

GW

Water-to-Water Geothermal Heat Pump

Sizes 024, 036, 048, 060, 120



Turn to the experts

Product Data



Features & Benefits

Energy Efficiency

- 3.15 COP, 16.0 - 22.1 EER (Closed Loop)
- 3.7 COP, 20.55 - 26.30 EER (Open Loop)
- Optional supplemental domestic water heating

Comfort

- Two-stage scroll compressor

Control

- Microprocessor control

Sound

- Fully insulated cabinet with fiberglass
- Compressor blanket

Reliability, Quality and Durability

- Puron® refrigerant
- Computerized run-tested

Flexibility and Installation

- Unit designed for variety of hydronic applications

Model Number Nomenclature

Position>>>	1-2	3-5	6	7	8	9	10	11	12	13	14	15	16	
	GW	036	W	X	X	D	D	X	X	1	X	X	1	
Model														Revision Level
GW														2 = Original vintage
														Future Use
														Future Use
Size														Voltage
024, 036, 048, 060, 120														1 = 208-230/60/1
Cabinet Configuration														Air Coil Coating
W = Water-to-Water														X = No Air Coil
Discharge Air Configuration														Fan/Motor Options
X = None														X = None
Return Air Configuration														Hot Water Option
X = None														D = with Desuperheater X = without Desuperheater
														Coax Options
														D = Copper (source & load) G = Cupronickel (source), Copper (load)



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.



Accessories

Factory Installed Options

- **Cupro-nickel Coil** - Recommended in conditions anticipating moderate scale formation or in brackish water (available on load and source side).
- **Domestic Hot Water Heat Recovery Package** - Used to heat domestic hot water using the wasted heat from the hot compressed gas of the compressor.

Field Installed Accessories

- **Thermostats** - Compatible with many 2 stage heat, 2 stage cool
- heat pump thermostats
- **Flow Centers, hose kits, mounting pads, etc** - see Geothermal accessories catalog.

AHRI Ratings

FULL LOAD													
Model Size	GPM	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
		Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 77°F		Heating 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
024	8	22200	14.45	29700	4.55	25400	22.10	23800	3.70	23400	16.90	18700	3.05
036	9	32500	13.80	44100	4.60	37200	21.30	35800	3.70	34100	16.10	28300	3.05
048	12	42700	14.40	55800	4.50	48500	22.10	46200	3.60	44800	16.70	37300	3.05
060	13	52000	13.90	67500	4.40	58500	21.00	55900	3.60	54400	16.20	45400	3.05
120	30	108400	13.80	148400	4.60	122900	20.55	120600	3.70	113800	16.00	95800	3.05
PART LOAD													
Model Size	GPM	Water Loop Heat Pump				Ground Water Heat Pump				Ground Loop Heat Pump			
		Cooling 86°F		Heating 68°F		Cooling 59°F		Heating 50°F		Cooling 68°F		Heating 41°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
024	8	16900	15.55	22200	4.85	19400	25.50	17600	3.70	18800	22.10	15300	3.15
036	9	23700	14.60	32500	4.90	27600	25.50	25500	3.70	26400	21.30	22100	3.15
048	12	31600	15.10	40800	4.60	36600	26.30	33500	3.60	35200	22.10	29800	3.15
060	13	38500	14.50	49600	4.50	44100	25.00	41100	3.60	42300	21.00	36700	3.15
120	30	80200	14.40	109900	4.80	90400	21.65	88300	3.70	87900	19.60	78500	3.15

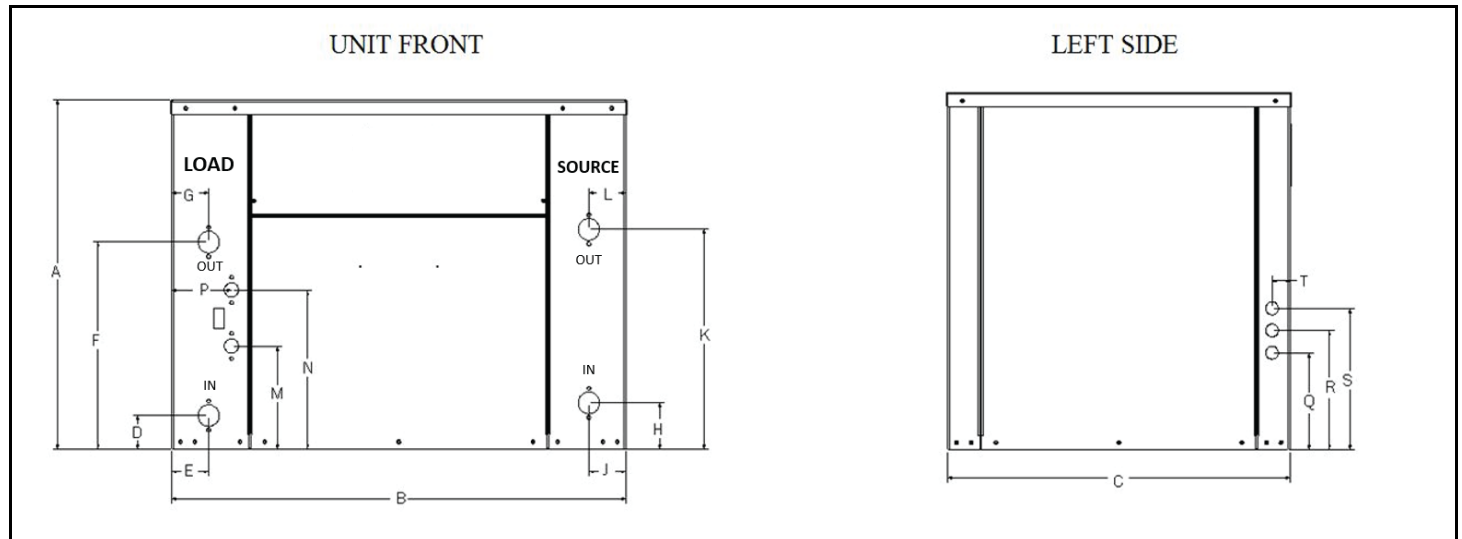
NOTE: Ratings contained in this document are subject to change at any time. Always refer to the AHRI directory (www.ahridirectory.org) for the most up-to-date ratings information.

Physical Data

Description	GW024	GW036	GW048	GW060	GW120
Compressor Type (Qty)	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (2)
Refrigeration Charge (oz)	54	59	72	72	162
Refrigerant Metering Device	Bi-directional thermal expansion valve (TXV)				
Max Water Working Pressure (PSIG/kPa)	450/3100	450/3100	450/3100	450/3100	450/3100
Load - Water Connection Size					
FPT	3/4"	3/4"	1.0"	1.0"	1-1/4"
Coaxial Coil Volume (gal)	0.47	0.50	0.64	0.74	2.06
Source - Water Connection Size					
FPT	3/4"	3/4"	1.0"	1.0"	1-1/4"
Coaxial Coil Volume (gal)	0.47	0.50	0.39	0.47	2.06
Cabinet					
Weight - Operating (lbs)	290	360	360	360	700
Weight - Shipping (lbs)	310	310	360	380	720

Electrical data

Model Size	Rated Voltage	Voltage Min/Max	Compressor					
			QTY	RLA	LRA	Min Circuit Amps	MOP Calculation	Max Fuse/HACR
024	208-230/60/1	197/253	1	11.7	58.3	14.6	26.2	25
036	208-230/60/1	197/253	1	15.6	83.0	19.5	35.1	35
048	208-230/60/1	197/253	1	21.2	104.0	26.4	47.6	45
060	208-230/60/1	197/253	1	26.9	139.0	33.6	60.5	60
120	208-230/60/1	197/253	2	26.9	139.0	60.5	87.4	80

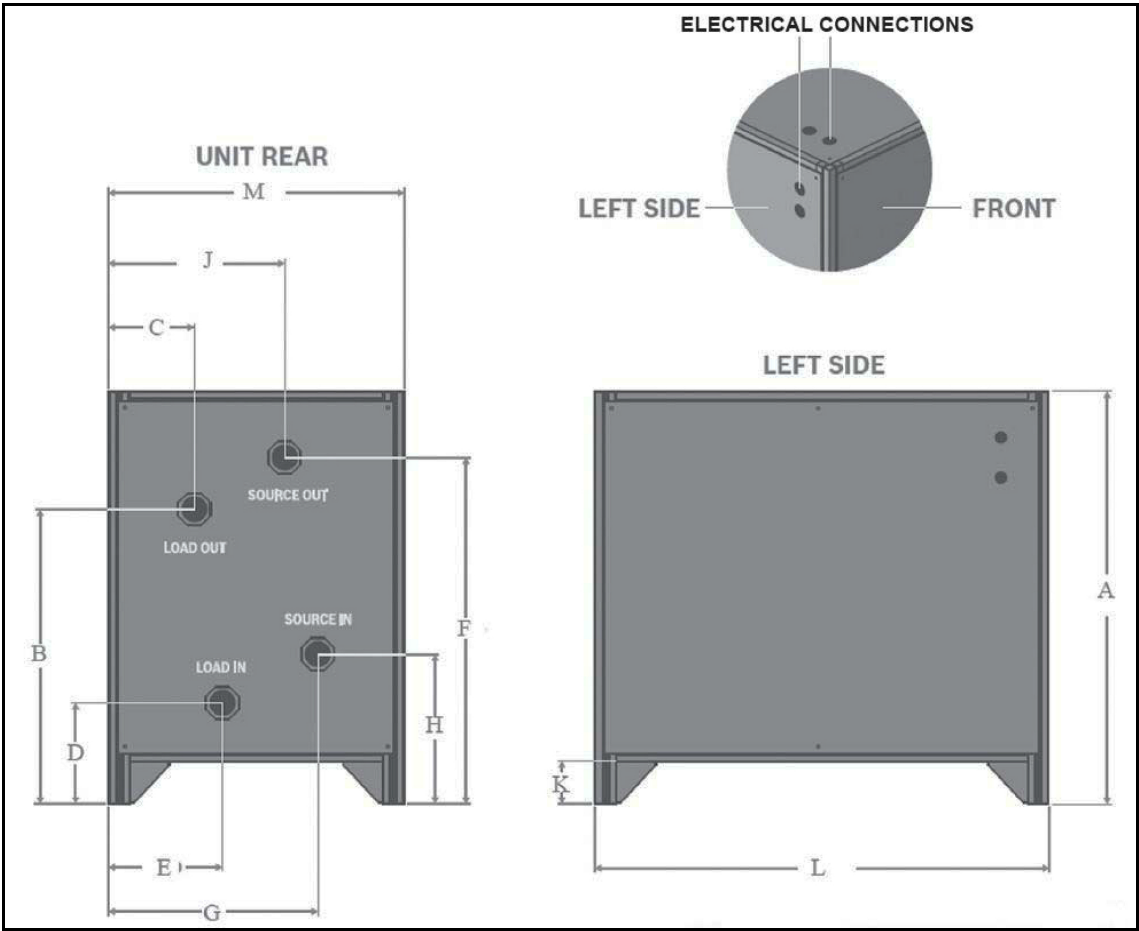
DIMENSIONS

MODEL SIZE	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	WATER CONN	HRP CONN
	Height	Width	Depth																	
024	24	32.5	24	2.70	2.50	13.70	2.50	3.25	1.95	14.25	1.95	7.15	11.0 0	4.25	6.55	8.05	9.55	1.25	3/4 FPT	1/2 FPT
036	24	32.5	24	2.30	2.55	14.30	2.65	3.80	2.67	15.80	2.67	7.24	11.1 2	4.31	5.80	8.05	10.3	1.25	3/4 FPT	1/2 FPT
048	24	32.5	24	2.90	2.19	16.90	2.19	3.10	2.17	17.10	2.17	7.24	11.1 2	4.31	5.80	8.05	10.3	1.25	1 FPT	1/2 FPT
060	24	32.5	24	2.90	2.19	16.90	2.19	3.10	2.17	17.10	2.17	7.24	11.1 2	4.31	5.80	8.05	10.3	1.25	1 FPT	1/2 FPT

NOTES: All dimensions within +/- 0.125"

Specifications subject to change without notice.

DIMENSIONS cont.



MODEL SIZE	A	B	C	D	E	F	G	H	J	K	L	M	WATER CONN.
120	37.75	27.25	8.13	8.00	10.53	32.75	20.13	13.50	17.63	3.75	46.00	28.00	1-1/4" PPT

NOTES: All dimensions within +/- 0.125"
Specifications subject to change without notice.

GW024 Heating Performance - PART LOAD cont.

SOURCE			LOAD 4 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4	0.5	60						
			80	13.0	1.00	10.4	86.5	3.8	0.4
			100	12.0	1.30	8.8	106.0	2.7	0.3
			120	11.0	1.64	7.1	125.6	2.0	0.3
	6	1.0	60						
			80	13.5	1.01	10.8	86.8	3.9	0.4
			100	12.4	1.30	9.1	106.2	2.8	0.3
			120	11.3	1.65	7.4	125.7	2.0	0.3
	8	1.6	60						
			80	13.7	1.02	11.0	86.9	3.9	0.4
			100	12.6	1.31	9.3	106.3	2.8	0.3
			120	11.5	1.66	7.5	125.8	2.0	0.3
50	4	0.4	60						
			80	17.7	0.98	15.0	88.9	5.3	0.4
			100	16.5	1.28	13.1	108.3	3.8	0.3
			120	15.4	1.65	11.2	127.8	2.7	0.3
	6	0.9	60						
			80	18.4	0.99	15.7	89.2	5.5	0.4
			100	17.1	1.28	13.7	108.6	3.9	0.3
			120	15.9	1.65	11.6	128.0	2.8	0.3
	8	1.5	60						
			80	18.8	0.99	16.1	89.4	5.5	0.4
			100	17.4	1.29	14.0	108.8	4.0	0.3
			120	16.1	1.66	11.8	128.2	2.8	0.3
70	4	0.4	60	24.3	0.71	22.3	72.1	10.1	0.4
			80	22.8	0.93	20.2	91.4	7.2	0.4
			100	21.3	1.24	18.0	110.7	5.0	0.3
			120						
	6	0.8	60	25.5	0.70	23.5	72.7	10.6	0.4
			80	23.8	0.93	21.2	91.9	7.5	0.4
			100						
			120						
	8	1.4	60	26.2	0.70	24.2	73.1	10.9	0.4
			80	24.3	0.93	21.7	92.2	7.6	0.4
			100						
			120						
90	4	0.4	60						
			80						
			100						
			120						
	6	0.8	60						
			80						
			100						
			120						
	8	1.3	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW024 Heating Performance - PART LOAD cont.

SOURCE			LOAD 6 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4	0.5	60						
			80						
			100						
			120	13.1	0.98	10.5	84.4	3.9	0.8
	6	1.0	60	13.6	0.99	11.0	84.5	4.0	0.8
			80	13.9	1.00	11.2	84.6	4.1	0.8
			100	12.1	1.28	8.9	104.1	2.8	0.7
			120	12.5	1.28	9.3	104.2	2.9	0.7
	8	1.6	60	12.7	1.29	9.4	104.3	2.9	0.7
			80	11.1	1.62	7.2	123.7	2.0	0.7
			100	11.4	1.63	7.5	123.8	2.1	0.7
			120	11.6	1.64	7.6	123.9	2.1	0.7
50	4	0.4	60						
			80						
			100						
			120	17.8	0.95	15.3	86.0	5.5	0.8
	6	0.9	60	18.6	0.95	16.0	86.2	5.7	0.8
			80	19.0	0.96	16.4	86.4	5.8	0.8
			100	16.6	1.25	13.4	105.6	3.9	0.7
			120	17.2	1.25	13.9	105.8	4.0	0.7
	8	1.5	60	17.6	1.26	14.2	105.9	4.1	0.7
			80	15.5	1.62	11.4	125.2	2.8	0.7
			100	16.0	1.62	11.8	125.4	2.9	0.7
			120	16.3	1.62	12.1	125.5	2.9	0.7
70	4	0.4	60	24.6	0.67	22.7	68.2	10.7	0.8
			80	25.9	0.67	24.0	68.6	11.4	0.8
			100	26.6	0.67	24.7	68.9	11.7	0.8
			120	23.1	0.89	20.6	87.7	7.6	0.8
	6	0.8	60	24.1	0.88	21.7	88.1	8.0	0.8
			80						
			100						
			120						
	8	1.4	60						
			80						
			100						
			120						
90	4	0.4	60						
			80						
			100						
			120						
	6	0.8	60						
			80						
			100						
			120						
	8	1.3	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW024 Heating Performance - PART LOAD cont.

SOURCE			LOAD 8 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4	0.5	60						
			80						
			100						
			120	13.2	0.98	10.6	83.3	4.0	1.3
	6	1.0	60	13.7	0.98	11.1	83.4	4.1	1.3
			80	13.9	0.99	11.3	83.5	4.1	1.3
			100	12.1	1.27	9.0	103.1	2.8	1.3
			120	12.5	1.28	9.3	103.2	2.9	1.3
	8	1.6	60	12.8	1.28	9.5	103.2	2.9	1.3
			80	11.2	1.62	7.3	122.8	2.0	1.2
			100	11.5	1.62	7.5	122.9	2.1	1.2
			120	11.6	1.63	7.7	122.9	2.1	1.2
50	4	0.4	60						
			80						
			100						
			120	18.0	0.94	15.4	84.5	5.6	1.3
	6	0.9	60	18.7	0.94	16.1	84.7	5.8	1.3
			80	19.1	0.95	16.5	84.8	5.9	1.3
			100	16.7	1.24	13.5	104.2	4.0	1.3
			120	17.3	1.24	14.1	104.4	4.1	1.3
	8	1.5	60	17.7	1.24	14.4	104.5	4.2	1.3
			80	15.6	1.60	11.5	123.9	2.9	1.2
			100	16.1	1.60	11.9	124.1	2.9	1.2
			120	16.4	1.61	12.2	124.1	3.0	1.2
70	4	0.4	60						
			80						
			100						
			120	23.3	0.88	20.8	85.8	7.8	1.3
	6	0.8	60	24.3	0.87	21.9	86.1	8.2	1.3
			80						
			100						
			120	21.7	1.17	18.5	105.5	5.4	1.3
	8	1.4	60	22.5	1.17	19.4	105.7	5.7	1.3
			80	23.0	1.17	19.8	105.8	5.8	1.3
			80	20.2	1.56	16.1	125.1	3.8	1.2
			100						
			120						
			120						
90	4	0.4	60						
			80						
			100						
			120						
	6	0.8	60						
			80						
			100						
			120						
	8	1.3	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW024 Heating Performance - FULL LOAD

SOURCE			LOAD						
			4 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4	0.5	60						
			80	18.0	1.32	14.3	89.0	4.0	0.4
			100	17.1	1.66	12.6	108.6	3.0	0.3
			120	16.3	2.12	10.8	128.3	2.3	0.3
	6	1.0	60						
			80	18.8	1.34	15.0	89.4	4.1	0.4
			100	17.7	1.67	13.2	108.9	3.1	0.3
			120	16.9	2.13	11.2	128.5	2.3	0.3
	8	1.6	60						
			80	19.2	1.35	15.4	89.7	4.2	0.4
			100	18.1	1.69	13.5	109.1	3.1	0.3
			120	17.1	2.15	11.4	128.7	2.3	0.3
50	4	0.4	60	24.0	1.12	20.7	72.0	6.3	0.4
			80	23.3	1.39	19.3	91.7	4.9	0.4
			100	22.2	1.73	17.4	111.2	3.8	0.3
			120	21.3	2.20	15.3	130.8	2.8	0.3
	6	0.9	60	25.7	1.14	22.4	72.9	6.6	0.4
			80	24.5	1.41	20.4	92.3	5.1	0.4
			100	23.2	1.75	18.3	111.7	3.9	0.3
			120	22.1	2.22	16.0	131.2	2.9	0.3
	8	1.5	60	26.6	1.16	23.2	73.3	6.7	0.4
			80	25.2	1.43	21.1	92.6	5.2	0.4
			100	23.7	1.77	18.8	112.0	3.9	0.3
			120	22.5	2.23	16.4	131.4	3.0	0.3
70	4	0.4	60	29.9	1.18	26.4	75.0	7.4	0.4
			80	29.6	1.47	25.4	94.9	5.9	0.4
			100	28.3	1.81	23.2	114.3	4.6	0.3
			120	27.0	2.28	20.6	133.7	3.5	0.3
	6	0.8	60	32.8	1.22	29.2	76.4	7.9	0.4
			80	31.3	1.49	27.0	95.7	6.2	0.4
			100	29.6	1.83	24.4	114.9	4.7	0.3
			120						
	8	1.4	60	34.1	1.24	30.4	77.0	8.1	0.4
			80	32.2	1.51	27.9	96.2	6.3	0.4
			100						
			120						
90	4	0.4	60						
			80						
			100						
			120						
	6	0.8	60						
			80						
			100						
			120						
	8	1.3	60						
			80						
			100						
			120						

Notes::

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- 3 = Operation not recommended

GW024 Heating Performance - FULL LOAD cont.

