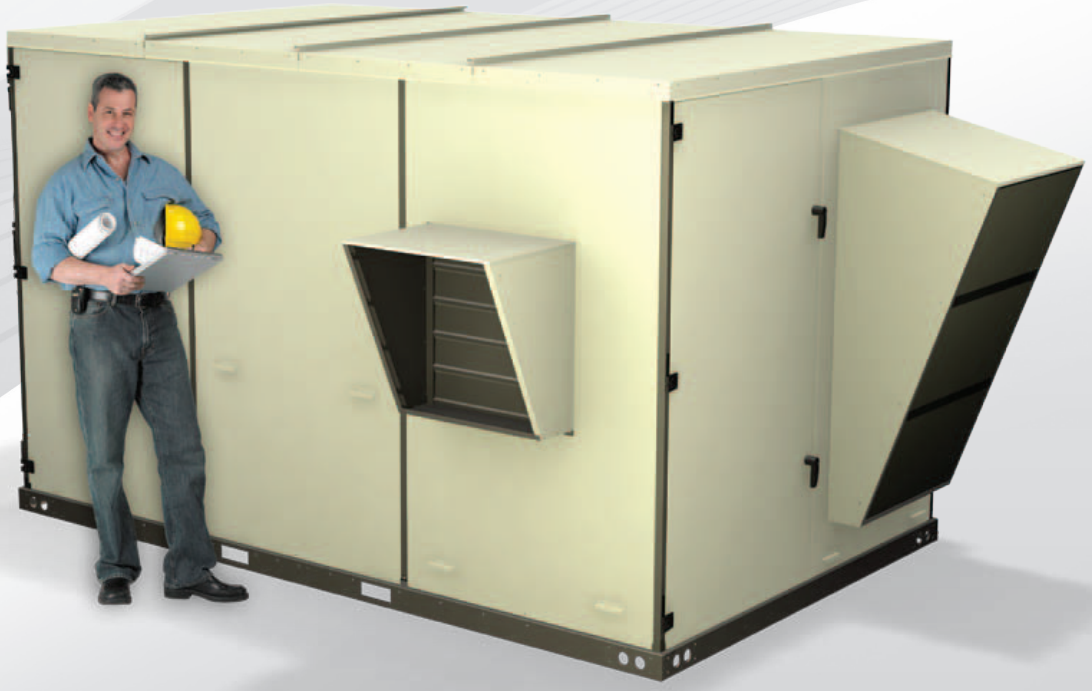
PENNBARRY™

Moving Your Way

G-SERIES

Energy Recovery Ventilators

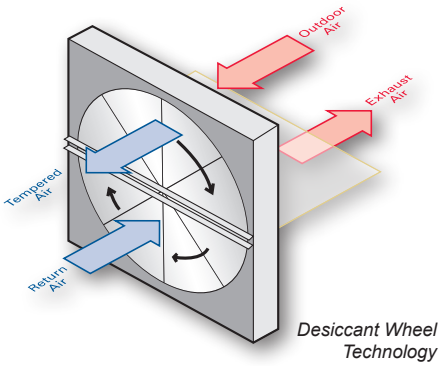
TABLE OF CONTENTS



BULLETIN G13

G-SERIES ENERGY RECOVER VENTILATORS

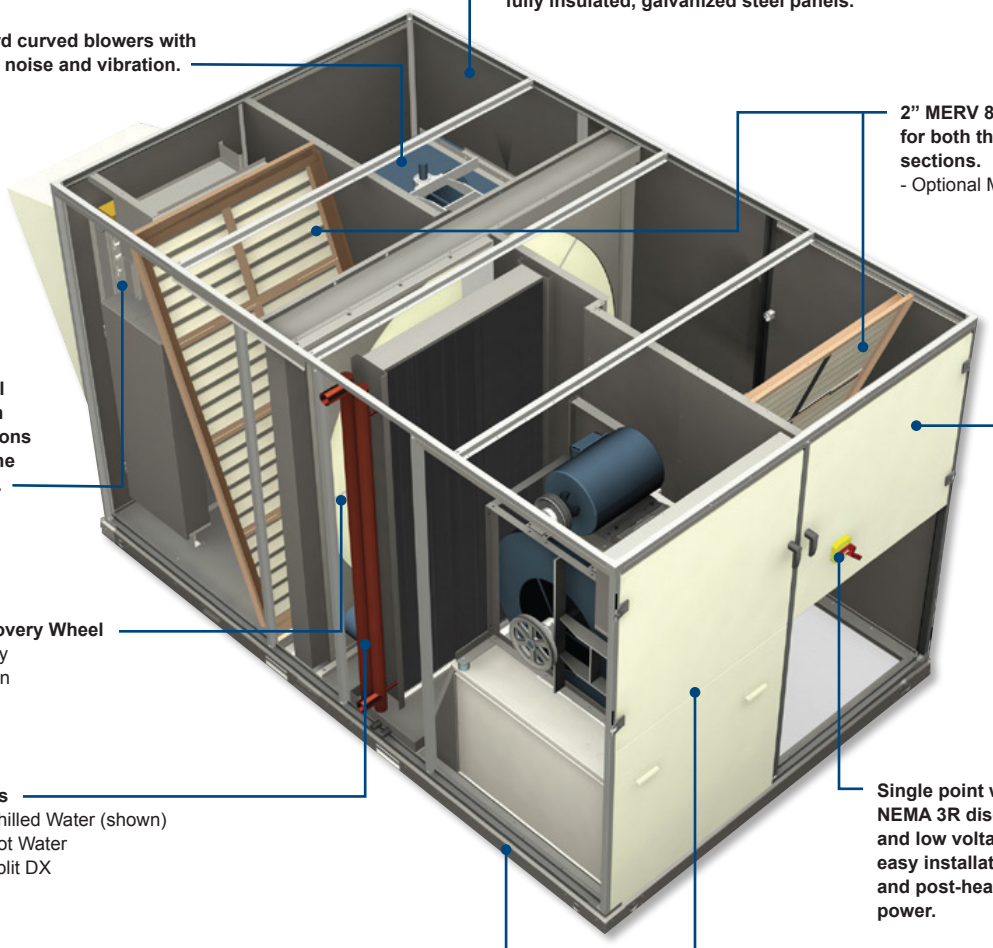
PennBarry's G-Series of energy recovery ventilators combined with increased ventilation rates will not only improve indoor air quality, but it will also reduce the costs associated with conditioning larger amounts of outdoor air.



Desiccant Wheel Technology

Benefits of Energy Recovery

- Initial cost savings can be achieved on main air handling units by reducing cooling load. Application software is available to calculate the load reductions and provide the energy and dollar savings in most areas of the United States and Canada.
- Annual savings are achieved by preconditioning the outdoor air.
- LEED-EB and LEED-NC Credits: For Green Building designs, the G-Series can assist the designer in acquiring credits for Energy and Atmosphere (EA) by optimizing energy performance and for Indoor Environmental Quality (IEQ) by providing the ability to increase ventilation leading to thermal comfort.
- ASHRAE Compliance and IAQ: ERV's are an excellent choice to comply with outdoor ventilation requirements of ASHRAE 62. Introducing fresh, outdoor air to a building is a key component in sustaining excellent IAQ and occupant productivity. ERV's meet the minimum requirements for energy savings per ASHRAE 90.1 and will be a preferred method for saving energy in ASHRAE/USGBC/IESNA's new Standard 189.1 – *Standard for the Design of High Performance, Green Buildings Except Low-Rise Residential Buildings.*



Double wall construction with 1", fully insulated, galvanized steel panels.

Powered by forward curved blowers with isolation to reduce noise and vibration.

2" MERV 8 filters come standard for both the intake and exhaust sections.
- Optional MERV 13 filter.

Motorized intake and exhaust dampers seal tight when motor is in operation. These options are factory wired to the unit's control system.

Digital control box allows for integration with automated building control systems.

Enthalpy Energy Recovery Wheel
- Optional Sensible Only
- Optional Purge Section

Coil Options
- Optional Chilled Water (shown)
- Optional Hot Water
- Optional Split DX

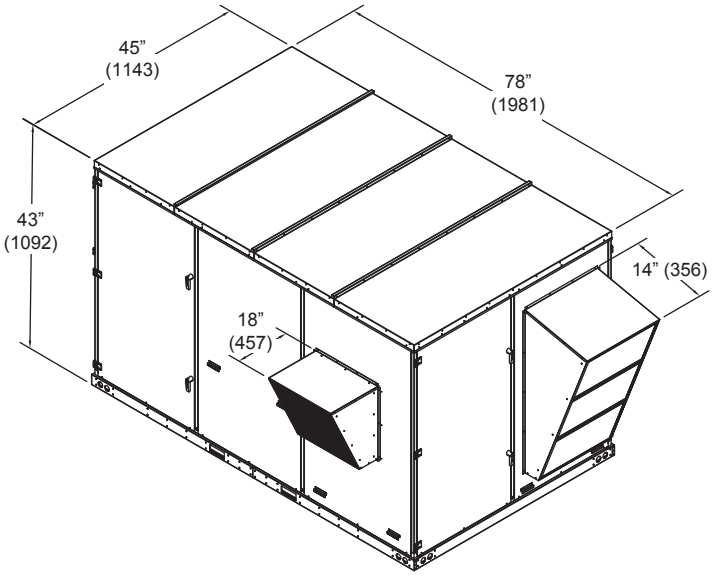
Single point wiring with fused NEMA 3R disconnect switch and low voltage strip makes for an easy installation. Electric pre-heat and post-heat require field installed power.

Heavy duty, double constructed, insulated bottom to help ensure rigidity during transit and installation.

Hinged panel access doors with quarter turn latches allow easy access to energy recovery wheel, coils, filters, and blowers.

G-010 & G-019 | INTRODUCTION

Models G-010 and G-019 are energy recovery ventilators with auxiliary heating and cooling capabilities. They are designed to provide outside air into a building without increasing the building HVAC load.The units are classified as a neutral air unit providing outside air into the building at room temperature.



G-010 & G-019 | FEATURES

- **Frame**: Modular aluminum.
- **Cabinet**: Galvanized steel, fully insulated double wall.
- **Blowers**: Silent Pro Series Class II FC.
- **Access Doors**: Hinged double wall with 1/4 turn latches.
- **Wheel**: AHRI certified polymeric Enthalpy Wheel, complete with rotation sensor and stop, start, jog free cooling.
- **Filters**: 2” pleated, MERV 8.
- **Finish**: Polyester resin based powder coat, off white color.
- **Control**: Digital programmable logic controller. Single point wiring with NEMA 3R disconnect.
- **Installed Weight**: 1,320 lbs.
- **Shipped Weight**: 1,450 lbs.

G-010 & G-019 | OPTIONS & ACCESSORIES

Heating / Cooling
- R-410A DX coil.
- Chilled water coil.
- Hot water coil.
- Electric heat (pre and post).

Frost Control
- Timed exhaust frost control.
- Variable wheel speed frost control.
- Electric preheat.

Filters
- 2” (51) Pleated MERV 11 or MERV 13 filters.

Dampers
- Actuated exhaust air damper.
- Actuated intake air damper.

Sensors
- Smoke detectors.
- CO_2 sensors.
- Dirty filter sensors.

Blower Motor
- ODP or TEFC motors available.

Roof Curbs

GFCI Service Outlet

Custom Paint

VFD Blower Control

Sensible Wheel Only

G-010 & G-019 | PERFORMANCE DATA

G-010 Supply & Exhaust Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
600	1250	1120	0.20	1338	0.28	1536	0.37	1721	0.47	1893	0.58	-	-	-	-	-	-
700	1458	1249	0.29	1446	0.38	1624	0.48	1792	0.59	1952	0.70	2105	0.83	2251	0.95	-	-
800	1667	1375	0.40	1557	0.51	1720	0.62	1874	0.74	2020	0.86	2162	0.99	2229	1.12	2432	1.26
900	1875	1495	0.53	1667	0.66	1819	0.78	1961	0.91	2097	1.04	2228	1.17	2356	1.31	2480	1.46
1000	2083	1618	0.69	1781	0.83	1924	0.97	2057	1.11	2185	1.25	2307	1.39	2426	1.54	2542	1.70

G-010 - Low and medium speeds use same hp motor and same size blowers.

G-019 Supply & Exhaust Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
800	1385	-	-	1002	0.27	1216	0.38	-	-	-	-	-	-	-	-	-	-
1150	1769	-	-	1088	0.42	1281	0.55	1453	0.70	1610	0.85	-	-	-	-	-	-
1400	2154	987	0.46	1175	0.61	1349	0.77	1508	0.94	1656	1.12	1794	1.29	1923	1.47	-	-
1650	2538	1096	0.69	1263	0.86	1421	1.05	1568	1.24	1706	1.43	1837	1.63	1960	1.84	2078	2.05
1900	2923	1205	0.97	1353	1.17	1497	1.38	1632	1.59	1761	1.81	1884	2.04	2002	2.26	-	-

This blower data accounts for the pressure drop across the Energy Recovery Wheel and the internal cabinet losses, but does not include the pressure drop for selected Accessories and Options which can be found in the corresponding tables and must be added to the External Static Pressure to determine correct RPM and BHP. BHP rating does not include drive losses. Performance ratings do not include the effects of appurtenances in the air stream. Drives are sized for a minimum of 150% of driven horsepower.

	Low Speed
	Medium Speed
	High Speed
-	Empty space means this operating point is outside the efficient operating range of the blower.

G-010 & G-019 | PRODUCT & ELECTRICAL DATA

		G-010			G-019		
Line Voltage - 60Hz		**230v / 3Ph**	**460v / 3Ph**	**575v / 3Ph**	**230v / 3Ph**	**460v / 3Ph**	**575v / 3Ph**
Supply Air Blower	**Motor HP L/M/H**	1 / 1 / 1.5	1 / 1 / 1.5	1 / 1 / 1.5	1 / 1.5 / 2	1 / 1.5 / 2	1 / 1.5 / 2
	Drive Type	Belt	Belt	Belt	Belt	Belt	Belt
	Size (DxW)	9 x 4	9 x 4	9 x 4	10 x 6	10 x 6	10 x 6
	Blower Speed	2894	2894	2894	2488	2488	2488
	Adjustment	Sheave	Sheave	Sheave	Sheave	Sheave	Sheave
	Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
	Full Load Amps	3 / 3 / 4.2	1.5 / 1.5 / 2.1	1.5 / 1.5 / 2.1	3 / 4.2 / 5.6	1.5 / 2.1 / 2.8	1.08 / 1.56 / 2.08
	Service Factor	1.15	1.15	1.15	1.15	1.15	1.15
Exhaust Air Blower	**Motor HP L/M/H**	1 / 1 / 1.5	1 / 1 / 1.5	1 / 1 / 1.5	1 / 1.5 / 2.0	1 / 1.5 / 2.0	1 / 1.5 / 2.0
	Drive Type	Belt	Belt	Belt	Belt	Belt	Belt
	Size (DxW)	9 x 4	9 x 4	9 x 4	10 x 6	10 x 6	10 x 6
	Blower Speed	2894	2894	2894	2488	2488	2488
	Adjustment	Sheave	Sheave	Sheave	Sheave	Sheave	Sheave
	Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
	Full Load Amps	3 / 3 / 4.2	1.5 / 1.5 / 2.1	1.08 / 1.08 / 1.56	3 / 4.2 / 5.6	1.5 / 2.1 / 2.8	1.08 / 1.56 / 2.08
	Service Factor	1.15	1.15	1.15	1.15	1.15	1.15
Wheel Data	**Potential Volts**	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph
	Motor Speed	1050 RPM	1050 RPM	1050 RPM	1050 RPM	1050 RPM	1050 RPM
	Full Load Amps	0.3	0.3	0.3	0.6	0.6	0.6
	Wheel Model	ERC-2510C	ERC-2510C	ERC-2510C	ERC-3019C	ERC-3019C	ERC-3019C
	Depth	3	3	3	3	3	3
	Dia. (Nom. in.)	25	25	25	30	30	30
Preheat	**No. of Stages**	1	1	1	2	2	2
	kW / Stage	3	3	3	3	3	3
	MCA / Circuit	9	4.5	3.8	9	4.5	3.8
	MOCP	9	5	4	20	9	8
Post Heat	**No. of Stages**	1	1	1	2	2	2
	kW / Stage	9.6	9.6	9.6	9.6	9.6	9.6
	MCA / Circuit	28.88	14.44	12.05	28.88	14.44	12.05
	MOCP	30	15	15	60	30	25
	Total MCA	28.88	14.44	12.05	57.80	28.9	24.1
	Point Power	Separate	Separate	Separate	Separate	Separate	Separate
Total	**MCA Minimum**	6.3	3.3	2.46	6.6	3.6	2.76
	MOCP Minimum	7.5	5	3	7.5	5	3
	MCA Maximum	45.38	22.84	18.79	86.2	43.38	35.74
	MOCP Maximum	50	25	20	100	50	40

Effectiveness		**Sensible**	**Latent**	**Total**	**Sensible**	**Latent**	**Total**
AHRI Ratings	**Total @ 100%**	76%	68%	73%	68%	61%	65%
	Total @ 75%	81%	73%	78%	72%	67%	71%
	Net @ 100%	76%	68%	72%	68%	61%	64%
	Net @ 75%	81%	73%	76%	72%	67%	70%

G-010 | CHILLED WATER COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Chilled Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil				Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
600	80	5	50.4	75.0	47.8	77.3	81.8	75.84	48.25	2,614	396	3,010	0.87	8	1.93	1.89	47.2	62.2	41.4	8,954	8,954	1.00	11,964	11,568	0.97
														16	3.86	6.91	46.2	61.5	41.1	9,355	9,355	1.00	12,365	11,969	0.97
														24	5.79	14.85	45.8	61.3	41.0	9,508	9,508	1.00	12,518	12,122	0.97
		40	63.5		59.6	77.3	81.8	75.84	60.35	2,605	3,127	5,732	0.45	8	1.93	1.89	47.4	62.0	54.7	9,494	9,052	0.95	15,226	11,657	0.77
														16	3.86	6.91	46.3	61.4	54.2	10,342	9,434	0.91	16,074	12,039	0.75
														24	5.79	14.85	45.9	61.1	54.0	10,730	9,612	0.90	16,462	12,217	0.74
		75	73.8		69.2	77.4	81.9	75.84	70.12	2,596	5,807	8,403	0.31	8	1.93	1.89	49.3	63.8	61.7	17,168	7,883	0.46	25,571	10,479	0.41
														16	3.86	6.91	47.4	62.6	60.8	18,950	8,640	0.46	27,353	11,236	0.41
														24	5.79	14.85	46.6	62.2	60.4	19,634	8,940	0.46	28,037	11,536	0.41
	95	5	57.7	75.0	47.8	77.4	81.9	78.34	49.59	10,426	1,571	11,997	0.87	8	1.93	1.89	47.4	63.5	42.4	9,682	9,682	1.00	21,679	20,108	0.93
														16	3.86	6.91	46.3	62.9	42.1	10,115	10,115	1.00	22,112	20,541	0.93
														24	5.79	14.85	45.9	62.6	42.0	10,280	10,280	1.00	22,277	20,706	0.93
		40	75.1		59.6	77.5	82.0	78.33	62.96	10,386	15,528	25,914	0.40	8	1.93	1.89	47.8	63.7	56.6	11,411	9,577	0.84	37,325	19,963	0.53
														16	3.86	6.91	46.6	62.9	56.0	12,540	10,078	0.80	38,454	20,464	0.53
														24	5.79	14.85	46.1	62.6	55.7	12,969	10,272	0.79	38,883	20,658	0.53
		75	87.7		69.2	77.6	82.1	78.31	73.47	10,345	29,657	40,002	0.26	8	1.93	1.89	50.1	65.7	64.4	20,302	8,239	0.41	60,304	18,584	0.31
														16	3.86	6.91	47.8	64.4	63.3	22,450	9,129	0.41	62,452	19,474	0.31
														24	5.79	14.85	46.9	63.8	62.9	23,290	9,491	0.41	63,292	19,836	0.31
	110	5	50.4	75.0	47.8	77.6	82.1	80.79	51.08	18,191	3,936	22,127	0.82	8	1.93	1.89	47.6	64.9	43.6	10,409	10,409	1.00	32,536	28,600	0.88
														16	3.86	6.91	46.4	64.2	43.2	10,874	10,874	1.00	33,001	29,065	0.88
														24	5.79	14.85	45.9	64.0	43.1	11,052	11,052	1.00	33,179	29,243	0.88
		40	63.5		59.6	77.7	82.2	80.76	66.20	18,111	34,390	52,501	0.34	8	1.93	1.89	48.5	65.5	58.9	13,914	10,056	0.72	66,415	28,167	0.42
														16	3.86	6.91	46.9	64.6	58.1	15,277	10,650	0.70	67,778	28,761	0.42
														24	5.79	14.85	46.3	64.2	57.8	15,873	10,916	0.69	68,374	29,027	0.42
		75	73.8		69.2	77.8	82.3	80.73	77.79	18,029	66,845	84,874	0.21	8	1.93	1.89	51.1	67.9	67.8	24,512	8,441	0.34	109,386	26,470	0.24
														16	3.86	6.91	48.4	66.3	66.3	27,186	9,511	0.35	112,060	27,540	0.25
														24	5.79	14.85	47.3	65.6	65.6	28,227	9,948	0.35	113,101	27,977	0.25
800	80	5	50.4	75.0	47.8	73.4	78.6	76.00	48.33	3,348	501	3,849	0.87	8	1.93	1.89	47.7	63.5	42.1	10,913	10,913	1.00	14,762	14,261	0.97
														16	3.86	6.91	46.4	62.8	41.8	11,516	11,516	1.00	15,365	14,864	0.97
														24	5.79	14.85	46.0	62.6	41.7	11,750	11,750	1.00	15,599	15,098	0.97
		40	63.5		59.6	73.4	78.6	76.00	60.49	3,337	3,958	7,295	0.46	8	1.93	1.89	47.8	63.3	55.5	11,352	11,095	0.98	18,647	14,432	0.77
														16	3.86	6.91	46.6	62.7	55.0	12,595	11,647	0.92	19,890	14,984	0.75
														24	5.79	14.85	46.1	62.4	54.7	13,228	11,934	0.90	20,523	15,271	0.74
		75	73.8		69.2	73.5	78.7	76.00	70.29	3,326	7,353	10,679	0.31	8	1.93	1.89	50.0	65.4	63.1	20,250	9,266	0.46	30,929	12,592	0.41
														16	3.86	6.91	47.8	64.2	62.1	22,801	10,316	0.45	33,480	13,642	0.41
														24	5.79	14.85	47.0	63.7	61.7	23,813	10,747	0.45	34,492	14,073	0.41
	95	5	57.7	75.0	47.8	73.6	78.8	78.98	49.98	13,348	2,324	15,672	0.85	8	1.93	1.89	48.0	65.3	43.4	11,970	11,970	1.00	27,642	25,318	0.92
														16	3.86	6.91	46.6	64.6	43.1	12,631	12,631	1.00	28,303	25,979	0.92
														24	5.79	14.85	46.1	64.3	42.9	12,887	12,887	1.00	28,559	26,235	0.92
		40	75.1		59.6	73.7	78.9	78.96	63.57	13,299	19,660	32,959	0.40	8	1.93	1.89	48.5	65.4	57.8	14,039	11,868	0.85	46,998	25,167	0.54
														16	3.86	6.91	46.9	64.7	57.2	15,510	12,507	0.81	48,469	25,806	0.53
														24	5.79	14.85	46.3	64.4	56.9	16,164	12,798	0.79	49,123	26,097	0.53
		75	87.7		69.2	73.8	78.9	78.95	74.23	13,248	37,556	50,804	0.26	8	1.93	1.89	51.1	67.9	66.2	24,304	9,727	0.40	75,108	22,975	0.31
														16	3.86	6.91	48.4	66.4	65.1	27,479	10,988	0.40	78,283	24,236	0.31
														24	5.79	14.85	47.4	65.8	64.6	28,795	11,535	0.40	79,599	24,783	0.31
	110	5	50.4	75.0	47.8	73.8	79.0	81.89	51.68	23,285	4,982	28,267	0.82	8	1.93	1.89	48.2	67.0	44.7	12,958	12,958	1.00	41,225	36,243	0.88
														16	3.86	6.91	46.7	66.2	44.3	13,672	13,672	1.00	41,939	36,957	0.88
														24	5.79	14.85	46.2	65.9	44.1	13,949	13,949	1.00	42,216	37,234	0.88
		40	63.5		59.6	73.9	79.1	81.85	67.34	23,184	43,541	66,725	0.35	8	1.93	1.89	49.3	67.7	60.7	17,238	12,318	0.71	83,963	35,502	0.42
														16	3.86	6.91	47.4	66.7	59.8	19,369	13,217	0.68	86,094	36,401	0.42
														24	5.79	14.85	46.7	66.3	59.5	20,233	13,593	0.67	86,958	36,777	0.42
		75	73.8		69.2	74.1	79.2	81.81	79.23	23,082	84,649	107,731	0.21	8	1.93	1.89	52.5	70.6	70.4	30,073	9,800	0.33	137,804	32,882	0.24
														16	3.86	6.91	49.2	68.9	68.9	34,095	11,321	0.33	141,826	34,403	0.24
														24	5.79	14.85	48.0	68.1	68.1	35,722	11,971	0.34	143,453	35,053	0.24
1000	80	5	50.4	75.0	47.8	69.4	75.3	76.17	48.40	4,009	592	4,601	0.87	8	1.93	1.89	48.2	64.6	42.7	12,662	12,662	1.00	17,263	16,671	0.97
														16	3.86	6.91	46.7	63.9	42.3	13,481	13,481	1.00	18,082	17,490	0.97
														24	5.79	14.85	46.1	63.6	42.2	13,803	13,803	1.00	18,404	17,812	0.97
		40	63.5		59.6	69.5	75.4	76.16	60.64	3,997	4,683	8,680	0.46	8	1.93	1.89	48.2	64.4	56.1	12,934	12,934	1.00	21,614	16,931	0.78
														16	3.86	6.91	46.8	63.7	55.6	14,351	13,624	0.95	23,031	17,621	0.77
														24	5.79	14.85	46.3	63.4	55.3	15,150	13,980	0.92	23,830	17,977	0.75
		75	73.8		69.2	69.6	75.4	76.16	70.47	3,984	8,702	12,686	0.31	8	1.93	1.89	50.7	66.6	64.1	22,763	10,462	0.46	35,449	14,446	0.41
														16	3.86	6.91	48.2	65.4	63.1	26,081	11,791	0.45	38,767	15,775	0.41
														24	5.79	14.85	47.3	64.9	62.7	27,460	12,365	0.45	40,146	16,349	0.41
	95	5	57.7	75.0	47.8	69.7	75.5	79.62	50.33	15,983	2,748	18,731	0.85	8	1.93	1.89	48.2	64.6	44.8	12,662	12,662	1.00	31,393	28,645	0.91
														16	3.86	6.91	46.7	63.9	44.5	13,481	13,481	1.00	32,212	29,464	0.91
														24	5.79	14.85	46.1	63.6	44.3	13,803	13,803	1.00	32,534	29,786	0.92
		40	75.1		59.6	69.8	75.7	79.60	64.18	15,926	23,263	39,189	0.41	8	1.93	1.89	49.0	65.1	59.0	16,257	12,116	0.75	55,446	28,042	0.51
														16	3.86	6.91	47.3	64.3	58.3	18,308	12,986	0.71	57,497	28,912	0.50
														24	5.79	14.85	46.6	63.9	58.0	19,249	13,396	0.70	58,438	29,322	0.50
		75	87.7		69.2	69.9	75.8	79.58	74.98	15,870	44,453	60,323	0.26	8	1.93	1.89	52.0	67.8	67.8	28,042	9,204	0.33	88,365	25,074	0.28
														16	3.86	6.91	49.0	66.3	66.3	32,286	10,827	0.34	92,609	26,697	0.29
														24	5.79	14.85	47.8	65.6	65.6	34,062	11,540	0.34	94,385	27,410	0.29
	110	5	50.4	75.0	47.8	70.0	75.8	83.00	52.28	27,874	5,896	33,770	0.83	8	1.93	1.89	48.8	68.9	45.8	15,430	15,430	1.00	49,200	43,304	0.88
														16	3.86	6.91	47.0	68.0	45.4	16,422	16,422	1.00	50,192	44,296	0.88
														24	5.79	14.85	46.4	67.6	45.2	16,812	16,812	1.00	50,582	44,686	0.88
		40	63.5		59.6	70.1	76.0	82.95	68.45	27,759	51,538	79,297	0.35	8	1.93	1.89	50.2	69.7	62.3	20,730	14,542	0.70	100,027	42,301	0.42
														16	3.86	6.91	47.9	68.7	61.5	23,411	15,639	0.67	102,708	43,398	0.42
														24	5.79	14.85	47.0	68.2	61.1	24,660	16,168	0.66	103,957	43,927	0.42
		75	73.8		69.2	70.3	76.1	82.90	80.61	27,642	127,862	155,504	0.18	8	1.93	1.89	53.8	73.0	72.7	35,173	10,937	0.31	190,677	38,579	0.20
														16	3.86	6.91	50.1	71.2	71.2	40,760	12,939	0.32	196,264	40,581	0.21
														24	5.79	14.85	48.6	70.4	70.4	43,017	13,803	0.32	198,521	41,445	0.21

All data based on balanced system (Exhaust cfm = Supply cfm). Entering water temperature is 45°F. Coil face area is 3.89 sq. ft.

