connection Kit (field installed)
An accessory hose kit shall provide 150psi 1" rubber hose with brass fittings equipped with service pressure/temperature ports for connection between the unit and Flow Controller.

Warranty Information

The ClimateMaster residential warranty reflects the reliability built in to every unit and includes five years on all parts, and ten years on the compressor and refrigerant circuit parts with a service labor allowance during the first 30 days. An optional extended warranty is available for residential units, which adds a labor allowance and trip charge. See extended warranty certificate for details.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LIMITED EXPRESS WARRANTY/LIMITATION OF REMEDIES AND LIABILITY FOR RESIDENTIAL CLASS PRODUCTS

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