SOURCE			LOAD 6 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4	0.5	60						
			80	18.1	1.29	14.5	86.1	4.1	0.8
			100	17.2	1.62	12.8	105.8	3.1	0.7
			120	16.4	2.08	10.9	125.5	2.3	0.7
	6	1.0	60						
			80	18.9	1.30	15.3	86.3	4.3	0.8
			100	17.8	1.63	13.4	106.0	3.2	0.7
			120	16.9	2.09	11.4	125.7	2.4	0.7
	8	1.6	60						
			80	19.4	1.32	15.7	86.5	4.3	0.8
			100	18.2	1.64	13.7	106.1	3.2	0.7
			120	17.2	2.10	11.6	125.8	2.4	0.7
50	4	0.4	60						
			80	23.4	1.35	19.6	87.8	5.1	0.8
			100	22.4	1.68	17.7	107.5	3.9	0.7
			120	21.4	2.14	15.5	127.2	2.9	0.7
	6	0.9	60						
			80	24.7	1.36	20.8	88.3	5.3	0.8
			100	23.4	1.69	18.7	107.9	4.1	0.7
			120	22.2	2.15	16.3	127.5	3.0	0.7
	8	1.5	60						
			80	25.5	1.38	21.5	88.5	5.4	0.8
			100	24.0	1.71	19.2	108.1	4.1	0.7
			120	22.7	2.16	16.7	127.7	3.1	0.7
70	4	0.4	60	30.4	1.12	27.1	70.1	7.9	0.8
			80	29.9	1.41	25.8	90.0	6.2	0.8
			100	28.5	1.74	23.6	109.6	4.8	0.7
			120	27.2	2.20	21.0	129.2	3.6	0.7
	6	0.8	60	33.8	1.16	30.4	71.3	8.6	0.8
			80	31.8	1.43	27.6	90.6	6.5	0.8
			100	30.0	1.75	25.0	110.1	5.0	0.7
			120						
	8	1.4	60	34.5	1.17	31.0	71.5	8.7	0.8
			80	32.7	1.44	28.5	91.0	6.7	0.8
			100	30.8	1.77	25.7	110.4	5.1	0.7
			120						
90	4	0.4	60						
			80						
			100						
			120						
	6	0.8	60						
			80						
			100						
			120						
	8	1.3	60						
			80						
			100						
			120						

Notes::

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- 3 = Operation not recommended

GW024 Heating Performance - FULL LOAD cont.

SOURCE			LOAD 8 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4	0.5	60						
			80	18.2	1.28	14.6	84.6	4.2	1.3
			100	17.2	1.61	12.9	104.3	3.2	1.3
			120	16.5	2.06	11.0	124.2	2.3	1.2
	6	1.0	60						
			80	19.1	1.29	15.4	84.8	4.3	1.3
			100	17.9	1.62	13.5	104.5	3.3	1.3
			120	17.0	2.07	11.5	124.3	2.4	1.2
	8	1.6	60						
			80	19.5	1.31	15.8	84.9	4.4	1.3
			100	18.3	1.63	13.8	104.6	3.3	1.3
			120	17.3	2.08	11.7	124.4	2.4	1.2
50	4	0.4	60						
			80	23.6	1.33	19.8	85.9	5.2	1.3
			100	22.5	1.66	17.8	105.7	4.0	1.3
			120	21.5	2.11	15.7	125.4	3.0	1.2
	6	0.9	60						
			80	24.9	1.34	21.0	86.2	5.4	1.3
			100	23.5	1.67	18.8	105.9	4.1	1.3
			120	22.3	2.12	16.4	125.6	3.1	1.2
	8	1.5	60						
			80	25.6	1.36	21.7	86.4	5.5	1.3
			100	24.1	1.68	19.4	106.1	4.2	1.3
			120	22.8	2.14	16.9	125.8	3.1	1.2
70	4	0.4	60						
			80	30.1	1.38	26.1	87.5	6.4	1.3
			100	28.7	1.71	23.8	107.2	4.9	1.3
			120	27.3	2.15	21.3	126.9	3.7	1.2
	6	0.8	60						
			80	32.0	1.40	27.9	88.0	6.7	1.3
			100	30.2	1.72	25.3	107.6	5.1	1.3
			120						
	8	1.4	60	34.7	1.14	31.3	68.7	8.9	1.4
			80	33.0	1.41	28.9	88.3	6.9	1.3
			100	31.0	1.74	26.1	107.8	5.2	1.3
			120						
90	4	0.4	60						
			80						
			100						
			120						
	6	0.8	60						
			80						
			100						
			120						
	8	1.3	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW024 Cooling Performance - PART LOAD

SOURCE			LOAD 4 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4	0.4	50						
			60						
			70						
			80						
			90						
	6	0.9	50						
			60						
			70						
			80						
			90						
	8	1.4	50						
			60						
			70						
			80						
			90						
70	4	0.4	50	14.1	0.80	16.3	43.0	17.6	0.4
			60	18.8	0.78	20.9	50.7	23.9	0.4
			70	21.7	0.77	23.8	59.2	28.4	0.4
			80						
			90						
	6	0.8	50	16.2	0.77	18.4	41.9	21.0	0.4
			60	19.0	0.75	21.1	50.5	25.2	0.4
			70	22.0	0.73	24.0	59.0	30.1	0.4
			80						
			90						
	8	1.3	50	16.4	0.77	18.5	41.9	21.4	0.4
			60	19.0	0.75	21.2	50.5	25.5	0.4
			70	22.1	0.72	24.2	58.9	30.8	0.4
			80						
			90						
90	4	0.4	50	14.5	1.09	17.4	42.8	13.4	0.4
			60	17.1	1.08	20.0	51.5	15.9	0.4
			70	19.8	1.06	22.7	60.1	18.7	0.4
			80						
			90						
	6	0.8	50	14.8	1.06	17.6	42.7	14.0	0.4
			60	17.3	1.04	20.2	51.4	16.7	0.4
			70	20.2	1.01	23.0	59.9	20.0	0.4
			80						
			90						
	8	1.3	50	14.9	1.05	17.7	42.6	14.2	0.4
			60	17.5	1.02	20.3	51.3	17.1	0.4
			70	20.4	1.00	23.1	59.8	20.5	0.4
			80						
			90						
110	4	0.3	50	12.7	1.40	16.4	43.7	9.1	0.4
			60	15.1	1.40	18.8	52.5	10.8	0.4
			70						
			80						
			90						
	6	0.7	50	12.9	1.37	16.5	43.6	9.4	0.4
			60	15.4	1.36	19.0	52.3	11.4	0.4
			70						
			80						
			90						
	8	1.2	50	13.0	1.36	16.6	43.5	9.6	0.4
			60	15.5	1.34	19.1	52.3	11.6	0.4
			70	18.2	1.32	21.7	60.9	13.8	0.4
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW024 Cooling Performance - PART LOAD cont.

SOURCE			LOAD 6 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4	0.4	50						
			60						
			70						
			80						
			90						
	6	0.9	50						
			60						
			70						
			80						
			90						
	8	1.4	50						
			60						
			70						
			80						
			90						
70	4	0.4	50	16.8	0.80	19.0	44.4	20.9	0.9
			60	19.5	0.79	21.7	53.5	24.9	0.9
			70	22.7	0.76	24.8	62.4	29.8	0.8
			80						
			90						
	6	0.8	50	16.8	0.77	19.0	44.4	21.7	0.9
			60	20.1	0.75	22.2	53.3	26.8	0.9
			70	23.1	0.72	25.2	62.3	31.9	0.8
			80						
			90						
	8	1.3	50	17.1	0.77	19.3	44.3	22.4	0.9
			60	19.6	0.75	21.7	53.5	26.3	0.9
			70	23.5	0.71	25.5	62.2	33.0	0.8
			80						
			90						
90	4	0.4	50	15.3	1.09	18.2	44.9	14.0	0.9
			60	18.0	1.08	20.9	54.0	16.8	0.9
			70						
			80						
			90						
	6	0.8	50	15.6	1.06	18.4	44.8	14.8	0.9
			60	18.4	1.03	21.2	53.9	17.8	0.9
			70						
			80						
			90						
	8	1.3	50	15.7	1.04	18.5	44.8	15.0	0.9
			60	18.5	1.02	21.3	53.8	18.2	0.9
			70						
			80						
			90						
110	4	0.3	50	13.3	1.41	16.9	45.6	9.4	0.9
			60	15.8	1.40	19.5	54.7	11.3	0.9
			70						
			80						
			90						
	6	0.7	50	13.5	1.37	17.1	45.5	9.9	0.9
			60	16.1	1.36	19.7	54.6	11.9	0.9
			70						
			80						
			90						
	8	1.2	50	13.6	1.36	17.2	45.5	10.0	0.9
			60	16.3	1.34	19.9	54.6	12.1	0.9
			70						
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW024 Cooling Performance - PART LOAD cont.

SOURCE			LOAD 8 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4	0.4	50						
			60						
			70						
			80						
			90						
	6	0.9	50						
			60						
			70						
			80						
			90						
	8	1.4	50						
			60						
			70						
			80						
			90						
70	4	0.4	50	17.2	0.81	19.5	45.7	21.4	1.5
			60	20.2	0.79	22.4	55.0	25.5	1.4
			70	23.3	0.77	25.4	64.2	30.4	1.4
			80						
			90						
	6	0.8	50	17.5	0.78	19.7	45.6	22.5	1.5
			60	20.6	0.76	22.7	54.9	27.3	1.4
			70						
			80						
			90						
	8	1.3	50	17.7	0.77	19.9	45.6	23.0	1.5
			60	20.7	0.75	22.8	54.8	27.8	1.4
			70						
			80						
			90						
90	4	0.4	50	15.7	1.10	18.6	46.1	14.3	1.5
			60	18.5	1.08	21.4	55.4	17.1	1.4
			70						
			80						
			90						
	6	0.8	50	16.0	1.06	18.8	46.0	15.0	1.5
			60	18.9	1.04	21.7	55.3	18.2	1.4
			70						
			80						
			90						
	8	1.3	50	16.1	1.05	19.0	46.0	15.4	1.5
			60	19.1	1.02	21.9	55.2	18.7	1.4
			70						
			80						
			90						
110	4	0.3	50	13.6	1.42	17.3	46.6	9.6	1.5
			60	16.2	1.41	19.9	56.0	11.5	1.4
			70						
			80						
			90						
	6	0.7	50	13.8	1.38	17.4	46.6	10.0	1.5
			60	16.5	1.36	20.1	55.9	12.1	1.4
			70						
			80						
			90						
	8	1.2	50	13.9	1.37	17.5	46.5	10.2	1.5
			60	16.7	1.35	20.3	55.8	12.4	1.4
			70						
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW024 Cooling Performance - FULL LOAD

SOURCE			LOAD						
			4 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4	0.4	50	36.6	1.09	39.9	71.6	33.7	0.4
			60						
			70						
			80						
			90						
	6	0.9	50						
			60						
			70						
			80						
			90						
	8	1.4	50						
			60						
			70						
			80						
			90						
70	4	0.4	50	20.5	1.19	23.9	39.8	17.2	0.4
			60	23.9	1.23	27.4	48.1	19.4	0.4
			70	26.6	1.26	30.3	56.7	21.2	0.4
			80	30.6	1.30	34.4	64.7	23.7	0.4
			90						
	6	0.8	50	20.5	1.15	23.9	39.8	17.9	0.4
			60	24.3	1.18	27.8	47.9	20.7	0.4
			70	27.3	1.20	30.9	56.4	22.8	0.4
			80	31.0	1.23	34.6	64.5	25.3	0.4
			90						
	8	1.3	50	20.7	1.13	24.0	39.7	18.3	0.4
			60	24.0	1.15	27.4	48.0	20.8	0.4
			70	27.5	1.18	31.0	56.3	23.4	0.4
			80	29.4	1.19	32.9	65.3	24.8	0.4
			90						
90	4	0.4	50	18.5	1.49	22.7	40.8	12.4	0.4
			60	21.5	1.53	25.9	49.3	14.1	0.4
			70	24.9	1.57	29.4	57.5	15.9	0.4
			80						
			90						
	6	0.8	50	18.5	1.44	22.6	40.8	12.8	0.4
			60	20.8	1.47	25.0	49.6	14.2	0.4
			70	25.5	1.50	29.9	57.3	17.0	0.4
			80						
			90						
	8	1.3	50	19.2	1.43	23.2	40.5	13.4	0.4
			60	21.7	1.45	25.8	49.2	15.0	0.4
			70	25.1	1.47	29.3	57.5	17.1	0.4
			80	28.6	1.49	33.0	65.7	19.2	0.4
			90						
110	4	0.3	50	16.5	1.88	21.7	41.8	8.8	0.4
			60	19.6	1.92	25.0	50.2	10.2	0.4
			70	22.6	1.96	28.1	58.7	11.6	0.4
			80						
			90						
	6	0.7	50	15.5	1.81	20.5	42.3	8.6	0.4
			60	20.0	1.85	25.2	50.0	10.8	0.4
			70	22.9	1.88	28.2	58.5	12.2	0.4
			80						
			90						
	8	1.2	50	17.1	1.80	22.1	41.5	9.5	0.4
			60	20.0	1.82	25.1	50.0	11.0	0.4
			70	23.2	1.84	28.4	58.4	12.6	0.4
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW024 Cooling Performance - FULL LOAD cont.

SOURCE			LOAD 6 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4	0.4	50						
			60						
			70						
			80	35.5	1.08	38.8	68.2	32.9	0.8
			90	39.2	1.11	42.5	76.9	35.2	0.8
	6	0.9	50						
			60						
			70						
			80						
			90						
	8	1.4	50						
			60						
			70						
			80						
			90						
70	4	0.4	50	21.3	1.21	24.8	42.9	17.7	0.9
			60	25.4	1.25	29.1	51.6	20.3	0.9
			70	28.4	1.28	32.1	60.5	22.2	0.8
			80						
			90						
	6	0.8	50	22.1	1.16	25.5	42.7	19.0	0.9
			60	25.3	1.19	28.8	51.6	21.3	0.9
			70	29.5	1.22	33.1	60.2	24.1	0.8
			80						
			90						
	8	1.3	50	22.5	1.15	25.9	42.5	19.6	0.9
			60	26.3	1.17	29.8	51.3	22.4	0.9
			70	29.4	1.19	32.9	60.2	24.6	0.8
			80						
			90						
90	4	0.4	50	18.6	1.50	22.9	43.8	12.4	0.9
			60	22.7	1.55	27.1	52.4	14.7	0.9
			70	26.2	1.59	30.8	61.3	16.5	0.8
			80						
			90						
	6	0.8	50	19.9	1.46	24.1	43.4	13.6	0.9
			60	23.4	1.49	27.7	52.2	15.7	0.9
			70	27.0	1.52	31.4	61.0	17.8	0.8
			80						
			90						
	8	1.3	50	20.0	1.44	24.2	43.4	13.9	0.9
			60	23.4	1.47	27.6	52.2	16.0	0.9
			70	27.2	1.49	31.6	60.9	18.3	0.8
			80						
			90						
110	4	0.3	50	17.5	1.90	22.8	44.2	9.2	0.9
			60	20.5	1.93	25.9	53.2	10.6	0.9
			70	23.7	1.97	29.3	62.1	12.0	0.8
			80						
			90						
	6	0.7	50	17.8	1.84	22.9	44.1	9.7	0.9
			60	20.9	1.86	26.1	53.1	11.2	0.9
			70	24.2	1.89	29.6	61.9	12.8	0.8
			80						
			90						
	8	1.2	50	17.9	1.81	23.0	44.1	9.9	0.9
			60	20.9	1.83	26.0	53.1	11.4	0.9
			70	24.6	1.86	29.8	61.8	13.2	0.8
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW024 Cooling Performance - FULL LOAD cont.

SOURCE			LOAD 8 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4	0.4	50						
			60						
			70						
			80						
			90						
	6	0.9	50						
			60						
			70						
			80						
			90						
	8	1.4	50						
			60						
			70						
			80						
			90						
70	4	0.4	50	21.9	1.22	25.5	44.6	17.9	1.5
			60	25.9	1.26	29.6	53.5	20.5	1.4
			70	29.7	1.30	33.5	62.6	22.8	1.4
			80						
			90						
	6	0.8	50	21.9	1.17	25.4	44.5	18.7	1.5
			60	26.6	1.21	30.2	53.4	22.0	1.4
			70	30.0	1.23	33.7	62.5	24.3	1.4
			80						
			90						
	8	1.3	50	23.2	1.16	26.7	44.2	20.0	1.5
			60	27.1	1.19	30.6	53.3	22.8	1.4
			70	29.3	1.20	32.9	62.7	24.4	1.4
			80						
			90						
90	4	0.4	50	20.1	1.53	24.5	45.0	13.2	1.5
			60	23.5	1.57	28.0	54.1	15.0	1.4
			70	27.0	1.61	31.6	63.2	16.8	1.4
			80						
			90						
	6	0.8	50	20.7	1.48	24.9	44.8	14.0	1.5
			60	24.0	1.51	28.3	54.0	15.9	1.4
			70	27.7	1.54	32.2	63.1	18.1	1.4
			80						
			90						
	8	1.3	50	20.6	1.46	24.7	44.9	14.1	1.5
			60	24.2	1.48	28.5	54.0	16.3	1.4
			70	27.6	1.50	32.0	63.1	18.4	1.4
			80						
			90						
110	4	0.3	50	18.0	1.91	23.4	45.5	9.4	1.5
			60	21.1	1.95	26.6	54.7	10.8	1.4
			70						
			80						
			90						
	6	0.7	50	18.4	1.85	23.5	45.4	9.9	1.5
			60	21.6	1.88	26.9	54.6	11.5	1.4
			70						
			80						
			90						
	8	1.2	50	18.5	1.83	23.7	45.4	10.2	1.5
			60	21.8	1.85	27.0	54.6	11.8	1.4
			70						
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW036 Heating Performance - PART LOAD

SOURCE			LOAD						
			4.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4.5	0.6	60						
			80	18.4	1.48	14.3	88.2	3.6	0.5
			100	17.6	1.95	12.3	107.9	2.6	0.4
			120	16.9	2.55	10.2	127.6	2.0	0.4
	6.75	1.2	60						
			80	19.2	1.49	15.0	88.6	3.8	0.5
			100	18.3	1.95	13.0	108.2	2.7	0.4
			120	17.5	2.55	10.7	127.9	2.0	0.4
	9	1.9	60						
			80	19.7	1.50	15.5	88.8	3.9	0.5
			100	18.7	1.97	13.3	108.4	2.8	0.4
			120	17.7	2.56	10.9	128.0	2.0	0.4
50	4.5	0.5	60	28.9	1.31	25.0	72.9	6.5	0.5
			80	27.5	1.69	22.6	92.3	4.8	0.5
			100	26.2	2.19	19.9	111.7	3.5	0.4
			120	25.8	2.83	17.8	131.6	2.7	0.4
	6.75	1.1	60	31.0	1.32	27.1	73.8	6.9	0.5
			80	29.7	1.70	24.7	93.3	5.1	0.5
			100	28.0	2.20	21.6	112.5	3.7	0.4
			120	27.1	2.84	18.9	132.2	2.8	0.4
	9	1.8	60	32.4	1.34	28.3	74.4	7.1	0.5
			80	30.6	1.71	25.6	93.7	5.2	0.5
			100	28.7	2.22	22.3	112.9	3.8	0.4
			120	27.7	2.85	19.6	132.5	2.9	0.4
70	4.5	0.5	60	34.3	1.11	30.9	75.2	9.1	0.5
			80	33.0	1.43	28.8	94.7	6.8	0.5
			100	31.6	1.88	26.3	114.2	4.9	0.4
			120	30.0	2.42	23.1	133.5	3.6	0.4
	6.75	1.0	60	37.4	1.11	34.0	76.6	9.9	0.5
			80	35.0	1.44	30.8	95.6	7.1	0.5
			100	33.0	1.89	27.6	114.8	5.1	0.4
			120	31.4	2.42	24.5	134.1	3.8	0.4
	9	1.7	60	38.3	1.12	35.0	77.0	10.0	0.5
			80	36.2	1.45	31.9	96.2	7.3	0.5
			100	34.0	1.90	28.6	115.3	5.3	0.4
			120						
90	4.5	0.5	60						
			80						
			100						
			120						
	6.75	1.0	60						
			80						
			100						
			120						
	9	1.6	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW036 Heating Performance - PART LOAD cont.

SOURCE			LOAD 6.75 GPM							
EWT	GPM	Pressure Drop (PSI)	EWT	Pressure Drop (PSI)	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4.5	0.6	60							
			80	0.5	18.3	1.45	14.2	85.4	3.7	1.0
			100	0.4	17.6	1.92	12.4	105.3	2.7	0.9
			120	0.4	17.0	2.52	10.3	125.1	2.0	0.9
	6.75	1.2	60							
			80	0.5	19.3	1.45	15.2	85.7	3.9	1.0
			100	0.4	18.4	1.92	13.1	105.5	2.8	0.9
			120	0.4	17.5	2.52	10.8	125.3	2.0	0.9
	9	1.9	60							
			80	0.5	19.9	1.46	15.7	85.9	4.0	1.0
			100	0.4	18.8	1.93	13.5	105.6	2.9	0.9
			120	0.4	17.8	2.53	11.1	125.3	2.1	0.9
50	4.5	0.5	60	0.5	29.5	1.25	25.7	68.7	6.9	1.0
			80	0.5	28.3	1.61	23.5	88.4	5.1	1.0
			100	0.4	26.8	2.11	20.7	108.0	3.7	0.9
			120	0.4	25.9	2.75	18.0	127.8	2.8	0.9
	6.75	1.1	60	0.5	31.2	1.26	27.4	69.2	7.3	1.0
			80	0.5	30.1	1.62	25.3	89.0	5.5	1.0
			100	0.4	28.3	2.12	22.2	108.5	3.9	0.9
			120	0.4	27.2	2.75	19.3	128.2	2.9	0.9
	9	1.8	60	0.5	32.7	1.27	28.8	69.7	7.5	1.0
			80	0.5	30.8	1.63	26.0	89.2	5.5	1.0
			100	0.4	29.5	2.13	23.3	108.8	4.1	0.9
			120	0.4	27.9	2.76	20.0	128.4	3.0	0.9
70	4.5	0.5	60	0.5	35.8	1.05	32.6	70.6	10.0	1.0
			80	0.5	30.6	1.36	26.6	89.1	6.6	1.0
			100	0.4	32.0	1.79	26.8	109.5	5.2	0.9
			120	0.4	30.0	2.33	23.4	129.0	3.8	0.9
	6.75	1.0	60	0.5	37.3	1.05	34.1	71.0	10.4	1.0
			80	0.5	34.1	1.36	30.2	90.2	7.4	1.0
			100	0.4	33.8	1.79	28.6	110.1	5.5	0.9
			120	0.4	31.6	2.33	25.0	129.5	4.0	0.9
	9	1.7	60	0.5	38.6	1.05	35.5	71.4	10.8	1.0
			80	0.5	36.6	1.36	32.6	90.9	7.9	1.0
			100	0.4	33.9	1.80	28.7	110.1	5.5	0.9
			120							
90	4.5	0.5	60							
			80							
			100							
			120							
	6.75	1.0	60							
			80							
			100							
			120							
	9	1.6	60							
			80							
			100							
			120							

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW036 Heating Performance - PART LOAD cont.