G-019 | CHILLED WATER COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Chilled Water Coil									Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
900	80	5	50.4	75.0	47.8	71.9	79.9	76.08	48.37	3,687	552	4,239	0.87	8	1.93	2.46	49.6	57.1	38.8	18,659	18,659	1.00	22,898	22,346	0.98
														16	3.86	8.89	47.5	55.8	38.1	19,923	19,923	1.00	24,162	23,610	0.98
														24	5.79	18.95	46.7	55.3	37.9	20,404	20,404	1.00	24,643	24,091	0.98
		40	63.5		59.6	72.0	77.0	76.08	60.55	3,674	4,363	8,037	0.46	8	1.93	2.46	49.8	56.8	53.0	19,301	18,992	0.98	27,338	22,666	0.83
														16	3.86	8.89	47.7	55.7	52.0	21,727	20,064	0.92	29,764	23,738	0.8
														24	5.79	18.95	46.9	55.1	51.5	22,960	20,621	0.90	30,997	24,295	0.78
		75	73.8		69.2	72.0	77.0	76.08	70.36	3,661	8,103	11,764	0.31	8	1.93	2.46	53.5	60.2	59.2	34,163	15,635	0.46	45,927	19,296	0.42
														16	3.86	8.89	50.0	57.7	57.0	40,051	18,049	0.45	51,815	21,710	0.42
														24	5.79	18.95	48.5	56.7	56.1	42,403	19,061	0.45	54,167	22,722	0.42
	95	5	57.7	75.0	47.8	72.1	77.1	79.29	50.00	14,693	2,864	17,557	0.84	8	1.93	2.46	50.1	58.4	39.7	20,591	20,591	1.00	38,148	35,284	0.92
														16	3.86	8.89	47.7	57.0	38.9	21,982	21,982	1.00	39,539	36,675	0.93
														24	5.79	18.95	46.9	56.4	38.6	22,512	22,512	1.00	40,069	37,205	0.93
		40	75.1		59.6	72.2	77.2	79.27	63.82	14,636	21,657	36,293	0.40	8	1.93	2.46	50.8	58.8	55.1	23,495	20,183	0.86	59,788	34,819	0.58
														16	3.86	8.89	48.4	57.0	53.5	27,449	21,891	0.80	63,742	36,527	0.57
														24	5.79	18.95	47.4	56.3	52.8	29,049	22,605	0.78	65,342	37,241	0.57
		75	87.7		69.2	72.3	77.3	79.26	74.53	14,579	41,360	55,939	0.26	8	1.93	2.46	55.3	62.6	62.0	41,266	16,393	0.40	97,205	30,972	0.32
														16	3.86	8.89	51.0	59.7	59.5	48,557	19,269	0.40	104,496	33,848	0.32
														24	5.79	18.95	49.3	58.4	58.4	51,530	20,513	0.40	107,469	35,092	0.33
	110	5	50.4	75.0	47.8	72.3	77.3	82.44	51.96	25,619	5,487	31,106	0.82	8	1.93	2.46	50.6	59.6	41.1	22,463	22,463	1.00	53,569	48,082	0.9
														16	3.86	8.89	48.0	58.0	40.3	23,977	23,977	1.00	55,083	49,596	0.9
														24	5.79	18.95	47.0	57.5	40.0	24,554	24,554	1.00	55,660	50,173	0.9
		40	63.5		59.6	72.4	77.5	82.40	67.80	25,504	47,936	73,440	0.35	8	1.93	2.46	52.4	60.9	57.5	29,756	21,208	0.71	103,196	46,712	0.45
														16	3.86	8.89	49.3	58.7	55.5	34,827	23,334	0.67	108,267	48,838	0.45
														24	5.79	18.95	48.1	57.8	54.7	36,805	24,199	0.66	110,245	49,703	0.45
		75	73.8		69.2	72.5	77.6	82.36	79.80	25,387	93,154	118,541	0.21	8	1.93	2.46	57.8	65.7	65.7	51,269	16,432	0.32	169,810	41,819	0.25
														16	3.86	8.89	52.6	62.1	62.1	60,752	19,970	0.33	179,293	45,357	0.25
														24	5.79	18.95	50.4	60.5	60.5	64,595	21,514	0.33	183,136	46,901	0.26
1400	80	5	50.4	75.0	47.8	65.7	70.7	76.40	48.54	5,268	784	6,052	0.87	8	1.93	2.46	51.3	60.0	40.3	25,112	25,112	1.00	31,164	30,380	0.97
														16	3.86	8.89	48.4	58.4	39.5	27,561	27,561	1.00	33,613	32,829	0.98
														24	5.79	18.95	47.4	57.8	39.1	28,530	28,530	1.00	34,582	33,798	0.98
		40	63.5		59.6	65.8	70.8	76.39	60.80	5,252	6,200	11,452	0.46	8	1.93	2.46	51.3	60.0	54.5	25,134	25,134	1.00	36,586	30,386	0.83
														16	3.86	8.89	48.6	58.1	53.6	28,538	27,945	0.98	39,990	33,197	0.83
														24	5.79	18.95	47.5	57.6	53.2	30,342	28,735	0.95	41,794	33,987	0.81
		75	73.8		69.2	65.8	70.8	76.39	70.66	5,236	11,520	16,756	0.31	8	1.93	2.46	55.3	63.6	62.3	41,506	19,531	0.47	58,262	24,767	0.43
														16	3.86	8.89	51.4	61.2	60.1	51,196	23,238	0.45	67,952	28,474	0.42
														24	5.79	18.95	49.6	60.1	59.1	55,516	24,982	0.45	72,272	30,218	0.42
	95	5	57.7	75.0	47.8	66.0	71.0	80.53	50.79	20,989	3,638	24,627	0.85	8	1.93	2.46	52.1	62.0	41.9	28,431	28,431	1.00	53,058	49,420	0.93
														16	3.86	8.89	48.9	60.2	40.9	31,191	31,191	1.00	55,818	52,180	0.93
														24	5.79	18.95	47.7	59.4	40.6	32,285	32,285	1.00	56,912	53,274	0.94
		40	75.1		59.6	66.1	71.1	80.51	64.86	20,916	30,782	51,698	0.40	8	1.93	2.46	52.7	62.3	57.8	30,808	27,863	0.90	82,506	48,779	0.59
														16	3.86	8.89	49.6	60.7	56.3	37,010	30,397	0.82	88,708	51,313	0.58
														24	5.79	18.95	48.3	59.7	55.4	40,301	31,794	0.79	91,999	52,710	0.57
		75	87.7		69.2	66.2	71.2	80.49	75.78	20,843	58,811	79,654	0.26	8	1.93	2.46	57.9	67.3	66.3	51,914	20,264	0.39	131,568	41,107	0.31
														16	3.86	8.89	53.0	64.3	63.7	64,589	24,813	0.38	144,243	45,656	0.32
														24	5.79	18.95	50.8	62.9	62.5	70,146	26,944	0.38	149,800	47,787	0.32
	110	5	50.4	75.0	47.8	66.3	71.3	84.58	53.07	36,591	7,798	44,389	0.82	8	1.93	2.46	52.9	63.8	43.5	31,625	31,625	1.00	76,014	68,216	0.90
														16	3.86	8.89	49.3	61.8	42.5	34,682	34,682	1.00	79,071	71,273	0.90
														24	5.79	18.95	48.0	61.1	42.1	35,896	35,896	1.00	80,285	72,487	0.90
		40	63.5		59.6	66.4	71.5	84.53	69.68	36,439	68,150	104,589	0.35	8	1.93	2.46	54.8	65.6	61.5	39,222	28,862	0.74	143,811	65,301	0.45
														16	3.86	8.89	51.0	63.3	59.3	48,487	32,450	0.67	153,076	68,889	0.45
														24	5.79	18.95	49.4	62.2	58.4	52,534	34,100	0.65	157,123	70,539	0.45
		75	73.8		69.2	66.6	71.6	84.48	82.06	36,285	132,491	168,776	0.21	8	1.93	2.46	61.4	71.7	71.7	65,950	19,581	0.30	234,726	55,866	0.24
														16	3.86	8.89	55.3	68.1	68.1	82,959	25,157	0.30	251,735	61,442	0.24
														24	5.79	18.95	52.5	66.3	66.3	90,461	27,833	0.31	259,237	64,118	0.25
1900	80	5	50.4	75.0	47.8	59.4	64.4	76.71	48.68	6,510	962	7,472	0.87	8	1.93	2.46	52.6	62.1	41.5	30,328	30,328	1.00	37,800	36,838	0.97
														16	3.86	8.89	49.2	60.3	40.6	34,035	34,035	1.00	41,507	40,545	0.98
														24	5.79	18.95	48.0	59.6	40.2	35,553	35,553	1.00	43,025	42,063	0.98
		40	63.5		59.6	59.5	64.5	76.71	61.05	6,494	7,612	14,106	0.46	8	1.93	2.46	52.6	62.0	55.6	30,469	30,469	1.00	44,575	36,963	0.83
														16	3.86	8.89	49.3	60.1	54.8	34,481	34,481	1.00	48,587	40,975	0.84
														24	5.79	18.95	48.4	59.4	54.4	36,777	35,999	0.98	50,883	42,493	0.84
		75	73.8		69.2	59.6	64.6	76.70	70.95	6,477	14,150	20,627	0.31	8	1.93	2.46	56.6	65.8	64.2	46,495	22,566	0.49	67,122	29,043	0.43
														16	3.86	8.89	52.4	63.6	62.1	59,550	27,327	0.46	80,177	33,804	0.42
														24	5.79	18.95	50.5	62.4	61.1	65,677	29,687	0.45	86,304	36,164	0.42
	95	5	57.7	75.0	47.8	59.8	64.8	81.77	51.42	25,951	4,469	30,420	0.85	8	1.93	2.46	53.8	64.8	43.4	35,206	35,206	1.00	65,626	61,157	0.93
														16	3.86	8.89	49.9	62.8	42.4	39,480	39,480	1.00	69,900	65,431	0.94
														24	5.79	18.95	48.4	61.9	41.9	41,234	41,234	1.00	71,654	67,185	0.94
		40	75.1		59.6	60.0	65.0	81.74	65.86	25,874	37,829	63,703	0.41	8	1.93	2.46	54.3	64.7	59.5	37,231	35,357	0.95	100,934	61,231	0.61
														16	3.86	8.89	50.6	63.3	58.2	44,687	38,290	0.86	108,390	64,164	0.59
														24	5.79	18.95	49.1	62.4	57.4	49,105	40,090	0.82	112,808	65,964	0.58
		75	87.7		69.2	60.1	65.1	81.71	76.98	25,798	72,318	98,116	0.26	8	1.93	2.46	59.9	70.5	69.3	59,901	23,268	0.39	158,017	49,066	0.31
														16	3.86	8.89	54.6	67.7	66.8	77,438	29,122	0.38	175,554	54,920	0.31
														24	5.79	18.95	52.1	66.3	65.5	85,767	32,102	0.37	183,883	57,900	0.31
	110	5	50.4	75.0	47.8	60.2	65.2	86.71	54.14	45,257	9,586	54,843	0.83	8	1.93	2.46	54.9	67.4	45.4	39,871	39,871	1.00	94,714	85,128	0.90
														16	3.86	8.89	50.6	65.1	44.3	44,682	44,682	1.00	99,525	89,939	0.90
														24	5.79	18.95	48.9	64.1	43.8	46,658	46,658	1.00	101,501	91,915	0.91
		40	63.5		59.6	60.4	65.4	86.64	71.45	45,096	82,832	127,928	0.35	8	1.93	2.46	56.8	69.4	64.5	47,325	35,820	0.76	175,253	80,916	0.46
														16	3.86	8.89	52.5	67.0	62.4	60,603	40,633	0.67	188,531	85,729	0.45
														24	5.79	18.95	50.6	65.9	61.4	66,907	43,049	0.64	194,835	88,145	0.45
		75	73.8		69.2	60.6	65.7	86.56	84.18	44,933	163,088	163,133	0.00	8	1.93	2.46	64.3	76.1	75.8	77,449	21,825	0.28	240,582	66,758	0.28
														16	3.86	8.89	57.7	72.7	72.7	101,582	28,962	0.29	264,715	73,895	0.28
														24	5.79	18.95	54.4	70.9	70.9	113,201	32,714	0.29	276,334	77,647	0.28

All data based on balanced system (Exhaust cfm = Supply cfm). Entering water temperature is 45°F. Coil face area is 3.89 sq. ft.

G-010 | HOT WATER COIL, TOTAL UNIT HEATING CAPACITY

Winter Application Ratings - Enthalpy Wheel														Perfomance Ratings - Hot Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent HWC		Heating Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil				Combined Heating Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	ENT Temp (deg. F)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
600	-10	30	-11.5	72.0	54.0	77.9	82.5	56.71	45.05	43,448	10,579	54,027	.080	2	1.69	120	1.46	108.7	74.0	52.8	11,245	11,245	1.00	65,272	54,693	0.838
																160	1.37	141.2	85.1	57.3	18,497	18,497	1.00	72,524	61,945	0.854
																200	1.30	173.7	96.4	62.2	25,810	25,810	1.00	79,837	69,258	0.867
														4	3.38	120	5.03	113.9	75.3	53.4	12,112	12,112	1.00	66,139	55,560	0.840
																160	4.74	154.3	87.2	58.1	19,871	19,871	1.00	73,898	63,319	0.857
																200	4.49	185.8	99.2	62.5	27,668	27,668	1.00	81,695	71,116	0.871
														6	5.06	120	10.51	115.8	75.8	53.4	12,433	12,433	1.00	66,460	55,881	0.841
																160	9.92	154.3	88.0	58.4	20,371	20,371	1.00	74,398	63,819	0.858
																200	9.44	190.3	100.3	62.8	28,339	28,339	1.00	82,366	71,787	0.872
	20		14.8			77.6	82.2	62.65	48.11	27,455	9,642	37,097	0.74	2	1.69	120	1.45	109.7	78.3	54.9	10,195	10,195	1.00	47,292	37,650	0.796
																160	1.37	142.3	89.5	59.2	17,440	17,440	1.00	54,537	44,895	0.823
																200	1.30	174.4	100.7	63.2	24,748	24,748	1.00	61,845	52,203	0.844
														4	3.38	120	5.03	114.5	79.5	55.3	10,977	10,977	1.00	48,074	38,432	0.799
																160	4.73	150.5	91.4	59.9	18,730	18,730	1.00	55,827	46,185	0.827
																200	4.49	186.4	103.4	64.1	26,524	28,524	1.08	63,621	55,979	0.880
														6	5.06	120	10.51	116.2	80.0	55.0	11,267	11,267	1.00	48,364	38,722	0.801
																160	9.90	153.5	92.2	53.0	19,200	19,200	1.00	56,297	46,655	0.829
																200	9.42	190.7	104.4	64.4	27,165	27,165	1.00	64,262	54,620	0.850
	50		38.4			77.4	81.9	68.18	51.37	11,576	5,684	17,260	0.67	2	1.69	120	1.45	110.7	82.3	57.1	92,216	92,216	1.00	109,476	103,792	0.948
																160	1.36	143.3	93.5	61.3	16,456	16,456	1.00	33,716	28,032	0.831
																200	1.30	175.7	104.7	65.1	23,758	23,758	1.00	41,018	35,334	0.861
														4	3.38	120	5.02	115.0	83.4	57.6	9,920	9,920	1.00	27,180	21,496	0.791
																160	4.73	151.0	95.3	61.9	17,668	17,668	1.00	34,928	29,244	0.837
																200	4.49	186.9	107.3	6.0	25,458	25,458	1.00	42,718	37,034	0.867
														6	5.06	120	10.50	116.6	83.8	57.7	10,181	10,181	1.00	27,441	21,757	0.793
																160	9.90	153.9	96.0	62.2	18,111	18,111	1.00	35,371	29,687	0.839
																200	9.42	191.1	108.2	66.2	26,072	26,072	1.00	43,332	37,648	0.869
800	-10	30	-11.5	72.0	54.0	74.0	79.3	53.83	43.20	55,723	13,387	69,110	0.81	2	1.69	120	1.48	106.1	69.8	50.6	13,844	13,844	1.00	82,954	69,567	0.839
																160	1.40	137.3	79.7	54.8	22,411	22,411	1.00	91,521	78,134	0.854
																200	1.33	168.4	89.6	58.7	31,062	31,062	1.00	100,172	86,785	0.866
														4	3.38	120	5.07	112.3	71.3	51.3	15,175	15,175	1.00	84,285	70,898	0.841
																160	4.77	147.6	82.1	55.8	24,500	24,500	1.00	93,610	80,223	0.857
																200	4.54	182.7	92.9	59.9	33,881	33,881	1.00	102,991	89,604	0.870
														6	5.06	120	10.56	114.7	71.9	51.6	15,672	15,672	1.00	84,782	71,395	0.842
																160	9.97	151.4	83.0	58.1	25,266	25,266	1.00	94,376	80,989	0.858
																200	9.49	188.1	94.1	60.3	34,903	34,903	1.00	104,013	90,626	0.871
	20		14.8			76.7	79.0	60.87	46.93	35,190	12,201	47,391	0.74	2	1.69	120	1.47	107.5	75.1	53.2	12,384	12,384	1.00	59,775	47,574	0.796
																160	1.39	138.8	85.0	57.2	20,942	20,942	1.00	68,333	56,132	0.821
																200	1.32	169.9	95.0	60.9	29,585	29,585	1.00	76,976	64,775	0.841
														4	3.38	120	5.05	113.2	76.5	53.8	13,564	13,564	1.00	60,955	48,754	0.800
																160	4.77	148.4	87.2	58.0	22,880	22,880	1.00	70,271	58,070	0.826
																200	4.53	183.5	98.0	62.0	32,254	32,254	1.00	79,645	67,444	0.847
														6	5.06	120	10.54	115.3	77.0	54.0	14,007	14,007	1.00	61,398	49,197	0.801
																160	9.95	152.0	88.1	58.4	23,593	23,593	1.00	70,984	58,783	0.828
																200	9.48	188.6	99.2	62.4	33,224	33,224	1.00	80,615	68,414	0.849
	50		38.4			73.4	78.7	67.45	50.86	14,829	7,192	22,021	0.67	2	1.69	120	1.46	108.9	80.1	56.1	11,017	11,017	1.00	33,038	25,846	0.782
																160	1.38	140.2	90.0	59.9	19,567	19,567	1.00	41,588	34,396	0.827
																200	1.32	171.3	100.0	63.4	28,203	28,203	1.00	50,224	43,032	0.857
														4	3.38	120	5.05	113.9	81.3	56.6	12,058	12,058	1.00	34,079	26,887	0.789
																160	4.75	149.1	92.1	60.6	21,366	21,366	1.00	43,387	36,195	0.834
																200	4.53	184.3	102.9	64.4	30,734	30,734	1.00	52,755	45,563	0.864
														6	5.06	120	10.54	115.8	81.8	56.8	12,450	12,450	1.00	34,471	27,279	0.791
																160	9.94	152.5	92.8	60.9	22,029	22,029	1.00	44,050	36,858	0.837
																200	9.46	189.2	103.9	64.7	31,655	31,655	1.00	53,676	46,484	0.866
1000	-10	30	-11.5	72.0	54.0	70.1	76.1	50.94	41.30	66,823	15,830	82,653	0.81	2	1.69	120	1.50	103.7	65.9	62.8	16,260	16,260	1.00	98,913	83,083	0.840
																160	1.43	133.8	74.8	52.4	25,922	25,922	1.00	108,575	92,745	0.854
																200	1.36	162.9	84.3	56.3	36,165	36,165	1.00	118,818	102,988	0.867
														4	3.38	120	5.10	110.9	67.6	49.3	18,120	18,120	1.00	100,773	84,943	0.843
																160	4.82	145.4	77.5	53.6	28,818	28,818	1.00	111,471	95,641	0.858
																200	4.58	179.8	87.4	57.5	39,590	39,590	1.00	122,243	106,413	0.871
														6	5.06	120	10.61	113.7	68.3	49.6	18,821	18,821	1.00	101,474	85,644	0.844
																160	10.01	149.9	78.5	54.0	29,884	29,884	1.00	112,537	96,707	0.859
																200	9.54	186.0	88.7	58.0	41,004	41,004	1.00	123,657	107,827	0.872
	20		14.8			69.8	75.7	59.08	45.71	42,174	14,427	56,601	0.75	2	1.69	120	1.49	105.5	72.3	51.7	14,371	14,371	1.00	70,972	56,545	0.797
																160	1.42	135.7	81.2	55.4	24,023	24,023	1.00	80,624	66,197	0.821
																200	1.35	164.9	90.6	59.0	34,196	34,196	1.00	90,797	76,370	0.841
														4	3.38	120	5.08	111.9	73.8	52.3	15,993	15,993	1.00	72,594	58,167	0.801
																160	4.80	146.5	83.7	58.4	26,677	26,677	1.00	83,278	68,851	0.827
																200	4.57	180.9	93.6	60.1	37,438	37,428	1.00	94,039	79,602	0.846
														6	5.06	120	10.58	114.4	74.4	52.6	16,606	16,606	1.00	73,207	58,780	0.803
																160	10.01	150.6	84.6	56.7	27,659	27,659	1.00	84,260	69,833	0.829
																200	9.53	186.7	94.8	60.5	38,770	38,770	1.00	95,371	80,944	0.849
	50		38.4			69.5	75.4	66.71	50.34	17,761	8,504	26,265	0.68	2	1.69	120	1.48	107.3	78.3	55.2	12,592	12,592	1.00	38,857	30,353	0.781
																160	1.41	137.5	87.2	58.7	22,237	22,237	1.00	48,502	39,998	0.825
																200	1.35	166.8	96.5	62.0	32,350	32,350	1.00	58,615	50,111	0.855
														4	3.38	120	5.07	112.9	79.6	55.7	13,996	13,996	1.00	40,261	31,757	0.789
																160	4.78	147.5	89.5	59.5	24,669	24,669	1.00	50,934	42,430	0.833
																200	4.56	181.9	99.4	63.0	35,421	35,421	1.00	61,686	53,182	0.862
														6	5.06	120	10.56	115.1	80.1	55.9	14,530	14,530	1.00	40,795	32,291	0.792
																160	9.97	151.3	90.3	59.8	25,572	25,572	1.00	51,837	43,333	0.836
																200	9.50	187.5	100.5	63.4	36,675	36,675	1.00	62,940	54,436	0.865

Return air conditions are constant at 72.0 db and 54.0 wb. Outdoor air relative humidity is constant at 30%. Enthalpy Wheel leaving temperatures do not include the effect of Pre-Heater (optional) for frost control. All data based on balanced system (Exhaust cfm = Supply cfm). Coil face area is 3.89 sq. ft.