SOURCE			LOAD 9 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4.5	0.6	60						
			80	18.2	1.47	14.1	84.1	3.6	1.6
			100	17.7	1.94	12.4	104.0	2.7	1.6
			120	17.0	2.54	10.3	123.8	2.0	1.5
	6.75	1.2	60						
			80	19.4	1.44	15.3	84.3	3.9	1.6
			100	18.4	1.94	13.1	104.1	2.8	1.6
			120	17.6	2.51	10.9	124.0	2.1	1.5
	9	1.9	60						
			80	20.0	1.45	15.8	84.5	4.0	1.6
			100	18.9	1.91	13.6	104.2	2.9	1.5
			120	17.9	2.55	11.0	124.0	2.1	1.5
50	4.5	0.5	60						
			80	28.6	1.59	23.9	86.4	5.3	1.6
			100	26.9	2.08	20.9	106.0	3.8	1.5
			120	26.0	2.73	18.2	125.8	2.8	1.5
	6.75	1.1	60	31.9	1.24	28.1	67.1	7.5	1.7
			80	29.7	1.59	25.0	86.6	5.5	1.6
			100	28.4	2.08	22.3	106.4	4.0	1.5
			120	27.3	2.72	19.5	126.1	2.9	1.5
	9	1.8	60	32.6	1.25	28.8	67.2	7.6	1.7
			80	30.7	1.60	26.0	86.9	5.6	1.6
			100	29.0	2.09	22.9	106.5	4.1	1.5
			120	28.0	2.73	20.2	126.3	3.0	1.5
70	4.5	0.5	60	33.7	1.04	30.5	67.5	9.5	1.7
			80	33.0	1.33	29.1	87.4	7.3	1.6
			100	31.0	1.75	26.0	106.9	5.2	1.5
			120	29.9	2.29	23.4	126.7	3.8	1.5
	6.75	1.0	60	38.6	1.02	35.5	68.6	11.1	1.7
			80	36.0	1.32	32.1	88.0	8.0	1.6
			100	33.3	1.75	28.2	107.5	5.6	1.5
			120	31.1	2.29	24.6	127.0	4.0	1.5
	9	1.7	60	39.1	1.03	36.0	68.7	11.1	1.7
			80	32.9	1.34	29.0	87.3	7.2	1.6
			100	34.6	1.76	29.5	107.8	5.8	1.5
			120						
90	4.5	0.5	60						
			80						
			100						
			120						
	6.75	1.0	60						
			80						
			100						
			120						
	9	1.6	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW036 heating Performance - FULL LOAD

SOURCE			LOAD						
			4.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4.5	0.6	60	26.9	1.60	22.1	71.9	4.9	0.5
			80	26.0	2.03	20.0	91.6	3.8	0.5
			100	25.2	2.56	17.8	111.3	2.9	0.4
			120	25.3	3.22	16.1	131.4	2.3	0.4
	6.75	1.2	60	28.5	1.63	23.5	72.6	5.1	0.5
			80	27.3	2.06	21.3	92.2	3.9	0.5
			100	27.2	2.61	19.6	112.2	3.1	0.4
			120	26.5	3.26	17.1	131.9	2.4	0.4
	9	2.0	60	29.5	1.66	24.5	73.1	5.2	0.5
			80	28.5	2.09	22.3	92.7	4.0	0.5
			100	27.6	2.63	20.0	112.4	3.1	0.4
			120	27.1	3.29	17.6	132.2	2.4	0.4
50	4.5	0.5	60	35.5	1.70	30.3	75.8	6.1	0.5
			80	34.2	2.13	27.8	95.3	4.7	0.5
			100	31.0	2.65	23.2	113.9	3.4	0.4
			120	31.9	3.34	22.1	134.4	2.8	0.4
	6.75	1.1	60	38.1	1.75	32.7	76.9	6.4	0.5
			80	34.2	2.15	27.8	95.3	4.7	0.5
			100	34.7	2.72	26.6	115.6	3.7	0.4
			120	33.2	3.37	23.3	134.9	2.9	0.4
	9	1.8	60	39.5	1.78	34.1	77.6	6.5	0.5
			80	37.6	2.21	31.0	96.8	5.0	0.5
			100	36.0	2.75	27.8	116.1	3.8	0.4
			120	35.0	3.41	25.0	135.8	3.0	0.4
70	4.5	0.5	60	44.8	1.84	39.1	79.9	7.1	0.5
			80	39.2	2.23	32.6	97.5	5.2	0.5
			100	41.3	2.81	32.9	118.5	4.3	0.4
			120	39.9	3.48	29.6	138.0	3.4	0.4
	6.75	1.0	60	48.5	1.89	42.7	81.6	7.5	0.5
			80	43.1	2.28	36.3	99.3	5.5	0.5
			100	44.3	2.85	35.8	119.9	4.6	0.4
			120	42.0	3.52	31.5	138.9	3.5	0.4
	9	1.7	60	50.6	1.93	44.7	82.5	7.7	0.5
			80	48.0	2.34	40.8	101.4	6.0	0.5
			100	46.0	2.88	37.3	120.6	4.7	0.4
			120	43.7	3.55	33.1	139.7	3.6	0.4
90	4.5	0.5	60	55.9	1.97	49.8	84.9	8.3	0.5
			80	53.5	2.38	46.3	103.9	6.6	0.5
			100						
			120						
	6.75	1.0	60						
			80						
			100						
			120						
	9	1.6	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW036 Heating Performance - FULL LOAD cont.

SOURCE			LOAD						
			6.75 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4.5	0.6	60	27.1	1.54	22.4	68.0	5.1	1.0
			80	26.2	1.97	20.4	87.8	3.9	1.0
			100	25.7	2.50	18.5	107.7	3.0	0.9
			120	25.0	3.16	16.0	127.5	2.3	0.9
	6.75	1.2	60	28.7	1.57	23.9	68.5	5.4	1.0
			80	27.9	2.00	22.0	88.3	4.1	1.0
			100	26.5	2.52	19.2	107.9	3.1	0.9
			120	26.5	3.20	17.3	128.0	2.4	0.9
	9	2.0	60	29.7	1.59	24.9	68.8	5.5	1.0
			80	28.7	2.02	22.7	88.5	4.2	1.0
			100	27.8	2.55	20.3	108.3	3.2	0.9
			120	27.2	3.22	17.9	128.2	2.5	0.9
50	4.5	0.5	60	36.0	1.62	31.0	70.6	6.5	1.0
			80	34.4	2.04	28.3	90.2	5.0	1.0
			100	33.5	2.58	25.9	110.0	3.8	0.9
			120	33.1	3.25	23.5	129.9	3.0	0.9
	6.75	1.1	60	38.6	1.65	33.5	71.4	6.9	1.0
			80	36.4	2.06	30.2	90.8	5.2	1.0
			100	35.9	2.62	28.1	110.7	4.0	0.9
			120	34.3	3.27	24.6	130.3	3.1	0.9
	9	1.8	60	40.2	1.68	35.0	71.9	7.0	1.0
			80	38.1	2.09	31.7	91.3	5.3	1.0
			100	36.3	2.63	28.4	110.8	4.0	0.9
			120	35.9	3.30	26.1	130.8	3.2	0.9
70	4.5	0.5	60	45.6	1.73	40.3	73.5	7.7	1.0
			80	44.0	2.14	37.5	93.1	6.0	1.0
			100	41.7	2.66	33.7	112.5	4.6	0.9
			120	40.1	3.34	30.2	132.0	3.5	0.9
	6.75	1.0	60	49.5	1.77	44.0	74.7	8.2	1.0
			80	47.4	2.17	40.8	94.1	6.4	1.0
			100	45.2	2.70	37.0	113.5	4.9	0.9
			120	43.8	3.37	33.7	133.1	3.8	0.9
	9	1.7	60	51.8	1.81	46.2	75.3	8.4	1.0
			80	47.7	2.18	41.0	94.2	6.4	1.0
			100	47.9	2.73	39.7	114.3	5.1	0.9
			120	44.5	3.39	34.3	133.4	3.8	0.9
90	4.5	0.5	60	56.9	1.84	51.2	76.9	9.1	1.0
			80	54.8	2.22	48.0	96.3	7.3	1.0
			100						
			120						
	6.75	1.0	60						
			80						
			100						
			120						
	9	1.6	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW036 Heating Performance - FULL LOAD cont.

SOURCE			LOAD 9 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	4.5	0.6	60						
			80	26.3	2.00	20.4	85.9	3.9	1.6
			100	25.1	2.47	18.0	105.6	3.0	1.5
			120	25.3	3.14	16.3	125.7	2.4	1.5
	6.75	1.2	60	28.8	1.54	24.1	66.4	5.5	1.7
			80	27.6	1.97	21.8	86.2	4.1	1.6
			100	26.6	2.50	19.4	106.0	3.1	1.5
			120	26.6	3.18	17.5	126.0	2.5	1.5
	9	2.0	60	29.9	1.57	25.1	66.6	5.6	1.7
			80	28.6	1.99	22.6	86.4	4.2	1.6
			100	27.7	2.56	20.1	106.2	3.2	1.6
			120	27.3	3.20	18.0	126.1	2.5	1.5
50	4.5	0.5	60	36.2	1.58	31.3	68.0	6.7	1.7
			80	34.6	2.00	28.6	87.7	5.1	1.6
			100	32.3	2.52	24.9	107.2	3.8	1.5
			120	32.5	3.22	23.0	127.3	3.0	1.5
	6.75	1.1	60	39.0	1.62	34.0	68.7	7.1	1.7
			80	37.0	2.02	30.8	88.3	5.4	1.6
			100	35.3	2.56	27.7	107.9	4.0	1.5
			120	32.2	3.21	22.8	127.3	2.9	1.5
	9	1.8	60	40.6	1.65	35.5	69.0	7.2	1.7
			80	38.1	2.05	31.9	88.5	5.5	1.6
			100	36.6	2.58	28.9	108.2	4.2	1.5
			120	35.1	3.25	25.5	127.9	3.2	1.5
70	4.5	0.5	60	46.0	1.69	40.8	70.2	8.0	1.7
			80	44.0	2.08	37.7	89.8	6.2	1.6
			100	42.6	2.62	34.7	109.5	4.8	1.5
			120	40.9	3.28	31.0	129.2	3.7	1.5
	6.75	1.0	60	50.0	1.73	44.6	71.1	8.5	1.7
			80	46.8	2.10	40.4	90.4	6.5	1.6
			100	44.9	2.63	37.0	110.1	5.0	1.5
			120	42.1	3.29	32.3	129.5	3.8	1.5
	9	1.7	60	52.4	1.76	46.9	71.6	8.7	1.7
			80	49.3	2.13	42.8	91.0	6.8	1.6
			100	44.9	2.64	36.9	110.1	5.0	1.5
			120	44.1	3.32	34.1	129.9	3.9	1.5
90	4.5	0.5	60	58.5	1.80	52.9	73.0	9.5	1.7
			80	54.5	2.14	47.9	92.2	7.5	1.6
			100						
			120						
	6.75	1.0	60						
			80						
			100						
			120						
	9	1.6	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW036 COOLING PERFORMANCE - PART LOAD

SOURCE			LOAD 4.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4.5	0.5	50						
			60						
			70	32.5	0.90	35.3	55.6	36.1	0.5
			80	37.0	0.89	39.7	63.5	41.6	0.5
			90						
	6.75	1.1	50						
			60						
			70						
			80						
			90						
	9	1.8	50						
			60						
			70						
			80						
			90						
70	4.5	0.5	50	22.0	1.19	25.6	40.3	18.5	0.5
			60	25.9	1.19	29.4	48.5	21.8	0.5
			70	29.9	1.19	33.5	56.7	25.3	0.5
			80	34.2	1.18	37.7	64.8	28.9	0.5
			90						
	6.75	1.0	50	22.5	1.15	25.9	40.1	19.6	0.5
			60	26.4	1.14	29.8	48.3	23.3	0.5
			70	30.6	1.12	34.0	56.4	27.3	0.5
			80	35.0	1.11	38.3	64.4	31.7	0.5
			90						
	9	1.7	50	22.7	1.14	26.0	40.0	19.9	0.5
			60	26.7	1.12	30.1	48.2	23.9	0.5
			70	31.0	1.10	34.3	56.2	28.2	0.5
			80	35.5	1.08	38.7	64.2	33.0	0.5
			90						
90	4.5	0.5	50	19.6	1.64	24.3	41.3	12.0	0.5
			60	23.2	1.63	27.9	49.7	14.2	0.5
			70	27.0	1.63	31.8	58.0	16.5	0.5
			80						
			90						
	6.75	1.0	50	20.0	1.58	24.5	41.2	12.6	0.5
			60	23.7	1.56	28.3	49.5	15.2	0.5
			70	27.7	1.55	32.2	57.7	17.8	0.5
			80	31.8	1.54	36.3	65.9	20.6	0.5
			90						
	9	1.6	50	20.1	1.57	24.6	41.1	12.9	0.5
			60	24.0	1.54	28.4	49.4	15.6	0.5
			70	28.0	1.52	32.4	57.6	18.4	0.5
			80	32.2	1.50	36.6	65.7	21.4	0.5
			90						
110	4.5	0.4	50	17.0	2.13	23.0	42.5	8.0	0.5
			60	20.4	2.13	26.5	51.0	9.6	0.5
			70	23.9	2.13	30.1	59.4	11.2	0.5
			80						
			90						
	6.75	0.9	50	17.3	2.08	23.2	42.4	8.3	0.5
			60	20.8	2.06	26.7	50.8	10.1	0.5
			70	24.5	2.05	30.4	59.1	12.0	0.5
			80						
			90						
	9	1.5	50	17.4	2.07	23.3	42.3	8.4	0.5
			60	21.0	2.03	26.8	50.7	10.3	0.5
			70	24.7	2.01	30.5	59.0	12.3	0.5
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW036 COOLING PERFORMANCE - PART LOAD cont.

SOURCE			LOAD						
			6.75 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4.5	0.5	50	34.9	0.90	37.7	59.7	38.7	1.0
			60						
			70						
			80						
			90						
	6.75	1.1	50						
			60						
			70						
			80						
			90						
	9	1.8	50						
			60						
			70						
			80						
			90						
70	4.5	0.5	50	23.5	1.20	27.0	43.1	19.6	1.1
			60	27.6	1.20	31.2	51.8	23.1	1.1
			70	32.0	1.19	35.6	60.5	26.9	1.0
			80						
			90						
	6.75	1.0	50	24.0	1.15	27.4	42.9	20.9	1.1
			60	28.3	1.14	31.7	51.6	24.9	1.1
			70	32.9	1.12	36.2	60.3	29.3	1.0
			80						
			90						
	9	1.7	50	24.2	1.14	27.6	42.9	21.3	1.1
			60	28.6	1.12	32.0	51.5	25.6	1.1
			70	33.3	1.09	36.6	60.1	30.4	1.0
			80						
			90						
90	4.5	0.5	50	20.8	1.64	25.5	43.9	12.7	1.1
			60	24.7	1.64	29.5	52.7	15.1	1.0
			70	28.8	1.64	33.6	61.5	17.5	1.0
			80						
			90						
	6.75	1.0	50	21.2	1.58	25.8	43.7	13.4	1.1
			60	25.3	1.57	29.8	52.5	16.2	1.0
			70	29.5	1.55	34.1	61.3	19.0	1.0
			80						
			90						
	9	1.6	50	21.4	1.56	25.9	43.7	13.7	1.1
			60	25.6	1.54	30.0	52.4	16.6	1.0
			70	29.9	1.52	34.4	61.1	19.7	1.0
			80						
			90						
110	4.5	0.4	50	18.0	2.14	24.0	44.7	8.4	1.1
			60	21.6	2.14	27.7	53.6	10.1	1.0
			70	25.4	2.14	31.6	62.5	11.9	1.0
			80						
			90						
	6.75	0.9	50	18.3	2.08	24.2	44.6	8.8	1.1
			60	22.1	2.06	28.0	53.5	10.7	1.0
			70	26.1	2.05	32.0	62.3	12.8	1.0
			80						
			90						
	9	1.5	50	18.5	2.06	24.3	44.6	9.0	1.1
			60	22.3	2.03	28.1	53.4	11.0	1.0
			70	26.4	2.01	32.2	62.2	13.1	1.0
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW036 COOLING PERFORMANCE - PART LOAD cont.

SOURCE			LOAD 9 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4.5	0.5	50						
			60	31.4	0.93	34.3	53.0	34.0	1.8
			70	36.3	0.91	39.1	61.9	39.9	1.7
			80						
	6.75	1.1	90						
			50						
			60						
			70						
			80						
			90						
	9	1.8	50						
			60						
			70						
			80						
			90						
70	4.5	0.5	50	24.3	1.21	27.9	44.6	20.1	1.8
			60	28.6	1.21	32.2	53.7	23.7	1.8
			70	33.2	1.20	36.8	62.6	27.6	1.7
			80						
	6.75	1.0	90						
			50	24.8	1.16	28.3	44.5	21.4	1.8
			60	29.3	1.15	32.8	53.5	25.6	1.8
			70	34.1	1.13	37.5	62.4	30.3	1.7
			80						
			90						
	9	1.7	50	25.1	1.15	28.5	44.5	21.9	1.8
			60	29.7	1.12	33.1	53.4	26.4	1.8
			70	34.6	1.10	37.9	62.3	31.5	1.7
			80						
			90						
90	4.5	0.5	50	21.4	1.65	26.2	45.3	13.0	1.8
			60	25.5	1.65	30.3	54.3	15.4	1.8
			70	29.8	1.66	34.6	63.4	18.0	1.7
			80						
	6.75	1.0	90						
			50	21.9	1.59	26.5	45.2	13.8	1.8
			60	26.1	1.57	30.7	54.2	16.6	1.8
			70	30.6	1.56	35.2	63.2	19.6	1.7
			80						
			90						
	9	1.6	50	22.1	1.57	26.7	45.1	14.1	1.8
			60	26.4	1.55	31.0	54.1	17.1	1.8
			70	31.0	1.53	35.5	63.1	20.3	1.7
			80						
			90						
110	4.5	0.4	50	18.5	2.15	24.6	45.9	8.6	1.8
			60	22.2	2.15	28.4	55.1	10.4	1.8
			70	26.3	2.15	32.4	64.2	12.2	1.7
			80						
	6.75	0.9	90						
			50	18.9	2.09	24.8	45.8	9.0	1.8
			60	22.8	2.07	28.7	55.0	11.0	1.8
			70	26.9	2.05	32.9	64.0	13.1	1.7
			80						
			90						
	9	1.5	50	19.0	2.07	24.9	45.8	9.2	1.8
			60	23.0	2.04	28.9	54.9	11.3	1.8
			70	27.3	2.01	33.1	63.9	13.5	1.7
			80						
			90						

Notes::

- Antifreeze required on Load side for this operation
- Interpolation is permissible. Not extrapolation
- = Operation not recommended

GW036 Cooling Performance - FULL LOAD

SOURCE			LOAD						
EWT	GPM	Pressure Drop (PSI)	4.5 GPM						
			EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4.5	0.5	50	31.9	1.47	36.4	35.9	21.6	0.6
			60	36.6	1.54	41.4	43.8	23.7	0.5
			70	41.7	1.61	46.7	51.5	25.9	0.5
			80	47.0	1.68	52.3	59.1	28.1	0.5
			90	52.6	1.75	58.1	66.5	30.1	0.5
	6.75	1.1	50	37.4	1.46	42.0	43.4	25.7	0.5
			60	42.7	1.52	47.5	51.1	28.2	0.5
			70	48.3	1.57	53.3	58.5	30.7	0.5
			80	54.2	1.64	59.4	65.9	33.0	0.5
			90						
	9	1.8	50	49.0	1.54	53.9	58.2	31.9	0.5
			60	54.9	1.60	60.1	65.5	34.3	0.5
			70	29.5	1.84	35.1	37.0	16.0	0.6
			60	34.0	1.91	39.8	45.0	17.8	0.5
			70	38.8	1.97	44.8	52.8	19.8	0.5
70	4.5	0.5	80	44.0	2.02	50.1	60.4	21.8	0.5
			90	49.3	2.08	55.7	68.0	23.7	0.5
	6.75	1.0	50	30.0	1.76	35.4	36.7	17.1	0.6
			60	34.7	1.81	40.3	44.6	19.3	0.5
			70	39.8	1.85	45.5	52.4	21.5	0.5
			80	45.2	1.89	51.0	59.9	24.0	0.5
			90	50.8	1.93	56.8	67.4	26.3	0.5
	9	1.6	50	30.3	1.74	35.6	36.6	17.4	0.6
			60	35.1	1.77	40.5	44.5	19.8	0.5
			70	40.2	1.81	45.8	52.1	22.3	0.5
			80	45.8	1.83	51.5	59.6	25.0	0.5
			90	51.5	1.88	57.4	67.0	27.5	0.5
90	4.5	0.4	50	26.8	2.33	33.7	38.2	11.5	0.5
			60	31.0	2.39	38.2	46.3	13.0	0.5
			70	35.6	2.45	43.0	54.2	14.6	0.5
			80	40.5	2.50	48.0	62.0	16.2	0.5
			90	27.3	2.24	34.0	38.0	12.2	0.5
	6.75	1.0	50	31.7	2.28	38.6	46.0	13.9	0.5
			60	36.5	2.32	43.5	53.8	15.7	0.5
			70	41.6	2.35	48.7	61.5	17.7	0.5
			80	27.3	2.26	34.1	37.9	12.1	0.5
			90	32.0	2.24	38.8	45.8	14.3	0.5
	9	1.6	60	36.9	2.27	43.7	53.6	16.3	0.5
			70	42.1	2.28	49.1	61.3	18.5	0.5
			80	23.9	2.94	32.6	39.4	8.2	0.5
110	4.5	0.4	90	27.9	2.99	36.8	47.6	9.3	0.5
			50	32.2	3.05	41.3	55.7	10.6	0.5
			60	36.8	3.11	46.1	63.6	11.8	0.5
			70	24.3	2.84	32.7	39.3	8.6	0.5
			80	28.5	2.88	37.1	47.4	9.9	0.5
	6.75	0.9	90	33.0	2.91	41.7	55.4	11.4	0.5
			50	37.8	2.94	46.6	63.2	12.9	0.5
			60	24.4	2.85	32.8	39.2	8.6	0.5
			70	28.7	2.84	37.2	47.3	10.1	0.5
			80	33.3	2.86	41.9	55.2	11.7	0.5
	9	1.5	90	38.2	2.87	46.8	63.0	13.3	0.5

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW036 COOLING performance - FULL LOAD cont.