G-019 | HOT WATER COIL, TOTAL UNIT HEATING CAPACITY

Winter Application Ratings - Enthalpy Wheel														Perfomance Ratings - Hot Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent HWC		Heating Cap - Enthalpy Wheel				Fluid Data					LVG Air Temp		Cooling Cap - CW Coil			Combined Heating Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	ENT Temp (deg. F)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
900	-10	30	-11.5	72.0	54.0	72.6	77.7	52.46	42.36	61,410	14,767	76,177	0.81	8	1.93	120	1.69	113.4	79.4	54.6	26,316	26,316	1.00	102,493	87,726	0.856
																160	1.62	149.2	95.8	60.8	42,268	42,268	1.00	118,445	103,678	0.875
																200	1.57	185.0	112.2	66.4	58,354	58,354	1.00	134,531	119,764	0.890
														16	3.86	120	6.25	116.5	80.8	55.1	27,625	27,625	1.00	103,802	89,035	0.858
																160	6.03	154.4	97.8	61.5	44,220	44,220	1.00	120,397	105,630	0.877
																200	5.86	192.2	114.9	67.2	60,898	60,898	1.00	137,075	122,308	0.892
														24	5.79	120	13.52	117.6	81.3	55.3	28,109	28,109	1.00	104,286	89,519	0.858
																160	13.08	156.2	98.5	61.8	44,933	44,933	1.00	121,110	106,343	0.878
																200	12.74	194.7	115.8	67.5	61,819	61,819	1.00	137,996	123,229	0.893
	20		14.8			72.3	77.4	60.02	46.40	38,773	13.458	52,231	0.74	8	1.93	120	1.69	114.1	84.0	56.7	23,376	23,376	1.00	75,607	62,149	0.822
																160	1.62	150.0	100.3	62.6	39,303	39,303	1.00	91,534	78,076	0.853
																200	1.57	185.8	116.7	68.0	55,370	55,370	1.00	107,601	94,143	0.875
														16	3.86	120	6.25	116.9	85.2	57.1	24,534	24,534	1.00	76,765	63,307	0.825
																160	6.03	154.8	102.1	63.3	41,113	41,113	1.00	93,344	79,886	0.856
																200	5.86	192.6	119.3	68.8	57,780	57,780	1.00	110,011	96,553	0.878
														24	5.79	120	13.51	117.9	85.6	57.3	24,964	24,964	1.00	77,195	63,737	0.826
																160	13.07	156.4	102.8	63.5	41,776	41,776	1.00	94,007	80,549	0.857
																200	12.74	195.0	120.1	69.1	58,653	78,653	1.34	110,884	117,426	1.059
	50		38.4			72.0	77.0	67.10	50.64	16,335	7,933	24,268	0.67	8	1.93	120	1.69	114.8	88.2	59.1	20,621	20,621	1.00	44,889	36,956	0.823
																160	1.62	150.7	104.5	64.9	36,525	36,525	1.00	60,793	52,860	0.870
																200	1.57	186.5	121.0	70.0	52,576	52,576	1.00	76,844	68,911	0.897
														16	3.86	120	6.24	117.3	89.3	66.1	21,640	21,640	1.00	45,908	37,975	0.827
																160	6.03	155.1	106.2	65.4	38,204	38,204	1.00	62,472	54,539	0.873
																200	5.86	192.9	123.3	70.7	54,859	54,859	1.00	79,127	71,194	0.900
														24	5.79	120	13.51	118.1	89.7	59.7	22,018	22,018	1.00	46,286	38,353	0.829
																160	13.07	156.7	106.9	65.6	38,818	38,818	1.00	63,086	55,153	0.874
																200	12.73	195.2	124.2	70.9	55,687	55,687	1.00	79,955	72,022	0.901
1400	-10	30	-11.5	72.0	54.0	66.5	71.5	49.92	38.73	87,956	20,972	108,928	0.81	8	1.93	120	1.70	110.9	73.6	50.2	35,992	35,992	1.00	144,920	123,948	0.855
																160	1.63	145.5	87.6	58.1	57,183	57,183	1.00	166,111	145,139	0.874
																200	1.58	179.9	101.7	61.4	78,612	78,612	1.00	187,540	166,568	0.888
														16	3.86	120	6.26	115.1	75.3	51.0	38,505	38,505	1.00	147,433	126,461	0.858
																160	6.04	152.2	90.0	57.0	60,917	60,917	1.00	169,845	148,873	0.877
																200	5.87	189.3	104.9	62.5	83,480	83,480	1.00	192,408	171,436	0.891
														24	5.79	120	13.53	116.7	75.9	51.2	39,449	39,449	1.00	148,377	127,405	0.859
																160	13.10	154.7	91.0	57.4	62,298	62,298	1.00	171,226	150,254	0.878
																200	12.75	192.7	106.1	62.9	85,260	85,260	1.00	194,188	173,216	0.892
	20		14.8			66.1	71.2	56.59	44.14	55,478	19,111	74,589	0.74	8	1.93	120	1.69	111.8	78.0	53.8	32,581	32,581	1.00	107,170	88,059	0.822
																160	1.63	146.3	92.0	59.2	53,735	53,735	1.00	128,324	109,213	0.851
																200	1.58	180.7	106.1	64.2	75,136	75,136	1.00	149,725	130,614	0.872
														16	3.86	120	6.26	115.6	79.5	54.4	34,844	34,844	1.00	109,433	90,322	0.825
																160	6.04	152.7	94.3	60.1	57,231	57,231	1.00	131,820	112,709	0.855
																200	5.87	189.7	109.1	65.2	79,775	79,775	1.00	154,364	135,253	0.876
														24	5.79	120	13.52	117.0	80.1	54.6	35,697	35,697	1.00	110,286	91,175	0.827
																160	13.10	155.0	95.1	60.5	58,526	58,526	1.00	133,115	114,004	0.856
																200	12.75	193.0	110.3	65.6	81,476	81,476	1.00	156,065	136,954	0.878
	50		38.4			65.8	70.8	65.68	49.70	23,351	11,264	34,615	0.67	8	1.93	120	1.69	112.9	84.1	57.3	27,927	27,927	1.00	62,542	51,278	0.820
																160	1.63	147.5	98.0	62.4	49,033	49,033	1.00	83,648	72,384	0.865
																200	1.58	182.0	112.0	67.0	70,396	70,396	1.00	105,011	93,747	0.893
														16	3.86	120	6.25	116.2	85.3	57.8	29,854	29,854	1.00	64,469	53,205	0.825
																160	6.04	153.4	100.1	63.1	52,207	52,207	1.00	86,822	75,558	0.870
																200	5.87	190.4	114.9	67.9	74,726	74,726	1.00	109,341	98,077	0.897
														24	5.79	120	13.52	117.4	85.8	58.0	30,582	30,582	1.00	65,197	53,933	0.827
																160	13.10	155.5	100.8	63.4	53,385	53,385	1.00	88,000	76,736	0.872
																200	12.75	193.5	115.9	68.2	76,313	76,313	1.00	110,928	99,664	0.898
1900	-10	30	-11.5	72.0	54.0	60.2	65.3	41.48	34.97	108,944	25,725	134,669	0.81	8	1.93	120	1.71	107.9	64.8	47.0	48,038	48,038	1.00	182,707	156,982	0.859
																160	1.65	141.4	77.1	52.4	73,499	73,499	1.00	208,168	182,443	0.876
																200	1.59	174.6	89.7	57.5	99,296	99,296	1.00	233,965	208,240	0.890
														16	3.86	120	6.28	113.4	66.9	48.0	52,278	52,278	1.00	186,947	161,222	0.862
																160	6.06	149.9	80.1	53.7	79,600	79,600	1.00	214,269	188,544	0.880
																200	5.89	186.3	93.5	59.0	107,137	107,137	1.00	241,806	216,081	0.894
														24	5.79	120	13.55	115.5	67.6	48.3	53,887	53,887	1.00	188,556	162,831	0.864
																160	13.13	153.0	81.2	54.2	81,873	81,873	1.00	216,542	190,817	0.881
																200	12.78	190.6	94.9	59.5	110,020	110,020	1.00	244,689	218,964	0.895
	20		14.8			59.8	64.9	53.20	41.82	68,647	23,438	92,085	0.75	8	1.93	120	1.70	109.7	73.1	51.2	40,921	40,921	1.00	133,006	109,568	0.824
																160	1.64	143.2	85.4	56.2	66,296	66,296	1.00	158,381	134,943	0.852
																200	1.59	176.5	97.9	60.9	92,024	92,024	1.00	184,109	160,671	0.873
														16	3.86	120	6.27	114.4	74.8	51.9	44,491	44,491	1.00	136,576	113,138	0.828
																160	6.06	150.9	88.0	57.2	71,748	71,748	1.00	163,833	140,395	0.857
																200	5.88	187.3	101.4	62.2	99,236	99,236	1.00	191,321	167,883	0.877
														24	5.79	120	13.55	116.1	75.5	52.2	45,852	45,852	1.00	137,937	114,499	0.830
																160	13.12	153.7	89.0	57.6	73,786	73,786	1.00	165,871	142,433	0.859
																200	12.78	191.3	102.7	62.6	101,895	101,895	1.00	193,980	170,542	0.879
	50		38.4			59.4	64.5	64.26	48.74	28,864	13,812	42,676	0.68	8	1.93	120	1.70	111.4	80.9	55.8	34,187	34,187	1.00	76,863	63,051	0.820
																160	1.64	144.9	93.1	60.4	59,484	59,484	1.00	102,160	88,348	0.865
																200	1.59	178.2	105.6	64.8	85,150	85,150	1.00	127,826	114,014	0.892
														16	3.86	120	6.26	115.3	82.3	56.3	37,138	37,138	1.00	79,814	66,002	0.827
																160	6.05	151.8	95.5	61.3	64,334	64,334	1.00	107,010	93,198	0.871
																200	5.88	188.2	108.8	65.8	91,777	91,777	1.00	134,453	120,641	0.897
														24	5.79	120	13.53	116.8	82.8	56.5	38,267	38,267	1.00	80,943	67,131	0.829
																160	13.10	154.4	96.4	61.6	66,153	66,153	1.00	108,829	95,017	0.873
																200	12.78	191.9	110.0	66.2	94,227	94,227	1.00	136,903	123,091	0.899

Return air conditions are constant at 72.0 db and 54.0 wb. Outdoor air relative humidity is constant at 30%. Enthalpy Wheel leaving temperatures do not include the effect of Pre-Heater (optional) for frost control. All data based on balanced system (Exhaust cfm = Supply cfm). Coil face area is 3.89 sq. ft.

G-010 | DX COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Direct Expansion Coil							Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Refrigerant Data		LVG Air Temp		Cooling Cap - DX Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	SUC Temp (gpm)	Pr Drop (fwc)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
600	80	5	50.4	75.0	47.8	77.3	81.8	75.84	48.25	2,614	396	3,010	0.87	40	1.64	59.2	40.2	10,763	10,763	1.00	13,773	13,377	0.97
														45	1.24	62.1	41.5	8,934	8,934	1.00	11,944	11,548	0.97
														50	0.95	64.9	43.0	7,108	7,108	1.00	10,118	9,722	0.96
		40	63.5		59.6	77.3	81.8	75.84	60.35	2,605	3,127	5,732	0.45	40	1.74	58.9	53.7	11,390	10,973	0.96	17,122	13,578	0.79
														45	1.24	62.1	55.2	8,934	8,934	1.00	14,666	11,539	0.79
														50	0.95	64.9	56.3	7,108	7,108	1.00	12,840	9,713	0.76
		75	73.8		69.2	77.4	81.9	75.84	70.12	,2596	5,807	8,403	0.31	40	4.82	60.5	59.6	21,368	9,919	0.46	29,771	12,515	0.42
														45	3.00	63.5	61.8	17,283	7,988	0.46	25,686	10,584	0.41
														50	1.83	66.0	64.1	12,918	6,387	0.49	21,321	8,983	0.42
	95	5	57.7	75.0	47.8	77.4	81.9	78.34	49.59	10,426	1,571	11,997	0.87	40	1.79	60.3	40.9	11,667	11,667	1.00	23,664	22,093	0.93
														45	1.38	63.2	42.4	9,821	9,821	1.00	21,818	20,247	0.93
														50	1.06	66.0	43.8	8,001	8,001	1.00	19,998	18,427	0.92
		40	75.1		59.6	77.5	82.0	78.33	62.96	10,386	15,528	25,914	0.40	40	2.33	60.2	55.2	13,981	11,740	0.84	39,895	22,126	0.55
														45	1.38	63.2	57.6	9,821	9,821	1.00	35,735	20,207	0.57
														50	1.06	66.0	58.6	8,001	8,001	1.00	33,915	18,387	0.54
		75	87.7		69.2	77.6	82.1	78.31	73.47	10,345	29,657	40,002	0.26	40	6.45	62.3	61.8	25,316	10,386	0.41	65,318	20,731	0.32
														45	4.32	65.0	64.0	21,170	8,637	0.41	61,172	18,982	0.31
														50	2.65	67.5	68.1	16,665	7,007	0.42	56,667	17,352	0.31
	110	5	64.6	75.0	47.8	77.6	82.1	80.79	51.08	18,191	3,936	22,127	0.82	40	2.01	61.4	41.9	12,553	12,553	1.00	34,680	30,744	0.89
														45	1.51	64.2	43.4	10,723	10,723	1.00	32,850	28,914	0.88
														50	1.16	67.1	44.8	8,869	8,869	1.00	30,996	27,060	0.87
		40	86.8		59.6	77.7	82.2	80.76	66.20	18,111	34,390	52,501	0.34	40	3.21	61.8	57.1	17,145	12,266	0.72	69,646	30,377	0.44
														45	1.98	64.5	59.4	13,132	10,551	0.80	65,633	28,662	0.44
														50	1.16	67.1	61.7	8,869	8,869	1.00	61,370	26,980	0.44
		75	101.7		69.2	77.8	82.3	80.73	77.79	18,029	66,845	84,874	0.21	40	9.37	64.4	64.2	30,642	10,582	0.35	115,516	28,611	0.25
														45	6.41	66.7	66.6	26,447	9,075	0.34	111,321	27,104	0.24
														50	4.26	69.0	68.8	21,943	7,626	0.35	106,817	25,655	0.24
800	80	5	50.4	75.0	47.8	73.4	78.6	76.00	48.33	3,348	501	3,849	0.87	40	2.07	61.1	41.1	12,843	12,843	1.00	16,692	16,191	0.97
														45	1.51	63.7	42.4	10,658	10,658	1.00	14,507	14,006	0.97
														50	1.13	66.2	43.6	8,461	8,461	1.00	12,310	11,809	0.96
		40	63.5		59.6	73.4	78.6	76.00	60.49	3,337	3,958	7,295	0.46	40	2.13	60.9	54.7	13,218	13,016	0.98	20,513	16,353	0.80
														45	1.51	63.7	55.8	10,658	10,658	1.00	17,953	13,995	0.78
														50	1.13	66.2	56.8	8,461	8,461	1.00	15,756	11,798	0.75
		75	73.8		69.2	73.5	78.7	76.00	70.29	3,326	7,353	10,679	0.31	40	6.18	62.9	61.4	24,665	11,318	0.46	35,344	14,644	0.41
														45	3.86	65.0	63.2	19,927	9,502	0.48	30,606	12,828	0.42
														50	2.27	67.0	65.1	14,897	7,765	0.52	25,576	11,091	0.43
	95	5	57.7	75.0	47.8	73.6	78.8	78.98	49.98	13,348	2,324	15,672	0.85	40	2.37	62.7	42.2	14,105	14,105	1.00	29,777	27,453	0.92
														45	1.74	65.2	43.4	11,909	11,909	1.00	27,581	25,257	0.92
														50	1.29	67.7	44.8	9,720	9,720	1.00	25,392	23,068	0.91
		40	75.1		59.6	73.7	78.9	78.96	63.57	13,299	19,660	32,959	0.40	40	3.12	62.6	56.6	16,615	14,100	0.85	49,574	27,399	0.55
														45	1.74	65.2	58.6	11,909	11,909	1.00	44,868	25,208	0.56
														50	1.29	67.7	59.7	9,720	9,720	1.00	42,679	23,019	0.54
		75	87.7		69.2	73.8	78.9	78.95	74.23	13,248	37,556	50,804	0.26	40	8.69	65.1	64.3	29,784	11,954	0.40	80,588	25,202	0.31
														45	5.91	67.2	66.0	25,047	10,155	0.41	75,851	23,403	0.31
														50	3.58	69.5	67.9	19,831	8,205	0.41	70,635	21,453	0.30
	110	5	64.6	75.0	47.8	73.8	79.0	81.89	51.68	23,285	4,982	28,267	0.82	40	2.69	64.1	43.4	15,346	15,346	1.00	43,613	38,631	0.89
														45	2.01	66.7	44.6	13,143	13,143	1.00	41,410	36,428	0.88
														50	1.47	69.2	45.8	10,948	10,948	1.00	39,215	34,233	0.87
		40	86.8		59.6	73.9	79.1	81.85	67.34	23,184	43,541	66,725	0.35	40	4.49	64.7	59.2	20,874	14,819	0.71	87,599	38,003	0.43
														45	2.76	66.7	61.1	16,202	13,050	0.81	82,927	36,234	0.44
														50	1.52	69.1	63.1	11,268	11,032	0.98	77,993	34,216	0.44
		75	101.7		69.2	74.1	79.2	81.81	79.23	23,082	84,649	107,731	0.21	40	13.49	67.7	67.6	36,885	12,184	0.33	144,616	35,266	0.24
														45	9.43	69.7	69.6	32,046	10,441	0.33	139,777	33,523	0.24
														50	6.12	71.7	71.4	26,881	8,776	0.33	134,612	31,858	0.24
1000	80	5	50.4	75.0	47.8	69.4	75.3	76.17	48.40	4,009	592	4,601	0.87	40	2.51	62.6	42.0	14,644	14,644	1.00	19,245	18,653	0.97
														45	1.78	65.0	43.0	12,108	12,108	1.00	16,709	16,117	0.96
														50	1.28	67.2	44.2	9,669	9,669	1.00	14,270	13,678	0.96
		40	63.5		59.6	69.5	75.4	76.16	60.64	3,997	4,683	8,680	0.46	40	2.51	62.6	55.5	14,644	14,644	1.00	23,324	18,641	0.80
														45	1.78	64.9	56.5	12,108	12,108	1.00	20,788	16,105	0.77
														50	1.28	67.2	57.3	9,669	9,669	1.00	18,349	13,666	0.74
		75	73.8		69.2	69.6	75.4	76.16	70.47	3,984	8,702	12,686	0.31	40	7.42	64.6	62.6	27,338	12,448	0.46	40,024	16,432	0.41
														45	4.60	66.5	64.3	22,111	10,421	0.47	34,797	14,405	0.41
														50	2.65	68.1	65.9	16,576	8,752	0.53	29,262	12,736	0.44
	95	5	57.7	75.0	47.8	69.7	75.5	79.62	50.33	15,983	2,748	18,731	0.85	40	2.94	64.6	43.2	16,260	16,260	1.00	34,991	32,243	0.92
														45	2.14	66.9	44.4	13,775	13,775	1.00	32,506	29,758	0.92
														50	1.52	69.2	45.4	11,284	11,284	1.00	30,015	27,267	0.91
		40	75.1		59.6	69.8	75.7	79.60	64.18	15,926	23,263	39,189	0.41	40	3.82	64.8	58.0	18,993	15,951	0.84	58,182	31,877	0.55
														45	2.14	66.8	59.7	13,775	13,775	1.00	52,964	29,701	0.56
														50	1.52	69.2	60.6	11,284	11,284	1.00	50,473	27,210	0.54
		75	87.7		69.2	69.9	75.8	79.58	74.98	15,870	44,453	60,323	0.26	40	11.29	67.3	66.2	33,761	13,227	0.39	94,084	29,097	0.31
														45	7.41	69.2	67.6	28,592	11,217	0.39	88,915	27,087	0.30
														50	4.55	71.0	69.2.	22,900	9,306	0.41	83,223	25,176	0.30
	110	5	64.6	75.0	47.8	70.0	75.8	83.00	52.28	27,874	5,896	33,770	0.83	40	3.51	66.4	44.6	17,919	17,919	1.00	51,689	45,793	0.89
														45	2.55	68.7	45.8	15,399	15,399	1.00	49,169	43,273	0.88
														50	1.81	71.1	47.0	12,872	12,872	1.00	46,642	40,746	0.87
		40	86.8		59.6	70.1	76.0	82.95	68.45	27,759	51,538	79,297	0.35	40	6.18	66.9	61.1	24,508	17,320	0.71	103,805	45,079	0.43
														45	3.65	69.1	62.8	19,297	14,933	0.77	98,594	42,692	0.43
														50	1.98	70.9	64.5	13,684	12,969	0.95	92,981	40,728	0.44
		75	101.7		69.2	70.3	76.1	82.90	80.61	27,642	127,862	155,504	0.18	40	18.17	70.4	70.3	42,425	13,518	0.32	197,929	41,160	0.21
														45	12.60	72.2	72.1	37,306	11,574	0.31	192,810	39,216	0.20
														50	8.46	73.9	73.6	31,634	9,727	0.31	187,138	37,369	0.20

All data based on balanced system (Exhaust cfm = Supply cfm). Entering liquid temperature is constant at 110°F. Coil face area is 3.56 sq. ft.

G-019 | DX COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Direct Expansion Coil							Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Refrigerant Data		LVG Air Temp		Cooling Cap - DX Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	SUC Temp (gpm)	Pr Drop (fwc)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
900	80	5	50.4	75.0	47.8	71.9	79.9	76.08	48.37	3,687	552	4,239	0.87	40	1.33	55.3	37.8	20,200	20,200	1.00	24,439	23,887	0.98
														45	0.92	58.5	39.5	17,140	17,140	1.00	21,379	20,827	0.97
														50	0.60	61.6	41.1	14,070	14,070	1.00	18,309	17,757	0.97
		40	63.5		59.6	72.0	77.0	76.08	60.55	3,674	4,363	8,037	0.46	40	1.69	56.0	51.4	23,190	19,580	0.84	31,227	23,254	0.74
														45	0.94	58.4	53.9	17,370	17,160	0.99	25,407	20,834	0.82
														50	0.60	61.6	55.2	14,070	14,070	1.00	22,107	17,744	0.80
		75	73.8		69.2	72.0	77.0	76.08	70.36	3,661	8,103	11,764	0.31	40	4.36	58.8	57.2	40,140	16,820	0.42	51,904	20,481	0.39
														45	3.08	61.0	59.4	34,400	14,700	0.43	46,164	18,361	0.40
														50	1.91	63.5	61.9	27,460	12,260	0.45	39,224	15,921	0.41
	95	5	57.7	75.0	47.8	72.1	77.1	79.29	50.00	14,693	2,864	17,557	0.84	40	1.56	56.5	38.6	22,150	22,150	1.00	39,707	36,843	0.93
														45	1.11	59.7	40.3	19,090	19,090	1.00	36,647	33,783	0.92
														50	0.75	62.8	41.9	16,030	16,030	1.00	33,587	30,723	0.91
		40	75.1		59.6	72.2	77.2	79.27	63.82	14,636	21,657	36,293	0.40	40	2.45	57.5	53.0	28,730	21,150	0.74	65,023	35,786	0.55
														45	1.43	60.3	55.7	22,140	18,490	0.84	58,433	33,126	0.57
														50	0.76	62.7	58.6	16,160	16,160	1.00	52,453	30,796	0.59
		75	87.7		69.2	72.3	77.3	79.26	74.53	14,579	41,360	55,939	0.26	40	5.81	61.4	60.1	47,420	17,380	0.37	103,359	31,959	0.31
														45	4.30	63.5	62.1	41,760	15,400	0.37	97,699	29,979	0.31
														50	3.01	65.5	64.2	36,680	13,390	0.37	92,619	27,969	0.30
	110	5	64.6	75.0	47.8	72.3	77.3	82.44	51.96	25,619	5,487	31,106	0.82	40	1.80	57.7	40.1	24,040	24,040	1.00	55,146	49,659	0.90
														45	1.30	60.8	41.7	20,990	20,990	1.00	52,096	46,609	0.89
														50	0.91	64.0	43.3	17,930	17,930	1.00	49,036	43,549	0.89
		40	86.8		59.6	72.4	77.5	82.40	67.80	25,504	47,936	73,440	0.35	40	3.55	59.6	55.4	35,600	22,130	0.62	109,040	47,634	0.44
														45	2.35	62.1	57.8	29,420	19,750	0.67	102,860	45,254	0.44
														50	1.33	64.7	60.4	22,310	17,170	0.77	95,750	42,674	0.45
		75	101.7		69.2	72.5	77.6	82.36	79.80	25,387	93,154	118,541	0.21	40	8.13	64.7	64.1	57,710	17,160	0.30	176,251	42,547	0.24
														45	6.26	66.6	66.0	51,970	15,340	0.30	170,511	40,727	0.24
														50	4.64	68.6	67.9	45,820	13,460	0.29	164,361	38,847	0.24
1400	80	5	50.4	75.0	47.8	65.7	70.7	76.40	48.54	5,268	784	6,052	0.87	40	2.20	58.5	39.5	58,530	39,450	0.67	64,582	44,718	0.69
														45	1.53	61.2	40.8	61,220	40,830	0.67	67,272	46,098	0.69
														50	1.00	63.9	42.2	18,880	18,880	1.00	24,932	24,148	0.97
		40	63.5		59.6	65.8	70.8	76.39	60.80	5,252	6,200	11,452	0.46	40	2.68	59.0	53.2	30,300	26,280	0.87	41,752	31,532	0.76
														45	1.53	61.2	55.2	22,980	22,980	1.00	34,432	28,232	0.82
														50	0.89	63.9	56.2	18,880	18,880	1.00	30,332	24,132	0.80
		75	73.8		69.2	65.8	70.8	76.39	70.66	5,236	11,520	16,756	0.31	40	6.39	62.5	60.4	49,980	20,970	0.42	66,736	26,206	0.39
														45	4.49	64.2	62.1	42,820	18,480	0.43	59,576	23,716	0.40
														50	2.97	65.8	63.7	35,410	16,010	0.45	52,166	21,246	0.41
	95	5	57.7	75.0	47.8	66.0	71.0	80.53	50.79	20,989	3,638	24,627	0.85	40	2.70	60.4	41.0	30,340	30,340	1.00	54,967	51,329	0.93
														45	1.93	63.1	42.4	26,300	26,300	1.00	50,927	47,289	0.93
														50	1.32	65.8	43.7	22,230	22,230	1.00	46,857	43,219	0.92
		40	75.1		59.6	66.1	71.1	80.51	64.86	20,916	30,782	51,698	0.40	40	4.02	61.9	58.1	38,260	28,200	0.74	89,958	49,116	0.55
														45	2.49	63.8	58.0	30,490	25,240	0.83	82,188	46,156	0.56
														50	1.35	65.7	59.9	22,470	22,320	0.99	74,168	43,236	0.58
		75	87.7		69.2	66.2	71.2	80.49	75.78	20,843	58,811	79,654	0.26	40	8.97	66.4	64.7	60,990	21,390	0.35	140,644	42,233	0.30
														45	6.70	67.8	66.1	54,080	19,200	0.36	133,734	40,043	0.30
														50	4.74	69.4	67.7	46,420	16,860	0.36	126,074	37,703	0.30
	110	5	64.6	75.0	47.8	66.3	71.3	84.58	53.07	36,591	7,798	44,389	0.82	40	3.21	62..3	42.7	33,580	33,580	1.00	77,969	70,171	0.90
														45	2.37	65.0	44.0	29,560	28,560	0.97	73,949	65,151	0.88
														50	1.68	67.6	45.3	25,500	25,500	1.00	69,889	62,091	0.89
		40	86.8		59.6	66.4	71.5	84.53	69.68	36,439	68,150	104,589	0.35	40	5.90	65.2	59.7	47,740	29,230	0.61	152,329	65,669	0.43
														45	4.12	66.8	61.3	40,740	26,760	0.66	145,329	63,199	0.43
														50	2.63	68.6	63.0	32,970	24,110	0.73	137,559	60,549	0.44
		75	101.7		69.2	66.6	71.6	84.48	82.06	36,285	132,491	168,776	0.21	40	12.97	70.8	70.1	75,850	20,630	0.27	244,626	56,915	0.23
														45	10.07	72.2	71.4	68,710	18,640	0.27	237,486	54,925	0.23
														50	7.60	73.5	72.7	61,070	16,570	0.27	229,846	52,855	0.23
1900	80	5	50.4	75.0	47.8	59.4	64.4	76.71	48.68	6,510	962	7,472	0.87	40	3.07	60.8	40.7	32,680	32,680	1.00	40,152	39,190	0.98
														45	2.13	63.1	41.9	27,830	27,830	1.00	35,302	34,340	0.97
														50	1.40	65.5	43.1	22,930	22,930	1.00	30,402	29,440	0.97
		40	63.5		59.6	59.5	64.5	76.71	61.05	6,494	7,612	14,106	0.46	40	3.55	61.3	54.6	35,630	31,640	0.89	49,736	38,134	0.77
														45	2.13	63.1	56.1	27,820	27,820	1.00	41,926	34,314	0.82
														50	1.40	65.5	57.0	22,920	22,920	1.00	37,026	29,414	0.79
		75	73.8		69.2	59.6	64.6	76.70	70.95	6,477	14,150	20,627	0.31	40	8.06	65.1	62.7	57,240	23,870	0.42	77,867	30,347	0.39
														45	5.73	66.3	64.0	49,370	21,250	0.43	69,997	27,727	0.40
														50	3.83	67.7	65.3	41,000	18,550	0.45	61,627	25,027	0.41
	95	5	57.7	75.0	47.8	59.8	64.8	81.77	51.42	25,951	4,469	30,420	0.85	40	3.85	63.5	42.7	37,300	37,300	1.00	67,720	63,251	0.93
														45	2.83	65.8	43.8	32,730	32,730	1.00	63,150	58,681	0.93
														50	1.96	68.1	44.9	27,850	27,850	1.00	58,270	53,801	0.92
		40	75.1		59.6	60.0	65.0	81.74	65.86	25,874	37,829	63,703	0.41	40	5.49	65.1	58.4	45,750	34,070	0.74	109,453	59,944	0.55
														45	3.64	66.5	59.8	37,930	31,210	0.82	101,633	57,084	0.56
														50	2.01	68.2	61.4	28,280	27,810	0.98	91,983	53,684	0.58
		75	87.7		69.2	60.1	65.1	81.71	76.98	25,798	72,318	98,116	0.26	40	11.73	69.8	67.9	71,710	24,430	0.34	169,826	50,228	0.30
														45	8.89	70.9	69.0	63,800	22,090	0.35	161,916	47,888	0.30
														50	6.43	72.1	70.1	55,380	19,690	0.36	153,496	45,488	0.30
	110	5	64.6	75.0	47.8	60.2	65.2	86.71	54.14	45,257	9,586	54,843	0.83	40	4.65	66.3	44.8	41,600	41,600	1.00	96,443	86,857	0.90
														45	3.54	68.4	45.8	37,320	37,320	1.00	92,163	82,577	0.90
														50	2.58	70.7	46.9	32,660	32,660	1.00	87,503	77,917	0.89
		40	86.8		59.6	60.4	65.4	86.64	71.45	45,096	82,832	127,928	0.35	40	8.28	69.4	63.0	58,200	35,280	0.61	186,128	80,376	0.43
														45	5.95	70.7	64.2	50,410	32,710	0.65	178,338	77,806	0.44
														50	3.94	72.0	65.6	41,720	29,920	0.72	169,648	75,016	0.44
		75	101.7		69.2	60.6	65.7	86.56	84.18	44,933	163,088	163,133	0.28	40	17.32	75.3	74.4	90,620	23,120	0.26	253,753	23,165	0.09
														45	13.83	76.3	75.4	82,540	21,090	0.26	245,673	21,135	0.09
														50	10.60	77.4	76.4	73,960	18,970	0.26	237,093	19,015	0.08

All data based on balanced system (Exhaust cfm = Supply cfm). Entering liquid temperature is constant at 110°F. Coil face area is 3.89 sq. ft.

G-010 & G-019 | ENGINEERING SPECIFICATION

General
PennBarry Energy Recovery Ventilator shall be listed per UL 1995, Heating and Cooling Equipment. Energy transfer ratings of the energy recovery wheel shall be AHRI Certified. Performance shall be as scheduled on plans. Exhaust discharge and outside air intake shall not be located on the same side on roof top units. Basis of design is PennBarry Model EVT.

Unit Casing and Frames
EVT frame shall be constructed of aluminum. EVT panels shall be G90 galvanized steel. All panels exposed to the weather shall be a minimum of 18 gauge galvanized steel. EVT shall be internally lined with galvanized sheet metal creating a double wall. Where top panels are joined there shall be an overlapping, standing seam to insure positive weather protection. All metal-to-metal seams shall be factory sealed, requiring no caulking at job site. EVT base to be designed for curb mounting. EVT base shall overhang the curb for a positive seal against water run-off. PennBarry EVT exterior panels shall be powder coated for superior finish.

Energy Recovery Wheel
Wheel shall be of the enthalpy type for both sensible and latent heat recovery and be designed to insure laminar flow. Energy transfer ratings must be AHRI Certified to Standard 1060 and bear the AHRI certification symbol for AHRI Air-to-Air Energy Recovery Ventilation Equipment Certification Program based on AHRI 1060. Ratings “in accordance with 1060” without certification are not acceptable. Desiccant shall be silica gel for maximum latent energy transfer. Wheel shall be constructed of lightweight polymer media to minimize shaft and bearing loads. Polymer media shall be mounted in a stainless steel rotor for corrosion resistance. Wheel design shall consist of removable segments for ease of service and/or cleaning. Silica gel desiccant shall be permanently bonded to wheel media to retain latent heat capability after cleaning.Wheels with sprayed on desiccant coatings are not acceptable. Wheels with desiccant applied after wheel formation are not acceptable. Energy recovery device shall transfer moisture entirely in the vapor phase. Energy recovery drive belt material shall be prestretched high strength urethane and shall be factory installed, eliminating the need for field belt tension adjustment. Link style belts are not acceptable.

Weatherhoods
Weatherhoods shall be the same finish as the ERV. Outdoor air weatherhood shall incorporate a hooded design and moisture eliminator.

Insulation
EVT casing to be insulated with 1 inch fiberglass. Insulation shall meet requirements of NFPA 90A and tested to meet UL 181 requirements. Insulation to be enclosed in double wall construction.

Free Cooling Mode
The on-board control logic shall automatically cease energy recovery when outside air conditions are within a 40°F to 70°F (4°C to 21°C) temperature range to allow for space cooling. During the free cooling period, the wheel shall automatically jog at preset time intervals to purge wheel of moisture and contaminant build up.

Access Doors
All components shall be easily accessible through hinged access doors for exhaust, supply, filter, and damper compartments. Energy recovery wheels shall be mounted in a slide-out track for inspection, removal, and cleaning.

Roof Curbs
Roof curb to be supplied by EVT manufacturer for field assembly. Curb shall consist of die formed galvanized steel sections. Curb shall be full perimeter type with gasket provided for field installation between curb and EVT base.

Fan Sections
Centrifugal fans to be double width, double inlet, forward curved type. All blower wheels shall be statically and dynamically balanced. Steel fan shafts shall be ground and polished and shall be mounted in permanently lubricated, sealed ball bearing pillow blocks. Bearings shall be selected for a minimum (L10) life in excess of 100,000 hours at maximum cataloged operating speeds. Adjustable sheaves on belt-driven fans with motors less than 15hp shall allow independent balancing of exhaust and supply airflows. Fan and motor assemblies are mounted to EVT base with neoprene isolators as standard. Fans shall be located in draw-through position in reference to the energy recovery wheel.

Motors and Drives
Motors shall be energy efficient, complying with EPACT standards, for single speed ODP and TEFC enclosures. Motors shall be permanently lubricated, heavy-duty type, matched to the fan load and furnished at the specified voltage, phase, and enclosure. Drives shall be sized for a minimum of 150% of driven horsepower. Pulleys shall be of the fully machined cast type, keyed and securely attached to the fan wheel and motor shafts; 10 horsepower and less shall be supplied with an adjustable drive pulley. Energy wheel motors shall have integral overload protection.

Filters
Supply and exhaust filters shall be 2-inch thick pleated fiberglass with a minimum MERV 8 rating.MERV 11 or 13 filters are optional. Filter racks shall be die-formed galvanized steel.

Electrical
All internal electrical components shall be factory wired for single point power connection. Units with electric preheat or post heat will be wired with independent power supply. All electrical components shall be UL Listed, Approved, or Classified where applicable and wired in compliance with the National Electrical Code. Weatherproof, integral door interlocking disconnect switch, motor starters, control circuit fusing, control transformer for 24 VAC circuit, and terminal strip shall be supplied as standard components in the control center. Motor starters consist of a contactor and Class 20 electronic adjustable overload protection and shall be provided for all motors in the unit. PennBarry’s ER optimizer PLC controller is included to control all unit functions and outputs and will be fully compliant with BAS systems including LONWORKS, BACNET, and MODBUS.

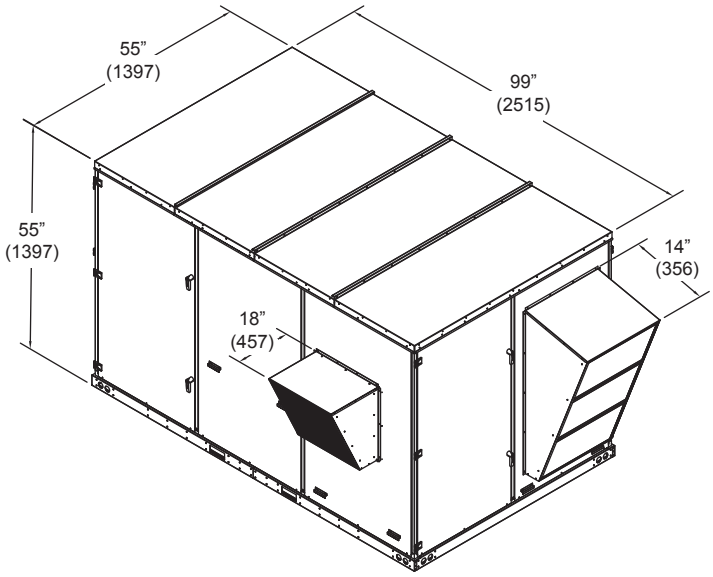
DX Cooling Coils
Direct expansion (DX) shall be factory tested and rated in accordance with AHRI 410. Coils shall have rifled copper tubes with permanently expanded aluminum fins and shall be equipped with adjustable expansion valve connected to distributors.

Chilled and Hot Water Coils
Water coils shall be factory tested and rated in accordance with AHRI 410. Coils shall have copper tubes with permanently expanded aluminum fins.

Electric Heat Coils
Electric heat shall be UL listed and circuit fused per NEC over 48 amps. Heater shall be sequentially controlled via on-board sequencers. Electric heat shall be factory wired and installed. Control will be 24 volt with class 2 transformer. Standard air flow proving switch will shut down heater if air ceases to flow across heating elements. The electric preheat option provides frost protection for year round operation. It features steel finned tubular heater with high temperature baked-on aluminum finish protecting them from corrosion and deterioration. Modular heat stages for single or dual stage heat are provided. The post electric heat option utilizes nickel chromium electric wire resistance elements and allows for modular heat stages for single or multiple stage heat.

G-028 & G-036 | INTRODUCTION

Models G-010 and G-019 are energy recovery ventilators with auxiliary heating and cooling capabilities. They are designed to provide outside air into a building without increasing the building HVAC load.The units are classified as a neutral air unit providing outside air into the building at room temperature.



G-028 & G-036 | FEATURES

- **Frame**: Modular aluminum.
- **Cabinet**: Galvanized steel, fully insulated double wall.
- **Blowers**: Silent Pro Series Class II FC.
- **Access Doors**: Hinged double wall with 1/4 turn latches.
- **Wheel**: AHRI certified polymeric Enthalpy Wheel, complete with rotation sensors.
- **Filters**: 2” pleated, MERV 8.
- **Finish**: Polyester resin based powder coat.
- **Control**: Digital programmable logic controller. Single point wiring with NEMA 3R disconnect.
- **Installed Weight**: 2,000 lbs.
- **Shipped Weight**: 2,200 lbs.

G-028 & G-036 | OPTIONS & ACCESSORIES

Heating / Cooling
- R-410A DX coil.
- Chilled water coil.
- Hot water coil.
- Electric heat (pre and post).

Frost Control
- Timed exhaust frost control.
- Variable wheel speed frost control.
- Electric preheat.

Filters
- 2” (51) Pleated MERV 11 or MERV 13 filters.

Dampers
- Actuated exhaust air damper.
- Actuated intake air damper.

Sensors
- Smoke detectors.
- CO_2 sensors.
- Dirty filter sensors.

Blower Motor
- ODP or TEFC motors available.

Roof Curbs

GFCI Service Outlet

Custom Paint

VFD Blower Control

Sensible Wheel Only

G-028 & G-036 | PERFORMANCE DATA

G-028 Supply Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	1951	-	-	876	0.57	1033	0.75	1177	0.95	1309	1.15	-	-	-	-	-	-
1800	2317	-	-	941	0.81	1083	1.02	1215	1.24	1338	1.47	1454	1.70	1564	1.95	1668	2.20
2200	2683	865	0.87	1006	1.10	1136	1.34	1257	1.59	1372	1.84	1481	2.10	1585	2.37	1684	2.64
2500	3049	950	1.21	1076	1.47	1196	1.74	1308	2.01	1414	2.29	1516	2.57	1614	2.87	1709	3.17
2800	3415	1032	1.62	1145	1.91	1255	2.20	1361	2.50	1461	2.81	1555	3.12	1648	3.44	-	-

G-028 Exhaust Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1600	1416	645	0.29	852	0.46	1024	0.64	-	-	-	-	-	-	-	-	-	-
1800	1681	712	0.44	899	0.63	1060	0.84	1204	1.05	-	-	-	-	-	-	-	-
2200	1947	772	0.61	943	0.84	1094	1.07	1231	1.31	1357	1.56	1473	1.82	-	-	-	-
2500	2212	834	0.83	991	1.09	1133	1.35	1263	1.61	1383	1.88	1495	2.16	-	-	-	-
2800	2478	890	1.09	1037	1.37	1171	1.66	1294	1.95	1409	2.25	-	-	-	-	-	-

G-036 Supply Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2400	2124	-	-	939	0.94	1088	1.19	1222	1.44	1346	1.71	1462	1.98	1570	2.26	-	-
2700	2389	-	-	987	1.21	1126	1.48	1224	1.76	1373	2.05	1484	2.34	1589	2.65	1689	2.95
3000	2655	888	1.20	1032	1.51	1164	1.82	1285	2.12	1399	2.44	1506	2.75	1608	3.08	1705	3.41
3300	2920	944	1.52	1078	1.86	1202	2.19	1318	2.53	1428	2.87	1531	3.21	1629	3.56	1723	3.92
3600	3186	999	1.89	1125	2.26	1243	2.62	1353	2.99	1458	3.36	1557	3.73	1652	4.10	1744	4.48

G-036 Exhaust Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
2400	1667	-	-	932	0.86	1090	1.14	-	-	-	-	-	-	-	-	-	-
2700	1875	809	0.80	974	1.08	1123	1.38	1259	1.70	1385	2.03	-	-	-	-	-	-
3000	2083	859	1.02	1013	1.33	1154	1.65	1284	1.99	1405	2.35	1519	2.72	-	-	-	-
3300	2292	908	1.27	1053	1.61	1186	1.96	1310	2.32	1427	2.70	1537	3.09	-	-	-	-
3600	2500	956	1.56	1094	1.93	1220	2.31	1338	2.69	1450	3.09	-	-	-	-	-	-

This blower data accounts for the pressure drop across the Energy Recovery Wheel and the internal cabinet losses, but does not include the pressure drop for selected Accessories and Options which can be found in the corresponding tables and must be added to the External Static Pressure to determine correct RPM and BHP. BHP rating does not include drive losses. Performance ratings do not include the effects of appurtenances in the air stream. Drives are sized for a minimum of 150% of driven horsepower.

	Low Speed
	Medium Speed
	High Speed
-	Empty space means this operating point is outside the efficient operating range of the blower.

G-028 & G-036 | PRODUCT & ELECTRICAL DATA

		G-028			G-036		
Line Voltage - 60Hz		**230v / 3Ph**	**460v / 3Ph**	**575v / 3Ph**	**230v / 3Ph**	**460v / 3Ph**	**575v / 3Ph**
Supply Air Blower	**Motor HP L/M/H**	1.5 / 2 / 3	1.5 / 2 / 3	1.5 / 2 / 3	2 / 3 / 5	2 / 3 / 5	2 / 3 / 5
	Drive Type	Belt	Belt	Belt	Belt	Belt	Belt
	Size (DxW)	12 x 6	12 x 6	12 x 6	12 x 9	12 x 9	12 x 9
	Blower Speed	2069	2069	2069	2058	2058	2058
	Adjustment	Sheave	Sheave	Sheave	Sheave	Sheave	Sheave
	Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
	Full Load Amps	4.2 / 5.6 / 8.6	2.1 / 2.8 / 4.3	1.56 / 2.08 / 3.4	5.6 / 8.6 / 12.8	2.8 / 4.3 / 6.4	2.08 / 3.4 / 5.1
	Service Factor	1.15	1.15	1.15	1.15	1.15	1.15
Exhaust Air Blower	**Motor HP L/M/H**	1 / 1.5 / 2	1 / 1.5 / 2	1 / 1.5 / 2	1.5 / 2 / 3	1.5 / 2 / 3	1.5 / 2 / 3
	Drive Type	Belt	Belt	Belt	Belt	Belt	Belt
	Size (DxW)	12 x 9	12 x 9	12 x 9	12 x 12	12 x 12	12 x 12
	Blower Speed	2058	2058	2058	2091	2091	2091
	Adjustment	Sheave	Sheave	Sheave	Sheave	Sheave	Sheave
	Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
	Full Load Amps	3.0 / 4.2 / 5.6	1.5 / 2.1 / 2.8	1.08 / 1.56 / 3.4	4.2 / 5.6 / 8.6	2.1 / 2.8 / 4.3	1.56 / 2.08 / 3.4
	Service Factor	1.15	1.15	1.15	1.15	1.15	1.15
Wheel Data	**Potential Volts**	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph
	Motor Speed	1725 RPM	1725 RPM	1725 RPM	1725 RPM	1725 RPM	1725 RPM
	Full Load Amps	1.1	1.1	1.1	1.2	1.2	1.2
	Wheel Model	ERC-3628	ERC-3628	ERC-3628	ERC-4136	ERC-4136	ERC-4136
	Depth	3	3	3	3	3	3
	Dia. (Nom. in.)	38	38	38	42	42	42
Preheat	**No. of Stages**	1	1	1	2	2	2
	kW / Stage	4.8	4.8	4.8	4.8	4.8	4.8
	MCA / Circuit	14.4	7.2	6	14.4	7.2	6
	MOCP	15	8	6	30	15	15
Post Heat	**No. of Stages**	1	1	1	2	2	2
	kW / Stage	19.2	19.2	19.2	19.2	19.2	19.2
	MCA / Circuit	28.88	14.44	12.05	28.88	14.44	12.05
	MOCP	30	15	15	60	30	25
	Total MCA	57.8	28.9	24.1	115.6	57.8	48.2
	Point Power	Separate	Separate	Separate	Separate	Separate	Separate
Total	**MCA Minimum**	87	4.7	2.46	12.8	6	2.76
	MOCP Minimum	10	5	3	15	10	3
	MCA Maximum	58.58	29.84	25.95	109.16	55318	45.8
	MOCP Maximum	60	30	30	115	60	50

Effectiveness		**Sensible**	**Latent**	**Total**	**Sensible**	**Latent**	**Total**
AHRI Ratings	**Total @ 100%**	68%	60%	65%	68%	60%	65%
	Total @ 75%	74%	67%	71%	74%	67%	71%
	Net @ 100%	68%	60%	63%	68%	60%	63%
	Net @ 75%	74%	67%	70%	74%	67%	70%

G-028 | CHILLED WATER COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel										Perfomance Ratings - Chilled Water Coil									Unit Performance		
Air Volume (cfm)	OA Conditions			Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
1600	80	5	50.4	76.08	48.37	6,553	976	7,529	0.87	10	1.88	2.40	50.6	59.9	40.3	28,301	28,301	1.00	35,830	34,854	0.97
										20	3.75	8.56	48.0	58.7	39.7	30,390	30,390	1.00	37,919	36,943	0.97
										30	5.63	18.08	47.1	58.3	39.5	31,184	31,184	1.00	38,713	37,737	0.97
		40	63.5	76.08	60.56	6,532	7,721	14,253	0.46	10	1.88	2.40	50.8	59.5	54.2	29,056	29,029	1.00	43,309	35,561	0.82
										20	3.75	8.56	48.3	58.3	53.3	32,903	30,720	0.93	47,156	37,252	0.79
										30	5.63	18.08	47.3	58.0	52.9	34,921	31,627	0.91	49,174	38,159	0.78
		75	73.8	76.08	70.37	6,510	14,344	20,854	0.31	10	1.88	2.40	55.2	62.6	61.2	51,198	23,537	0.46	72,052	30,047	0.42
										20	3.75	8.56	51.1	60.4	59.2	60,848	27,452	0.45	81,702	33,962	0.42
										30	5.63	18.08	49.3	59.4	58.4	64,746	29,116	0.45	85,600	35,626	0.42
	95	5	57.7	79.28	50.14	26,123	4,532	30,655	0.85	10	1.88	2.40	51.2	61.4	41.6	31,224	31,224	1.00	61,879	57,347	0.93
										20	3.75	8.56	48.3	60.1	40.9	33,521	33,521	1.00	64,176	59,644	0.93
										30	5.63	18.08	47.3	59.6	40.6	34,397	34,397	1.00	65,052	60,520	0.93
		40	75.1	79.27	63.85	26,027	38,347	64,374	0.40	10	1.88	2.40	52.1	61.7	56.6	35,459	30,702	0.87	99,833	56,729	0.57
										20	3.75	8.56	49.2	60.1	55.1	42,058	33,530	0.80	106,432	59,557	0.56
										30	5.63	18.08	48.0	59.4	54.5	44,720	34,713	0.78	109,094	60,740	0.56
		75	87.7	79.25	74.56	25,930	73,265	99,195	0.26	10	1.88	2.40	57.4	65.2	64.3	62,127	24,537	0.39	161,322	50,467	0.31
										20	3.75	8.56	52.4	62..6	62.0	74,079	29,191	0.39	173,274	55,121	0.32
										30	5.63	18.08	50.3	61.4	61.1	79,070	31,259	0.40	178,265	57,189	0.32
	110	5	57.7	82.42	52.00	45,560	10,096	55,656	0.82	10	1.88	2.40	51.8	62.9	42.8	34,074	34,074	1.00	89,730	79,634	0.89
										20	3.75	8.56	48.6	61.5	42.1	36,575	36,575	1.00	92,231	82,135	0.89
										30	5.63	18.08	47.5	61.0	41.8	37,529	37,529	1.00	93,185	83,089	0.89
		40	75.1	82.38	67.84	45,364	84,933	130,297	0.35	10	1.88	2.40	53.9	64.0	59.2	44,593	32,225	0.72	174,890	77,589	0.44
										20	3.75	8.56	50.3	62.0	57.5	52,976	35,708	0.67	183,273	81,072	0.44
										30	5.63	18.08	48.7	61.2	56.8	56,210	37,112	0.66	186,507	82,476	0.44
		75	87.7	82.34	79.84	45,166	165,141	210,307	0.21	10	1.88	2.40	60.3	68.4	68.4	76,632	24,363	0.32	286,939	69,529	0.24
										20	3.75	8.56	54.2	65.1	65.1	92,235	30,097	0.33	302,542	75,263	0.25
										30	5.63	18.08	51.5	63.7	63.7	98,588	32,619	0.33	308,895	77,785	0.25
2200	80	5	50.4	76.34	48.49	8,384	1,215	9,599	0.87	10	1.88	2.40	51.9	61.8	41.3	34,792	34,792	1.00	44,391	43,176	0.97
										20	3.75	8.56	48.8	60.5	40.6	38,080	38,080	1.00	47,679	46,464	0.97
										30	5.63	18.08	47.6	59.9	40.4	39,366	39,366	1.00	48,965	47,750	0.98
		40	63.5	76.34	60.80	8,360	9,614	17,974	0.47	10	1.88	2.40	52.1	61.6	55.2	35,421	35,421	1.00	53,395	43,781	0.82
										20	3.75	8.56	49.0	60.3	54.5	39,816	38,588	0.97	57,790	46,948	0.81
										30	5.63	18.08	47.8	59.8	54.0	42,399	39,723	0.94	60,373	48,083	0.80
		75	73.8	76.33	70.66	8,335	17,871	26,206	0.32	10	1.88	2.40	56.7	64.9	63.1	58,835	27,375	0.47	85,041	35,710	0.42
										20	3.75	8.56	52.2	62.7	61.2	72,542	32,671	0.45	98,748	41,006	0.42
										30	5.63	18.08	50.2	61.7	60.4	78,434	35,076	0.45	104,640	43,411	0.41
	95	5	57.7	80.31	50.70	33,418	5,645	39,063	0.86	10	1.88	2.40	52.8	64.0	42.9	39,260	39,260	1.00	78,323	72,678	0.93
										20	3.75	8.56	49.3	62.4	42.1	42,955	42,955	1.00	82,018	76,373	0.93
										30	5.63	18.08	47.9	61.8	41.8	44,400	44,400	1.00	83,463	77,818	0.93
		40	75.1	80.29	64.83	33,305	47,787	81,092	0.41	10	1.88	2.40	53.6	64.3	58.5	43,124	38,550	0.89	124,216	71,855	0.58
										20	3.75	8.56	50.2	62.7	57.1	52,123	42,255	0.81	133,215	75,560	0.57
										30	5.63	18.08	48.8	61.9	56.4	56,573	44,161	0.78	137,665	77,466	0.56
		75	87.7	80.27	75.79	33,192	91,350	124,542	0.27	10	1.88	2.40	59.7	68.5	67.3	73,563	28,340	0.39	198,105	61,532	0.31
										20	3.75	8.56	54.1	65.8	65.0	91,328	34,786	0.38	215,870	67,978	0.31
										30	5.63	18.08	51.6	64.6	64.0	99,266	37,872	0.38	223,808	71,064	0.32
	110	5	57.7	84.20	52.96	58,274	12,584	70,858	0.82	10	1.88	2.40	53.7	66.1	44.7	43,621	43,621	1.00	99,277	101,895	1.03
										20	3.75	8.56	49.8	64.4	43.8	47,708	47,708	1.00	103,364	105,982	1.03
										30	5.63	18.08	48.3	63.7	43.5	49,310	49,310	1.00	104,966	107,584	1.03
		40	75.1	84.14	69.65	58,039	105,920	163,959	0.35	10	1.88	2.40	56.1	67.6	62.3	55,574	39,760	0.72	185,871	97,799	0.53
										20	3.75	8.56	51.8	65.4	60.4	68,689	44,886	0.65	198,986	102,925	0.52
										30	5.63	18.08	49.9	64.5	59.6	74,201	47,157	0.64	204,498	105,196	0.51
		75	87.7	84.08	82.09	57,802	206,062	263,864	0.22	10	1.88	2.40	63.7	72.8	72.8	93,465	27,189	0.29	303,772	84,991	0.28
										20	3.75	8.56	56.7	69.5	69.5	117,654	35,231	0.30	327,961	93,033	0.28
										30	5.63	18.08	53.5	67.9	67.9	128,157	39,042	0.30	338,464	96,844	0.29
2800	80	5	50.4	76.60	48.63	9,871	1,384	11,255	0.88	10	1.88	2.40	53.1	63.4	42.1	40,429	40,429	1.00	51,684	50,300	0.97
										20	3.75	8.56	49.5	61.9	41.3	44,978	44,978	1.00	56,233	54,849	0.98
										30	5.63	18.08	48.1	61.3	41.0	46,798	46,798	1.00	58,053	56,669	0.98
		40	63.5	76.60	61.03	9,847	10,958	20,805	0.47	10	1.88	2.40	53.1	63.3	56.0	40,780	40,780	1.00	61,585	50,627	0.82
										20	3.75	8.56	49.6	61.5	55.2	46,660	46,290	0.99	67,465	56,137	0.83
										30	5.63	18.08	48.3	61.1	54.9	49,044	47,321	0.96	69,849	57,168	0.82
		75	73.8	76.59	70.94	9,822	20,383	30,205	0.33	10	1.88	2.40	57.8	66.6	64.5	64,214	30,694	0.48	94,419	40,516	0.43
										20	3.75	8.56	53.1	64.5	62.7	81,607	37,169	0.46	111,812	46,991	0.42
										30	5.63	18.08	50.9	63.5	61.8	89,298	40,197	0.45	119,503	50,019	0.42
	95	5	57.7	81.33	51.24	39,357	6,439	45,796	0.86	10	1.88	2.40	54.3	66.1	44.0	46,485	46,485	1.00	92,281	85,842	0.93
										20	3.75	8.56	50.2	64.4	43.2	51,684	51,684	1.00	97,480	91,041	0.93
										30	5.63	18.08	48.6	63.7	42.9	53,767	53,767	1.00	99,563	93,124	0.94
		40	75.1	81.30	65.79	39,241	54,552	93,793	0.42	10	1.88	2.40	55.1	66.3	60.1	50,815	45,840	0.90	144,608	85,081	0.59
										20	3.75	8.56	51.1	64.9	58.8	61,706	50,172	0.81	155,499	89,413	0.58
										30	5.63	18.08	49.5	64.1	58.1	67,755	52,676	0.78	161,548	91,917	0.57
		75	87.7	81.27	76.97	39,125	104,361	143,486	0.27	10	1.88	2.40	61.6	71.1	69.7	83,297	31,245	0.38	226,783	70,370	0.31
										20	3.75	8.56	55.6	68.5	67.5	106,689	39,241	0.37	250,175	78,366	0.31
										30	5.63	18.08	52.8	67.2	66.4	117,442	43,191	0.37	260,928	82,316	0.32
	110	5	57.7	85.95	53.90	68,649	14,375	83,024	0.83	10	1.88	2.40	55.5	68.8	46.2	52,551	52,551	1.00	108,207	121,200	1.12
										20	3.75	8.56	50.8	66.9	45.3	58,393	58,393	1.00	114,049	127,042	1.11
										30	5.63	18.08	49.0	66.2	44.9	60,738	60,738	1.00	116,394	129,387	1.11
		40	75.1	85.87	71.36	68,404	121,100	189,504	0.36	10	1.88	2.40	58.0	70.6	64.9	65,314	48,827	0.75	195,611	117,231	0.60
										20	3.75	8.56	53.3	68.4	63.0	82,209	53,452	0.65	212,506	121,856	0.57
										30	5.63	18.08	51.0	67.4	62.1	91,001	56,506	0.62	221,298	124,910	0.56
		75	87.7	85.79	84.19	68,156	235,802	303,959	0.22	10	1.88	2.40	66.5	76.3	76.3	107,839	28,941	0.27	318,146	97,097	0.31
										20	3.75	8.56	59.0	73.1	73.1	140,409	38,861	0.28	350,716	107,017	0.31
										30	5.63	18.08	55.3	71.5	71.5	155,399	43,867	0.28	365,706	112,023	0.31

All data based on balanced system (Exhaust cfm = Supply cfm). Entering water temperature is 45°F. Coil face area is 6.88 sq. ft.