SOURCE			LOAD								
			6.75 GPM								
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)	EER	Pressure Drop (PSI)
50	4.5	0.5	50	34.5	1.52	39.2	39.9	22.7	1.1	23.1	1.8
			60	39.7	1.60	44.7	48.3	24.9	1.1	25.5	1.8
			70	45.4	1.66	50.6	56.6	27.3	1.0	28.0	1.7
			80	51.4	1.74	56.8	64.8	29.5	1.0	30.2	1.6
			90								
	6.75	1.1	50								25.0
			60	40.7	1.51	45.5	48.0	27.1	1.1	27.8	1.8
			70	46.7	1.56	51.7	56.2	29.9	1.0	30.6	1.7
			80	53.0	1.64	58.2	64.3	32.4	1.0	33.2	1.6
			90								
	9	1.8	50								
			60								
			70	47.4	1.53	52.3	56.0	31.0	1.0	31.8	1.7
			80	53.9	1.60	59.0	64.0	33.7	1.0	34.5	1.6
			90								
70	4.5	0.5	50	31.8	1.88	37.5	40.7	16.9	1.1	17.3	1.8
			60	36.7	1.95	42.7	49.2	18.8	1.1	19.3	1.8
			70	42.1	2.01	48.3	57.5	21.0	1.0	21.6	1.7
			80	47.8	2.07	54.2	65.8	23.2	1.0		
			90								
	6.75	1.0	50	32.5	1.79	37.9	40.4	18.1	1.1	18.6	1.8
			60	37.7	1.84	43.3	48.9	20.4	1.1	21.1	1.8
			70	43.4	1.88	49.2	57.2	23.1	1.0	23.8	1.7
			80	49.4	1.93	55.3	65.3	25.6	1.0	26.4	1.6
			90								
	9	1.6	50	32.8	1.76	38.2	40.3	18.6	1.1	19.2	1.8
			60	38.1	1.80	43.7	48.7	21.2	1.1	21.9	1.8
			70	44.0	1.83	49.6	57.0	24.0	1.0	24.9	1.7
			80	50.1	1.87	56.0	65.1	26.8	1.0	27.7	1.6
			90								
90	4.5	0.4	50	28.7	2.37	35.8	41.5	12.2	1.1	12.4	1.8
			60	33.4	2.43	40.7	50.1	13.8	1.1	14.1	1.8
			70	38.4	2.49	46.0	58.6	15.5	1.0	15.9	1.7
			80	43.8	2.54	51.6	67.0	17.3	1.0		
			90								
	6.75	1.0	50	29.3	2.27	36.1	41.4	12.9	1.1	13.3	1.8
			60	34.2	2.31	41.2	49.9	14.8	1.1	15.3	1.8
			70	39.5	2.34	46.7	58.3	16.9	1.0	17.5	1.7
			80	45.2	2.37	52.5	66.6	19.1	1.0		
			90								
	9	1.6	50	29.6	2.24	36.3	41.3	13.2	1.1	13.7	1.8
			60	34.6	2.27	41.5	49.8	15.3	1.1	15.8	1.8
			70	40.1	2.28	47.0	58.1	17.6	1.0	18.2	1.7
			80	45.9	2.30	53.0	66.4	19.9	1.0		
			90								
110	4.5	0.4	50	25.5	2.97	34.3	42.5	8.6	1.1	8.8	1.8
			60	29.9	3.02	38.9	51.2	9.9	1.1	10.2	1.8
			70	34.6	3.09	43.9	59.7	11.2	1.0	11.6	1.7
			80								
			90								
	6.75	0.9	50	26.0	2.87	34.5	42.3	9.1	1.1	9.4	1.8
			60	30.7	2.90	39.3	50.9	10.6	1.1	10.9	1.8
			70	35.6	2.93	44.4	59.5	12.1	1.0	12.5	1.7
			80								
			90								
	9	1.5	50	26.2	2.86	34.7	42.3	9.2	1.1	9.6	1.8
			60	30.9	2.86	39.5	50.9	10.8	1.1	11.2	1.8
			70	36.0	2.88	44.6	59.3	12.5	1.0	13.0	1.7
			80	41.4	2.89	50.1	67.7	14.3	1.0		
			90								

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW036 COOLING performance - FULL LOAD cont.

SOURCE			LOAD 9 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	4.5	0.5	50	36.0	1.55	40.8	42.1	23.1	1.8
			60	41.5	1.63	46.7	50.8	25.5	1.8
			70	47.6	1.70	52.9	59.4	28.0	1.7
			80	53.9	1.79	59.5	68.0	30.2	1.6
			90						
	6.75	1.1	50	36.9	1.47	41.5	41.9	25.0	1.8
			60	42.7	1.54	47.6	50.5	27.8	1.8
			70	49.1	1.60	54.2	59.1	30.6	1.7
			80	55.8	1.68	61.1	67.6	33.2	1.6
			90						
	9	1.8	50						
			60						
			70	49.9	1.57	54.9	58.9	31.8	1.7
			80	56.8	1.65	62.0	67.4	34.5	1.6
			90						
70	4.5	0.5	50	33.0	1.91	38.9	42.7	17.3	1.8
			60	38.3	1.98	44.4	51.5	19.3	1.8
			70	44.1	2.04	50.3	60.2	21.6	1.7
			80						
			90						
	6.75	1.0	50	33.9	1.82	39.4	42.5	18.6	1.8
			60	39.4	1.87	45.1	51.3	21.1	1.8
			70	45.5	1.91	51.4	59.9	23.8	1.7
			80	51.8	1.96	57.9	68.5	26.4	1.6
			90						
	9	1.6	50	34.2	1.78	39.7	42.4	19.2	1.8
			60	39.9	1.82	45.6	51.2	21.9	1.8
			70	46.2	1.86	51.9	59.7	24.9	1.7
			80	52.7	1.91	58.7	68.3	27.7	1.6
			90						
90	4.5	0.4	50	29.8	2.40	37.0	43.4	12.4	1.8
			60	34.8	2.46	42.2	52.3	14.1	1.8
			70	40.1	2.52	47.7	61.1	15.9	1.7
			80						
			90						
	6.75	1.0	50	30.5	2.29	37.4	43.3	13.3	1.8
			60	35.7	2.33	42.7	52.1	15.3	1.8
			70	41.3	2.36	48.5	60.8	17.5	1.7
			80						
			90						
	9	1.6	50	30.8	2.26	37.6	43.2	13.7	1.8
			60	36.1	2.28	43.0	52.0	15.8	1.8
			70	41.9	2.30	49.0	60.7	18.2	1.7
			80						
			90						
110	4.5	0.4	50	26.4	2.99	35.3	44.2	8.8	1.8
			60	31.0	3.05	40.2	53.1	10.2	1.8
			70	36.0	3.12	45.3	62.0	11.6	1.7
			80						
			90						
	6.75	0.9	50	27.0	2.89	35.6	44.0	9.4	1.8
			60	31.8	2.92	40.6	52.9	10.9	1.8
			70	37.1	2.95	46.0	61.8	12.5	1.7
			80						
			90						
	9	1.5	50	27.3	2.85	35.7	44.0	9.6	1.8
			60	32.2	2.87	40.8	52.9	11.2	1.8
			70	37.5	2.89	46.3	61.7	13.0	1.7
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW048 Heating Performance - PART LOAD

SOURCE			LOAD 6 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6	0.9	60						
			80	25.4	1.93	19.9	88.5	3.9	0.7
			100	23.2	2.50	16.4	107.8	2.7	0.7
			120	21.3	3.25	12.7	127.2	1.9	0.6
	9	1.9	60						
			80	26.4	1.94	20.8	88.8	4.0	0.7
			100	24.0	2.52	17.1	108.1	2.8	0.7
			120	21.9	3.27	13.2	127.4	2.0	0.6
	12	3.1	60						
			80	26.9	1.97	21.3	89.0	4.0	0.7
			100	24.4	2.55	17.4	108.2	2.8	0.7
			120	22.2	3.30	13.4	127.5	2.0	0.6
50	6	0.8	60	36.0	1.44	31.6	72.0	7.3	0.8
			80	33.4	1.90	27.9	91.2	5.2	0.7
			100	31.1	2.48	24.0	110.4	3.7	0.7
			120	29.0	3.23	20.0	129.8	2.6	0.6
	9	1.7	60	37.8	1.45	33.4	72.6	7.6	0.8
			80	35.0	1.91	29.4	91.7	5.4	0.7
			100	32.3	2.50	25.2	110.9	3.8	0.7
			120	30.0	3.24	20.9	130.1	2.7	0.6
	12	2.9	60	38.8	1.47	34.4	72.9	7.7	0.8
			80	35.8	1.93	30.2	92.0	5.4	0.7
			100	33.0	2.52	25.8	111.1	3.8	0.7
			120	30.5	3.27	21.3	130.3	2.7	0.6
70	6	0.8	60	44.6	1.35	40.6	74.9	9.7	0.8
			80	41.7	1.82	36.4	94.0	6.7	0.7
			100	39.1	2.40	32.2	113.1	4.8	0.7
			120	36.7	3.13	27.8	132.4	3.4	0.6
	9	1.6	60	47.0	1.35	43.0	75.7	10.2	0.8
			80	43.8	1.82	38.5	94.7	7.1	0.7
			100	40.8	2.41	33.9	113.7	5.0	0.7
			120						
	12	2.7	60	48.4	1.36	44.3	76.1	10.4	0.8
			80						
			100						
			120						
90	6	0.7	60						
			80						
			100						
			120						
	9	1.5	60						
			80						
			100						
			120						
	12	2.5	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW048 Heating Performance - PART LOAD cont.

SOURCE			LOAD 9 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6	0.9	60						
			80	25.7	1.88	20.3	85.7	4.0	1.5
			100	23.5	2.46	16.7	105.3	2.8	1.4
			120	21.5	3.21	13.0	124.8	2.0	1.4
	9	1.9	60						
			80	26.7	1.90	21.3	86.0	4.1	1.5
			100	24.3	2.47	17.4	105.4	2.9	1.4
			120	22.1	3.22	13.5	125.0	2.0	1.4
	12	3.1	60						
			80	27.3	1.92	21.8	86.1	4.2	1.5
			100	24.7	2.50	17.8	105.5	2.9	1.4
			120	22.4	3.25	13.7	125.0	2.0	1.4
50	6	0.8	60						
			80	33.9	1.83	28.6	87.6	5.4	1.5
			100	31.4	2.41	24.6	107.0	3.8	1.4
			120	29.2	3.16	20.4	126.6	2.7	1.4
	9	1.7	60						
			80	35.5	1.83	30.1	87.9	5.7	1.5
			100	32.7	2.42	25.8	107.3	4.0	1.4
			120	30.2	3.17	21.3	126.8	2.8	1.4
	12	2.9	60						
			80	36.4	1.86	30.9	88.1	5.7	1.5
			100	33.4	2.44	26.4	107.5	4.0	1.4
			120	30.8	3.19	21.8	126.9	2.8	1.4
70	6	0.8	60	45.4	1.26	41.5	70.1	10.5	1.6
			80	42.4	1.72	37.3	89.5	7.2	1.5
			100	39.6	2.30	32.9	108.9	5.0	1.4
			120	37.1	3.03	28.4	128.3	3.6	1.4
	9	1.6	60	47.9	1.25	44.1	70.6	11.2	1.6
			80	44.6	1.72	39.5	89.9	7.6	1.5
			100	41.4	2.30	34.7	109.3	5.3	1.4
			120						
	12	2.7	60	49.3	1.27	45.5	71.0	11.4	1.6
			80	45.8	1.74	40.7	90.2	7.7	1.5
			100						
			120						
90	6	0.7	60						
			80						
			100						
			120						
	9	1.5	60						
			80						
			100						
			120						
	12	2.5	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW048 Heating Performance - PART LOAD cont.

SOURCE			LOAD						
			12 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6	0.9	60						
			80	25.9	1.88	20.6	84.3	4.0	2.6
			100	23.6	2.45	16.9	104.0	2.8	2.4
			120	21.6	3.21	13.1	123.6	2.0	2.3
	9	1.9	60						
			80	27.0	1.89	21.5	84.5	4.2	2.6
			100	24.5	2.46	17.6	104.1	2.9	2.4
			120	22.2	3.22	13.6	123.7	2.0	2.3
	12	3.1	60						
			80	27.5	1.92	22.0	84.6	4.2	2.6
			100	24.9	2.49	18.0	104.2	2.9	2.4
			120	22.6	3.25	13.8	123.8	2.0	2.3
50	6	0.8	60						
			80	34.2	1.81	28.9	85.7	5.5	2.6
			100	31.6	2.39	24.8	105.3	3.9	2.4
			120	29.4	3.14	20.6	125.0	2.7	2.3
	9	1.7	60						
			80	35.8	1.82	30.5	86.0	5.8	2.6
			100	33.0	2.39	26.1	105.5	4.0	2.4
			120	30.4	3.15	21.6	125.1	2.8	2.3
	12	2.9	60						
			80	36.7	1.84	31.3	86.1	5.9	2.6
			100	33.7	2.42	26.7	105.7	4.1	2.4
			120	31.0	3.17	22.0	125.2	2.9	2.3
70	6	0.8	60	45.8	1.24	42.0	67.6	10.8	2.7
			80	42.8	1.69	37.8	87.2	7.4	2.6
			100	39.9	2.27	33.3	106.7	5.2	2.4
			120	37.3	2.99	28.8	126.3	3.7	2.3
	9	1.6	60	48.4	1.23	44.7	68.1	11.6	2.7
			80	45.0	1.69	40.0	87.5	7.8	2.6
			100	41.7	2.27	35.2	107.0	5.4	2.4
			120						
	12	2.7	60	49.9	1.24	46.1	68.3	11.8	2.7
			80	46.2	1.70	41.2	87.7	8.0	2.6
			100						
			120						
90	6	0.7	60						
			80						
			100						
			120						
	9	1.5	60						
			80						
			100						
			120						
	12	2.5	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW048 Heating Performance - FULL LOAD

SOURCE			LOAD 6 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6	0.9	60	35.9	2.02	29.8	71.9	5.2	0.8
			80	34.6	2.60	27.0	91.6	3.9	0.7
			100	33.5	3.31	23.9	111.3	3.0	0.7
			120	32.7	4.22	20.6	131.0	2.3	0.6
	9	1.9	60	38.0	2.07	31.7	72.7	5.4	0.8
			80	36.4	2.64	28.5	92.2	4.0	0.7
			100	34.9	3.35	25.2	111.7	3.1	0.7
			120	33.8	4.26	21.5	131.4	2.3	0.6
	12	3.1	60	39.2	2.12	32.7	73.1	5.4	0.8
			80	37.4	2.69	29.4	92.5	4.1	0.7
			100	35.7	3.39	25.8	112.0	3.1	0.7
			120	34.4	4.30	22.0	131.6	2.3	0.6
50	6	0.9	60	45.8	2.15	39.2	75.3	6.3	0.8
			80	44.1	2.69	36.0	94.8	4.8	0.7
			100	42.5	3.38	32.5	114.3	3.7	0.7
			120	41.2	4.27	28.7	133.9	2.8	0.6
	9	1.7	60	48.8	2.20	42.1	76.3	6.5	0.8
			80	46.6	2.74	38.4	95.6	5.0	0.7
			100	44.6	3.43	34.4	115.0	3.8	0.7
			120	42.9	4.31	30.2	134.5	2.9	0.6
	12	2.9	60	50.5	2.26	43.6	76.8	6.6	0.8
			80	48.0	2.79	39.6	96.1	5.0	0.7
			100	45.7	3.47	35.4	115.4	3.9	0.7
			120	43.8	4.35	31.0	134.8	3.0	0.6
70	6	0.8	60	57.5	2.26	50.6	79.2	7.5	0.8
			80	55.2	2.79	46.8	98.5	5.8	0.7
			100	53.0	3.48	42.5	117.8	4.5	0.7
			120	51.1	4.38	38.1	137.3	3.4	0.6
	9	1.6	60	61.5	2.30	54.4	80.5	7.8	0.8
			80	58.6	2.83	50.0	99.6	6.1	0.7
			100	55.9	3.53	45.2	118.8	4.6	0.7
			120	53.5	4.44	40.3	138.1	3.5	0.6
	12	2.7	60	63.7	2.34	56.5	81.2	8.0	0.8
			80	60.5	2.87	51.7	100.3	6.2	0.7
			100	57.5	3.58	46.7	119.3	4.7	0.7
			120	54.8	4.48	41.4	138.5	3.6	0.6
90	6	0.7							
	9	1.5							
	12	2.5							

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW048 Heating Performance - FULL LOAD cont.

SOURCE			LOAD 9 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6	0.9	60						
			80	34.9	2.52	27.4	87.8	4.1	1.5
			100	33.7	3.21	24.3	107.6	3.1	1.4
			120	32.8	4.13	20.9	127.4	2.3	1.4
	9	1.9	60						
			80	36.7	2.55	29.1	88.2	4.2	1.5
			100	35.2	3.25	25.7	107.9	3.2	1.4
			120	33.9	4.16	21.9	127.6	2.4	1.4
	12	3.1	60						
			80	37.7	2.59	30.0	88.4	4.3	1.5
			100	36.0	3.28	26.3	108.1	3.2	1.4
			120	34.6	4.19	22.4	127.8	2.4	1.4
50	6	0.9	60	46.2	2.04	39.9	70.3	6.6	1.6
			80	44.5	2.58	36.8	89.9	5.1	1.5
			100	42.8	3.26	33.2	109.6	3.9	1.4
			120	41.4	4.14	29.2	129.3	2.9	1.4
	9	1.7	60	49.4	2.10	43.0	71.0	6.9	1.6
			80	47.2	2.62	39.2	90.5	5.3	1.5
			100	45.0	3.30	35.2	110.1	4.0	1.4
			120	43.2	4.17	30.9	129.7	3.0	1.4
	12	2.9	60	51.3	2.14	44.6	71.4	7.0	1.6
			80	48.7	2.67	40.6	90.9	5.4	1.5
			100	46.2	3.34	36.2	110.4	4.1	1.4
			120	44.2	4.21	31.7	129.9	3.1	1.4
70	6	0.8	60	58.2	2.13	51.6	72.9	8.0	1.6
			80	55.9	2.65	47.8	92.5	6.2	1.5
			100	53.5	3.32	43.6	112.0	4.7	1.4
			120	51.5	4.20	39.0	131.6	3.6	1.4
	9	1.6	60	63.0	2.16	56.3	74.0	8.5	1.6
			80	59.5	2.67	51.3	93.3	6.5	1.5
			100	56.6	3.35	46.5	112.7	5.0	1.4
			120	54.0	4.24	41.3	132.2	3.7	1.4
	12	2.7	60	64.9	2.19	58.0	74.4	8.7	1.6
			80	61.5	2.71	53.2	93.7	6.7	1.5
			100	58.2	3.38	48.0	113.1	5.0	1.4
			120	55.4	4.28	42.6	132.5	3.8	1.4
90	6	0.7							
	9	1.5							
	12	2.5							

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW048 Heating Performance - FULL LOAD cont.

SOURCE			LOAD 12 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6	0.9	60						
			80	35.1	2.49	27.7	85.9	4.1	2.6
			100	33.9	3.19	24.6	105.7	3.1	2.4
			120	32.9	4.09	21.1	125.6	2.4	2.3
	9	1.9	60						
			80	36.9	2.52	29.4	86.2	4.3	2.6
			100	35.4	3.21	25.9	105.9	3.2	2.4
			120	34.1	4.12	22.1	125.7	2.4	2.3
	12	3.1	60						
			80	38.0	2.56	30.3	86.4	4.3	2.6
			100	36.2	3.25	26.6	106.1	3.3	2.4
			120	34.7	4.16	22.6	125.9	2.5	2.3
50	6	0.9	60	46.5	2.01	40.3	67.7	6.8	2.7
			80	44.8	2.54	37.1	87.5	5.2	2.6
			100	43.1	3.21	33.5	107.2	3.9	2.4
			120	41.6	4.08	29.5	127.0	3.0	2.3
	9	1.7	60	49.8	2.06	43.4	68.3	7.1	2.7
			80	47.5	2.58	39.7	88.0	5.4	2.6
			100	45.3	3.25	35.6	107.6	4.1	2.4
			120	43.4	4.11	31.2	127.3	3.1	2.3
	12	2.9	60	51.7	2.10	45.1	68.6	7.2	2.7
			80	49.1	2.62	41.1	88.2	5.5	2.6
			100	46.5	3.29	36.7	107.8	4.2	2.4
			120	44.4	4.15	32.1	127.5	3.1	2.3
70	6	0.8	60	58.6	2.08	52.2	69.8	8.3	2.7
			80	56.3	2.59	48.4	89.4	6.4	2.5
			100	53.9	3.25	44.1	109.1	4.9	2.4
			120	51.7	4.12	39.4	128.7	3.7	2.3
	9	1.6	60	63.0	2.11	56.4	70.5	8.8	2.7
			80	60.0	2.61	52.0	90.0	6.7	2.5
			100	57.0	3.27	47.1	109.6	5.1	2.4
			120	54.3	4.16	41.9	129.2	3.8	2.3
	12	2.7	60	65.6	2.14	58.9	70.9	9.0	2.7
			80	62.1	2.64	54.0	90.4	6.9	2.5
			100	58.7	3.31	48.7	109.9	5.2	2.4
			120	55.8	4.20	43.2	129.4	3.9	2.3
90	6	0.7							
	9	1.5							
	12	2.5							

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW048 Cooling Performance - PART LOAD

SOURCE			LOAD 6 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6	0.8	50						
			60						
			70						
			80	49.6	1.06	52.8	63.5	46.7	0.8
			90						
	9	1.7	50						
			60						
			70						
			80						
			90						
	12	2.8	50						
			60						
			70						
			80						
			90						
70	6	0.8	50	29.2	1.57	33.9	40.3	18.6	0.9
			60	34.0	1.56	38.6	48.7	21.9	0.8
			70	40.0	1.53	44.6	56.7	26.1	0.8
			80	44.7	1.51	49.2	65.1	29.7	0.8
			90						
	9	1.6	50	30.0	1.51	34.5	40.1	19.8	0.9
			60	35.0	1.48	39.5	48.4	23.6	0.8
			70	40.6	1.45	44.9	56.5	28.0	0.8
			80						
			90						
	12	2.6	50	30.6	1.50	35.1	39.9	20.4	0.9
			60	34.7	1.47	39.1	48.5	23.6	0.8
			70	40.3	1.43	44.6	56.6	28.3	0.8
			80	47.1	1.36	51.2	64.3	34.5	0.8
			90						
90	6	0.7	50	25.8	2.15	32.0	41.5	12.0	0.8
			60	30.3	2.14	36.6	49.9	14.2	0.8
			70	35.2	2.13	41.4	58.3	16.5	0.8
			80						
			90						
	9	1.5	50	26.3	2.08	32.3	41.3	12.6	0.8
			60	30.9	2.06	36.9	49.7	15.0	0.8
			70	36.3	2.03	42.2	57.9	17.9	0.8
			80						
			90						
	12	2.5	50	26.5	2.07	32.5	41.2	12.9	0.8
			60	31.3	2.03	37.3	49.6	15.4	0.8
			70	36.4	2.00	42.3	57.9	18.3	0.8
			80						
			90						
110	6	0.7	50	22.0	2.81	30.0	42.7	7.8	0.8
			60	26.4	2.80	34.4	51.2	9.4	0.8
			70	31.1	2.78	39.2	59.6	11.2	0.8
			80						
			90						
	9	1.4	50	22.5	2.73	30.2	42.6	8.2	0.8
			60	27.0	2.71	34.8	51.0	10.0	0.8
			70	31.9	2.67	39.7	59.4	12.0	0.8
			80						
			90						
	12	2.3	50	22.7	2.71	30.4	42.5	8.4	0.8
			60	27.3	2.68	35.0	50.9	10.2	0.8
			70	32.2	2.64	39.9	59.3	12.2	0.8
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW048 Cooling Performance - PART LOAD cont.

SOURCE			LOAD 9 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6	0.8	50						
			60						
			70						
			80						
			90						
	9	1.7	50						
			60						
			70						
			80						
			90						
	12	2.8	50						
			60						
			70						
			80						
			90						
70	6	0.8	50	30.2	1.58	34.9	43.3	19.1	1.7
			60	36.3	1.56	40.9	52.0	23.2	1.6
			70	42.1	1.54	46.7	60.6	27.4	1.6
			80						
			90						
	9	1.6	50	31.9	1.52	36.4	43.0	21.0	1.7
			60	36.4	1.49	40.8	51.9	24.5	1.6
			70	40.7	1.45	45.1	61.0	28.0	1.6
			80						
			90						
	12	2.6	50	31.9	1.51	36.4	43.0	21.2	1.7
			60	37.5	1.46	41.9	51.7	25.7	1.7
			70	43.4	1.42	47.7	60.4	30.6	1.6
			80						
			90						
90	6	0.7	50	27.2	2.17	33.4	44.0	12.5	1.7
			60	32.1	2.15	38.3	52.9	14.9	1.6
			70	37.3	2.14	43.5	61.7	17.4	1.6
			80						
			90						
	9	1.5	50	27.8	2.09	33.9	43.9	13.3	1.7
			60	32.8	2.06	38.8	52.7	15.9	1.6
			70	38.1	2.03	44.0	61.5	18.8	1.6
			80						
			90						
	12	2.5	50	28.1	2.07	34.1	43.8	13.6	1.7
			60	33.2	2.03	39.1	52.7	16.3	1.6
			70	38.7	1.99	44.6	61.4	19.4	1.6
			80						
			90						
110	6	0.7	50	23.1	2.82	31.1	44.9	8.2	1.7
			60	27.7	2.81	35.8	53.9	9.9	1.6
			70	32.8	2.78	40.9	62.7	11.8	1.6
			80						
			90						
	9	1.4	50	23.6	2.74	31.4	44.8	8.6	1.7
			60	28.4	2.72	36.2	53.7	10.5	1.6
			70	33.7	2.67	41.4	62.5	12.6	1.6
			80						
			90						
	12	2.3	50	23.9	2.72	31.6	44.7	8.8	1.7
			60	28.8	2.68	36.5	53.6	10.7	1.6
			70	34.1	2.63	41.7	62.4	13.0	1.6
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW048 Cooling Performance - PART LOAD cont.

SOURCE			LOAD 12 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6	0.8	50						
			60						
			70	47.4	1.12	50.9	62.1	42.2	2.7
			80						
			90						
	9	1.7	50						
			60						
			70						
			80						
			90						
	12	2.8	50						
			60						
			70						
			80						
			90						
70	6	0.8	50	31.7	1.61	36.5	44.7	19.7	2.9
			60	37.1	1.59	41.9	53.8	23.4	2.8
			70	42.7	1.56	47.4	62.9	27.3	2.7
			80						
			90						
	9	1.6	50	32.4	1.54	37.1	44.6	21.1	2.9
			60	38.4	1.50	43.0	53.6	25.6	2.8
			70	43.5	1.46	47.9	62.8	29.7	2.7
			80						
			90						
	12	2.6	50	32.9	1.53	37.5	44.5	21.6	2.9
			60	39.1	1.48	43.5	53.5	26.4	2.8
			70	44.6	1.43	49.0	62.6	31.2	2.7
			80						
			90						
90	6	0.7	50	27.9	2.19	34.2	45.4	12.7	2.9
			60	33.0	2.18	39.3	54.5	15.1	2.8
			70	38.4	2.16	44.7	63.6	17.8	2.7
			80						
			90						
	9	1.5	50	28.5	2.11	34.7	45.3	13.5	2.9
			60	33.8	2.08	39.9	54.4	16.2	2.8
			70	39.4	2.05	45.4	63.4	19.2	2.7
			80						
			90						
	12	2.5	50	28.9	2.09	35.0	45.2	13.8	2.9
			60	34.2	2.05	40.2	54.3	16.7	2.8
			70	39.8	2.01	45.8	63.4	19.8	2.7
			80						
			90						
110	6	0.7	50	23.6	2.85	31.7	46.1	8.3	2.9
			60	28.4	2.84	36.6	55.3	10.0	2.8
			70						
			80						
			90						
	9	1.4	50	24.2	2.77	32.1	46.0	8.7	2.9
			60	29.1	2.74	37.0	55.2	10.7	2.8
			70						
			80						
			90						
	12	2.3	50	24.5	2.74	32.3	45.9	8.9	2.9
			60	29.5	2.70	37.3	55.1	10.9	2.8
			70						
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW048 Cooling Performance - FULL LOAD

SOURCE			LOAD 6 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6	0.8	50						
			60	47.2	1.96	53.4	44.3	24.1	0.8
			70	54.0	2.02	60.3	52.0	26.7	0.8
			80	61.0	2.08	67.5	59.7	29.4	0.8
			90	68.0	2.12	74.6	67.3	32.1	0.7
	9	1.7	50						
			60						
			70						
			80						
			90	70.2	1.96	76.4	66.5	35.8	0.7
	12	2.8	50						
			60						
			70						
			80						
			90						
70	6	0.7	50	37.9	2.39	45.2	37.5	15.9	0.9
			60	43.8	2.47	51.3	45.5	17.7	0.8
			70	50.2	2.52	57.9	53.3	19.9	0.8
			80	56.8	2.58	64.7	61.0	22.1	0.8
			90						
	9	1.6	50	38.7	2.28	45.7	37.2	17.0	0.9
			60	44.8	2.35	52.0	45.1	19.1	0.8
			70	51.5	2.38	58.8	52.9	21.6	0.8
			80	58.5	2.41	66.0	60.5	24.3	0.8
			90	64.6	2.44	72.2	68.4	26.5	0.7
	12	2.6	50	39.1	2.25	46.1	37.0	17.4	0.9
			60	45.3	2.31	52.5	44.9	19.7	0.8
			70	52.1	2.33	59.4	52.6	22.4	0.8
			80	59.4	2.35	66.7	60.2	25.2	0.8
			90	66.9	2.37	74.3	67.6	28.2	0.7
90	6	0.7	50	34.1	3.01	43.1	38.7	11.3	0.9
			60	39.7	3.09	49.0	46.8	12.8	0.8
			70	45.4	3.15	54.9	54.9	14.4	0.8
			80	51.9	3.22	61.7	62.7	16.1	0.8
			90						
	9	1.5	50	34.9	2.89	43.6	38.5	12.1	0.9
			60	40.6	2.96	49.5	46.5	13.7	0.8
			70	46.9	2.99	56.0	54.4	15.7	0.8
			80	53.8	3.03	63.1	62.0	17.8	0.8
			90						
	12	2.5	50	35.2	2.85	43.8	38.3	12.4	0.9
			60	41.1	2.91	49.9	46.4	14.1	0.8
			70	47.6	2.93	56.5	54.2	16.3	0.8
			80	54.3	2.95	63.3	61.9	18.4	0.8
			90						
110	6	0.7	50	30.2	3.77	41.4	40.0	8.0	0.8
			60	35.5	3.87	47.1	48.2	9.2	0.8
			70	41.5	3.96	53.4	56.2	10.5	0.8
			80	47.4	4.05	59.7	64.2	11.7	0.8
			90						
	9	1.4	50	30.9	3.67	41.8	39.8	8.4	0.9
			60	36.3	3.71	47.4	47.9	9.8	0.8
			70	42.1	3.76	53.4	56.0	11.2	0.8
			80	48.1	3.82	59.7	64.0	12.6	0.8
			90						
	12	2.3	50	31.2	3.63	41.9	39.7	8.6	0.9
			60	36.7	3.65	47.7	47.8	10.1	0.8
			70	42.7	3.69	53.9	55.8	11.6	0.8
			80	49.4	3.73	60.7	63.5	13.2	0.8
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW048 Cooling Performance - FULL LOAD cont.

SOURCE			LOAD 9 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6	0.8	50						
			60	51.1	2.01	57.4	48.7	25.4	1.7
			70	58.5	2.07	65.0	57.0	28.2	1.6
			80	66.2	2.13	72.9	65.3	31.2	1.6
			90						
	9	1.7	50						
			60						
			70						
			80	68.3	1.97	74.6	64.8	34.7	1.6
			90						
	12	2.8	50						
			60						
			70						
			80						
			90						
70	6	0.7	50	40.6	2.44	48.1	41.0	16.6	1.7
			60	47.1	2.51	54.8	49.6	18.8	1.7
			70	54.2	2.57	62.2	58.0	21.1	1.6
			80	61.6	2.63	69.8	66.3	23.5	1.6
			90						
	9	1.6	50	41.6	2.33	48.8	40.8	17.9	1.7
			60	48.4	2.38	55.8	49.3	20.3	1.7
			70	55.8	2.42	63.3	57.6	23.1	1.6
			80	63.7	2.45	71.3	65.8	26.0	1.6
			90						
	12	2.6	50	42.1	2.29	49.2	40.7	18.4	1.7
			60	49.1	2.33	56.3	49.1	21.0	1.7
			70	56.7	2.36	64.0	57.4	24.0	1.6
			80	64.7	2.38	72.1	65.6	27.2	1.6
			90						
90	6	0.7	50	36.4	3.06	45.6	42.0	11.9	1.7
			60	42.5	3.14	52.0	50.6	13.5	1.7
			70	49.2	3.21	58.9	59.1	15.3	1.6
			80	56.1	3.28	66.1	67.5	17.1	1.6
			90						
	9	1.5	50	37.3	2.94	46.1	41.8	12.7	1.7
			60	43.6	2.99	52.7	50.3	14.6	1.7
			70	50.7	3.02	59.9	58.7	16.8	1.6
			80	58.0	3.06	67.3	67.1	18.9	1.6
			90						
	12	2.5	50	37.8	2.89	46.5	41.7	13.1	1.7
			60	44.2	2.93	53.2	50.2	15.1	1.7
			70	51.4	2.95	60.5	58.6	17.4	1.6
			80	58.9	2.98	68.1	66.9	19.8	1.6
			90						
110	6	0.7	50	32.2	3.84	43.6	42.9	8.4	1.7
			60	37.8	3.92	49.6	51.6	9.7	1.6
			70	43.7	4.00	55.8	60.3	10.9	1.6
			80						
			90						
	9	1.4	50	32.8	3.70	43.8	42.8	8.9	1.7
			60	38.9	3.75	50.1	51.4	10.4	1.6
			70	45.2	3.81	56.7	60.0	11.9	1.6
			80						
			90						
	12	2.3	50	33.2	3.65	44.1	42.7	9.1	1.7
			60	39.3	3.69	50.4	51.3	10.7	1.6
			70	43.3	3.71	54.5	60.4	11.7	1.6
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW048 Cooling Performance - FULL LOAD cont.

SOURCE			LOAD 12 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6	0.8	50	45.9	1.99	52.1	42.4	23.1	2.9
			60	53.2	2.06	59.7	51.2	25.9	2.8
			70	61.1	2.12	67.7	59.8	28.8	2.7
			80	69.3	2.17	76.1	68.4	32.0	2.6
			90						
	9	1.7	50						
			60						
			70						
			80	71.6	2.00	78.0	68.0	35.8	2.6
			90						
	12	2.8	50						
			60						
			70						
			80						
			90						
70	6	0.7	50	42.1	2.49	49.7	43.0	16.9	2.9
			60	49.0	2.56	56.9	51.9	19.2	2.8
			70	56.5	2.62	64.6	60.6	21.6	2.7
			80						
			90						
	9	1.6	50	43.2	2.38	50.5	42.8	18.2	2.9
			60	50.5	2.42	58.0	51.6	20.9	2.8
			70	58.3	2.45	65.9	60.3	23.8	2.7
			80						
			90						
	12	2.6	50	43.7	2.34	51.0	42.8	18.7	2.9
			60	51.2	2.37	58.6	51.5	21.6	2.8
			70	59.3	2.39	66.7	60.1	24.8	2.7
			80	67.7	2.41	75.3	68.7	28.1	2.6
			90						
90	6	0.7	50	37.6	3.11	47.0	43.8	12.1	2.9
			60	44.0	3.18	53.7	52.7	13.8	2.8
			70	51.1	3.25	61.0	61.5	15.7	2.7
			80						
			90						
	9	1.5	50	38.5	2.98	47.5	43.6	12.9	2.9
			60	45.3	3.02	54.5	52.5	15.0	2.8
			70	52.7	3.06	62.1	61.2	17.2	2.7
			80						
			90						
	12	2.5	50	39.1	2.93	48.0	43.5	13.3	2.9
			60	46.0	2.96	55.1	52.4	15.5	2.8
			70	53.6	2.99	62.7	61.1	17.9	2.7
			80						
			90						
110	6	0.7	50	33.0	3.88	44.5	44.5	8.5	2.9
			60	39.1	3.96	51.0	53.5	9.9	2.8
			70	45.5	4.06	57.8	62.4	11.2	2.7
			80						
			90						
	9	1.4	50	33.9	3.74	45.1	44.4	9.1	2.9
			60	40.2	3.79	51.6	53.3	10.6	2.8
			70	46.9	3.85	58.6	62.2	12.2	2.7
			80						
			90						
	12	2.3	50	34.3	3.68	45.4	44.3	9.3	2.9
			60	40.7	3.72	51.9	53.2	10.9	2.8
			70	47.6	3.76	59.0	62.1	12.6	2.7
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW060 Heating Performance - PART LOAD

SOURCE			LOAD 6.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6.5	1.0	60	33.9	1.90	28.1	70.4	5.2	0.9
			80	31.9	2.42	24.8	89.8	3.9	0.9
			100	29.1	3.09	20.3	109.0	2.8	0.8
			120	26.4	3.91	15.6	128.2	2.0	0.8
	9.8	2.1	60	36.4	1.93	30.5	71.2	5.5	0.9
			80	33.3	2.45	26.1	90.3	4.0	0.9
			100	30.3	3.12	21.3	109.4	2.9	0.8
			120	27.3	3.94	16.3	128.5	2.0	0.8
	13	3.5	60	37.4	1.97	31.4	71.5	5.6	0.9
			80	34.1	2.49	26.8	90.6	4.0	0.9
			100	30.9	3.16	21.8	109.6	2.9	0.8
			120	27.7	3.98	16.6	128.6	2.0	0.8
50	6.5	1.0	60	45.5	1.90	39.7	74.0	7.0	0.9
			80	41.8	2.44	34.5	92.9	5.0	0.9
			100	39.1	3.12	29.9	112.1	3.7	0.8
			120	36.4	3.97	24.8	131.3	2.7	0.8
	9.8	2.0	60	46.9	1.92	41.0	74.4	7.2	0.9
			80	44.0	2.46	36.6	93.6	5.2	0.9
			100	40.9	3.15	31.6	112.7	3.8	0.8
			120	37.8	3.99	26.2	131.8	2.8	0.8
	13	3.3	60	48.7	1.95	42.7	75.0	7.3	0.9
			80	45.3	2.50	37.8	94.0	5.3	0.9
			100	41.9	3.19	32.4	113.0	3.9	0.8
			120	38.6	4.02	26.8	132.0	2.8	0.8
70	6.5	0.9	60	55.3	1.82	49.8	77.0	8.9	0.9
			80	52.0	2.37	44.9	96.1	6.4	0.9
			100	49.0	3.06	39.9	115.2	4.7	0.8
			120	46.0	3.89	34.5	134.3	3.5	0.8
	9.8	1.9	60	58.9	1.81	53.3	78.1	9.5	0.9
			80	55.0	2.37	47.8	97.0	6.8	0.8
			100	51.4	3.07	42.3	116.0	4.9	0.8
			120	48.0	3.90	36.4	134.9	3.6	0.8
	13	3.1	60	59.8	1.84	54.1	78.4	9.6	0.9
			80	56.6	2.39	49.4	97.5	6.9	0.8
			100	52.8	3.09	43.5	116.4	5.0	0.8
			120						
90	6.5	0.9	60						
			80						
			100						
			120						
	9.8	1.8	60						
			80						
			100						
			120						
	13	2.9	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW060 Heating Performance - PART LOAD cont.

SOURCE			LOAD						
			9.8 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6.5	1.0	60						
			80	32.3	2.36	25.3	86.7	4.0	1.8
			100	29.5	3.03	20.8	106.1	2.9	1.6
			120	26.6	3.86	15.9	125.5	2.0	1.6
	9.8	2.1	60						
			80	33.8	2.38	26.8	87.0	4.2	1.8
			100	30.7	3.05	21.9	106.3	3.0	1.6
			120	27.5	3.88	16.7	125.7	2.1	1.6
	13	3.5	60						
			80	34.7	2.42	27.5	87.1	4.2	1.8
			100	31.3	3.09	22.4	106.5	3.0	1.6
			120	28.0	3.92	17.0	125.8	2.1	1.6
50	6.5	1.0	60	45.2	1.82	39.6	69.3	7.3	1.9
			80	42.3	2.34	35.3	88.7	5.3	1.7
			100	39.6	3.02	30.6	108.2	3.8	1.6
			120	36.7	3.87	25.5	127.6	2.8	1.6
	9.8	2.0	60	47.8	1.83	42.1	69.8	7.7	1.9
			80	44.7	2.36	37.6	89.2	5.6	1.7
			100	41.5	3.04	32.4	108.6	4.0	1.6
			120	38.2	3.89	26.9	127.9	2.9	1.6
	13	3.3	60	48.8	1.86	43.0	70.0	7.7	1.9
			80	46.0	2.39	38.8	89.5	5.7	1.7
			100	42.5	3.08	33.4	108.8	4.1	1.6
			120	39.0	3.92	27.5	128.1	2.9	1.6
70	6.5	0.9	60	56.2	1.70	51.0	71.5	9.7	1.9
			80	52.8	2.24	46.0	90.9	6.9	1.7
			100	49.7	2.93	41.0	110.3	5.0	1.6
			120	46.5	3.76	35.4	129.7	3.6	1.6
	9.8	1.9	60	59.2	1.69	53.9	72.1	10.3	1.9
			80	55.9	2.23	49.2	91.5	7.4	1.7
			100	52.2	2.92	43.5	110.8	5.2	1.6
			120	48.6	3.76	37.5	130.1	3.8	1.6
	13	3.1	60	60.1	1.72	54.8	72.3	10.3	1.9
			80	57.7	2.24	50.9	91.9	7.6	1.7
			100	53.7	2.94	44.9	111.1	5.4	1.6
			120	49.7	3.78	38.5	130.3	3.9	1.6
90	6.5	0.9	60						
			80						
			100						
			120						
	9.8	1.8	60						
			80						
			100						
			120						
	13	2.9	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW060 Heating Performance - PART LOAD cont.