G-036 | CHILLED WATER COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel										Perfomance Ratings - Chilled Water Coil									Unit Performance		
Air Volume (cfm)	OA Conditions			Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
2400	80	5	50.4	76.26	48.45	9,364	1,370	10,734	0.87	10	1.89	2.38	53.4	60.3	40.6	41,890	41,890	1.00	52,624	51,254	0.97
										20	3.79	8.54	49.6	58.5	39.6	46,650	46,650	1.00	57,384	56,014	0.98
										30	5.68	18.03	48.2	57.8	39.2	48,531	48,531	1.00	59,265	57,895	0.98
		40	63.5	76.26	60.72	9,336	10,836	20,172	0.46	10	1.89	2.38	53.3	60.3	54.6	41,798	41,798	1.00	61,970	51,134	0.83
										20	3.79	8.54	49.8	58.1	53.7	47,961	47,583	0.99	68,133	56,919	0.84
										30	5.68	18.03	48.4	57.6	53.2	51,157	48,978	0.96	71,329	58,314	0.82
		75	73.8	76.26	70.57	9,307	20,139	29,446	0.32	10	1.89	2.38	58.2	64.2	62.8	66,300	31,723	0.48	95,746	41,030	0.43
										20	3.79	8.54	53.5	61.5	60.3	84,813	38,696	0.46	114,259	48,003	0.42
										30	5.68	18.03	51.2	60.2	59.2	93,155	42,030	0.45	122,601	51,337	0.42
	95	5	57.7	80.00	50.53	37,323	6,362	43,685	0.85	10	1.89	2.38	54.4	62.1	41.9	46,933	46,933	1.00	90,618	84,256	0.93
										20	3.79	8.54	50.2	60.1	40.8	52,243	52,243	1.00	95,928	89,566	0.93
										30	5.68	18.03	48.6	59.3	40.4	54,344	54,344	1.00	98,029	91,667	0.94
		40	75.1	79.98	64.53	37,193	53,843	91,036	0.41	10	1.89	2.38	54.9	62.2	57.8	49,755	46,639	0.94	140,791	83,832	0.60
										20	3.79	8.54	51.0	60.6	56.2	60,307	50,929	0.84	151,343	88,122	0.58
										30	5.68	18.03	49.4	59.6	55.4	66,182	53,411	0.81	157,218	90,604	0.58
		75	87.7	79.95	75.42	37,062	102,907	139,969	0.26	10	1.89	2.38	61.3	67.7	66.7	81,790	32,406	0.40	221,759	69,468	0.31
										20	3.79	8.54	55.5	64.5	63.8	105,486	40,779	0.39	245,455	77,841	0.32
										30	5.68	18.03	52.7	62.9	62.4	116,187	44,843	0.39	256,156	81,905	0.32
	110	5	57.7	83.65	52.67	65,084	14,177	79,261	0.82	10	1.89	2.38	55.4	63.9	43.5	51,929	51,929	1.00	107,585	117,013	1.09
										20	3.79	8.54	50.8	61.7	42.4	57,778	57,778	1.00	113,434	122,862	1.08
										30	5.68	18.03	49.0	60.8	41.9	60,095	60,095	1.00	115,751	125,179	1.08
		40	75.1	83.60	69.10	64,815	119,306	184,121	0.35	10	1.89	2.38	57.3	65.6	61.5	61,617	47,252	0.77	191,914	112,067	0.58
										20	3.79	8.54	52.8	63.1	59.2	78,390	53,698	0.69	208,687	118,513	0.57
										30	5.68	18.03	50.7	62.0	58.2	86,069	56,816	0.66	216,366	121,631	0.56
		75	87.7	83.55	81.41	64,543	232,054	296,597	0.22	10	1.89	2.38	65.4	72.0	71.8	102,433	30,473	0.30	312,740	95,016	0.30
										20	3.79	8.54	58.4	68.1	68.1	133,963	40,649	0.30	344,270	105,192	0.31
										30	5.68	18.03	54.8	66.2	66.2	148,131	45,653	0.31	358,438	110,196	0.31
3000	80	5	50.4	76.49	48.58	10,990	1,567	12,557	0.88	10	1.89	2.38	54.6	61.9	41.4	47,933	47,933	1.00	60,490	58,923	0.97
										20	3.79	8.54	50.4	59.9	40.4	54,381	54,381	1.00	66,938	65,371	0.98
										30	5.68	18.03	48.8	59.1	39.9	56,999	56,999	1.00	69,556	67,989	0.98
		40	63.5	76.48	60.92	10,960	10,401	21,361	0.51	10	1.89	2.38	54.6	61.8	55.3	48,160	48,160	1.00	69,521	59,120	0.85
										20	3.79	8.54	50.5	59.7	54.5	55,027	55,027	1.00	76,388	65,987	0.86
										30	5.68	18.03	48.9	58.9	54.0	58,928	57,876	0.98	80,289	68,836	0.86
		75	73.8	76.48	70.82	10,930	23,060	33,990	0.32	10	1.89	2.38	59.3	65.8	64.1	71,525	35,241	0.49	105,515	46,171	0.44
										20	3.79	8.54	54.4	63.2	61.8	94,227	43,497	0.46	128,217	54,427	0.42
										30	5.68	18.03	52.0	62.0	60.7	105,025	47,665	0.45	139,015	58,595	0.42
	95	5	57.7	80.88	51.00	43,807	7,284	51,091	0.86	10	1.89	2.38	55.9	64.2	43.1	54,688	54,688	1.00	105,779	98,495	0.93
										20	3.79	8.54	51.2	62.0	41.9	62,000	62,000	1.00	113,091	105,807	0.94
										30	5.68	18.03	49.3	61.1	41.5	64,973	64,973	1.00	116,064	108,780	0.94
		40	75.1	80.85	65.36	43,669	61,683	105,352	0.41	10	1.89	2.38	56.5	64.1	59.3	57,881	55,018	0.95	163,233	98,687	0.60
										20	3.79	8.54	52.0	62.6	57.9	70,469	59,976	0.85	175,821	103,645	0.59
										30	5.68	18.03	50.2	61.7	57.0	77,945	63,033	0.81	183,297	106,702	0.58
		75	87.7	80.82	76.49	43,529	119,024	162,553	0.27	10	1.89	2.38	63.1	70.1	69.0	90,822	35,082	0.39	253,375	78,611	0.31
										20	3.79	8.54	57.1	67.0	66.3	121,118	45,198	0.37	283,671	88,727	0.31
										30	5.68	18.03	54.0	65.5	64.9	135,389	50,331	0.37	297,942	93,860	0.32
	110	5	57.7	85.17	53.49	76,398	16,248	92,646	0.82	10	1.89	2.38	57.2	66.5	45.0	61,302	61,302	1.00	116,958	137,700	1.18
										20	3.79	8.54	51.9	64.0	43.8	69,451	69,451	1.00	125,107	145,849	1.17
										30	5.68	18.03	49.8	63.0	43.3	72,769	72,769	1.00	128,425	149,167	1.16
		40	75.1	85.10	70.61	76,106	136,814	212,920	0.36	10	1.89	2.38	59.2	68.3	63.8	71,130	55,015	0.77	201,427	131,121	0.65
										20	3.79	8.54	54.3	65.9	61.6	92,855	62,954	0.68	223,152	139,060	0.62
										30	5.68	18.03	51.9	64.7	60.5	103,488	67,071	0.65	233,785	143,177	0.61
		75	87.7	85.03	83.26	75,811	266,272	342,083	0.22	10	1.89	2.38	68.1	75.3	75.2	115,586	31,737	0.27	325,893	107,548	0.33
										20	3.79	8.54	60.6	71.6	71.6	156,632	43,945	0.28	366,939	119,756	0.33
										30	5.68	18.03	56.7	69.6	69.6	176,480	50,427	0.29	386,787	126,238	0.33
3600	80	5	50.4	76.71	48.70	12,327	1,705	14,032	0.88	10	1.89	2.38	55.6	63.2	42.1	53,154	53,154	1.00	67,186	65,481	0.97
										20	3.79	8.54	51.1	61.1	41.0	61,287	61,287	1.00	75,319	73,614	0.98
										30	5.68	18.03	49.3	60.3	40.6	64,671	64,671	1.00	78,703	76,998	0.98
		40	63.5	76.70	61.13	12,298	13,505	25,803	0.48	10	1.89	2.38	55.6	63.2	56.0	53,339	53,339	1.00	79,142	65,637	0.83
										20	3.79	8.54	51.2	60.9	55.1	62,256	62,256	1.00	88,059	74,554	0.85
										30	5.68	18.03	49.4	59.9	54.7	66,051	66,051	1.00	91,854	78,349	0.85
		75	73.8	76.70	71.06	12,269	25,129	37,398	0.33	10	1.89	2.38	60.2	67.0	65.3	76,041	38,103	0.50	113,439	50,372	0.44
										20	3.79	8.54	55.2	64.7	63.1	102,440	47,420	0.46	139,838	59,689	0.43
										30	5.68	18.03	52.7	63.4	62.0	115,516	52,315	0.45	152,914	64,584	0.42
	95	5	57.7	81.75	51.47	49,158	7,940	57,098	0.86	10	1.89	2.38	57.3	66.1	44.1	61,806	61,806	1.00	118,904	110,964	0.93
										20	3.79	8.54	52.1	63.7	42.9	71,188	71,188	1.00	128,286	120,346	0.94
										30	5.68	18.03	50.0	62.7	42.4	75,098	75,098	1.00	132,196	124,256	0.94
		40	75.1	81.72	66.18	49,023	67,287	116,310	0.42	10	1.89	2.38	57.9	65.8	60.6	64,572	62,592	0.97	180,882	111,615	0.62
										20	3.79	8.54	52.9	64.3	59.2	79,658	68,563	0.86	195,968	117,586	0.60
										30	5.68	18.03	50.9	63.4	58.4	88,734	71,970	0.81	205,044	120,993	0.59
		75	87.7	81.69	77.45	48,886	128,767	177,653	0.28	10	1.89	2.38	64.7	72.1	70.9	98,586	37,639	0.38	276,239	86,525	0.31
										20	3.79	8.54	58.5	69.2	68.3	134,920	49,203	0.36	312,573	98,089	0.31
										30	5.68	18.03	55.2	67.6	66.9	153,030	55,418	0.36	330,683	104,304	0.32
	110	5	57.7	86.67	54.28	85,762	17,737	103,499	0.83	10	1.89	2.38	59.0	68.9	46.3	70,142	70,142	1.00	125,798	155,904	1.24
										20	3.79	8.54	53.0	66.2	45.0	80,711	80,711	1.00	136,367	166,473	1.22
										30	5.68	18.03	50.7	65.1	44.5	85,122	85,122	1.00	140,778	170,884	1.21
		40	75.1	86.59	72.05	85,475	149,486	234,961	0.36	10	1.89	2.38	61.2	70.7	65.9	81,023	82,529	1.02	211,320	168,004	0.80
										20	3.79	8.54	55.6	68.4	63.8	106,824	71,534	0.67	237,121	157,009	0.66
										30	5.68	18.03	53.0	67.1	62.7	120,581	76,624	0.64	250,878	162,099	0.65
		75	87.7	86.51	85.02	85,182	291,193	376,375	0.23	10	1.89	2.38	70.4	78.1	77.9	127,177	32,979	0.26	337,484	118,161	0.35
										20	3.79	8.54	62.7	74.6	74.6	177,249	46,864	0.26	387,556	132,046	0.34
										30	5.68	18.03	58.4	72.7	72.7	202,290	54,491	0.27	412,597	139,673	0.34

All data based on balanced system (Exhaust cfm = Supply cfm). Entering water temperature is 45°F. Coil face area is 6.88 sq. ft.

G-028 | HOT WATER COIL, TOTAL UNIT HEATING CAPACITY

Winter Application Ratings - Enthalpy Wheel														Perfomance Ratings - Hot Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent HWC		Heating Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil				Combined Heating Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	ENT Temp (deg. F)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
1600	-10	30	-11.5	72.0	54.0	72.2	77.7	52.44	42.31	109,116	26,097	135,213	0.81	10	1.88	120	1.56	110.8	78.8	54.3	45,785	45,785	1.00	180,998	154,901	0.856
																160	1.49	145.0	94.8	60.4	73,515	73,515	1.00	208,728	182,631	0.875
																200	1.43	179.2	110.9	85.9	101,471	101,471	1.00	236,684	210,587	0.890
														20	3.75	120	5.65	115.1	80.4	54.9	48,548	48,548	1.00	183,761	157,664	0.858
																160	5.41	152.1	97.2	61.3	77,703	77,703	1.00	212,916	186,819	0.877
																200	5.22	189.0	114.1	67.0	106,999	106,999	1.00	242,212	216,115	0.892
														30	5.63	120	12.09	116.7	81.0	55.2	49,568	49,568	1.00	184,781	158,684	0.859
																160	11.63	154.6	98.1	61.6	79,227	79,227	1.00	214,440	188,343	0.878
																200	11.24	192.5	115.3	67.3	108,992	108,992	1.00	244,205	218,108	0.893
	20		14.8			71.9	77.3	60.01	46.36	68,899	23,786	92,685	0.74	10	1.88	120	1.56	111.8	83.4	56.4	40,668	40,668	1.00	133,353	109,567	0.822
																160	1.49	146.1	99.4	62.3	68,357	68,357	1.00	161,042	137,256	0.852
																200	1.43	180.3	115.5	67.6	96,282	96,282	1.00	188,967	165,181	0.874
														20	3.75	120	5.65	115.6	84.9	57.0	43,113	43,113	1.00	135,798	112,012	0.825
																160	5.41	152.6	101.6	63.1	72,239	72,239	1.00	164,924	141,138	0.856
																200	5.22	189.8	118.5	68.6	101,515	101,515	1.00	194,200	170,414	0.878
														30	5.63	120	5.63	117.0	85.4	57.2	44,016	44,016	1.00	136,701	112,915	0.826
																160	11.63	155.0	102.5	63.4	73,653	73,653	1.00	166,338	142,552	0.857
																200	11.24	192.9	119.5	68.9	103,403	103,403	1.00	196,088	172,302	0.879
	50		38.4			71.6	77.0	67.10	50.62	29,030	14,023	43,053	0.67	10	1.88	120	1.55	112.8	87.8	59.0	35,873	35,873	1.00	78,926	64,903	0.822
																160	1.48	147.1	103.7	64.6	63,524	63,524	1.00	106,577	92,554	0.868
																200	1.43	181.2	119.8	69.6	91,421	91,421	1.00	134,474	120,451	0.896
														20	3.75	120	5.65	116.2	89.0	59.4	38,021	38,021	1.00	81,074	67,051	0.827
																160	5.40	153.2	105.8	85.3	67,121	67,121	1.00	110,174	96,151	0.873
																200	5.22	190.1	122.6	70.5	96,378	96,378	1.00	139,431	125,408	0.899
														30	5.63	120	12.09	117.4	89.5	59.6	38,815	38,815	1.00	81,868	67,845	0.829
																160	11.63	155.3	106.5	65.5	68,433	68,433	1.00	111,486	97,463	0.874
																200	11.24	193.3	123.7	70.8	98,169	98,169	1.00	141,222	127,199	0.901
2200	-10	30	-11.5	72.0	54.0	65.4	72.4	47.85	39.18	139,892	32,460	172,352	0.81	10	1.88	120	1.57	108.0	72.8	51.2	59,446	59,446	1.00	231,798	199,338	0.860
																160	1.50	141.0	87.0	57.0	93,357	93,357	1.00	265,709	233,249	0.878
																200	1.44	173.9	101.3	62.2	127,606	127,606	1.00	299,958	267,498	0.892
														20	3.75	120	5.67	113.5	74.7	51.7	64,059	64,059	1.00	236,411	203,951	0.863
																160	5.43	149.8	89.9	58.1	100,229	100,229	1.00	272,581	240,121	0.881
																200	5.23	186.0	105.1	63.5	136,613	136,613	1.00	308,965	276,505	0.895
														30	5.63	120	12.12	115.6	75.4	52.3	65,780	65,780	1.00	238,132	205,672	0.864
																160	11.64	153.0	90.9	58.5	102,753	102,753	1.00	275,105	242,645	0.882
																200	11.27	190.4	106.5	64.0	139,887	139,887	1.00	312,239	279,779	0.896
	20		14.8			65.1	72.0	57.17	44.37	88,255	29,584	117,839	0.75	10	1.88	120	1.57	109.5	78.9	54.1	51,804	51,804	1.00	169,643	140,059	0.826
																160	1.50	142.6	93.1	59.6	85,645	85,645	1.00	203,484	173,900	0.855
																200	1.44	175.5	107.4	64.6	119,867	119,867	1.00	237,706	208,122	0.876
														20	3.75	120	5.66	114.4	80.6	54.8	55,796	55,796	1.00	173,635	144,051	0.830
																160	5.42	150.6	95.7	60.5	91,913	91,913	1.00	209,752	180,168	0.859
																200	5.23	186.8	110.9	65.7	128,259	128,259	1.00	246,098	216,514	0.880
														30	5.63	120	12.12	116.1	81.2	55.0	57,289	57,289	1.00	175,128	145,544	0.831
																160	11.63	153.6	96.7	60.9	94,221	94,221	1.00	212,060	182,476	0.860
																200	11.27	191.0	112.2	66.2	131,325	131,325	1.00	249,164	219,580	0.881
	50		38.4			64.8	71.7	65.92	49.77	37,155	17,441	54,596	0.68	10	1.88	120	1.56	111.0	84.6	57.5	44,620	44,620	1.00	99,216	81,775	0.824
																160	1.49	144.1	98.8	62.6	78,395	78,395	1.00	132,991	115,550	0.869
																200	1.44	177.0	113.1	67.4	112,537	112,537	1.00	167,133	149,692	0.896
														20	3.75	120	5.66	115.1	86.1	58.0	48,034	48,034	1.00	102,630	85,189	0.830
																160	5.42	151.4	101.2	63.5	84,103	84,103	1.00	138,699	121,258	0.874
																200	5.23	187.6	116.4	68.4	120,414	120,414	1.00	175,010	157,569	0.900
														30	5.63	120	12.11	116.7	86.6	58.2	49,315	49,315	1.00	103,911	86,470	0.832
																160	11.63	154.1	102.1	63.8	86,209	86,209	1.00	140,805	123,364	0.876
																200	11.26	191.5	117.6	68.7	123,286	123,286	1.00	177,882	160,441	0.902
2800	-10	30	-11.5	72.0	54.0	58.6	67.1	43.36	35.95	165,016	36,936	201,952	0.82	10	1.88	120	1.58	105.4	67.2	48.0	72,496	72,496	1.00	274,448	237,512	0.865
																160	1.51	137.4	80.1	53.6	111,633	111,633	1.00	313,585	276,649	0.882
																200	1.45	169.1	93.2	58.8	151,218	151,218	1.00	353,170	316,234	0.895
														20	3.75	120	5.69	112.0	69.5	49.1	79,289	79,289	1.00	281,241	244,305	0.869
																160	5.45	147.6	83.4	55.0	121,600	121,600	1.00	323,552	286,616	0.886
																200	5.26	183.2	97.4	60.3	164,200	164,200	1.00	366,152	329,216	0.899
														30	5.63	120	12.15	114.5	70.3	49.4	81,848	81,848	1.00	283,800	246,864	0.870
																160	11.66	151.5	84.6	55.5	125,288	125,288	1.00	327,240	290,304	0.887
																200	11.30	188.4	99.0	60.9	168,946	168,946	1.00	370,898	333,962	0.900
	20		14.8			58.3	66.7	54.37	42.35	104,017	33,661	137,678	0.76	10	1.88	120	1.58	107.5	74.8	51.8	62,163	62,163	1.00	199,841	166,180	0.832
																160	1.51	139.5	87.7	57.1	101,195	101,195	1.00	238,873	205,212	0.859
																200	1.45	171.3	100.7	61.9	140,695	140,695	1.00	278,373	244,712	0.879
														20	3.75	120	5.67	113.1	76.7	52.6	67,924	67,924	1.00	205,602	171,941	0.836
																160	5.44	148.8	90.6	58.3	110,151	110,151	1.00	247,829	214,168	0.864
																200	5.25	184.3	104.7	63.3	152,689	152,689	1.00	290,367	256,706	0.884
														30	5.63	120	12.13	115.3	77.5	53.0	70,103	70,103	1.00	207,781	174,120	0.838
																160	11.66	152.3	91.7	58.6	113,477	113,477	1.00	251,155	217,494	0.866
																200	11.27	189.2	106.1	63.7	157,086	157,086	1.00	294,764	261,103	0.886
	50		38.4			57.9	66.3	64.76	48.92	43,752	19,845	63,597	0.69	10	1.88	120	1.57	109.4	82.0	56.2	52,385	52,385	1.00	115,982	96,137	0.829
																160	1.50	141.5	94.8	61.0	91,323	91,323	1.00	154,920	135,075	0.872
																200	1.45	173.3	107.8	65.4	130,748	130,748	1.00	194,345	174,500	0.898
														20	3.75	120	5.66	114.2	83.6	56.8	57,191	57,191	1.00	120,788	100,943	0.836
																160	5.43	149.9	97.5	61.9	89,342	89,342	1.00	152,939	133,094	0.870
																200	5.25	185.4	111.5	66.6	141,821	141,821	1.00	205,418	185,573	0.903
														30	5.63	120	12.12	116.0	84.2	57.0	59,014	59,014	1.00	122,611	102,766	0.838
																160	11.66	153.1	98.5	62.3	102,327	102,327	1.00	165,924	146,079	0.880
																200	11.27	190.0	112.8	67.0	145,891	145,891	1.00	209,488	189,643	0.905

Return air conditions are constant at 72.0 db and 54.0 wb. Outdoor air relative humidity is constant at 30%. Enthalpy Wheel leaving temperatures do not include the effect of Pre-Heater (optional) for frost control. All data based on balanced system (Exhaust cfm = Supply cfm). Coil face area is 6.88 sq. ft.

G-036 | HOT WATER COIL, TOTAL UNIT HEATING CAPACITY

Winter Application Ratings - Enthalpy Wheel														Perfomance Ratings - Hot Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent HWC		Heating Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil			Combined Heating Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	ENT Temp (deg. F)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
2400	-10	30	-11.5	72.0	54.0	67.6	74.1	49.25	40.15	156,140	36,600	192,740	0.81	10	1.88	120	1.57	106.4	75.2	52.4	67,523	67,523	1.00	260,263	223,663	0.859
																160	1.50	138.3	90.3	58.4	106,952	106,952	1.00	299,692	263,092	0.878
																200	1.44	170.0	105.7	63.9	146,844	146,844	1.00	339,584	302,984	0.892
														20	3.75	120	5.67	112.6	77.6	53.4	73,674	73,674	1.00	266,414	229,814	0.863
																160	5.43	148.2	93.9	59.8	116,214	116,214	1.00	308,954	272,354	0.882
																200	5.25	183.7	110.4	65.5	159,055	159,055	1.00	351,795	315,195	0.896
														30	5.63	120	12.12	114.9	78.4	53.7	75,994	75,994	1.00	268,734	232,134	0.864
																160	11.66	151.9	95.2	60.2	119,647	119,647	1.00	312,387	275,787	0.883
																200	11.27	188.8	112.1	66.0	163,528	163,528	1.00	356,268	319,668	0.897
	20		14.8			67.3	73.7	58.04	44.99	98,533	33,358	131,891	0.75	10	1.88	120	1.57	108.1	80.8	55.0	59,185	59,185	1.00	191,076	157,718	0.825
																160	1.50	140.0	95.9	60.8	98,527	98,527	1.00	230,418	197,060	0.855
																200	1.44	171.7	111.2	66.0	138,350	138,350	1.00	270,241	236,883	0.877
														20	3.75	120	5.66	113.5	82.8	55.8	64,537	64,537	1.00	196,428	163,070	0.830
																160	5.43	149.1	99.2	61.9	107,009	107,009	1.00	238,900	205,542	0.860
																200	5.24	184.6	115.6	67.4	149,800	149,800	1.00	281,691	248,333	0.882
														30	5.63	120	12.12	115.5	83.6	56.2	66,561	66,561	1.00	198,452	165,094	0.832
																160	11.65	152.5	100.4	62.4	110,161	110,161	1.00	242,052	208,694	0.862
																200	11.27	189.4	117.2	67.9	154,003	154,003	1.00	285,894	252,536	0.883
	50		38.4			67.0	73.4	66.28	50.04	41,493	19,666	61,159	0.68	10	1.88	120	1.56	109.6	86.0	58.1	51,355	51,355	1.00	112,514	92,848	0.825
																160	1.50	141.6	101.1	63.5	90,618	90,618	1.00	151,777	132,111	0.870
																200	1.44	173.3	118.4	69.1	130,378	130,378	1.00	191,537	171,871	0.897
														20	3.75	120	5.66	114.3	87.8	58.8	55,967	55,967	1.00	117,126	97,460	0.832
																160	5.42	150.0	104.1	64.5	98,378	98,378	1.00	159,537	139,871	0.877
																200	5.23	185.5	120.5	69.6	141,123	141,123	1.00	202,282	182,616	0.903
														30	5.63	120	12.12	116.1	88.5	59.0	57,715	57,715	1.00	118,874	99,208	0.835
																160	11.63	153.1	105.2	64.9	101,266	101,266	1.00	162,425	142,759	0.879
																200	11.27	190.1	122.0	70.1	145,073	145,073	1.00	206,232	186,566	0.905
3000	-10	30	-11.5	72.0	54.0	61.9	69.7	45.35	37.40	183,551	41,838	225,389	0.81	10	1.88	120	1.59	103.8	70.1	49.6	80,559	80,559	1.00	305,948	264,110	0.863
																160	1.52	134.6	83.9	55.4	125,369	125,369	1.00	350,758	308,920	0.881
																200	1.46	165.2	97.8	60.7	170,777	170,777	1.00	396,166	354,328	0.894
														20	3.75	120	5.69	111.0	72.8	50.8	89,303	89,303	1.00	314,692	272,854	0.867
																160	5.45	145.9	87.9	57.0	138,369	138,369	1.00	363,758	321,920	0.885
																200	5.26	180.7	103.1	62.6	187,830	187,830	1.00	413,219	371,381	0.899
														30	5.63	120	12.15	113.8	73.8	51.2	92,638	92,638	1.00	318,027	276,189	0.868
																160	11.68	150.3	89.4	57.6	143,231	143,231	1.00	368,620	326,782	0.887
																200	11.30	186.7	105.0	63.2	194,125	194,125	1.00	419,514	377,676	0.900
	20		14.8			61.6	69.3	55.62	43.26	115,749	38,130	153,879	0.75	10	1.88	120	1.58	106.0	77.0	53.0	69,582	69,582	1.00	223,461	185,331	0.829
																160	1.51	136.8	90.7	58.4	114,270	114,270	1.00	268,149	230,019	0.858
																200	1.45	167.4	104.7	63.5	159,577	159,577	1.00	313,456	275,326	0.878
														20	3.75	120	5.68	112.2	79.3	54.0	77,050	77,050	1.00	230,929	192,799	0.835
																160	5.45	147.2	94.4	59.8	126,013	126,013	1.00	279,892	241,762	0.864
																200	5.26	182.0	109.5	65.1	175,398	175,398	1.00	329,277	291,147	0.884
														30	5.63	120	12.14	114.8	80.2	54.3	79,910	79,910	1.00	233,789	195,659	0.837
																160	11.66	151.1	95.7	60.3	130,420	130,420	1.00	284,299	246,169	0.866
																200	11.29	187.6	111.3	65.6	181,253	181,253	1.00	335,132	297,002	0.886
	50		38.4			61.2	68.9	65.28	49.30	48,708	22,480	71,188	0.68	10	1.88	120	1.57	108.1	83.5	56.9	59,223	59,223	1.00	130,411	107,931	0.828
																160	1.51	138.9	97.2	62.0	103,803	103,803	1.00	174,991	152,511	0.872
																200	1.45	169.6	111.1	66.6	149,021	149,021	1.00	220,209	197,729	0.898
														20	3.75	120	5.67	113.4	85.4	57.6	65,515	65,515	1.00	136,703	114,223	0.836
																160	5.43	148.4	100.4	63.1	114,384	114,384	1.00	185,572	163,092	0.879
																200	5.25	183.2	115.6	68.0	163,698	163,698	1.00	234,886	212,406	0.904
														30	5.63	120	12.12	115.4	86.2	57.9	67,933	67,933	1.00	139,121	116,641	0.838
																160	11.66	152.0	101.7	63.5	118,367	118,367	1.00	189,555	167,075	0.881
																200	11.28	188.4	117.3	68.5	169,143	169,143	1.00	240,331	217,851	0.906
3600	-10	30	-11.5	72.0	54.0	56.2	65.2	41.50	34.57	206,194	45,489	251,683	0.82	10	1.88	120	1.60	101.3	65.3	46.9	93,017	93,017	1.00	344,700	299,211	0.868
																160	1.53	131.2	78.0	52.5	142,438	142,438	1.00	394,121	348,632	0.885
																200	1.47	160.8	90.8	57.7	192,586	192,586	1.00	444,269	398,780	0.898
														20	3.75	120	5.71	109.4	68.3	48.3	104,671	104,671	1.00	356,354	310,865	0.872
																160	5.47	143.8	82.4	54.3	159,569	159,569	1.00	411,252	365,763	0.889
																200	5.29	178.0	96.6	59.8	214,957	214,957	1.00	466,640	421,151	0.903
														30	5.63	120	12.18	112.7	69.5	48.8	109,156	109,156	1.00	360,839	315,350	0.874
																160	11.70	148.7	84.0	55.0	168,020	168,020	1.00	419,703	374,214	0.892
																200	11.34	184.7	98.7	60.6	223,257	223,257	1.00	474,940	429,451	0.904
	20		14.8			55.8	64.8	53.21	41.49	129,934	41,454	171,388	0.76	10	1.88	120	1.59	104.0	73.5	51.1	79,332	79,332	1.00	250,720	209,266	0.835
																160	1.52	134.0	86.1	56.3	128,601	128,601	1.00	299,989	258,535	0.862
																200	1.47	163.6	99.0	61.1	178,619	178,619	1.00	350,007	308,553	0.882
														20	3.75	120	5.70	111.0	76.0	52.1	89,117	89,117	1.00	260,505	219,051	0.841
																160	5.46	145.4	90.1	57.8	143,872	143,872	1.00	315,260	273,806	0.869
																200	5.28	179.6	104.2	62.9	199,150	199,150	1.00	370,538	329,084	0.888
														30	5.63	120	12.16	113.7	77.0	52.6	92,903	92,903	1.00	264,291	222,837	0.843
																160	11.69	149.8	91.5	58.3	149,649	149,649	1.00	321,037	279,583	0.871
																200	11.31	185.8	106.2	63.6	206,798	206,798	1.00	378,186	336,732	0.890
	50		38.4			55.5	64.4	64.27	48.56	54,638	24,441	79,079	0.69	10	1.88	120	1.58	106.6	81.3	55.8	68,340	68,340	1.00	147,419	122,978	0.834
																160	1.52	136.6	93.8	60.5	115,477	115,477	1.00	194,556	170,115	0.874
																200	1.46	166.3	106.6	64.9	165,381	165,381	1.00	244,460	220,019	0.900
														20	3.75	120	5.68	112.5	83.3	56.6	74,407	74,407	1.00	153,486	129,045	0.841
																160	5.45	146.9	97.3	61.8	129,030	129,030	1.00	208,109	183,668	0.883
																200	5.27	181.1	111.5	66.5	184,209	184,209	1.00	263,288	238,847	0.907
														30	5.63	120	12.15	114.8	84.1	56.9	11,543	11,543	1.00	90,622	66,181	0.730
																160	11.68	150.9	98.6	62.2	134,180	134,180	1.00	213,259	188,818	0.885
																200	11.31	186.9	113.3	67.1	191,248	191,248	1.00	270,327	245,886	0.910