SOURCE			LOAD 13 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6.5	1.0	60						
			80	32.6	2.35	25.7	85.0	4.1	2.9
			100	29.7	3.02	21.1	104.6	2.9	2.8
			120	26.8	3.85	16.1	124.2	2.0	2.6
	9.8	2.1	60						
			80	34.2	2.37	27.1	85.3	4.2	2.9
			100	31.0	3.04	22.2	104.8	3.0	2.8
			120	27.7	3.88	16.9	124.3	2.1	2.6
	13	3.5	60						
			80	35.0	2.41	27.8	85.4	4.3	2.9
			100	31.6	3.07	22.7	104.9	3.0	2.8
			120	28.3	3.91	17.2	124.4	2.1	2.6
50	6.5	1.0	60						
			80	42.6	2.32	35.6	86.6	5.4	2.9
			100	39.9	2.99	31.0	106.2	3.9	2.8
			120	37.0	3.85	25.8	125.8	2.8	2.6
	9.8	2.0	60	48.0	1.81	42.4	67.4	7.8	3.1
			80	45.1	2.33	38.1	87.0	5.7	2.9
			100	41.8	3.01	32.9	106.5	4.1	2.8
			120	38.5	3.86	27.2	126.0	2.9	2.6
	13	3.3	60	48.7	1.84	43.0	67.5	7.8	3.1
			80	46.5	2.36	39.3	87.2	5.8	2.9
			100	42.9	3.04	33.8	106.7	4.1	2.8
			120	39.4	3.89	27.9	126.1	3.0	2.6
70	6.5	0.9	60	57.2	1.67	52.0	68.8	10.1	3.1
			80	53.2	2.20	46.6	88.2	7.1	2.9
			100	50.1	2.88	41.5	107.8	5.1	2.8
			120	46.9	3.70	36.0	127.3	3.7	2.6
	9.8	1.9	60	58.8	1.67	53.6	69.0	10.3	3.1
			80	56.5	2.18	49.8	88.7	7.6	2.9
			100	52.7	2.87	44.2	108.2	5.4	2.8
			120	49.1	3.70	38.1	127.6	3.9	2.6
	13	3.1	60	62.5	1.66	57.3	69.6	11.0	3.1
			80	58.4	2.19	51.7	89.0	7.8	2.9
			100	54.2	2.88	45.6	108.4	5.5	2.8
			120						
90	6.5	0.9	60						
			80						
			100						
			120						
	9.8	1.8	60						
			80						
			100						
			120						
	13	2.9	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW060 Heating Performance - FULL LOAD

SOURCE			LOAD 6.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6.5	1.0	60	44.4	2.60	36.3	73.6	5.0	0.9
			80	42.5	3.25	32.6	93.1	3.8	0.9
			100	40.8	4.03	28.7	112.7	3.0	0.8
			120	41.4	5.05	26.4	132.9	2.4	0.8
	9.8	2.2	60	47.1	2.67	38.8	74.5	5.2	0.9
			80	44.9	3.31	34.8	93.9	4.0	0.9
			100	42.6	4.10	30.3	113.2	3.1	0.8
			120	43.0	5.11	27.8	133.4	2.5	0.8
	13	3.6	60	48.6	2.73	40.1	74.9	5.2	0.9
			80	46.1	3.37	35.8	94.3	4.0	0.9
			100	44.8	4.18	32.1	113.9	3.1	0.8
			120	43.9	5.16	28.4	133.7	2.5	0.8
50	6.5	1.0	60	56.1	2.77	47.4	77.3	5.9	0.9
			80	53.8	3.44	43.2	96.6	4.6	0.9
			100	52.5	4.26	39.5	116.3	3.6	0.8
			120	51.7	5.28	35.8	136.1	2.9	0.8
	9.8	2.0	60	60.1	2.84	51.2	78.5	6.2	0.9
			80	57.3	3.49	46.5	97.7	4.8	0.8
			100	56.9	4.35	43.6	117.7	3.8	0.8
			120	52.9	5.30	36.8	136.5	2.9	0.8
	13	3.3	60	62.3	2.89	53.2	79.2	6.3	0.9
			80	59.4	3.55	48.4	98.4	4.9	0.8
			100	56.2	4.37	42.8	117.4	3.8	0.8
			120	54.9	5.40	38.5	137.1	3.0	0.8
70	6.5	0.9	60	69.3	2.93	60.1	81.3	6.9	0.9
			80	67.0	3.59	55.9	100.7	5.5	0.8
			100	66.8	4.48	53.0	120.7	4.4	0.8
			120	64.2	5.53	47.3	140.0	3.4	0.8
	9.8	1.9	60	75.2	3.03	65.7	83.2	7.3	0.9
			80	71.4	3.67	60.0	102.1	5.7	0.8
			100	70.7	4.55	56.7	122.0	4.6	0.8
			120	66.7	5.59	49.5	140.8	3.5	0.8
	13	3.1	60	78.1	3.10	68.4	84.1	7.4	0.9
			80	73.9	3.74	62.3	102.9	5.8	0.8
			100	73.7	4.63	59.5	122.9	4.7	0.8
			120	66.7	5.60	49.5	140.8	3.5	0.8
90	6.5	0.9	60	90.7	3.22	80.5	87.9	8.3	0.9
			80						
			100						
			120						
	9.8	1.8	60						
			80						
			100						
			120						
	13	3.3	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW060 Heating Performance - FULL LOAD cont.

SOURCE			LOAD 9.8 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6.5	1.0	60	45.0	2.50	37.3	69.2	5.3	1.9
			80	42.9	3.14	33.3	88.8	4.0	1.7
			100	40.8	3.91	29.0	108.4	3.1	1.6
			120	41.5	4.93	26.8	128.6	2.5	1.6
	9.8	2.2	60	47.7	2.55	39.7	69.8	5.5	1.9
			80	45.1	3.19	35.3	89.3	4.1	1.7
			100	44.0	3.99	32.0	109.1	3.2	1.6
			120	43.2	4.98	28.3	129.0	2.5	1.6
	13	3.6	60	49.3	2.61	41.1	70.1	5.5	1.9
			80	46.4	3.25	36.4	89.6	4.2	1.7
			100	45.3	4.05	33.0	109.4	3.3	1.6
			120	44.1	5.02	29.0	129.2	2.6	1.6
50	6.5	1.0	60	56.8	2.63	48.5	71.6	6.3	1.9
			80	54.3	3.28	44.2	91.2	4.9	1.7
			100	54.0	4.11	41.5	111.2	3.9	1.6
			120	52.1	5.10	36.6	130.8	3.0	1.6
	9.8	2.0	60	61.0	2.68	52.6	72.5	6.7	1.9
			80	58.0	3.32	47.7	92.0	5.1	1.7
			100	55.0	4.14	42.3	111.4	3.9	1.6
			120	52.6	5.11	37.1	130.9	3.0	1.6
	13	3.3	60	63.6	2.74	54.9	73.0	6.8	1.9
			80	60.2	3.38	49.8	92.4	5.2	1.7
			100	57.2	4.19	44.4	111.8	4.0	1.6
			120	55.8	5.20	39.9	131.6	3.1	1.6
70	6.5	0.9	60	70.5	2.76	61.8	74.5	7.5	1.9
			80	67.7	3.39	57.1	93.9	5.9	1.7
			100	67.2	4.23	54.2	113.9	4.7	1.6
			120	64.7	5.28	48.4	133.4	3.6	1.6
	9.8	1.9	60	76.4	2.84	67.4	75.7	7.9	1.9
			80	69.1	3.42	58.5	94.2	5.9	1.7
			100	69.6	4.26	56.4	114.4	4.8	1.6
			120	68.5	5.34	52.1	134.2	3.8	1.6
	13	3.1	60	79.8	2.90	70.6	76.4	8.1	1.8
			80	75.6	3.51	64.6	95.6	6.3	1.7
			100	71.5	4.31	58.1	114.8	4.9	1.6
			120	70.5	5.40	53.9	134.6	3.8	1.6
90	6.5	0.9	60	92.2	2.99	82.7	78.9	9.0	1.8
			80	87.7	3.58	76.5	98.1	7.2	1.7
			100						
			120						
	9.8	1.8	60	96.2	3.05	86.5	79.7	9.2	1.8
			80						
			100						
			120						
	13	3.3	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW060 Heating Performance - FULL LOAD cont.

SOURCE			LOAD 13 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Heating Capacity, MBH	Power, KW	Heat Absorb, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	6.5	1.0	60						
			80	43.1	3.11	33.6	86.7	4.1	2.9
			100	41.2	3.88	29.5	106.4	3.1	2.8
			120	41.6	4.89	27.1	126.5	2.5	2.6
	9.8	2.2	60	48.1	2.52	40.2	67.4	5.6	3.1
			80	45.5	3.15	35.8	87.0	4.2	2.9
			100	43.2	3.93	31.3	106.7	3.2	2.8
			120	43.0	4.93	28.2	126.7	2.6	2.6
	13	3.6	60	49.7	2.57	41.6	67.6	5.7	3.1
			80	47.2	3.21	37.3	87.3	4.3	2.9
			100	45.9	4.01	33.7	107.1	3.4	2.8
			120	44.3	4.98	29.3	126.9	2.6	2.6
50	6.5	1.0	60	57.3	2.59	49.1	68.8	6.5	3.1
			80	54.8	3.23	44.8	88.5	5.0	2.9
			100	51.0	4.02	38.8	107.9	3.7	2.8
			120	52.5	5.04	37.3	128.2	3.1	2.6
	9.8	2.0	60	61.6	2.63	53.3	69.5	6.9	3.1
			80	58.6	3.26	48.5	89.1	5.3	2.9
			100	55.7	4.07	43.2	108.6	4.0	2.8
			120	55.2	5.09	39.7	128.6	3.2	2.6
	13	3.3	60	64.3	2.69	55.7	69.9	7.0	3.1
			80	60.8	3.31	50.5	89.4	5.4	2.9
			100	57.6	4.11	44.9	108.9	4.1	2.8
			120	56.7	5.14	41.1	128.8	3.2	2.6
70	6.5	0.9	60	71.5	2.71	62.9	71.0	7.7	3.1
			80	71.6	3.33	61.2	91.1	6.3	2.9
			100	66.9	4.12	54.2	110.4	4.8	2.8
			120	63.3	5.16	47.4	129.9	3.6	2.6
	9.8	1.9	60	77.2	2.77	68.4	71.9	8.2	3.1
			80	71.3	3.35	60.8	91.0	6.2	2.9
			100	69.5	4.16	56.7	110.8	4.9	2.8
			120	66.7	5.21	50.7	130.4	3.8	2.6
	13	3.1	60	80.9	2.84	71.8	72.4	8.4	3.1
			80	80.0	3.44	69.2	92.4	6.8	2.9
			100	72.1	4.20	59.1	111.2	5.0	2.8
			120	70.7	5.27	54.5	131.0	3.9	2.6
90	6.5	0.9	60	89.6	2.87	80.5	73.8	9.2	3.1
			80	89.4	3.47	78.5	93.8	7.5	2.9
			100	81.0	4.22	67.9	112.6	5.6	2.7
			120						
	9.8	1.8	60	97.6	2.97	88.1	75.0	9.6	3.1
			80	87.5	3.47	76.7	93.5	7.4	2.9
			100						
			120						
	13	3.3	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW060 Cooling Performance - PART LOAD

SOURCE			LOAD 6.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6.5	0.9	50	51.1	1.40	55.5	54.3	36.5	0.9
			60						
			70						
			80						
			90						
	9.8	1.9	50						
			60						
			70						
			80						
			90						
	13	3.2	50						
			60						
			70						
			80						
			90						
70	6.5	0.9	50	34.9	1.91	40.7	39.3	18.3	1.0
			60	40.6	1.91	46.4	47.6	21.2	1.0
			70	46.7	1.89	52.5	55.6	24.7	0.9
			80	53.3	1.86	58.9	63.6	28.7	0.9
			90						
	9.8	1.8	50	35.8	1.84	41.4	39.0	19.5	1.0
			60	41.7	1.82	47.3	47.2	22.9	1.0
			70	48.1	1.79	53.6	55.2	27.0	0.9
			80	54.9	1.73	60.2	63.1	31.7	0.9
			90						
	13	3.0	50	36.3	1.82	41.9	38.9	19.9	1.0
			60	42.3	1.80	47.8	47.0	23.5	1.0
			70	48.8	1.75	54.2	55.0	27.9	0.9
			80	55.8	1.69	61.0	62.8	33.0	0.9
			90						
90	6.5	0.8	50	31.4	2.62	39.2	40.4	12.0	1.0
			60	37.1	2.63	44.9	48.6	14.1	1.0
			70	43.2	2.62	51.0	56.7	16.5	0.9
			80	49.6	2.59	57.4	64.7	19.1	0.9
			90						
	9.8	1.7	50	32.3	2.53	39.8	40.1	12.8	1.0
			60	38.1	2.52	45.7	48.3	15.1	1.0
			70	44.5	2.49	52.0	56.3	17.9	0.9
			80	51.2	2.44	58.6	64.2	21.0	0.9
			90						
	13	2.8	50	32.7	2.50	40.2	40.0	13.1	1.0
			60	38.6	2.49	46.1	48.2	15.5	1.0
			70	45.1	2.44	52.5	56.1	18.5	0.9
			80	52.1	2.38	59.3	64.0	21.9	0.9
			90						
110	6.5	0.8	50	27.0	3.34	36.8	41.7	8.1	1.0
			60	31.8	3.35	41.7	50.2	9.5	1.0
			70	38.1	3.35	48.0	58.3	11.4	0.9
			80	43.1	3.33	53.1	66.7	12.9	0.9
			90						
	9.8	1.6	50	27.3	3.24	36.8	41.7	8.4	1.0
			60	32.9	3.24	42.4	49.9	10.1	1.0
			70	38.5	3.21	48.1	58.2	12.0	0.9
			80	45.0	3.17	54.4	66.1	14.2	0.9
			90						
	13	2.7	50	27.6	3.22	37.1	41.6	8.6	1.0
			60	33.4	3.20	42.9	49.8	10.4	1.0
			70	39.2	3.16	48.7	57.9	12.4	0.9
			80	45.6	3.11	54.9	66.0	14.6	0.9
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW060 Cooling Performance - PART LOAD cont.

SOURCE			LOAD 9.8 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6.5	0.9	50						
			60						
			70	54.9	1.39	59.3	58.7	39.4	1.9
			80	62.3	1.35	66.5	67.2	46.2	1.8
			90						
	9.8	1.9	50						
			60						
			70						
			80						
			90						
	13	3.2	50						
			60						
			70						
			80						
			90						
70	6.5	0.9	50	37.1	1.93	43.0	42.4	19.2	2.0
			60	43.2	1.93	49.1	51.2	22.4	1.9
			70	50.1	1.89	55.9	59.7	26.5	1.9
			80						
			90						
	9.8	1.8	50	38.1	1.85	43.8	42.2	20.6	2.0
			60	44.5	1.83	50.2	50.9	24.3	1.9
			70	51.7	1.77	57.1	59.4	29.2	1.9
			80						
			90						
	13	3.0	50	38.7	1.83	44.3	42.1	21.1	2.0
			60	45.2	1.80	50.8	50.7	25.1	1.9
			70	52.5	1.74	57.9	59.2	30.3	1.9
			80						
			90						
90	6.5	0.8	50	33.4	2.64	41.2	43.2	12.6	2.0
			60	39.4	2.66	47.4	51.9	14.9	1.9
			70	46.2	2.63	54.1	60.5	17.6	1.9
			80						
			90						
	9.8	1.7	50	34.4	2.54	42.0	43.0	13.5	2.0
			60	40.7	2.54	48.3	51.7	16.0	1.9
			70	47.8	2.48	55.3	60.2	19.3	1.9
			80						
			90						
	13	2.8	50	34.9	2.51	42.4	42.9	13.9	2.0
			60	41.4	2.49	48.9	51.5	16.6	1.9
			70	48.6	2.43	55.9	60.0	20.0	1.9
			80						
			90						
110	6.5	0.8	50	28.0	3.37	37.8	44.3	8.3	2.0
			60	33.7	3.37	43.7	53.1	10.0	1.9
			70	40.1	3.36	50.1	61.8	12.0	1.9
			80						
			90						
	9.8	1.6	50	29.0	3.27	38.6	44.1	8.9	2.0
			60	34.9	3.24	44.5	52.9	10.7	1.9
			70	41.2	3.21	50.8	61.6	12.8	1.9
			80						
			90						
	13	2.7	50	29.2	3.23	38.8	44.0	9.0	2.0
			60	35.3	3.21	44.8	52.8	11.0	1.9
			70	41.9	3.16	51.4	61.4	13.3	1.9
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW060 Cooling Performance - PART LOAD cont.

SOURCE			LOAD						
			13 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6.5	0.9	50						
			60						
			70						
			80						
			90						
	9.8	1.9	50						
			60						
			70						
			80						
			90						
	13	3.2	50						
			60						
			70						
			80						
			90						
70	6.5	0.9	50	38.2	1.97	44.2	44.2	19.4	3.3
			60	44.8	1.96	50.7	53.1	22.9	3.2
			70	51.9	1.92	57.8	62.0	27.1	3.1
			80						
			90						
	9.8	1.8	50	39.4	1.88	45.2	44.0	20.9	3.3
			60	46.2	1.85	51.9	52.9	25.0	3.2
			70	53.7	1.79	59.2	61.7	30.0	3.1
			80						
			90						
	13	3.0	50	40.0	1.86	45.7	43.9	21.5	3.3
			60	47.0	1.82	52.6	52.8	25.8	3.2
			70	54.6	1.75	60.0	61.6	31.3	3.1
			80						
			90						
90	6.5	0.8	50	34.3	2.68	42.3	44.7	12.8	3.3
			60	40.7	2.68	48.8	53.7	15.2	3.2
			70	47.8	2.65	55.8	62.6	18.0	3.1
			80						
			90						
	9.8	1.7	50	35.4	2.58	43.1	44.6	13.7	3.3
			60	42.1	2.56	49.9	53.5	16.5	3.2
			70	49.5	2.50	57.1	62.4	19.8	3.1
			80						
			90						
	13	2.8	50	36.0	2.55	43.7	44.5	14.2	3.3
			60	42.9	2.51	50.5	53.4	17.1	3.2
			70	50.4	2.44	57.9	62.2	20.7	3.1
			80						
			90						
110	6.5	0.8	50	28.0	3.37	37.8	44.3	8.3	2.0
			60	33.7	3.37	43.7	53.1	10.0	1.9
			70	40.1	3.36	50.1	61.8	12.0	1.9
			80						
			90						
	9.8	1.6	50	29.0	3.27	38.6	44.1	8.9	2.0
			60	34.9	3.24	44.5	52.9	10.7	1.9
			70	41.2	3.21	50.8	61.6	12.8	1.9
			80						
			90						
	13	2.7	50	29.2	3.23	38.8	44.0	9.0	2.0
			60	35.3	3.21	44.8	52.8	11.0	1.9
			70	41.9	3.16	51.4	61.4	13.3	1.9
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW060 Cooling Performance - FULL LOAD

SOURCE			LOAD 6.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6.5	0.9	50	49.4	2.34	56.8	34.9	21.1	1.0
			60	56.7	2.42	64.4	42.6	23.4	1.0
			70	64.5	2.51	72.5	50.2	25.7	0.9
			80	72.7	2.62	81.0	57.6	27.8	0.9
			90	81.2	2.73	89.8	65.0	29.7	0.9
	9.8	1.9	50						
			60						
			70	66.2	2.36	73.7	49.7	28.0	0.9
			80	74.7	2.45	82.6	57.0	30.5	0.9
			90						
	13	3.2	50						
			60						
			70						
			80						
			90	84.8	2.48	92.9	63.8	34.2	0.9
70	6.5	0.9	50	45.9	2.95	55.1	36.0	15.6	1.0
			60	53.0	3.02	62.4	43.8	17.5	1.0
			70	60.5	3.11	70.2	51.4	19.5	0.9
			80	68.3	3.21	78.4	59.0	21.3	0.9
			90	76.4	3.31	86.8	66.4	23.1	0.9
	9.8	1.8	50	47.0	2.81	55.7	35.6	16.7	1.0
			60	54.3	2.86	63.3	43.4	19.0	1.0
			70	62.1	2.92	71.3	50.9	21.3	0.9
			80	70.3	2.99	79.8	58.3	23.5	0.9
			90	78.9	3.08	88.6	65.7	25.6	0.9
	13	3.0	50	47.5	2.76	56.2	35.5	17.2	1.0
			60	55.0	2.80	63.8	43.1	19.6	1.0
			70	63.0	2.85	72.0	50.7	22.1	0.9
			80	71.3	2.91	80.6	58.0	24.5	0.9
			90	80.1	2.99	89.6	65.3	26.8	0.9
90	6.5	0.8	50	41.9	3.70	53.2	37.2	11.3	1.0
			60	48.5	3.77	60.2	45.1	12.9	1.0
			70	55.6	3.86	67.6	52.9	14.4	0.9
			80	63.0	3.96	75.3	60.6	15.9	0.9
			90	70.6	4.07	83.3	68.2	17.4	0.9
	9.8	1.7	50	42.8	3.54	53.7	36.9	12.1	1.0
			60	49.8	3.58	60.9	44.7	13.9	1.0
			70	57.2	3.64	68.5	52.4	15.7	0.9
			80	64.9	3.71	76.5	60.0	17.5	0.9
			90	73.0	3.78	84.8	67.5	19.3	0.9
	13	2.8	50	43.3	3.48	54.0	36.8	12.4	1.0
			60	50.4	3.51	61.3	44.6	14.3	1.0
			70	57.9	3.55	69.0	52.2	16.3	0.9
			80	65.9	3.61	77.2	59.7	18.3	0.9
			90	74.2	3.67	85.7	67.1	20.2	0.9
110	6.5	0.8	50	37.6	4.58	51.5	38.5	8.2	1.0
			60	43.8	4.67	58.1	46.6	9.4	1.0
			70	50.3	4.78	65.0	54.5	10.5	0.9
			80	57.2	4.89	72.3	62.4	11.7	0.9
			90						
	9.8	1.6	50	38.4	4.40	51.8	38.3	8.7	1.0
			60	44.9	4.48	58.6	46.2	10.0	1.0
			70	51.7	4.54	65.7	54.1	11.4	0.9
			80	58.9	4.61	73.2	61.8	12.8	0.9
			90	66.4	4.69	81.0	69.5	14.2	0.9
	13	2.7	50	38.8	4.35	52.1	38.1	8.9	1.0
			60	45.4	4.40	58.9	46.1	10.3	1.0
			70	52.4	4.45	66.2	53.9	11.8	0.9
			80	59.8	4.49	73.7	61.6	13.3	0.9
			90	67.5	4.55	81.7	69.2	14.9	0.9

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW060 Cooling Performance - FULL LOAD cont.