Return air conditions are constant at 72.0 db and 54.0 wb. Outdoor air relative humidity is constant at 30%. Enthalpy Wheel leaving temperatures do not include the effect of Pre-Heater (optional) for frost control. All data based on balanced system (Exhaust cfm = Supply cfm). Coil face area is 6.88 sq. ft.

G-028 | DX COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Direct Expansion Coil							Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Refrigerant Data		LVG Air Temp		Cooling Cap - DX Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	SUC Temp (gpm)	Pr Drop (fwc)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
1600	80	5	50.4	75.0	47.8	71.53	76.90	76.08	48.37	6,553	976	7,529	0.87	40	0.83	58.0	39.2	31,290	31,290	1.00	38,819	37,843	0.97
														45	0.57	60.8	40.6	26,520	26,520	1.00	34,049	33,073	0.97
														50	0.37	63.5	42.0	21,750	21,750	1.00	29,279	28,303	0.97
		40	63.5		59.6	71.61	76.96	76.08	60.56	6,532	7,721	14,253	0.46	40	1.10	58.5	52.5	36,800	30,360	0.83	51,053	36,892	0.72
														45	0.59	60.9	54.8	26,990	26,350	0.98	41,243	32,882	0.80
														50	0.37	63.5	55.9	21,750	21,750	1.00	36,003	28,282	0.79
		75	73.8		69.2	71.69	77.02	76.08	70.37	6,510	14,344	20,854	0.31	40	2.89	60.9	58.7	64,360	26,350	0.41	85,214	32,860	0.39
														45	1.99	62.9	60.7	54,390	22,770	0.42	75,244	29,280	0.39
														50	1.23	65.1	62.9	43,330	18,990	0.44	64,184	25,500	0.40
	95	5	57.7	75.0	47.8	71.78	77.13	79.28	50.14	26,123	4,532	30,655	0.85	40	0.97	59.4	40.3	34,320	34,320	1.00	64,975	60,443	0.93
														45	0.69	62.2	41.7	29,550	29,550	1.00	60,205	55,673	0.92
														50	0.46	65.0	43.1	24,790	24,790	1.00	55,445	50,913	0.92
		40	75.1		59.6	71.88	77.22	79.27	63.85	26,027	38,347	64,374	0.40	40	1.60	60.4	54.4	45,760	32,680	0.71	110,134	58,707	0.53
														45	0.94	62.8	56.7	35,360	28,600	0.81	99,734	54,627	0.55
														50	0.47	65.0	58.9	25,010	24,730	0.99	89,384	50,757	0.57
		75	87.7		69.2	71.99	77.31	79.25	74.56	25,930	73,265	99,195	0.26	40	3.91	63.5	61.8	76,600	27,240	0.36	175,795	53,170	0.30
														45	2.88	65.3	63.5	67,440	24,140	0.36	166,635	50,070	0.30
														50	1.97	67.3	65.5	56,810	20,740	0.37	156,005	46,670	0.30
	110	5	64.6	75.0	47.8	72.0	77.40	82.42	52.00	45,560	10,096	55,656	0.82	40	1.12	60.8	41.7	37,270	37,270	1.00	92,926	82,830	0.89
														45	0.81	63.6	43.1	32,500	32,500	1.00	88,156	78,060	0.89
														50	0.56	66.4	44.4	27,720	27,720	1.00	83,376	73,280	0.88
		40	86.8		59.6	72.2	77.50	82.38	67.84	45,364	84,933	130,297	0.35	40	2.30	62.6	56.9	56,430	34,240	0.61	186,727	79,604	0.43
														45	1.52	64.7	59.0	46,630	30,610	0.66	176,927	75,974	0.43
														50	0.85	67.1	61.4	35,030	26,490	0.76	165,327	71,854	0.43
		75	101.7		69.2	72.3	77.60	82.34	79.84	45,166	165,141	210,307	0.21	40	5.48	66.7	65.8	93,200	27,080	0.29	303,507	72,246	0.24
														45	4.20	68.4	67.5	83,870	24,230	0.29	294,177	69,396	0.24
														50	3.10	70.1	69.1	73,900	21,290	0.29	284,207	66,456	0.23
2200	80	5	50.4	75.0	47.8	64.75	71.59	76.34	48.49	8,384	1,215	9,599	0.87	40	1.18	60.1	40.3	38,400	38,400	1.00	47,999	46,784	0.97
														45	0.81	62.6	41.6	32,570	32,570	1.00	42,169	40,954	0.97
														50	0.53	66.1	42.8	26,740	26,740	1.00	36,339	35,124	0.97
		40	63.5		59.6	64.85	71.67	76.34	60.80	8,360	9,614	17,974	0.47	40	1.53	60.7	53.7	44,520	37,170	0.83	62,494	45,530	0.73
														45	0.83	62.6	55.7	32,870	32,480	0.99	50,844	40,840	0.80
														50	0.53	65.1	56.7	26,740	26,740	1.00	44,714	35,100	0.78
		75	73.8		69.2	64.96	71.76	76.33	70.66	8,335	17,871	26,206	0.32	40	3.88	63.4	60.9	76,270	30,770	0.40	102,476	39,105	0.38
														45	2.74	64.9	62.4	65,510	27,100	0.41	91,716	35,435	0.39
														50	1.75	66.6	64.2	53,030	22,950	0.43	79,236	31,285	0.39
	95	5	57.7	75.0	47.8	65.09	71.90	80.31	50.70	33,418	5,645	39,063	0.86	40	1.44	62.2	41.9	43,050	43,050	1.00	82,113	76,468	0.93
														45	1..03	64.6	43.1	37,220	37,220	1.00	76,283	70,638	0.93
														50	0.70	67.1	44.3	31,380	31,380	1.00	70,443	64,798	0.92
		40	75.1		59.6	65.23	72.02	80.29	64.83	33,305	47,787	81,092	0.41	40	2.34	63.4	56.4	56,960	40,250	0.71	138,052	73,555	0.53
														45	1.43	65.2	58.3	45,070	35,770	0.79	126,162	69,075	0.55
														50	0.72	67.2	60.3	32,030	31,040	0.97	113,122	64,345	0.57
		75	87.7		69.2	65.38	72.15	80.27	75.79	33,192	91,350	124,542	0.27	40	5.54	66.9	65.0	935,560	31,790	0.03	1,060,102	64,982	0.06
														45	4.10	68.4	66.4	82,700	28,380	0.34	207,242	61,572	0.30
														50	2.91	69.8	67.9	71,180	24,870	0.35	195,722	58,062	0.30
	110	5	64.6	75.0	47.8	65.4	72.20	84.2	52.96	58,274	12,584	70,858	0.82	40	1.71	64.1	43.7	47,470	47,470	1.00	118,328	105,744	0.89
														45	1.25	66.6	44.9	41,640	41,640	1.00	112,498	99,914	0.89
														50	0.88	69.0	46.0	35,810	35,810	1.00	106,668	94,084	0.88
		40	86.8		59.6	65.6	72.40	84.14	69.65	58,039	105,920	163,959	0.35	40	3.57	66.5	60.0	72,730	41,940	0.58	236,689	99,979	0.42
														45	2.50	68.0	61.6	62,130	38,240	0.62	226,089	96,279	0.43
														50	1.48	70.0	63.5	48,300	33,590	0.70	212,259	91,629	0.43
		75	101.7		69.2	65.8	72.60	84.08	82.09	57,8022	206,062	263,864	0.22	40	8.12	71.1	70.3	117,300	30,950	0.26	381,164	88,752	0.23
														45	6.33	72.4	71.6	106,200	27,850	0.26	370,064	85,652	0.23
														50	4.74	73.7	72.9	94,420	24,660	0.26	358,284	82,462	0.23
2800	80	5	50.4	75.0	47.8	57.94	66.26	76.60	48.63	9,871	1,384	11,255	0.88	40	1.54	61.8	41.1	44,760	44,760	1.00	56,015	54,631	0.98
														45	1.07	64.0	42.3	38,020	38,020	1.00	49,275	47,891	0.97
														50	0.70	66.3	43.4	31,270	31,270	1.00	42,525	41,141	0.97
		40	63.5		59.6	58.08	66.37	76.60	61.03	9,847	10,958	20,805	0.47	40	2.03	62.4	54.9	52,420	43,080	0.82	73,225	52,927	0.72
														45	1.09	64.1	56.7	38,620	37,700	0.98	59,425	47,547	0.80
														50	0.69	66.3	57.6	31,270	31,270	1.00	52,075	41,117	0.79
		75	73.8		69.2	58.21	66.48	76.59	70.94	9,822	20,383	30,205	0.33	40	4.74	65.2	62.4	85,630	34,590	0.40	115,835	44,412	0.38
														45	3.39	66.4	63.7	74,040	30,730	0.42	104,245	40,552	0.39
														50	2.20	67.9	65.1	60,530	26,380	0.44	90,735	36,202	0.40
	95	5	57.7	75.0	47.8	58.39	66.67	81.33	51.24	39,357	6,439	45,796	0.86	40	1.94	64.4	43.1	51,080	51,080	1.00	96,876	90,437	0.93
														45	1.39	66.6	44.2	44,350	44,350	1.00	90,146	83,707	0.93
														50	0.96	68.9	45.3	37,600	37,600	1.00	83,396	76,957	0.92
		40	75.1		59.6	58.58	66.82	81.30	65.79	39,241	54,552	93,793	0.42	40	3.14	65.8	58.3	67,440	46,810	0.69	161,233	86,051	0.53
														45	2.01	67.3	59.8	54,830	42,230	0.77	148,623	81,471	0.55
														50	1.04	69.1	61.5	39,420	36,810	0.93	133,213	76,051	0.57
		75	87.7		69.2	58.77	66.98	81.27	76.97	39,125	104,361	143,486	0.27	40	7.12	69.6	67.6	108,600	35,380	0.33	252,086	74,505	0.30
														45	5.40	70.8	68.7	96,760	31,860	0.33	240,246	70,985	0.30
														50	3.85	72.0	70.0	83,610	28,070	0.34	227,096	67,195	0.30
	110	5	64.6	75.0	47.8	58.80	67.10	85.95	53.90	68,649	14,375	83,024	0.83	40	2.37	67.0	45.2	57,270	57,270	1.00	140,294	125,919	0.90
														45	1.75	69.2	46.3	50,550	50,550	1.00	133,574	119,199	0.89
														50	1.25	71.4	47.3	43,810	43,810	1.00	126,834	112,459	0.89
		40	86.8		59.6	59.10	67.30	85.87	71.36	68,404	121,100	189,504	0.36	40	4.85	69.8	62.8	86,830	48,580	0.56	276,334	116,984	0.42
														45	3.45	71.2	64.1	74,810	44,620	0.60	264,314	113,024	0.43
														50	2.26	72.5	65.5	61,600	40,400	0.66	251,104	108,804	0.43
		75	101.7		69.2	59.40	67.50	85.79	84.19	68,156	235,802	303,959	0.22	40	10.94	74.7	73.9	139,400	34,010	0.24	443,359	102,166	0.23
														45	8.53	75.7	75.0	126,800	30,780	0.24	430,759	98,936	0.23
														50	6.51	76.8	76.1	113,200	27,420	0.24	417,159	95,576	0.23

All data based on balanced system (Exhaust cfm = Supply cfm). Entering liquid temperature is constant at 110°F. Coil face area is 6.88 sq. ft.

G-036 | DX COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Direct Expansion Coil							Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Refrigerant Data		LVG Air Temp		Cooling Cap - DX Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	SUC Temp (gpm)	Pr Drop (fwc)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
2400	80	5	50.4	75.0	47.8	66.91	73.28	76.26	48.45	9,364	1,370	10,734	0.87	40	2.04	56.0	38.2	52,670	52,670	1.00	63,404	62,034	0.98
														45	1.41	59.0	39.8	44,740	44,740	1.00	55,474	54,104	0.98
														50	0.92	62.1	41.4	36,740	36,740	1.00	47,474	46,104	0.97
		40	63.5		59.6	67.00	73.36	76.26	60.72	9,336	10,836	20,172	0.46	40	2.44	56.6	52.1	58,390	51,030	0.87	78,562	60,366	0.77
														45	1.42	59.0	54.2	44,890	44,890	1.00	65,062	54,226	0.83
														50	0.92	62.1	55.4	36,730	36,730	1.00	56,902	46,066	0.81
		75	73.8		69.2	67.10	73.44	76.26	70.57	9,307	20,139	29,446	0.32	40	5.83	60.5	58.9	96,660	40,890	0.42	126,106	50,197	0.40
														45	4.10	62.5	60.8	82,710	35,890	0.43	112,156	45,197	0.40
														50	2.71	64.4	62.7	68,270	30,950	0.45	97,716	40,257	0.41
	95	5	57.7	75.0	47.8	67.21	73.57	80.00	50.53	37,323	6,362	43,685	0.85	40	2.48	57.4	39.4	58,550	58,550	1.00	102,235	95,873	0.94
														45	1.75	60.5	40.9	50,630	50,630	1.00	94,315	87,953	0.93
														50	1.20	63.5	42.5	42,660	42,660	1.00	86,345	79,983	0.93
		40	75.1		59.6	67.35	73.68	79.98	64.53	37,193	53,843	91,036	0.41	40	3.58	59.0	54.5	72,750	54,480	0.75	163,786	91,673	0.56
														45	2.28	61.1	55.6	58,890	49,020	0.83	149,926	86,213	0.58
														50	1.22	63.4	58.8	43,060	43,060	1.00	134,096	80,253	0.60
		75	87.7		69.2	67.48	73.79	79.95	75.42	37,062	102,907	139,969	0.26	40	7.97	64.0	62.7	116,100	41,570	0.36	256,069	78,632	0.31
														45	5.92	65.7	64.5	102,300	37,020	0.36	242,269	74,082	0.31
														50	4.18	67.5	66.2	87,710	32,410	0.37	227,679	69,472	0.31
	110	5	64.6	75.0	47.8	67.5	73.8	83.65	52.67	65,084	14,177	79,261	0.82	40	2.87	58.9	40.9	64,100	64,100	1.00	143,361	129,184	0.90
														45	2.11	61.9	42.5	56,370	56,370	1.00	135,631	121,454	0.90
														50	1.49	64.9	44.0	48,420	48,420	1.00	127,681	113,504	0.89
		40	86.8		59.6	67.7	74.0	83.60	69.10	64,815	119,306	184,121	0.35	40	5.19	61.9	57.7	90,350	56,160	0.62	274,471	120,975	0.44
														45	3.59	63.9	59.7	76,550	51,120	0.67	260,671	115,935	0.44
														50	2.29	65.9	61.6	61,940	45,960	0.74	246,061	110,775	0.45
		75	101.7		69.2	67.9	74.2	83.55	81.41	64,543	232,054	296,597	0.22	40	11.34	68.2	67.7	143,000	39,930	0.28	439,597	104,473	0.24
														45	8.80	69.8	69.2	129,100	35,840	0.28	425,697	100,383	0.24
														50	6.59	71.4	70.8	114,300	31,650	0.28	410,897	96,193	0.23
3000	80	5	50.4	75.0	47.8	61.22	68.83	76.49	48.58	10,990	1,567	12,557	0.88	40	2.64	57.7	39.1	60,990	60,990	1.00	73,547	71,980	0.98
														45	1.83	60.5	40.5	51,850	51,850	1.00	64,407	62,840	0.98
														50	1.19	63.3	42.0	42,650	42,650	1.00	55,207	53,640	0.97
		40	63.5		59.6	61.35	68.93	76.48	60.92	10,960	10,401	21,361	0.51	40	3.04	58.3	53.2	66,230	58,890	0.89	87,591	69,850	0.80
														45	1.83	60.5	54.9	51,950	51,950	1.00	73,311	62,910	0.86
														50	1.19	63.3	56.1	42,650	42,650	1.00	64,011	53,610	0.84
		75	73.8		69.2	61.47	69.03	76.48	70.82	10,930	23,060	33,990	0.32	40	6.89	62.6	60.8	106,600	45,140	0.42	140,590	56,070	0.40
														45	4.93	64.1	62.3	91,940	40,080	0.44	125,930	51,010	0.41
														50	3.26	65.8	63.9	75,980	34,790	0.46	109,970	45,720	0.42
	95	5	57.7	75.0	47.8	61.62	69.19	80.88	51.00	43,807	7,284	51,091	0.86	40	3.21	59.8	40.7	68,370	68,370	1.00	119,461	112,177	0.94
														45	2.35	62.4	42.1	59,950	59,950	1.00	111,041	103,757	0.93
														50	1.62	65.2	43.5	50,770	50,770	1.00	101,861	94,577	0.93
		40	75.1		59.6	61.79	69.33	80.85	65.36	43,669	61,683	105,352	0.41	40	4.58	61.5	56.4	84,020	62,730	0.75	189,372	106,399	0.56
														45	3.03	63.2	58.1	69,420	57,250	0.82	174,772	100,919	0.58
														50	1.67	65.2	60.1	51,750	50,810	0.98	157,102	94,479	0.60
		75	87.7		69.2	61.96	69.47	80.82	76.49	43,529	119,024	162,553	0.27	40	9.95	66.8	65.4	132,300	45,630	0.34	294,853	89,159	0.30
														45	7.46	68.3	66.9	117,200	40,950	0.35	279,753	84,479	0.30
														50	5.38	69.7	68.3	101,400	36,200	0.36	263,953	79,729	0.30
	110	5	64.6	75.0	47.8	62.0	69.5	85.17	53.49	76,398	16,248	92,646	0.82	40	3.80	61.9	42.7	75,290	75,290	1.00	167,936	151,688	0.90
														45	2.87	64.4	43.9	67,220	67,220	1.00	159,866	143,618	0.90
														50	2.07	67.0	45.2	58,530	58,530	1.00	151,176	134,928	0.89
		40	86.8		59.6	62.2	69.7	85.10	70.61	76,106	136,814	212,920	0.36	40	6.78	65.2	60.5	105,600	64,370	0.61	318,520	140,476	0.44
														45	4.78	66.9	62.1	90,400	59,110	0.65	303,320	135,216	0.45
														50	3.14	68.5	63.7	74,470	53,770	0.72	287,390	129,876	0.45
		75	101.7		69.2	62.5	70.0	85.03	83.26	75,811	266,272	342,083	0.22	40	14.63	71.8	71.3	166,500	43,030	0.26	508,583	118,841	0.23
														45	11.53	73.1	72.6	151,500	38,950	0.26	493,583	114,761	0.23
														50	8.72	74.4	73.9	134,800	34,540	0.26	476,883	110,351	0.23
3600	80	5	50.4	75.0	47.8	55.52	64.37	76.71	48.70	12,327	1,705	14,032	0.88	40	3.17	59.3	39.9	67,820	67,820	1.00	81,852	80,147	0.98
														45	2.24	61.7	41.2	58,320	58,320	1.00	72,352	70,647	0.98
														50	1.47	64.3	42.5	48,040	48,040	1.00	62,072	60,367	0.97
		40	63.5		59.6	55.67	64.48	76.70	61.13	12,298	13,505	25,803	0.48	40	3.52	59.8	54.2	72,120	65,590	0.91	97,923	77,888	0.80
														45	2.24	61.7	55.6	58,320	58,320	1.00	84,123	70,618	0.84
														50	1.47	64.3	56.6	48,040	48,040	1.00	73,843	60,338	0.82
		75	73.8		69.2	55.82	64.60	76.70	71.06	12,269	25,129	37,398	0.33	40	7.97	64.1	62.2	116,100	48,820	0.42	153,498	61,089	0.40
														45	5.66	65.6	63.6	99,670	43,340	0.43	137,068	55,609	0.41
														50	3.76	67.0	65.0	82,540	37,800	0.46	119,938	50,069	0.42
	95	5	57.7	75.0	47.8	56.01	64.81	81.75	51.47	49,158	7,940	57,098	0.86	40	3.94	61.9	42.0	76,890	76,890	1.00	133,988	126,048	0.94
														45	2.93	64.2	43.1	68,000	68,000	1.00	125,098	117,158	0.94
														50	2.06	66.7	44.3	58,370	58,370	1.00	115,468	107,528	0.93
		40	75.1		59.6	56.22	64.98	81.72	66.18	49,023	67,287	116,310	0.42	40	5.53	63.7	58.1	93,510	69,960	0.75	209,820	118,983	0.57
														45	3.66	65.2	59.6	77,470	64,070	0.83	193,780	113,093	0.58
														50	2.17	66.8	61.2	60,140	57,990	0.96	176,450	107,013	0.61
		75	87.7		69.2	56.42	65.15	81.69	77.45	48,886	128,767	177,653	0.28	40	11.92	69.1	67.7	146,700	48,910	0.33	324,353	97,796	0.30
														45	8.96	70.4	68.9	130,500	44,120	0.34	308,153	93,006	0.30
														50	6.45	71.7	70.2	112,900	39,080	0.35	290,553	87,966	0.30
	110	5	64.6	75.0	47.8	56.5	65.2	86.67	54.28	85,762	17,737	103,499	0.83	40	4.75	64.5	44.2	85,760	85,760	1.00	189,259	171,522	0.91
														45	3.63	66.8	45.3	76,950	76,950	1.00	180,449	162,712	0.90
														50	2.69	69.1	46.4	67,990	67,990	1.00	171,489	153,752	0.90
		40	86.8		59.6	56.8	65.5	86.59	72.05	85,475	149,486	234,961	0.36	40	8.45	68.2	63.0	119,800	71,650	0.60	354,761	157,125	0.44
														45	6.05	69.5	64.3	103,600	66,320	0.64	338,561	151,795	0.45
														50	4.08	70.9	65.7	86,500	60,880	0.70	321,461	146,355	0.46
		75	101.7		69.2	57.1	65.7	86.51	85.02	85,182	291,193	376,375	0.23	40	17.68	74.9	74.4	186,500	45,330	0.24	562,875	130,512	0.23
														45	14.14	76.0	75.5	170,100	41,170	0.24	546,475	126,352	0.23
														50	10.77	77.1	76.6	152,600	36,840	0.24	528,975	122,022	0.23

All data based on balanced system (Exhaust cfm = Supply cfm). Entering liquid temperature is constant at 110°F. Coil face area is 6.88 sq. ft.

G-028 & G-036 | ENGINEERING SPECIFICATION

General
PennBarry Energy Recovery Ventilator shall be listed per UL 1995, Heating and Cooling Equipment. Energy transfer ratings of the energy recovery wheel shall be AHRI Certified. Performance shall be as scheduled on plans. Exhaust discharge and outside air intake shall not be located on the same side on roof top units. Basis of design is Ruskin Model EVT.

Unit Casing and Frames
EVT frame shall be constructed of aluminum. EVT panels shall be G90 galvanized steel. All panels exposed to the weather shall be a minimum of 18 gauge galvanized steel. EVT shall be internally lined with galvanized sheet metal creating a double wall. Where top panels are joined there shall be an overlapping, standing seam to insure positive weather protection. All metal-to-metal seams shall be factory sealed, requiring no caulking at job site. EVT base to be designed for curb mounting. EVT base shall overhang the curb for a positive seal against water run-off. Ruskin EVT exterior panels shall be powder coated for superior finish. WEATHERHOODS Weatherhoods shall be the same finish as the ERV. Outdoor air weatherhood shall incorporate a hooded design and moisture eliminator.