SOURCE			LOAD 9.8 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6.5	0.9	50	53.4	2.41	61.1	39.1	22.2	2.0
			60	61.6	2.50	69.6	47.4	24.7	1.9
			70	70.3	2.61	78.6	55.6	27.0	1.9
			80	79.5	2.73	88.2	63.7	29.2	1.8
			90						
	9.8	1.9	50						
			60						
			70	72.4	2.44	80.3	55.2	29.7	1.9
			80	82.1	2.55	90.2	63.1	32.2	1.8
			90	92.1	2.66	100.7	71.0	34.6	1.8
	13	3.2	50						
			60						
			70						
			80	83.4	2.49	91.4	62.9	33.6	1.8
			90	93.8	2.60	102.1	70.7	36.1	1.8
70	6.5	0.9	50	49.5	3.01	58.9	39.9	16.5	2.0
			60	57.4	3.09	67.0	48.3	18.6	1.9
			70	65.7	3.19	75.7	56.5	20.6	1.9
			80	74.4	3.30	84.8	64.7	22.5	1.8
			90						
	9.8	1.8	50	50.8	2.85	59.7	39.7	17.8	2.0
			60	59.0	2.91	68.1	47.9	20.2	1.9
			70	67.7	2.99	77.2	56.1	22.7	1.9
			80	76.9	3.08	86.6	64.2	25.0	1.8
			90						
	13	3.0	50	51.4	2.80	60.2	39.5	18.4	2.0
			60	59.8	2.85	68.8	47.8	21.0	1.9
			70	68.8	2.91	78.0	55.9	23.6	1.9
			80	78.2	2.99	87.7	63.9	26.2	1.8
			90						
90	6.5	0.8	50	44.9	3.75	56.4	40.8	12.0	2.0
			60	52.3	3.84	64.2	49.3	13.6	1.9
			70	60.1	3.94	72.3	57.7	15.3	1.9
			80	68.3	4.05	80.9	66.0	16.8	1.8
			90						
	9.8	1.7	50	46.1	3.58	57.1	40.6	12.9	2.0
			60	53.8	3.63	65.1	49.0	14.8	1.9
			70	62.0	3.70	73.5	57.3	16.8	1.9
			80	70.6	3.78	82.4	65.5	18.7	1.8
			90						
	13	2.8	50	46.7	3.52	57.5	40.5	13.3	2.0
			60	54.6	3.55	65.6	48.8	15.4	1.9
			70	63.0	3.60	74.3	57.1	17.5	1.9
			80	71.9	3.67	83.4	65.2	19.6	1.8
			90						
110	6.5	0.8	50	40.1	4.64	54.2	41.8	8.6	2.0
			60	46.9	4.75	61.4	50.4	9.9	1.9
			70	54.1	4.86	69.1	58.9	11.1	1.9
			80	61.4	4.99	76.9	67.4	12.3	1.8
			90						
	9.8	1.6	50	41.1	4.45	54.7	41.6	9.2	2.0
			60	48.2	4.53	62.1	50.2	10.6	1.9
			70	55.8	4.60	70.0	58.6	12.1	1.9
			80	63.8	4.68	78.3	66.9	13.6	1.8
			90						
	13	2.7	50	41.6	4.39	55.0	41.5	9.5	2.0
			60	48.8	4.44	62.5	50.0	11.0	1.9
			70	56.7	4.49	70.5	58.4	12.6	1.9
			80	64.9	4.55	79.0	66.7	14.3	1.8
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW060 Cooling Performance - FULL LOAD cont.

SOURCE			LOAD 13 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	6.5	0.9	50	55.7	2.47	63.6	41.5	22.6	3.3
			60	64.4	2.57	72.6	50.1	25.1	3.2
			70	73.7	2.68	82.2	58.7	27.5	3.1
			80	83.4	2.81	92.4	67.1	29.7	3.0
	9.8	1.9	50						
			60	66.3	2.42	74.1	49.8	27.5	3.2
			70	76.1	2.52	84.2	58.3	30.3	3.1
			80	86.4	2.63	94.8	66.7	32.9	3.0
	13	3.2	50						
			60						
			70						
			80	87.9	2.57	96.2	66.4	34.3	3.0
70	6.5	0.9	50	51.5	3.06	61.1	42.1	16.8	3.3
			60	59.8	3.15	69.7	50.8	19.0	3.2
			70	68.6	3.26	78.9	59.4	21.0	3.1
			80	77.8	3.39	88.5	68.0	23.0	3.0
	9.8	1.8	50	52.9	2.90	62.0	41.9	18.2	3.3
			60	61.6	2.97	71.0	50.5	20.8	3.2
			70	70.9	3.05	80.6	59.1	23.3	3.1
			80	80.8	3.15	90.7	67.6	25.7	3.0
	13	3.0	50	53.7	2.85	62.6	41.8	18.8	3.3
			60	62.6	2.90	71.8	50.4	21.6	3.2
			70	72.1	2.97	81.6	58.9	24.3	3.1
			80	82.3	3.06	92.0	67.3	26.9	3.0
90	6.5	0.8	50	46.6	3.80	58.3	42.9	12.3	3.3
			60	54.4	3.90	66.4	51.7	14.0	3.2
			70	62.6	4.01	75.0	60.4	15.6	3.1
			80	71.2	4.13	84.0	69.0	17.2	3.0
	9.8	1.7	50	47.9	3.63	59.1	42.7	13.2	3.3
			60	56.0	3.68	67.5	51.4	15.2	3.2
			70	64.7	3.76	76.5	60.0	17.2	3.1
			80	73.9	3.84	85.9	68.6	19.2	3.0
	13	2.8	50	48.5	3.56	59.6	42.6	13.6	3.3
			60	56.9	3.60	68.1	51.3	15.8	3.2
			70	65.9	3.66	77.3	59.9	18.0	3.1
			80	75.3	3.72	87.0	68.4	20.2	3.0
110	6.5	0.8	50	40.1	4.64	54.2	41.8	8.6	2.0
			60	46.9	4.75	61.4	50.4	9.9	1.9
			70	54.1	4.86	69.1	58.9	11.1	1.9
	9.8	1.6	50	41.1	4.45	54.7	41.6	9.2	2.0
			60	48.2	4.53	62.1	50.2	10.6	1.9
			70	55.8	4.60	70.0	58.6	12.1	1.9
	13	2.7	50	41.6	4.39	55.0	41.5	9.5	2.0
			60	48.8	4.44	62.5	50.0	11.0	1.9
			70	56.7	4.49	70.5	58.4	12.6	1.9
			80	64.9	4.55	79.0	66.7	14.3	1.8

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW120 Heating Performance - PART LOAD

SOURCE			LOAD 15 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	15	1.4	60	74.2	3.77	62.6	69.9	5.8	1.2
			80	66.6	4.80	52.4	88.9	4.1	1.1
			100	61.7	6.11	44.1	108.3	3.0	1.1
			120	56.0	7.76	34.2	127.6	2.1	1.0
	22.5	2.8	60	77.7	3.83	65.9	70.4	5.9	1.2
			80	70.4	4.87	55.8	89.4	4.2	1.1
			100	64.1	6.19	46.2	108.6	3.0	1.1
			120	57.8	7.84	35.7	127.8	2.2	1.0
	30	4.7	60	79.7	3.95	67.5	70.6	5.9	1.2
			80	70.9	4.98	56.0	89.5	4.2	1.1
			100	65.5	6.31	47.1	108.8	3.0	1.1
			120	58.7	7.96	36.2	127.9	2.2	1.0
50	15	1.3	60	96.8	3.76	85.1	72.9	7.5	1.2
			80	88.9	4.83	74.3	91.9	5.4	1.1
			100	81.3	6.19	63.0	110.9	3.9	1.1
			120	77.4	7.87	54.4	130.5	2.9	1.0
	22.5	2.6	60	102.2	3.82	90.3	73.6	7.8	1.2
			80	93.6	4.89	78.7	92.5	5.6	1.1
			100	85.3	6.26	66.7	111.5	4.0	1.1
			120	80.4	7.93	57.1	130.9	3.0	1.0
	30	4.3	60	105.2	3.90	93.0	74.0	7.9	1.2
			80	96.1	5.00	80.8	92.9	5.6	1.1
			100	86.9	6.38	67.9	111.7	4.0	1.1
			120	82.0	8.03	58.2	131.1	3.0	1.0
70	15	1.2	60	120.5	3.57	109.4	76.1	9.9	1.2
			80	111.7	4.67	97.5	95.0	7.0	1.1
			100	104.5	6.06	86.3	114.1	5.1	1.0
			120	97.8	7.73	74.9	133.2	3.7	1.0
	22.5	2.5	60	128.0	3.58	116.9	77.1	10.5	1.2
			80	118.5	4.69	104.2	95.9	7.4	1.1
			100	109.4	6.08	91.1	114.7	5.3	1.0
			120	102.6	7.77	79.5	133.9	3.9	1.0
	30	4.1	60	132.5	3.65	121.0	77.7	10.6	1.2
			80	122.0	4.76	107.5	96.3	7.5	1.1
			100	112.0	6.17	93.4	115.1	5.3	1.0
			120	104.8	7.86	81.3	134.2	3.9	1.0
90	15	1.1	60						
			80						
			100						
			120						
	22.5	2.3	60						
			80						
			100						
			120						
	30	3.8	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW120 Heating Performance - PART LOAD cont.

SOURCE			LOAD						
			22.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
30	15	1.4	60						
			80	64.4	4.70	50.5	85.7	4.0	2.3
			100	62.4	6.03	45.0	105.6	3.0	2.2
			120	56.5	7.70	34.9	125.1	2.2	2.1
	22.5	2.8	60						
			80	70.7	4.77	56.4	86.3	4.3	2.3
			100	64.9	6.09	47.2	105.8	3.1	2.2
			120	58.4	7.76	36.4	125.3	2.2	2.1
	30	4.7	60						
			80	66.0	4.87	51.5	85.9	4.0	2.3
			100	66.3	6.21	48.1	105.9	3.1	2.2
			120	59.4	7.88	36.9	125.3	2.2	2.1
50	15	1.3	60	98.6	3.63	87.2	68.8	8.0	2.5
			80	90.3	4.68	76.1	88.1	5.7	2.3
			100	83.4	6.03	65.4	107.5	4.1	2.2
			120	78.1	7.72	55.5	127.0	3.0	2.1
	22.5	2.6	60	104.4	3.67	92.8	69.3	8.3	2.5
			80	95.3	4.73	80.8	88.5	5.9	2.3
			100	85.5	6.09	67.3	107.7	4.1	2.2
			120	81.3	7.77	58.3	127.3	3.1	2.1
	30	4.3	60	107.5	3.75	95.7	69.6	8.4	2.5
			80	98.2	4.83	83.4	88.8	6.0	2.3
			100	89.0	6.19	70.4	108.0	4.2	2.2
			120	83.0	7.87	59.7	127.5	3.1	2.1
70	15	1.2	60	123.0	3.38	112.4	70.9	10.7	2.5
			80	114.1	4.44	100.5	90.2	7.5	2.3
			100	106.2	5.82	88.7	109.5	5.4	2.2
			120	100.1	7.48	77.8	129.0	3.9	2.1
	22.5	2.5	60	131.1	3.37	120.5	71.6	11.4	2.5
			80	120.8	4.44	107.2	90.8	8.0	2.3
			100	111.3	5.82	93.7	110.0	5.6	2.2
			120	105.0	7.50	82.6	129.5	4.1	2.1
	30	4.1	60	135.7	3.43	124.9	72.1	11.6	2.4
			80	124.8	4.51	110.9	91.1	8.1	2.3
			100	114.6	5.89	96.8	110.3	5.7	2.2
			120	106.4	7.59	83.8	129.6	4.1	2.1
90	15	1.1	60						
			80						
			100						
			120						
	22.5	2.3	60						
			80						
			100						
			120						
	30	3.8	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW120 Heating Performance - PART LOAD cont.

SOURCE			LOAD 30 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	15	1.4	60						
			80	66.4	4.73	52.3	84.4	4.1	3.9
			100	62.9	6.05	45.4	104.2	3.1	3.7
			120	57.0	7.73	35.2	123.8	2.2	3.5
	22.5	2.8	60						
			80	71.5	4.79	57.1	84.8	4.4	3.9
			100	65.5	6.11	47.6	104.4	3.1	3.7
			120	58.8	7.79	36.7	124.0	2.2	3.5
	30	4.7	60						
			80	73.2	4.90	58.4	84.9	4.4	3.9
			100	66.9	6.22	48.6	104.5	3.2	3.7
			120	59.9	7.90	37.3	124.0	2.2	3.5
50	15	1.3	60						
			80	91.4	4.67	77.2	86.1	5.7	3.9
			100	83.7	6.02	65.7	105.6	4.1	3.7
			120	78.7	7.71	56.0	125.3	3.0	3.5
	22.5	2.6	60	105.7	3.66	94.2	67.0	8.5	4.1
			80	96.4	4.71	82.0	86.5	6.0	3.9
			100	87.6	6.07	69.4	105.9	4.2	3.7
			120	82.0	7.75	59.1	125.5	3.1	3.5
	30	4.3	60	109.1	3.74	97.3	67.3	8.6	4.1
			80	99.2	4.81	84.4	86.6	6.1	3.9
			100	89.8	6.17	71.2	106.0	4.3	3.6
			120	83.7	7.85	60.4	125.6	3.1	3.5
70	15	1.2	60	124.6	3.36	114.0	68.3	10.9	4.1
			80	116.1	4.39	102.6	87.8	7.7	3.9
			100	106.5	5.77	89.0	107.2	5.4	3.6
			120	99.1	7.44	76.8	126.7	3.9	3.5
	22.5	2.5	60	132.9	3.34	122.3	68.9	11.7	4.1
			80	122.4	4.39	108.9	88.2	8.2	3.9
			100	112.5	5.76	95.0	107.6	5.7	3.6
			120	102.7	7.46	80.4	126.9	4.0	3.5
	30	4.1	60	137.7	3.39	126.9	69.2	11.9	4.1
			80	126.6	4.45	112.8	88.5	8.3	3.9
			100	115.8	5.82	98.2	107.8	5.8	3.6
			120	107.1	7.52	84.6	127.2	4.2	3.5
90	15	1.1	60						
			80						
			100						
			120						
	22.5	2.3	60						
			80						
			100						
			120						
	30	3.8	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW120 Heating Performance - FULL LOAD

SOURCE			LOAD 15 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	15	1.4	60	93.8	5.15	77.7	72.5	5.3	1.2
			80	89.5	6.44	69.9	92.0	4.1	1.1
			100	85.9	8.02	61.8	111.6	3.1	1.1
			120	82.6	9.97	53.0	131.2	2.4	1.0
	22.5	2.8	60	98.9	5.28	82.3	73.2	5.5	1.2
			80	94.0	6.57	73.8	92.6	4.2	1.1
			100	89.6	8.15	64.9	112.0	3.2	1.1
			120	85.7	10.09	55.6	131.6	2.5	1.0
	30	4.7	60	101.7	5.43	84.7	73.6	5.5	1.2
			80	96.4	6.72	75.8	92.9	4.2	1.1
			100	91.7	8.30	66.5	112.3	3.2	1.1
			120	84.3	10.16	53.9	131.4	2.4	1.0
50	15	1.3	60	121.0	5.53	103.6	76.1	6.4	1.2
			80	115.9	6.85	94.7	95.5	5.0	1.1
			100	111.4	8.53	85.3	115.0	3.8	1.0
			120	107.8	10.57	75.6	134.6	3.0	1.0
	22.5	2.6	60	129.1	5.67	111.2	77.2	6.7	1.2
			80	122.9	6.98	101.2	96.5	5.2	1.1
			100	117.3	8.65	90.7	115.8	4.0	1.0
			120	111.9	10.70	79.2	135.1	3.1	1.0
	30	4.4	60	133.7	5.82	115.3	77.8	6.7	1.2
			80	126.9	7.12	104.7	97.0	5.2	1.1
			100	120.7	8.79	93.6	116.2	4.0	1.0
			120	114.4	10.84	81.3	135.5	3.1	1.0
70	15	1.2	60	151.2	5.87	132.7	80.2	7.6	1.2
			80	144.7	7.16	122.3	99.4	5.9	1.1
			100	138.5	8.84	111.1	118.6	4.6	1.0
			120	133.2	11.01	99.4	138.0	3.6	1.0
	22.5	2.5	60	162.7	6.06	143.5	81.7	7.9	1.2
			80	154.6	7.33	131.7	100.7	6.2	1.1
			100	147.1	9.00	119.1	119.8	4.8	1.0
			120	139.9	11.15	105.6	138.9	3.7	1.0
	30	4.1	60	169.1	6.23	149.3	82.6	8.0	1.2
			80	160.2	7.49	136.8	101.5	6.3	1.1
			100	151.7	9.16	123.2	120.4	4.9	1.0
			120	144.0	11.31	109.1	139.5	3.7	1.0
90	15	1.1	60	187.4	6.31	167.5	85.0	8.7	1.2
			80	178.7	7.57	155.0	104.0	6.9	1.1
			100						
			120						
	22.5	2.3	60						
			80						
			100						
			120						
	30	3.9	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW120 Heating Performance - FULL LOAD cont.

SOURCE			LOAD 22.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
30	15	1.4	60	94.8	4.99	79.1	68.4	5.6	2.5
			80	90.3	6.27	71.1	88.1	4.2	2.3
			100	86.5	7.85	62.8	107.8	3.2	2.2
			120	82.7	9.81	53.5	127.4	2.5	2.1
	22.5	2.8	60	100.0	5.10	84.0	68.9	5.7	2.5
			80	94.9	6.39	75.3	88.5	4.4	2.3
			100	89.8	7.96	65.7	108.0	3.3	2.2
			120	86.0	9.92	56.3	127.7	2.5	2.1
	30	4.7	60	103.1	5.25	86.5	69.2	5.8	2.5
			80	97.5	6.53	77.3	88.7	4.4	2.3
			100	92.5	8.11	67.8	108.3	3.3	2.2
			120	88.9	10.08	58.5	128.0	2.6	2.1
50	15	1.3	60	122.5	5.30	105.7	70.9	6.8	2.5
			80	117.2	6.59	96.7	90.5	5.2	2.3
			100	112.4	8.23	87.0	110.1	4.0	2.2
			120	108.4	10.29	77.1	129.8	3.1	2.1
	22.5	2.6	60	131.0	5.42	113.7	71.6	7.1	2.5
			80	124.5	6.69	103.6	91.1	5.5	2.3
			100	118.5	8.33	92.8	110.6	4.2	2.2
			120	112.8	10.40	81.0	130.2	3.2	2.1
	30	4.4	60	135.9	5.56	118.2	72.1	7.2	2.5
			80	128.7	6.82	107.4	91.5	5.5	2.3
			100	122.1	8.46	95.9	110.9	4.2	2.2
			120	116.4	10.54	84.0	130.5	3.2	2.1
70	15	1.2	60	153.6	5.57	135.9	73.7	8.1	2.4
			80	146.7	6.80	125.3	93.1	6.3	2.3
			100	140.1	8.43	113.9	112.6	4.9	2.2
			120	134.3	10.58	101.7	132.1	3.7	2.1
	22.5	2.5	60	165.8	5.74	147.4	74.7	8.5	2.4
			80	157.2	6.94	135.4	94.0	6.6	2.3
			100	149.2	8.56	122.5	113.4	5.1	2.2
			120	141.5	10.70	108.4	132.7	3.9	2.1
	30	4.1	60	172.7	5.91	153.8	75.4	8.6	2.4
			80	163.3	7.09	141.0	94.6	6.8	2.3
			100	154.1	8.70	127.0	113.8	5.2	2.2
			120	145.1	10.83	111.6	133.1	3.9	2.1
90	15	1.1	60	191.4	5.95	172.4	77.0	9.4	2.4
			80	182.4	7.12	160.0	96.3	7.5	2.3
			100						
			120						
	22.5	2.3	60						
			80						
			100						
			120						
	30	3.9	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW120 Heating Performance - FULL LOAD cont.