Energy Recovery Wheel
Wheel shall be of the enthalpy type for both sensible and latent heat recovery and be designed to insure laminar flow. Energy transfer ratings must be AHRI Certified to Standard 1060 and bear the AHRI certification symbol for AHRI Air-to-Air Energy Recovery Ventilation Equipment Certification Program based on AHRI 1060. Ratings “in accordance with 1060” without certification are not acceptable. Desiccant shall be silica gel for maximum latent energy transfer. Wheel shall be constructed of lightweight polymer media to minimize shaft and bearing loads. Polymer media shall be mounted in a stainless steel rotor for corrosion resistance. Wheel design shall consist of removable segments for ease of service and/or cleaning. Silica gel desiccant shall be permanently bonded to wheel media to retain latent heat capability after cleaning.Wheels with sprayed on desiccant coatings are not acceptable. Wheels with desiccant applied after wheel formation are not acceptable. Energy recovery device shall transfer moisture entirely in the vapor phase. Energy recovery drive belt material shall be prestretched high strength urethane and shall be factory installed, eliminating the need for field belt tension adjustment. Link style belts are not acceptable.

Insulation
EVT casing to be insulated with 1 inch fiberglass. Insulation shall meet requirements of NFPA 90A and tested to meet UL 181 requirements. Insulation to be enclosed in double wall construction.

Free Cooling Mode
The on-board control logic shall automatically cease energy recovery when outside air conditions are within a 40°F to 70°F (4°C to 21°C) temperature range to allow for space cooling. During the free cooling period, the wheel shall automatically jog at preset time intervals to purge wheel of moisture and contaminant build up.

Access Doors
All components shall be easily accessible through hinged access doors for exhaust, supply, filter, and damper compartments. Energy recovery wheels shall be mounted in a slide-out track for inspection, removal, and cleaning.

Roof Curbs
Roof curb to be supplied by EVT manufacturer for field assembly. Curb shall consist of die formed galvanized steel sections. Curb shall be full perimeter type with gasket provided for field installation between curb and EVT base.

Fan Sections
Centrifugal fans to be double width, double inlet, forward curved type. All blower wheels shall be statically and dynamically balanced. Steel fan shafts shall be ground and polished and shall be mounted in permanently lubricated, sealed ball bearing pillow blocks. Bearings shall be selected for a minimum (L10) life in excess of 100,000 hours at maximum cataloged operating speeds. Adjustable sheaves on belt-driven fans with motors less than 15hp shall allow independent balancing of exhaust and supply airflows. Fan and motor assemblies are mounted to EVT base with neoprene isolators as standard. Fans shall be located in draw-through position in reference to the energy recovery wheel.

Motors and Drives
Motors shall be energy efficient, complying with EPACT standards, for single speed ODP and TEFC enclosures. Motors shall be permanently lubricated, heavy-duty type, matched to the fan load and furnished at the specified voltage, phase, and enclosure. Drives shall be sized for a minimum of 150% of driven horsepower. Pulleys shall be of the fully machined cast type, keyed and securely attached to the fan wheel and motor shafts; 10 horsepower and less shall be supplied with an adjustable drive pulley. Energy wheel motors shall have integral overload protection.

Filters
Supply and exhaust filters shall be 2-inch thick pleated fiberglass with a minimum MERV 8 rating.MERV 11 or 13 filters are optional. Filter racks shall be die-formed galvanized steel.

Electrical
All internal electrical components shall be factory wired for single point power connection. Units with electric preheat or post heat will be wired with independent power supply. All electrical components shall be UL Listed, Approved, or Classified where applicable and wired in compliance with the National Electrical Code. Weatherproof, integral door interlocking disconnect switch, motor starters, control circuit fusing, control transformer for 24 VAC circuit, and terminal strip shall be supplied as standard components in the control center. Motor starters consist of a contactor and Class 20 electronic adjustable overload protection and shall be provided for all motors in the unit. Ruskin’s ER optimizer PLC controller is included to control all unit functions and outputs and will be fully compliant with BAS systems including LONWORKS, BACNET, and MODBUS.

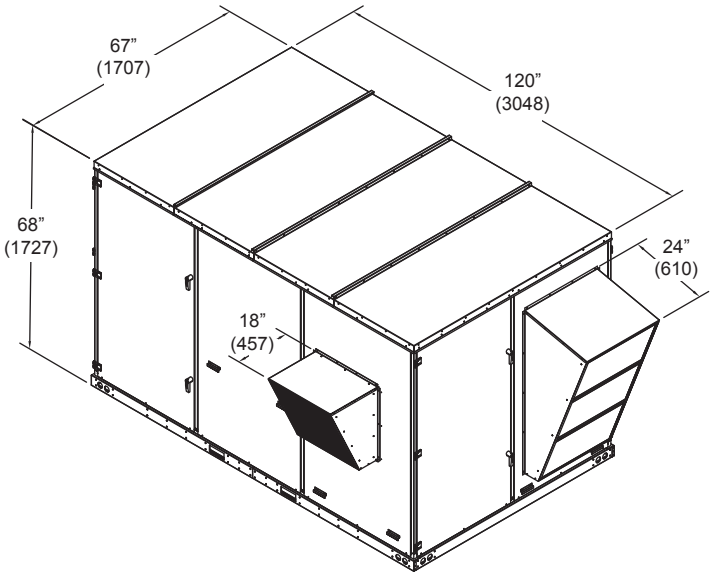
DX Cooling Coils
Direct expansion (DX) shall be factory tested and rated in accordance with AHRI 410. Coils shall have rifled copper tubes with permanently expanded aluminum fins and shall be equipped with adjustable expansion valve connected to distributors.

Chilled and Hot Water Coils
Water coils shall be factory tested and rated in accordance with AHRI 410. Coils shall have copper tubes with permanently expanded aluminum fins.

Electric Heat Coils
Electric heat shall be UL listed and circuit fused per NEC over 48 amps. Heater shall be sequentially controlled via on-board sequencers. Electric heat shall be factory wired and installed. Control will be 24 volt with class 2 transformer. Standard air flow proving switch will shut down heater if air ceases to flow across heating elements. The electric preheat option provides frost protection for year round operation. It features steel finned tubular heater with high temperature baked-on aluminum finish protecting them from corrosion and deterioration. Modular heat stages for single or dual stage heat are provided. The post electric heat option utilizes nickel chromium electric wire resistance elements and allows for modular heat stages for single or multiple stage heat.

G-046 & G-062 | INTRODUCTION

Models G-010 and G-019 are energy recovery ventilators with auxiliary heating and cooling capabilities. They are designed to provide outside air into a building without increasing the building HVAC load.The units are classified as a neutral air unit providing outside air into the building at room temperature.



G-046 & G-062 | FEATURES

- **Frame**: Modular aluminum.
- **Cabinet**: Galvanized steel, fully insulated double wall.
- **Blowers**: Silent Pro Series Class II FC.
- **Access Doors**: Hinged double wall with 1/4 turn latches.
- **Wheel**: AHRI certified polymeric Enthalpy Wheel, complete with rotation sensors.
- **Filters**: 2" pleated, MERV 8.
- **Finish**: Polyester resin based powder coat.
- **Control**: Digital programmable logic controller. Single point wiring with NEMA 3R disconnect.
- **Installed Weight**: 2,800 lbs.
- **Shipped Weight**: 3,000 lbs.

G-046 & G-062 | OPTIONS & ACCESSORIES

Heating / Cooling
- R-410A DX coil.
- Chilled water coil.
- Hot water coil.
- Electric heat (pre and post).

Frost Control
- Timed exhaust frost control.
- Variable wheel speed frost control.
- Electric preheat.

Filters
- 2" (51) Pleated MERV 11 or MERV 13 filters.

Dampers
- Actuated exhaust air damper.
- Actuated intake air damper.

Sensors
- Smoke detectors.
- CO_2 sensors.
- Dirty filter sensors.

Blower Motor
- ODP or TEFC motors available.

Roof Curbs

GFCI Service Outlet

Custom Paint

VFD Blower Control

Sensible Wheel Only

G-046 & G-062 | PERFORMANCE DATA

G-046 Supply and Exhaust Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3300	1887	-	-	756	1.01	885	1.32	1001	1.65	1107	1.99	1205	2.34	-	-	-	-
3400	2138	-	-	793	1.29	914	1.64	1024	2.00	1126	2.37	1221	2.75	1310	3.14	-	-
3800	2390	704	1.26	830	1.62	944	2.00	1049	2.40	1146	2.80	1238	3.21	1325	3.63	1407	4.06
4200	2642	750	1.60	867	2.01	975	2.42	1075	2.84	1169	3.28	1257	3.72	1341	4.18	1421	4.64
4600	2893	795	2.01	905	2.44	1007	2.89	1102	3.35	1192	3.82	1277	4.29	1359	4.78	1434	5.28

G-062 Supply Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3400	2138	-	-	-	-	864	1.49	979	1.85	1084	2.21	1182	2.59	1273	2.97	1359	3.37
4100	2579	-	-	799	1.71	913	2.10	1018	2.52	1116	2.94	1208	3.37	1295	3.81	1377	4.26
4800	3019	748	1.96	862	2.42	966	2.88	1062	3.34	1153	3.82	1239	4.31	1321	4.81	1400	5.31
5500	3459	823	2.78	926	3.30	1021	3.82	1111	4.35	1195	4.89	1276	5.43	1354	5.98	1428	6.55
6200	3899	895	3.79	989	4.37	1078	4.96	1161	5.55	1240	6.14	1316	6.74	1389	7.35	1460	7.97

G-062 Exhaust Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
3400	1491	-	-	625	0.99	747	1.37	-	-	-	-	-	-	-	-	-	-
4100	1798	-	-	664	1.40	776	1.83	877	2.28	-	-	-	-	-	-	-	-
4800	2105	-	-	704	1.91	807	2.39	902	2.90	990	3.43	1072	3.97	-	-	-	-
5500	2412	640	2.00	745	2.53	840	3.07	929	3.63	1013	4.21	1091	4.80	1166	5.42	-	-
6200	2719	687	2.67	784	3.25	873	3.85	957	4.47	1036	5.10	1111	5.74	-	-	-	-

This blower data accounts for the pressure drop across the Energy Recovery Wheel and the internal cabinet losses, but does not include the pressure drop for selected Accessories and Options which can be found in the corresponding tables and must be added to the External Static Pressure to determine correct RPM and BHP. BHP rating does not include drive losses. Performance ratings do not include the effects of appurtenances in the air stream. Drives are sized for a minimum of 150% of driven horsepower.

	Low Speed
	Medium Speed
	High Speed
-	Empty space means this operating point is outside the efficient operating range of the blower.

G-046 & G-062 | PRODUCT & ELECTRICAL DATA

		G-046			G-062		
Line Voltage - 60Hz		230v / 3Ph	460v / 3Ph	575v / 3Ph	230v / 3Ph	460v / 3Ph	575v / 3Ph
Supply Air Blower	Motor HP L/M/H	2 / 3 / 5	2 / 3 / 5	2 / 3 / 5	3 / 5 / 7.5	3 / 5 / 7.5	3 / 5 / 7.5
	Drive Type	Belt	Belt	Belt	Belt	Belt	Belt
	Size (DxW)	15 x 11	15 x 11	15 x 11	15 x 11	15 x 11	15 x 11
	Blower Speed	1725	1725	1725	2488	2488	2488
	Adjustment	Sheave	Sheave	Sheave	Sheave	Sheave	Sheave
	Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
	Full Load Amps	5.6 / 8.6 / 12.8	2.8 / 4.3 / 6.4	2.08 / 3.4 / 5.1	8.6 / 12.8 / 19.4	4.3 / 6.4 / 9.7	3.4 / 5.1 / 7.8
	Service Factor	1.15	1.15	1.15	1.15	1.15	1.15
Exhaust Air Blower	Motor HP L/M/H	2 / 3 / 5	2 / 3 / 5	2 / 3 / 5	2 / 3 / 5	2 / 3 / 5	2 / 3 / 5
	Drive Type	Belt	Belt	Belt	Belt	Belt	Belt
	Size (DxW)	15 x 11	2 / 3 / 5	2 / 3 / 5	18 x 13	18 x 13	18 x 13
	Blower Speed	1725	1725	1725	2488	2488	2488
	Adjustment	Sheave	Sheave	Sheave	Sheave	Sheave	Sheave
	Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
	Full Load Amps	5.6 / 8.6 / 12.8	2.8 / 4.3 / 6.4	2.08 / 3.4 / 5.1	5.6 / 8.6 / 12.8	2.8 / 4.3 / 6.4	2.08 / 3.4 / 5.1
	Service Factor	1.15	1.15	1.15	1.15	1.15	1.15
Wheel Data	Potential Volts	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph
	Motor Speed	1150 RPM	1150 RPM	1150 RPM	1075 RPM	1075 RPM	1075 RPM
	Full Load Amps	1.2	1.2	1.2	0.6	0.6	0.6
	Wheel Model	ERC-4646	ERC-4646	ERC-4646	ERC-5262	ERC-5262	ERC-5262
	Depth	3	3	3	3	3	3
	Dia. (Nom. in.)	47	47	47	52	52	52
Preheat	No. of Stages	1	1	1	2	2	2
	kW / Stage	7.8	7.8	7.8	7.8	7.8	7.8
	MCA / Circuit	23.5	11.75	9.8	23.5	11.75	9.8
	MOCP	25	12	10	50	25	20
Post Heat	No. of Stages	1	1	1	3	3	3
	kW / Stage	19.2	19.2	19.2	19.2	19.2	19.2
	MCA / Circuit	28.88	14.44	12.05	28.88	14.44	12.05
	MOCP	30	15	15	60	30	25
	Total MCA	57.8	28.9	24.1	115.6	57.7	48.2
	Point Power	Separate	Separate	Separate	Separate	Separate	Separate
Total	MCA Minimum	11	5.5	4.78	15.4	7.7	6.68
	MOCP Minimum	15	75	5	20	10	7.5
	MCA Maximum	103.9	51.95	45.2	167.04	83.52	72.66
	MOCP Maximum	110	60	50	175	90	75

Effectiveness		Sensible	Latent	Total	Sensible	Latent	Total
AHRI Ratings	Total @ 100%	68%	60%	65%	68%	60%	65%
	Total @ 75%	73%	67%	71%	73%	67%	71%
	Net @ 100%	68%	60%	65%	68%	60%	65%
	Net @ 75%	73%	67%	71%	73%	67%	70%

G-046 | CHILLED WATER COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Chilled Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil				Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
3000	80	5	50.4	75.0	47.8	66.87	73.25	76.27	48.46	11,701	1,711	13,412	0.87	18	1.97	2.61	51.3	58.8	39.8	57,152	57,152	1.00	70,564	68,853	0.98
														36	3.94	9.48	48.4	57.4	39.0	61,951	61,951	1.00	75,363	73,652	0.98
														54	5.91	20.16	47.4	56.8	38.7	63,793	63,793	1.00	77,205	75,494	0.98
		40	63.5		59.6	66.97	73.33	76.27	60.73	15,908	20,180	36,088	0.44	18	1.97	2.61	51.4	58.7	54.0	57,552	57,552	1.00	93,640	73,460	0.78
														36	3.94	9.48	48.5	57.3	53.1	64,106	62,196	0.97	100,194	78,104	0.78
														54	5.91	20.18	47.5	56.9	52.7	67,301	63,603	0.95	103,389	79,511	0.77
		75	73.8		69.2	67.06	73.41	76.26	70.58	11,629	25,159	36,788	0.32	18	1.97	2.61	55.5	62.8	61.5	94,864	44,307	0.47	131,652	55,936	0.42
														36	3.94	9.48	51.3	60.5	59.5	113,795	51,618	0.45	150,583	63,247	0.42
														54	5.91	20.18	49.5	59.5	58.6	121,819	54,866	0.45	158,607	66,495	0.42
	95	5	57.7	75.0	47.8	67.18	73.54	80.03	50.55	46,635	7,948	54,583	0.85	18	1.97	2.61	52.1	60.5	41.2	63,994	63,994	1.00	118,577	110,629	0.93
														36	3.94	9.46	48.8	58.9	40.3	69,349	69,349	1.00	123,932	115,984	0.94
														54	5.91	20.18	47.6	58.2	40.0	71,406	71,406	1.00	125,989	118,041	0.94
		40	75.1		59.6	67.31	73.65	80.01	64.57	46,472	67,266	113,738	0.41	18	1.97	2.61	52.7	61.1	57.0	69,697	61,895	0.89	183,435	108,367	0.59
														36	3.94	9.46	49.5	59.6	55.6	81,704	66,853	0.82	195,442	113,325	0.58
														54	5.91	20.18	48.2	58.9	55.0	87,247	69,217	0.79	200,985	115,689	0.58
		75	87.7		69.2	67.44	73.76	79.99	75.46	46,309	128,562	174,871	0.26	18	1.97	2.61	58.1	66.1	65.3	118,034	45,744	0.39	292,905	92,053	0.31
														36	3.94	9.46	52.9	63.3	62.8	142,890	54,797	0.38	317,761	101,106	0.32
														54	5.91	20.18	50.7	62.1	61.8	153,228	58,790	0.38	328,099	105,099	0.32
	110	5	57.7	75.0	47.8	67.5	73.8	83.72	52.70	81,322	17,712	99,034	0.82	18	1.88	2.40	52.8	62.1	42.6	70,785	70,785	1.00	169,819	152,107	0.90
														36	3.75	8.56	49.2	60.3	41.7	76,689	76,689	1.00	175,723	158,011	0.90
														54	5.63	18.08	47.9	59.6	41.3	78,960	78,960	1.00	177,994	160,282	0.90
		40	75.1		59.6	67.7	74.0	83.66	69.17	80,986	149,049	230,035	0.35	18	1.88	2.40	54.8	64.2	60.4	88,166	63,983	0.73	318,201	144,969	0.46
														36	3.75	8.56	50.9	62.1	58.5	105,833	70,923	0.67	335,868	151,909	0.45
														54	5.63	18.08	49.2	61.2	57.7	112,920	73,832	0.65	342,955	154,818	0.45
		75	87.7		69.2	67.9	74.1	83.61	81.49	80,646	289,907	370,553	0.22	18	1.88	2.40	61.5	70.1	70.1	148,858	44,180	0.30	519,411	124,826	0.24
														36	3.75	8.56	55.1	66.7	66.7	182,071	55,318	0.30	552,624	135,964	0.25
														54	5.63	18.08	52.2	65.2	65.2	196,140	60,401	0.31	566,693	141,047	0.25
3800	80	5	50.4	75.0	47.8	60.80	68.50	76.51	48.59	13,853	1,971	15,824	0.88	18	1.97	2.61	52.4	60.5	40.7	66,373	66,373	1.00	82,197	80,226	0.98
														36	3.94	9.46	49.0	58.9	39.8	73,085	73,085	1.00	88,909	86,938	0.98
														54	5.91	20.18	47.8	58.3	39.5	75,720	75,720	1.00	91,544	89,573	0.98
		40	63.5		59.6	60.93	68.60	76.51	60.95	13,816	15,600	29,416	0.47	18	1.97	2.61	52.3	60.5	54.9	66,353	66,353	1.00	95,769	80,169	0.84
														36	3.94	9.46	49.1	58.7	54.1	74,770	73,885	0.99	104,186	87,701	0.84
														54	5.91	20.18	47.9	58.3	53.7	78,790	75,624	0.96	108,206	89,440	0.83
		75	73.8		69.2	61.05	68.70	76.50	70.84	13,778	29,010	42,788	0.32	18	1.97	2.61	56.7	64.6	63.2	105,312	49,386	0.47	148,100	63,164	0.43
														36	3.94	9.46	52.2	62.4	61.2	130,060	58,593	0.45	172,848	72,371	0.42
														54	5.91	20.18	50.2	61.4	60.3	140,716	62,758	0.45	183,504	76,536	0.42
	95	5	57.7	75.0	47.8	61.20	68.87	80.97	51.05	55,222	9,164	64,386	0.86	18	1.97	2.60	53.4	62.7	42.3	75,903	75,903	1.00	140,289	131,125	0.93
														36	3.94	9.44	49.6	60.9	41.3	83,544	83,544	1.00	147,930	138,766	0.94
														54	5.91	20.16	48.2	60.2	40.9	86,546	86,546	1.00	150,932	141,768	0.94
		40	75.1		59.6	61.37	69.01	80.94	65.45	55,048	77,603	132,651	0.41	18	1.97	2.60	54.0	63.3	58.7	81,306	73,604	0.91	213,957	128,652	0.60
														36	3.94	9.44	50.3	61.8	57.3	96,662	79,741	0.82	229,313	134,789	0.59
														54	5.91	20.16	48.8	61.1	56.6	104,221	82,864	0.80	236,872	137,912	0.58
		75	87.7		69.2	61.54	69.15	80.92	76.56	54,873	148,406	203,279	0.27	18	1.97	2.60	59.9	68.7	67.8	134,021	50,645	0.38	337,300	105,518	0.31
														36	3.94	9.44	54.2	66.0	65.4	166,915	61,975	0.37	370,194	116,848	0.32
														54	5.91	20.15	51.7	64.7	64.3	181,377	67,276	0.37	384,656	122,149	0.32
	110	5	57.7	75.0	47.8	61.6	69.2	85.33	53.57	96,304	20,442	116,746	0.82	18	1.88	2.40	54.4	64.8	44.2	85,024	85,024	1.00	184,058	181,328	0.99
														36	3.75	8.56	50.2	62.8	43.2	93,541	93,541	1.00	192,575	189,845	0.99
														54	5.63	18.08	54.0	62.0	42.8	96,894	96,894	1.00	195,928	193,198	0.99
		40	75.1		59.6	61.8	69.4	85.26	70.77	95,940	172,138	268,078	0.36	18	1.88	2.40	56.5	67.2	63.0	103,818	75,224	0.72	333,853	171,164	0.51
														36	3.75	8.56	52.1	65.0	61.0	128,075	84,280	0.66	358,110	180,220	0.50
														54	5.63	18.08	50.1	64.0	60.1	138,818	88,492	0.64	368,853	184,432	0.50
		75	87.7		69.2	62.1	69.6	85.19	83.46	95,570	335,038	430,608	0.22	18	1.88	2.40	64.1	73.8	73.8	172,678	47,465	0.27	543,231	143,035	0.26
														36	3.75	8.56	57.1	70.4	70.4	218,111	61,508	0.28	588,664	157,078	0.27
														54	5.63	18.08		53.8	68.8	238,297	68,267	0.29	608,850	163,837	0.27
4600	80	5	50.4	75.0	47.8	54.71	63.73	76.75	48.73	15,596	2,148	17,744	0.88	18	1.97	2.60	53.3	62.0	41.4	74,636	74,636	1.00	92,380	90,232	0.98
														36	3.94	9.44	49.6	60.2	40.5	83,321	83,321	1.00	101,065	98,917	0.98
														54	5.91	20.14	48.2	59.5	40.1	86,801	86,801	1.00	104,545	102,397	0.98
		40	63.5		59.6	54.86	63.85	76.74	61.16	15,560	17,007	32,567	0.48	18	1.97	2.60	53.3	61.8	55.6	75,007	75,007	1.00	107,574	90,567	0.84
														36	3.94	9.44	49.6	60.0	54.9	84,069	84,069	1.00	116,636	99,629	0.85
														54	5.91	20.14	48.3	59.4	54.5	88,901	86,909	0.98	121,468	102,469	0.84
		75	73.8		69.2	55.02	63.98	76.74	71.10	15,524	31,648	47,172	0.33	18	1.97	2.60	57.4	65.9	64.3	112,166	54,115	0.48	159,338	69,639	0.44
														36	3.94	9.44	52.8	63.8	62.4	141,728	64,812	0.46	188,900	80,336	0.43
														54	5.91	20.13	50.7	62.8	61.5	155,204	69,938	0.45	202,376	85,462	0.42
	95	5	57.7	75.0	47.8	55.22	64.19	81.91	51.55	62,198	10,001	72,199	0.86	18	1.97	2.59	54.6	64.7	43.5	86,692	86,692	1.00	158,891	148,890	0.94
														36	3.94	9.42	50.4	62.7	42.5	96,716	96,716	1.00	168,915	158,914	0.94
														54	5.91	20.13	48.7	61.9	42.1	100,738	100,738	1.00	172,937	162,936	0.94
		40	75.1		59.6	55.43	64.36	81.87	66.32	62,030	84,761	146,791	0.42	18	1.97	2.59	55.3	65.0	60.0	92,697	84,920	0.92	239,488	146,950	0.61
														36	3.94	9.42	51.1	63.7	58.7	110,292	91,761	0.83	257,083	153,791	0.60
														54	5.91	20.13	49.4	62.9	58.0	120,151	95,725	0.80	266,942	157,755	0.59
		75	87.7		69.2	55.64	64.54	81.84	77.62	61,861	162,227	224,088	0.28	18	1.97	2.59	61.4	70.9	69.9	147,531	54,807	0.37	371,619	116,668	0.31
														36	3.94	9.42	55.4	68.2	67.5	188,323	68,199	0.36	412,411	130,060	0.32
														54	5.91	20.13	52.6	66.9	66.4	206,898	74,703	0.36	430,986	136,564	0.32
	110	5	57.7	75.0	47.8	55.7	64.6	86.94	54.42	108,519	22,346	130,865	0.83	18	1.88	2.40	55.9	67.3	45.6	98,534	98,534	1.00	197,568	207,053	1.05
														36	3.75	8.56	51.1	65.1	44.5	109,856	109,856	1.00	208,890	218,375	1.05
														54	5.63	18.08	54.0	64.2	44.1	114,408	114,408	1.00	213,442	222,927	1.04
		40	75.1		59.6	56.0	64.9	86.85	72.30	108,163	188,359	296,522	0.36	18	1.88	2.40	58.1	69.8	65.2	118,328	85,862	0.73	348,363	194,025	0.56
														36	3.75	8.56	53.3	67.6	63.2	149,189	96,859	0.65	379,224	205,022	0.54
														54	5.63	18.08	51.0	66.6	62.3	163,295	102,153	0.63	393,330	210,316	0.54
		75	87.7		69.2	56.3	65.1	86.77	85.32	107,801	366,969	474,770	0.23	18	1.88	2.40	66.4	76.9	76.8	193,309	49,981	0.26	563,862	157,782	0.28
														36	3.75	8.56	58.9	73.6	73.6	250,866	66,532	0.27	621,419	174,333	0.28
														54	5.63	18.08	55.2	71.9	71.9	277,389	74,817	0.27	647,942	182,618	0.28

All data based on balanced system (Exhaust cfm = Supply cfm). Entering water temperature is 45°F. Coil face area is 11.25 sq. ft.