SOURCE			LOAD 30 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	COP	Pressure Drop (PSI)
30	15	1.4	60						
			80	91.0	6.27	71.7	86.1	4.3	3.9
			100	87.0	7.84	63.3	105.8	3.3	3.7
			120	83.4	9.80	54.2	125.6	2.5	3.5
	22.5	2.8	60						
			80	95.6	6.37	76.0	86.4	4.4	3.9
			100	90.4	7.94	66.2	106.1	3.3	3.7
			120	87.3	10.00	57.2	125.9	2.6	3.5
	30	4.7	60	104.0	5.23	87.4	66.9	5.8	4.1
			80	98.2	6.50	78.1	86.6	4.4	3.9
			100	93.1	8.08	68.5	106.3	3.4	3.7
			120	89.0	10.05	58.8	126.0	2.6	3.5
50	15	1.3	60	123.5	5.26	106.8	68.2	6.9	4.1
			80	118.0	6.53	97.6	87.9	5.3	3.9
			100	113.0	8.16	87.9	107.6	4.1	3.6
			120	109.0	10.22	77.8	127.4	3.1	3.5
	22.5	2.6	60	132.2	5.37	115.1	68.8	7.2	4.1
			80	125.5	6.62	104.8	88.4	5.6	3.9
			100	119.4	8.24	93.9	108.0	4.2	3.6
			120	113.5	10.32	81.9	127.7	3.2	3.5
	30	4.4	60	137.3	5.51	119.6	69.1	7.3	4.1
			80	129.8	6.75	108.6	88.7	5.6	3.9
			100	123.0	8.36	97.1	108.3	4.3	3.6
			120	117.1	10.45	85.0	127.9	3.3	3.5
70	15	1.2	60	155.1	5.50	137.5	70.3	8.3	4.1
			80	148.0	6.70	126.9	89.9	6.5	3.9
			100	141.1	8.30	115.3	109.5	5.0	3.6
			120	135.2	10.44	103.0	129.1	3.8	3.5
	22.5	2.5	60	167.6	5.66	149.4	71.2	8.7	4.1
			80	158.8	6.82	137.3	90.6	6.8	3.9
			100	150.5	8.41	124.3	110.1	5.2	3.6
			120	142.5	10.54	109.9	129.6	4.0	3.5
	30	4.1	60	174.8	5.82	156.1	71.7	8.8	4.1
			80	165.1	6.97	143.1	91.1	7.0	3.9
			100	155.6	8.54	128.9	110.5	5.3	3.6
			120	146.8	10.66	113.8	129.9	4.0	3.5
90	15	1.1	60	193.7	5.85	174.9	72.9	9.7	4.1
			80	184.2	6.96	162.2	92.3	7.8	3.8
			100	175.3	8.52	148.6	111.8	6.0	3.6
			120						
	22.5	2.3	60						
			80						
			100						
			120						
	30	3.9	60						
			80						
			100						
			120						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW120 Cooling Performance - PART LOAD

SOURCE			LOAD						
			15 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	15	1.2	50						
			60						
			70						
			80						
			90						
	22.5	2.5	50						
			60						
			70						
			80						
			90						
	30	4.2	50						
			60						
			70						
			80						
			90						
70	15	1.2	50	74.8	3.82	86.5	40.1	19.6	1.3
			60	87.1	3.79	98.7	48.4	23.0	1.3
			70	100.7	3.71	112.0	56.6	27.2	1.2
			80	114.8	3.61	125.9	64.7	31.8	1.2
			90						
	22.5	2.4	50						
			60						
			70						
			80						
			90						
	30	4.0	50						
			60						
			70						
			80						
			90						
90	15	1.1	50	66.4	5.20	82.0	41.2	12.8	1.3
			60	78.4	5.21	94.0	49.6	15.1	1.3
			70	91.6	5.13	107.1	57.8	17.9	1.2
			80						
			90						
	22.5	2.3	50						
			60						
			70						
			80						
			90						
	30	3.7	50						
			60						
			70						
			80						
			90						
110	15	1.0	50	55.5	6.66	75.0	42.6	8.3	1.3
			60	67.2	6.64	86.9	51.1	10.1	1.3
			70	79.5	6.60	99.1	59.4	12.0	1.2
			80						
			90						
	22.5	2.1	50						
			60						
			70						
			80						
			90						
	30	3.5	50						
			60						
			70						
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW120 Cooling Performance - PART LOAD cont.

SOURCE			LOAD						
			22.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	15	1.2	50						
			60						
			70						
			80						
			90						
	22.5	2.5	50						
			60						
			70						
			80						
			90						
	30	4.2	50						
			60						
			70						
			80						
			90						
70	15	1.2	50	79.0	3.87	90.9	43.0	20.4	2.6
			60	92.6	3.81	104.3	51.8	24.3	2.5
			70	107.2	3.72	118.6	60.5	28.9	2.5
			80						
			90						
	50	81.0	3.75					92.6	42.8
	22.5	2.4	60	95.1	3.65	106.4	51.6	26.1	2.6
			70	110.3	3.52	121.2	60.2	31.4	2.5
			80						
			90						
			50					82.0	3.75
	30	4.0	60	96.4	3.64	107.7	51.5	26.5	2.6
			70	111.9	3.49	122.8	60.1	32.1	2.5
			80						
			90						
50			70.0					5.26	85.8
90	15	1.1	60	83.2	5.23	98.9	52.6	15.9	2.5
			70	97.4	5.14	113.0	61.3	18.9	2.5
			80						
			90						
			50					71.8	5.11
	22.5	2.3	60	85.5	5.03	100.7	52.4	17.0	2.5
			70	100.3	4.90	115.2	61.1	20.5	2.5
			80						
			90						
			50					72.7	5.10
	30	3.7	60	86.7	5.00	101.9	52.3	17.3	2.5
			70	101.8	4.84	116.6	61.0	21.0	2.5
			80						
			90						
			50					58.5	6.71
110	15	1.0	60	71.0	6.68	90.9	53.7	10.6	2.5
			70	84.1	6.63	104.0	62.5	12.7	2.4
			80						
			90						
			50					59.9	6.57
	22.5	2.1	60	72.9	6.49	92.2	53.5	11.2	2.5
			70	86.5	6.40	105.7	62.3	13.5	2.4
			80						
			90						
			50					60.6	6.56
	30	3.5	60	73.8	6.46	93.1	53.5	11.4	2.5
			70	87.7	6.35	106.8	62.2	13.8	2.4
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW120 Cooling Performance - PART LOAD cont.

SOURCE			LOAD						
			30 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	15	1.2	50						
			60						
			70						
			80						
			90						
	22.5	2.5	50						
			60						
			70						
			80						
			90						
	30	4.2	50						
			60						
			70						
			80						
			90						
70	15	1.2	50	81.1	3.97	93.3	44.6	20.4	4.3
			60	95.4	3.89	107.4	53.7	24.5	4.2
			70	110.7	3.79	122.4	62.6	29.2	4.1
			80						
			90						
	22.5	2.4	50	83.2	3.84	95.1	44.5	21.7	4.3
			60	98.1	3.72	109.7	53.5	26.4	4.2
			70	114.1	3.58	125.2	62.4	31.9	4.1
			80						
			90						
	30	4.0	50	84.3	3.85	96.3	44.4	21.9	4.3
			60	99.5	3.71	111.1	53.4	26.9	4.2
			70	115.8	3.55	126.9	62.3	32.7	4.1
			80						
			90						
90	15	1.1	50	71.8	5.37	88.0	45.2	13.4	4.3
			60	85.6	5.32	101.7	54.3	16.1	4.2
			70	100.4	5.22	116.3	63.3	19.2	4.1
			80						
			90						
	22.5	2.3	50	73.7	5.21	89.4	45.1	14.1	4.3
			60	88.1	5.11	103.6	54.1	17.3	4.2
			70	103.6	4.97	118.7	63.1	20.9	4.1
			80						
			90						
	30	3.7	50	74.7	5.20	90.4	45.1	14.4	4.3
			60	89.4	5.07	104.9	54.1	17.6	4.2
			70	105.2	4.90	120.2	63.0	21.5	4.1
			80						
			90						
110	15	1.0	50	59.9	6.81	80.1	46.0	8.8	4.3
			60	72.9	6.78	93.1	55.2	10.8	4.2
			70	86.5	6.72	106.6	64.2	12.9	4.1
			80						
			90						
	22.5	2.1	50	61.4	6.66	81.2	45.9	9.2	4.3
			60	74.8	6.58	94.5	55.0	11.4	4.2
			70	89.0	6.48	108.5	64.1	13.7	4.1
			80						
			90						
	30	3.5	50	62.2	6.65	82.0	45.9	9.4	4.3
			60	75.8	6.54	95.5	55.0	11.6	4.2
			70	90.4	6.41	109.7	64.0	14.1	4.1
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 XXXXXXXXXX = Operation not recommended

GW120 Cooling Performance - FULL LOAD

SOURCE			LOAD 15 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	15	1.2	50	106.1	4.72	121.2	36.0	22.5	1.3
			60	122.0	4.88	137.6	43.8	25.0	1.3
			70	138.9	5.07	155.1	51.5	27.4	1.2
			80	156.5	5.28	173.4	59.1	29.6	1.2
			90	174.9	5.52	192.6	66.6	31.7	1.1
	22.5	2.5	50						
			60						
			70						
			80	160.6	5.00	176.7	58.6	32.1	1.2
			90	179.8	5.21	196.7	66.0	34.5	1.1
	30	4.2	50						
			60						
			70						
			80						
			90	182.4	5.15	199.1	65.6	35.4	1.2
70	15	1.1	50	97.9	5.90	116.3	37.0	16.6	1.3
			60	113.0	6.04	132.0	45.0	18.7	1.3
			70	129.1	6.20	148.6	52.8	20.8	1.2
			80	145.9	6.39	166.0	60.5	22.8	1.2
			90	163.3	6.60	184.2	68.2	24.7	1.1
	22.5	2.4	50	99.9	5.67	117.6	36.8	17.6	1.3
			60	115.6	5.76	133.7	44.7	20.1	1.3
			70	132.3	5.89	151.0	52.4	22.5	1.2
			80	149.8	6.03	169.0	60.0	24.8	1.2
			90	168.2	6.20	187.9	67.5	27.1	1.1
	30	4.0	50	100.9	5.63	118.6	36.6	17.9	1.3
			60	116.9	5.71	135.0	44.5	20.5	1.3
			70	133.9	5.81	152.4	52.2	23.1	1.2
			80	151.8	5.93	170.7	59.7	25.6	1.2
			90	170.6	6.09	190.1	67.2	28.0	1.1
90	15	1.1	50	88.8	7.43	111.7	38.2	12.0	1.3
			60	103.2	7.56	126.6	46.3	13.6	1.3
			70	118.2	7.72	142.2	54.3	15.3	1.2
			80	134.0	7.91	158.6	62.1	16.9	1.2
			90						
	22.5	2.2	50	90.7	7.16	112.8	38.0	12.7	1.3
			60	105.5	7.24	128.0	46.0	14.6	1.3
			70	121.2	7.34	144.1	53.9	16.5	1.2
			80	137.7	7.47	161.1	61.6	18.4	1.2
			90						
	30	3.7	50	91.6	7.10	113.6	37.9	12.9	1.3
			60	106.7	7.15	128.9	45.8	14.9	1.3
			70	122.8	7.23	145.5	53.6	17.0	1.2
			80	139.6	7.33	162.6	61.4	19.1	1.2
			90						
110	15	1.0	50	79.6	9.23	107.7	39.5	8.6	1.3
			60	92.7	9.42	121.7	47.7	9.9	1.3
			70	106.8	9.59	136.3	55.8	11.1	1.2
			80	121.3	9.78	151.6	63.8	12.4	1.2
			90						
	22.5	2.1	50	81.1	8.95	108.5	39.3	9.1	1.3
			60	94.8	9.07	122.7	47.4	10.5	1.3
			70	109.5	9.17	137.9	55.4	11.9	1.2
			80	124.7	9.29	153.5	63.4	13.4	1.2
			90						
	30	3.5	50	81.9	8.89	109.1	39.2	9.2	1.3
			60	95.8	8.96	123.4	47.3	10.7	1.3
			70	110.8	9.04	138.8	55.2	12.3	1.2
			80	126.4	9.11	154.7	63.1	13.9	1.2
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW120 Cooling Performance - FULL LOAD cont.

SOURCE			LOAD 22.5 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	15	1.2	50	114.1	4.86	129.6	39.9	23.5	2.6
			60	131.7	5.05	147.9	48.3	26.1	2.6
			70	150.4	5.27	167.3	56.6	28.6	2.5
			80	170.0	5.51	187.7	64.9	30.9	2.4
			90						
	22.5	2.5	50						
			60						
			70	154.5	5.00	170.7	56.3	30.9	2.5
			80	175.1	5.22	192.0	64.4	33.6	2.4
			90						
	30	4.2	50						
			60						
			70						
			80						
			90						
70	15	1.1	50	104.8	6.02	123.7	40.7	17.4	2.6
			60	121.6	6.18	141.0	49.2	19.7	2.6
			70	139.3	6.37	159.3	57.6	21.9	2.5
			80	157.7	6.59	178.5	66.0	24.0	2.4
			90						
	22.5	2.4	50	107.3	5.77	125.4	40.5	18.6	2.6
			60	124.7	5.89	143.3	49.0	21.2	2.6
			70	143.2	6.03	162.3	57.3	23.7	2.5
			80	162.7	6.21	182.4	65.5	26.2	2.4
			90						
	30	4.0	50	108.5	5.72	126.5	40.4	19.0	2.6
			60	126.2	5.82	144.7	48.8	21.7	2.6
			70	145.2	5.94	164.1	57.1	24.5	2.5
			80	165.2	6.09	184.7	65.3	27.1	2.4
			90						
90	15	1.1	50	94.8	7.54	118.1	41.6	12.6	2.6
			60	110.4	7.70	134.3	50.2	14.4	2.6
			70	126.9	7.88	151.4	58.7	16.1	2.5
			80	144.1	8.09	169.4	67.2	17.8	2.4
			90						
	22.5	2.2	50	97.0	7.25	119.4	41.4	13.4	2.6
			60	113.3	7.35	136.1	50.0	15.4	2.6
			70	130.6	7.47	154.0	58.4	17.5	2.5
			80	148.8	7.62	172.7	66.8	19.5	2.4
			90						
	30	3.7	50	98.0	7.18	120.3	41.3	13.7	2.6
			60	114.7	7.24	137.3	49.8	15.8	2.6
			70	132.5	7.34	155.5	58.2	18.1	2.5
			80	151.1	7.46	174.6	66.5	20.3	2.4
			90						
110	15	1.0	50	84.4	9.35	113.0	42.5	9.0	2.6
			60	98.7	9.55	128.1	51.3	10.3	2.6
			70	113.9	9.74	144.0	59.9	11.7	2.5
			80						
			90						
	22.5	2.1	50	86.2	9.06	114.0	42.4	9.5	2.6
			60	101.2	9.17	129.5	51.0	11.0	2.6
			70	117.2	9.29	146.0	59.6	12.6	2.5
			80						
			90						
	30	3.5	50	87.1	8.99	114.8	42.3	9.7	2.6
			60	102.5	9.05	130.4	50.9	11.3	2.6
			70	118.8	9.13	147.2	59.4	13.0	2.5
			80						
			90						

Notes::

- 1 Antifreeze required on Load side for this operation
- 2 Interpolation is permissible. Not extrapolation
- 3 = Operation not recommended

GW120 Cooling Performance - FULL LOAD cont.

SOURCE			LOAD 30 GPM						
EWT	GPM	Pressure Drop (PSI)	EWT	Cooling Capacity, MBH	Power, KW	Loop Rej/Add, MBH	Lvg Water Temp	EER	Pressure Drop (PSI)
50	15	1.2	50	118.5	5.02	134.5	42.1	23.6	4.4
			60	137.1	5.21	153.8	50.9	26.3	4.2
			70	156.9	5.45	174.4	59.5	28.8	4.1
			80	177.6	5.70	195.9	68.1	31.1	4.0
			90						
	22.5	2.5	50						
			60						
			70	161.6	5.17	178.3	59.2	31.2	4.1
			80	183.4	5.41	201.0	67.7	33.9	4.0
			90						
	30	4.2	50						
			60						
			70						
			80						
			90						
70	15	1.1	50	108.6	6.16	128.0	42.8	17.6	4.4
			60	126.2	6.33	146.2	51.6	19.9	4.2
			70	144.9	6.54	165.5	60.3	22.2	4.1
			80						
			90						
	22.5	2.4	50	111.3	5.90	129.9	42.6	18.9	4.4
			60	129.7	6.03	148.8	51.4	21.5	4.2
			70	149.3	6.19	169.0	60.1	24.1	4.1
			80						
			90						
	30	4.0	50	112.7	5.85	131.2	42.5	19.3	4.4
			60	131.5	5.95	150.4	51.3	22.1	4.2
			70	151.6	6.09	171.0	59.9	24.9	4.1
			80	172.8	6.26	192.8	68.5	27.6	4.0
			90						
90	15	1.1	50	97.9	7.68	121.7	43.5	12.8	4.4
			60	114.3	7.84	138.7	52.4	14.6	4.2
			70	131.6	8.04	156.7	61.2	16.4	4.1
			80						
			90						
	22.5	2.2	50	100.3	7.38	123.2	43.4	13.6	4.4
			60	117.5	7.48	140.8	52.2	15.7	4.2
			70	135.7	7.61	159.6	61.0	17.8	4.1
			80						
			90						
	30	3.7	50	101.5	7.30	124.2	43.3	13.9	4.4
			60	119.1	7.37	142.1	52.1	16.2	4.2
			70	137.8	7.47	161.3	60.8	18.4	4.1
			80						
			90						
110	15	1.0	50	86.9	9.50	116.0	44.2	9.1	4.4
			60	101.8	9.69	131.8	53.2	10.5	4.2
			70	117.7	9.89	148.4	62.2	11.9	4.1
			80						
			90						
	22.5	2.1	50	88.9	9.19	117.2	44.1	9.7	4.4
			60	104.6	9.30	133.4	53.0	11.3	4.2
			70	121.3	9.42	150.6	61.9	12.9	4.1
			80						
			90						
	30	3.5	50	89.9	9.11	118.0	44.0	9.9	4.4
			60	106.0	9.17	134.4	53.0	11.6	4.2
			70	123.2	9.25	152.0	61.8	13.3	4.1
			80						
			90						

Notes::

1 Antifreeze required on Load side for this operation

2 Interpolation is permissible. Not extrapolation

3 = Operation not recommended

Anti-freeze correction table

Antifreeze Type	Antifreeze % volume	Cooling EWT 90 °F			Heating EWT 30 °F		WPD Correction Factor EWT 30°F
		Total Cap.	Sens. Cap	Power	Htg. Cap	Power	
Water	0	1.000	1.000	1.000	1.000	1.000	1.000
Propylene Glycol	5	0.997	0.997	1.004	0.989	0.997	1.060
	10	0.994	0.994	1.006	0.986	0.995	1.125
	15	0.990	0.990	1.009	0.978	0.988	1.190
	25	0.983	0.983	1.016	0.960	0.979	1.300
Methanol	5	0.997	0.997	1.003	0.990	0.997	1.060
	10	0.996	0.996	1.005	0.979	0.993	1.100
	15	0.994	0.994	1.008	0.970	0.990	1.140
Ethanol	5	0.998	0.998	1.002	0.981	0.994	1.160
	10	0.996	0.996	1.004	0.960	0.988	1.230
	15	0.992	0.992	1.006	0.944	0.983	1.280
	25	0.986	0.986	1.009	0.917	0.974	1.400
Ethylene Glycol	5	0.997	0.997	1.003	0.993	0.998	1.060
	10	0.995	0.995	1.004	0.986	0.996	1.120
	15	0.992	0.992	1.005	0.980	0.993	1.190
	25	0.988	0.988	1.009	0.970	0.990	1.330
	30	0.985	0.985	1.012	0.965	0.987	1.400

Operating Limits for Heat and Cooling	
Cooling	Standard Unit
Minimum ambient air temperature	50
Maximum ambient air temperature	100
Minimum entering load fluid temperature °F	50
Typical entering load fluid temperature °F	55
Maximum entering load fluid temperature °F	90
Minimum entering source fluid temperature °F	50
Water loop typical entering source fluid range temperature °F	70-90
Maximum entering source fluid temperature °F	110
Heating	Standard Unit
Minimum ambient air temperature °F	50
Maximum ambient air temperature °F	100
Minimum entering load fluid temperature °F	60
Typical entering load fluid temperature °F	100-110
Maximum entering load fluid temperature °F	120
Minimum entering source fluid temperature °F	30*
Water loop typical entering source fluid range temperature °F	50-70
Maximum entering source fluid temperature °F	90

*Antifreeze required for fluid temperatures below 50 °F

*Maximum and minimum fluid conditions are at unit rated flow rate.

*Maximum and minimum operating limits may not be combined. If one value is at either maximum or minimum, the other value(s) must be within normal operating range.