G-062 | CHILLED WATER COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Chilled Water Coil									Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
3400	80	5	50.4	75.0	47.8	71.46	76.85	76.10	48.36	13,916	2,073	15,989	0.87	18	1.97	2.61	52.6	57.5	39.1	69,073	69,073	1.00	85,062	82,989	0.98
														36	3.94	9.46	49.2	55.6	38.0	76,062	75,062	0.99	92,051	88,978	0.97
														54	6.02	20.18	47.9	54.9	37.6	78,760	78,760	1.00	94,749	92,676	0.98
		40	63.5		59.6	71.54	76.91	76.09	60.57	13,871	16,390	30,261	0.46	18	1.97	2.61	52.6	57.5	53.4	69,101	69,101	1.00	99,362	82,972	0.84
														36	3.94	9.46	49.3	55.5	52.5	77,864	76,716	0.99	108,125	90,587	0.84
														54	6.02	20.18	48.0	55.0	52.0	81,945	78,504	0.96	112,206	92,375	0.82
		75	73.8		69.2	71.62	76.97	76.09	70.39	13,825	30,452	44,277	0.31	18	1.97	2.61	56.9	62.2	61.3	107,846	51,748	0.48	152,123	65,573	0.43
														36	3.94	9.46	52.4	59.6	58.8	133,677	61,513	0.46	177,954	75,338	0.42
														54	6.02	20.18	50.4	58.3	57.7	145,154	66,078	0.46	189,431	79,903	0.42
	95	5	57.7	75.0	47.8	71.71	77.08	79.34	50.18	55,472	9,622	65,094	0.85	18	1.97	2.61	53.4	58.8	40.2	76,214	76,214	1.00	141,308	131,686	0.93
														36	3.94	9.46	49.6	56.7	39.1	83,900	83,900	1.00	148,994	139,372	0.94
														54	6.02	20.18	48.2	55.9	38.6	86,870	86,870	1.00	151,964	142,342	0.94
		40	75.1		59.6	71.82	77.17	79.33	63.90	55,268	81,408	136,676	0.40	18	1.97	2.61	53.8	59.1	56.1	79,954	75,065	0.94	216,630	130,333	0.60
														36	3.94	9.46	50.2	57.6	54.6	93,757	80,738	0.86	230,433	136,006	0.59
														54	6.02	20.18	48.7	56.8	53.9	100,758	83,703	0.83	237,434	138,971	0.59
		75	87.7		69.2	71.92	77.26	79.31	74.63	55,063	155,539	210,602	0.26	18	1.97	2.61	59.4	65.1	64.5	129,820	52,628	0.41	340,422	107,691	0.32
														36	3.94	9.46	54.0	62.0	61.6	162,492	64,319	0.40	373,094	119,382	0.32
														54	6.02	20.18	51.5	60.5	60.2	176,662	69,711	0.39	387,264	124,774	0.32
	110	5	57.7	75.0	47.8	72.0	77.3	82.52	52.05	96,745	21,434	118,179	0.82	18	1.88	2.40	54.2	60.1	41.4	83,361	83,361	1.00	182,395	180,106	0.99
														36	3.75	8.56	50.1	57.8	40.3	91,740	91,740	1.00	190,774	188,485	0.99
														54	5.63	18.08	48.5	57.0	39.8	94,981	94,981	1.00	194,015	191,726	0.99
		40	75.1		59.6	72.1	77.4	82.48	67.94	96,329	180,310	276,639	0.35	18	1.88	2.40	55.6	62.0	59.2	95,950	76,039	0.79	325,985	172,368	0.53
														36	3.75	8.56	51.5	59.8	57.1	117,213	84,347	0.72	347,248	180,676	0.52
														54	5.63	18.08	49.7	58.8	56.1	126,900	88,300	0.70	356,935	184,629	0.52
		75	87.7		69.2	72.3	77.6	82.44	79.97	95,909	350,590	446,499	0.21	18	1.88	2.40	62.8	69.0	68.9	160,472	49,932	0.31	531,025	145,841	0.28
														36	3.75	8.56	56.2	65.2	65.2	202,921	63,977	0.32	573,474	159,886	0.28
														54	5.63	18.08	53.2	63.4	63.4	221,321	70,544	0.32	591,874	166,453	0.28
4800	80	5	50.4	75.0	47.8	63.98	70.99	76.39	48.53	18,139	2,620	20,759	0.87	18	1.97	2.60	54.4	60.2	40.4	84,957	84,957	1.00	105,716	103,096	0.98
														36	3.94	9.44	50.3	58.1	39.3	96,305	96,305	1.00	117,064	114,444	0.98
														54	6.02	20.13	48.7	57.2	38.8	100,883	100,883	1.00	121,642	119,022	0.98
		40	63.5		59.6	64.09	71.08	76.39	60.84	18,087	20,729	38,816	0.47	18	1.97	2.60	54.3	60.3	54.6	84,532	84,532	1.00	123,348	102,619	0.83
														36	3.94	9.44	50.3	58.0	53.7	96,544	96,544	1.00	135,360	114,631	0.85
														54	6.02	20.14	48.8	56.9	53.3	102,258	102,228	1.00	141,074	120,315	0.85
		75	73.8		69.2	64.20	71.17	76.38	70.71	18,034	38,536	56,570	0.32	18	1.97	2.60	58.5	64.8	63.6	121,484	60,877	0.50	178,054	78,911	0.44
														36	3.94	9.44	53.7	62.3	61.2	157,954	73,959	0.47	214,524	91,993	0.43
														54	6.02	20.13	51.5	61.1	60.1	174,842	80,341	0.46	231,412	98,375	0.43
	95	5	57.7	75.0	47.8	64.25	71.31	80.51	50.80	72,298	12,173	84,471	0.86	18	1.97	2.59	55.7	62.2	42.0	96,142	96,142	1.00	180,613	168,440	0.93
														36	3.94	9.42	51.0	59.7	40.7	108,915	108,915	1.00	193,386	181,213	0.94
														54	6.02	20.13	49.2	58.8	40.2	114,075	114,075	1.00	198,546	186,373	0.94
		40	75.1		59.6	64.48	71.44	80.48	65.02	72,057	103,050	175,107	0.41	18	1.97	2.59	55.9	62.1	58.4	98,553	96,792	0.98	273,660	168,849	0.62
														36	3.94	9.42	51.5	60.6	57.0	118,277	104,539	0.88	293,384	176,596	0.60
														54	6.02	20.13	49.7	59.8	56.3	128,466	108,667	0.85	303,573	180,724	0.60
		75	87.7		69.2	64.63	71.56	80.46	76.01	71,815	197,006	268,821	0.27	18	1.97	2.59	61.8	68.9	68.0	151,979	60,797	0.40	420,800	132,612	0.32
														36	3.94	9.42	56.1	65.9	65.2	199,979	76,665	0.38	468,800	148,480	0.32
														54	6.02	20.13	53.2	64.4	63.9	222,455	84,596	0.38	491,276	156,411	0.32
	110	5	57.7	75.0	47.8	64.7	71.6	84.53	53.14	126,074	27,138	153,212	0.82	18	1.88	2.40	56.9	64.1	43.7	107,074	107,074	1.00	206,108	233,148	1.13
														36	3.75	8.56	51.7	61.4	42.3	121,225	121,225	1.00	220,259	247,299	1.12
														54	5.63	18.08	49.7	60.3	41.8	126,948	126,948	1.00	225,982	253,022	1.12
		40	75.1		59.6	64.9	71.8	84.47	69.98	125,572	228,440	354,012	0.35	18	1.88	2.40	58.3	66.1	62.8	119,841	96,345	0.80	349,876	221,917	0.63
														36	3.75	8.56	53.4	63.9	60.7	151,926	108,016	0.71	381,961	233,588	0.61
														54	5.63	18.08	51.2	62.7	59.6	168,321	114,273	0.68	398,356	239,845	0.60
		75	87.7		69.2	65.1	72.0	84.41	82.49	125,064	444,453	569,517	0.22	18	1.88	2.40	66.4	74.0	73.8	192,678	54,701	0.28	563,231	179,765	0.32
														36	3.75	8.56	59.2	70.4	70.4	256,430	73,543	0.29	626,983	198,607	0.32
														54	5.63	18.08	55.6	68.5	68.5	287,252	83,418	0.29	657,805	208,482	0.32
6200	80	5	50.4	75.0	47.8	56.47	65.11	76.69	48.70	21,477	2,987	24,464	0.88	18	1.97	2.58	55.8	62.3	41.6	97,788	97,788	1.00	122,252	119,265	0.98
														36	3.94	9.42	51.3	60.0	40.4	113,470	113,470	1.00	137,934	134,947	0.98
														54	6.02	20.13	49.4	59.0	39.9	120,033	120,033	1.00	144,497	141,510	0.98
		40	63.5		59.6	56.62	65.23	76.68	61.10	21,425	23,654	45,079	0.48	18	1.97	2.58	55.9	62.2	55.6	98,636	98,636	1.00	143,715	120,061	0.84
														36	3.94	9.42	51.3	60.0	54.8	113,064	113,064	1.00	158,143	134,489	0.85
														54	6.02	20.13	49.4	59.0	54.3	120,336	120,336	1.00	165,415	141,761	0.86
		75	73.8		69.2	56.76	65.34	76.68	71.04	21,373	44,007	65,380	0.33	18	1.97	2.58	59.6	66.6	65.1	131,356	68,616	0.52	196,736	89,989	0.46
														36	3.94	9.42	54.8	64.3	63.0	176,379	84,165	0.48	241,759	105,538	0.44
														54	6.02	20.13	52.3	63.1	61.9	198,183	92,091	0.46	263,563	113,464	0.43
	95	5	57.7	75.0	47.8	56.95	65.54	81.66	51.42	85,639	13,904	99,543	0.86	18	1.97	2.57	57.6	65.0	43.5	113,402	113,402	1.00	212,945	199,041	0.93
														36	3.94	9.40	52.3	62.3	42.2	131,445	131,445	1.00	230,988	217,084	0.94
														54	6.02	20.09	50.1	61.2	41.6	139,009	139,009	1.00	238,552	224,648	0.94
		40	75.1		59.6	57.15	65.70	81.63	66.10	85,397	117,814	203,211	0.42	18	1.97	2.57	57.8	64.5	60.2	116,049	116,049	1.00	319,260	201,446	0.63
														36	3.94	9.40	52.8	63.0	59.0	140,346	125,848	0.90	343,557	211,245	0.61
														54	6.02	20.09	50.7	62.3	58.2	153,929	131,143	0.85	357,140	216,540	0.61
		75	87.7		69.2	57.35	65.87	81.60	77.35	85,153	225,431	310,584	0.27	18	1.97	2.57	63.9	71.8	70.8	170,517	66,624	0.39	481,101	151,777	0.32
														36	3.94	9.40	57.8	69.0	68.2	231,757	85,597	0.37	542,341	170,750	0.31
														54	6.02	20.08	54.7	67.5	66.8	262,458	95,751	0.36	573,042	180,904	0.32
	110	5	57.7	75.0	47.8	57.4	6.0	86.52	54.20	149,395	31,051	180,446	0.83	18	1.88	2.40	59.3	67.6	45.7	128,435	128,435	1.00	227,469	277,830	1.22
														36	3.75	8.56	53.2	64.6	44.2	148,720	148,720	1.00	247,754	298,115	1.20
														54	5.63	18.08	50.8	63.3	43.6	157,235	157,235	1.00	256,269	306,630	1.20
		40	75.1		59.6	57.7	66.2	86.44	71.91	148,882	261,656	410,538	0.36	18	1.88	2.40	60.6	69.5	65.6	140,503	114,646	0.82	370,538	263,528	0.71
														36	3.75	8.56	56.1	67.4	63.6	182,919	129,150	0.71	412,954	278,032	0.67
														54	5.63	18.08	52.6	66.1	62.5	205,593	137,297	0.67	435,628	286,179	0.66
		75	87.7		69.2	58.0	66.4	86.36	84.84	148,360	509,613	657,973	0.23	18	1.88	2.40	69.3	77.9	77.7	219,206	57,657	0.26	589,759	206,017	0.35
														36	3.75	8.56	61.8	74.6	74.6	303,030	80,213	0.26	673,583	228,573	0.34
														54	5.63	18.08	57.8	72.7	72.7	346,211	92,816	0.27	716,764	241,176	0.34

All data based on balanced system (Exhaust cfm = Supply cfm). Entering water temperature is 45°F. Coil face area is 11.25 sq. ft.

G-046 | HOT WATER COIL, TOTAL UNIT HEATING CAPACITY

Winter Application Ratings - Enthalpy Wheel														Perfomance Ratings - Hot Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent HWC		Heating Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil				Combined Heating Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	ENT Temp (deg. F)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
3000	-10	30	-11.5	72.0	54.0	67.6	74.0	49.08	40.03	195,098	45,724	240,822	0.81	18	1.97	120	1.80	110.3	75.7	52.6	86,448	86,448	1.00	327,270	281,546	0.860
																160	1.72	144.6	91.0	58.7	136,449	136,449	1.00	377,271	331,547	0.879
																200	1.67	178.7	106.5	64.1	186,882	186,882	1.00	427,704	381,980	0.893
														36	3.94	120	6.61	114.8	77.3	53.2	91,896	91,896	1.00	332,718	286,994	0.863
																160	6.37	151.8	93.5	59.6	144,550	144,550	1.00	385,372	339,648	0.881
																200	6.19	188.7	109..8	65.2	197,475	197,475	1.00	438,297	392,573	0.896
														54	5.91	120	14.26	116.5	77.9	53.5	93,913	93,913	1.00	334,735	289,011	0.863
																160	13.80	154.4	94.4	59.9	147,507	147,507	1.00	388,329	342,605	0.882
																200	13.43	192.3	111.0	65.6	201,304	201,304	1.00	442,126	396,402	0.897
	20		14.8			67.2	73.7	57.94	44.92	12,117	41,674	164,791	0.75	18	1.97	120	1.79	111.5	81.2	55.2	75,682	75,682	1.00	240,473	198,799	0.827
																160	1.72	145.8	96.5	61.0	125,590	125,590	1.00	290,381	248,707	0.856
																200	1.67	180.0	112.0	66.2	175,953	175,953	1.00	340,744	299,070	0.878
														36	3.94	120	6.60	115.5	82.7	55.8	80,426	80,426	1.00	245,217	203,543	0.830
																160	6.37	152.5	98.8	61.8	133,016	133,016	1.00	297,807	256,133	0.860
																200	6.18	189.4	115.1	67.2	185,894	185,894	1.00	350,685	309,011	0.881
														54	5.91	120	14.26	266.7	83.2	56.0	82,186	82,186	1.00	246,977	205,303	0.831
																160	13.80	154.9	99.7	62.1	135,731	135,731	1.00	300,522	258,848	0.861
																200	13.43	192.8	116.2	67.6	189,492	189,492	1.00	354,283	312,609	0.882
	50		38.4			66.9	73.3	66.24	50.01	51,845	24,569	76,414	0.68	18	1.97	120	1.79	112.6	86.4	58.3	65,586	65,586	1.00	142,000	117,431	0.827
																160	1.72	147.0	101.7	63.7	115,410	115,410	1.00	191,824	167,255	0.872
																200	1.66	181.1	117.2	68.7	165,709	165,709	1.00	242,123	217,554	0.899
														36	3.94	120	6.60	266.7	87.7	58.7	69,678	69,678	1.00	146,092	121,523	0.832
																160	6.37	153.1	103.8	64.4	122,208	122,208	1.00	198,622	174,053	0.876
																200	6.18	190.0	120.0	69.5	175,044	175,044	1.00	251,458	226,889	0.902
														54	5.91	120	14.26	117.3	88.1	58.9	71,198	71,198	1.00	147,612	123,043	0.834
																160	13.80	155.3	104.6	64.7	124,698	124,698	1.00	201,112	176,543	0.878
																200	13.43	193.2	121.1	69.9	178,426	178,426	1.00	254,840	230,271	0.904
3800	-10	30	-11.5	72.0	54.0	61.5	69.3	44.93	37.09	231,398	52,624	284,022	0.81	18	1.97	120	1.80	108.6	70.5	49.7	105,508	105,508	1.00	389,530	336,906	0.865
																160	1.73	141.6	84.6	55.7	163,437	163,437	1.00	447,459	394,835	0.882
																200	1.68	174.8	98.8	61.0	221,943	221,943	1.00	505,965	453,341	0.896
														36	3.94	120	6.62	113.6	72.5	50.6	113,503	113,503	1.00	397,525	344,901	0.868
																160	6.39	150.1	87.4	56.8	175,147	175,147	1.00	459,169	406,545	0.885
																200	6.20	186.5	102.5	62.3	237,156	237,156	1.00	521,178	468,554	0.899
														54	5.91	120	14.29	115.6	73.2	50.9	116,487	116,487	1.00	400,509	347,885	0.869
																160	13.81	153.2	88.5	57.2	179,450	179,450	1.00	463,472	410,848	0.886
																200	13.45	190.8	103.8	62.8	242,686	242,686	1.00	526,708	474,084	0.900
	20		14.8			61.1	68.9	55.35	43.07	145,914	47,960	193,874	0.75	18	1.97	120	1.80	109.8	77.4	53.1	90,934	90,934	1.00	284,808	236,848	0.832
																160	1.73	143.2	91.4	58.7	148,722	148,722	1.00	342,596	294,636	0.860
																200	1.67	176.4	105.6	63.7	207,119	207,119	1.00	400,993	353,033	0.880
														36	3.94	120	6.61	114.5	79.1	53.8	97,770	97,770	1.00	291,644	243,684	0.836
																160	6.38	151.0	94.0	59.6	159,312	159,312	1.00	353,186	305,226	0.864
																200	6.19	187.4	109.0	64.9	221,146	221,146	1.00	415,020	367,060	0.884
														54	5.91	120	14.28	116.2	79.7	54.1	100,329	100,329	1.00	294,203	246,243	0.837
																160	13.81	153.8	95.0	60.0	163,213	163,213	1.00	357,087	309,127	0.866
																200	13.43	191.4	110.3	65.3	226,391	226,391	1.00	420,265	372,305	0.886
	50		38.4			68.6	68.6	65.17	49.22	61,398	28,276	89,674	0.68	18	1.97	120	1.80	111.3	83.9	57.0	77,177	77,177	1.00	166,851	138,575	0.831
																160	1.73	144.8	97.9	62.2	134,838	134,838	1.00	224,512	196,236	0.874
																200	1.67	178.0	112.0	66.8	193,136	193,136	1.00	282,810	254,534	0.900
														36	3.94	120	6.61	115.3	85.3	57.6	82,937	82,937	1.00	172,611	144,335	0.836
																160	6.37	151.8	100.2	63.0	144,385	144,385	1.00	234,059	205,783	0.879
																200	6.19	188.2	115.2	67.9	208,249	208,249	1.00	297,923	269,647	0.905
														54	5.91	120	14.26	116.8	85.8	57.7	85,099	85,099	1.00	174,773	146,497	0.838
																160	13.80	154.4	101.1	63.3	147,908	147,908	1.00	237,582	209,306	0.881
																200	13.43	192.0	116.4	68.2	211,033	211,033	1.00	300,707	272,431	0.906
4600	-10	30	-11.5	72.0	54.0	55.4	64.6	40.83	34.06	260,917	57,269	318,186	0.82	18	1.97	120	1.81	106.1	65.7	47.0	124,128	124,128	1.00	442,314	385,045	0.871
																160	1.74	138.7	78.7	52.7	189,044	189,044	1.00	507,230	449,961	0.887
																200	1.69	171.1	91.9	58.0	254,683	254,683	1.00	572,869	515,600	0.900
														36	3.94	120	6.63	112.4	67.9	48.0	135,043	135,043	1.00	453,229	395,960	0.874
																160	6.40	148.4	81.9	54.1	204,814	204,814	1.00	523,000	465,731	0.890
																200	6.21	184.3	96.0	59.5	275,044	275,044	1.00	593,230	535,961	0.903
														54	5.91	120	14.29	114.8	68.7	48.4	139,144	139,144	1.00	457,330	400,061	0.875
																160	13.84	152.1	83.1	54.6	210,638	210,638	1.00	528,824	471,555	0.892
																200	13.46	189.2	97.5	60.1	282,475	282,475	1.00	600,661	543,392	0.905
	20		14.8			55.0	64.2	52.79	41.17	164,403	52,189	216,592	0.76	18	1.97	120	1.81	108.2	73.9	51.2	105,510	105,510	1.00	322,102	269,913	0.838
																160	1.74	140.8	86.9	56.5	170,232	170,232	1.00	386,824	334,635	0.865
																200	1.68	173.2	100.0	61.4	235,716	235,716	1.00	452,308	400,119	0.885
														36	3.94	120	6.63	113.6	75.8	52.0	114,684	114,684	1.00	331,276	279,087	0.842
																160	6.39	149.6	89.7	57.6	184,306	184,306	1.00	400,898	348,709	0.870
																200	6.21	185.5	103.8	62.7	254,426	254,426	1.00	471,018	418,829	0.889
														54	5.91	120	14.29	115.6	76.5	52.3	118,145	118,145	1.00	334,737	282,548	0.844
																160	13.83	152.8	90.8	58.0	189,521	189,521	1.00	406,113	353,924	0.871
																200	13.46	190.1	105.2	63.2	261,274	261,274	1.00	477,866	425,677	0.891
	50		38.4			54.7	63.8	64.10	48.43	69,125	30,771	99,896	0.69	18	1.97	120	1.80	110.2	81.7	55.9	87,857	87,857	1.00	187,753	156,982	0.836
																160	1.73	142.8	94.7	60.8	152,406	152,406	1.00	252,302	221,531	0.878
																200	1.68	175.3	107.7	65.3	217,751	217,751	1.00	317,647	286,876	0.903
														36	3.94	120	6.61	114.6	83.2	56.5	95,417	95,417	1.00	195,313	164,542	0.842
																160	6.39	150.7	97.2	61.7	164,903	164,903	1.00	264,799	234,028	0.884
																200	6.21	186.6	111.2	66.4	234,921	234,921	1.00	334,817	304,046	0.908
														54	5.91	120	14.29	116.3	83.8	58.7	98,280	98,280	1.00	198,176	167,405	0.845
																160	13.82	153.6	98.1	62.0	169,548	169,548	1.00	269,444	238,673	0.886
																200	13.45	190.8	112.5	66.8	241,221	241,221	1.00	341,117	310,346	0.910

Return air conditions are constant at 72.0 db and 54.0 wb. Outdoor air relative humidity is constant at 30%. Enthalpy Wheel leaving temperatures do not include the effect of Pre-Heater (optional) for frost control. All data based on balanced system (Exhaust cfm = Supply cfm). Coil face area is 11.25 sq. ft.

G-062 | HOT WATER COIL, TOTAL UNIT HEATING CAPACITY

Winter Application Ratings - Enthalpy Wheel														Perfomance Ratings - Hot Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent HWC		Heating Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil			Combined Heating Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	ENT Temp (deg. F)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
3400	-10	30	-11.5	72.0	54.0	72.1	77.6	52.17	42.13	231,713	55,401	287,114	0.81	18	1.97	120	1.80	109.2	78.4	54.1	96,690	96,690	1.00	383,804	328,403	0.856
																160	1.73	142.5	94.3	60.2	155,344	155,344	1.00	442,458	387,057	0.875
																200	1.67	175.6	110.4	65.7	214,610	214,610	1.00	501,724	446,323	0.890
														36	3.94	120	6.61	114.2	80.4	54.9	103,916	103,916	1.00	391,030	335,629	0.858
																160	6.37	150.6	97.3	61.3	166,309	166,309	1.00	453,423	398,022	0.878
																200	6.19	186.9	114.3	67.0	229,093	229,093	1.00	516,207	460,806	0.893
														54	5.91	120	14.28	116.0	81.1	55.2	106,618	106,618	1.00	393,732	338,331	0.859
																160	5.91	153.6	98.4	61.7	170,344	170,344	1.00	457,458	402,057	0.879
																200	5.91	191.1	115.7	67.4	234,366	234,366	1.00	521,480	466,079	0.894
	20		14.8			71.8	77.3	59.85	46.25	146,308	50,496	196,804	0.74	18	1.97	120	1.80	110.4	83.1	58.3	85,786	85,786	1.00	282,590	232,094	0.821
																160	1.73	143.7	99.0	62.2	144,334	144,334	1.00	341,138	290,642	0.852
																200	1.67	176.8	115.0	67.5	203,518	203,518	1.00	400,322	349,826	0.874
														36	3.94	120	6.60	114.8	84.8	58.9	92,164	92,164	1.00	288,968	238,472	0.825
																160	6.37	151.3	101.7	63.1	154,480	154,480	1.00	351,284	300,788	0.856
																200	6.19	187.6	118.8	68.6	217,208	217,208	1.00	414,012	363,516	0.878
														54	5.91	120	14.26	116.5	85.5	57.2	94,553	94,553	1.00	291,357	240,861	0.827
																160	13.80	154.0	102.8	63.5	158,220	158,220	1.00	355,024	304,528	0.858
																200	13.43	191.5	120.1	69.0	222,198	222,198	1.00	419,002	368,506	0.879
	50		38.4			71.5	76.9	67.03	50.58	61,646	29,770	91,416	0.67	18	1.97	120	1.79	111.5	87.5	58.9	75,582	75,582	1.00	166,998	137,228	0.822
																160	1.72	144.9	103.4	64.5	134,032	134,032	1.00	225,448	195,678	0.868
																200	1.67	178.0	119.4	69.5	193,141	193,141	1.00	284,557	254,787	0.895
														36	3.94	120	6.60	115.4	89.0	59.4	81,173	81,173	1.00	172,589	142,819	0.828
																160	6.37	151.9	105.9	65.3	143,419	143,419	1.00	234,835	205,065	0.873
																200	6.19	188.2	122.9	70.6	206,095	206,095	1.00	297,511	267,741	0.900
														54	5.91	120	14.26	116.9	89.6	59.6	83,272	83,272	1.00	174,688	144,918	0.830
																160	13.80	154.5	106.9	65.6	146,884	146,884	1.00	238,300	208,530	0.875
																200	13.43	192.0	124.2	70.9	210,822	210,822	1.00	302,238	272,468	0.902
4800	-10	30	-11.5	72.0	54.0	64.7	71.8	46.98	38.57	302,715	69,978	372,693	0.81	18	1.97	120	1.81	105.9	71.2	50.4	125,866	125,866	1.00	498,559	428,581	0.860
																160	1.74	137.8	84.9	56.1	197,292	197,292	1.00	569,985	500,007	0.877
																200	1.69	169.4	98.8	61.3	269,625	269,625	1.00	642,318	572,340	0.891
														36	3.94	120	6.63	112.3	73.5	51.4	138,069	138,069	1.00	510,762	440,784	0.863
																160	6.40	147.8	88.4	57.4	215,483	215,483	1.00	588,176	518,198	0.881
																200	6.22	183.3	103.4	62.9	293,491	293,491	1.00	666,184	596,206	0.895
														54	5.91	120	14.29	114.7	74.4	51.8	142,700	142,700	1.00	515,393	445,415	0.864
																160	13.84	151.6	89.7	57.9	222,259	222,259	1.00	594,952	524,974	0.882
																200	13.46	188.5	105.0	63.4	302,266	302,266	1.00	674,959	604,981	0.896
	20		14.8			64.3	71.4	56.63	43.99	190,960	63,778	254,738	0.75	18	1.97	120	1.81	107.7	77.6	53.5	109,359	109,359	1.00	364,097	300,319	0.825
																160	1.74	139.6	91.3	58.9	180,604	180,604	1.00	435,342	371,564	0.853
																200	1.68	171.3	105.2	63.8	252,791	252,791	1.00	507,529	443,751	0.874
														36	3.94	120	6.63	113.3	79.7	54.3	119,863	119,863	1.00	374,601	310,823	0.830
																160	6.39	148.9	94.5	60.0	197,132	197,132	1.00	451,870	388,092	0.859
																200	6.21	184.3	109.5	65.2	275,031	275,031	1.00	529,769	465,991	0.880
														54	5.91	120	14.29	115.4	80.4	54.6	123,861	123,861	1.00	378,599	314,821	0.832
																160	13.84	152.3	95.7	60.5	203,305	203,305	1.00	458,043	394,265	0.861
																200	13.46	189.2	111.0	65.7	283,228	283,228	1.00	537,966	474,188	0.881
	50		38.4			64.0	71.1	65.70	49.61	80,384	37,601	117,985	0.68	18	1.97	120	1.80	109.5	83.7	57.1	93,808	93,808	1.00	211,793	174,192	0.822
																160	1.74	141.4	97.4	62.1	164,890	164,890	1.00	282,875	245,274	0.867
																200	1.68	173.1	111.2	66.7	236,945	236,945	1.00	354,930	317,329	0.894
														36	3.94	120	6.61	114.2	85.4	57.7	102,739	102,739	1.00	220,724	183,123	0.830
																160	6.39	149.8	100.3	63.1	179,876	179,876	1.00	297,861	260,260	0.874
																200	6.21	185.3	115.2	68.0	257,675	257,675	1.00	375,660	338,059	0.900
														54	5.91	120	14.29	116.0	86.1	58.0	106,149	106,149	1.00	224,134	186,533	0.832
																160	13.82	153.0	101.3	63.5	185,486	185,486	1.00	303,471	265,870	0.876
																200	13.46	189.9	116.7	68.4	265,331	265,331	1.00	383,316	345,715	0.902
6200	-10	30	-11.5	72.0	54.0	57.1	66.0	41.89	34.86	359,161	79,698	438,859	0.82	18	1.97	120	1.83	102.9	64.6	46.6	152,992	152,992	1.00	591,851	512,153	0.865
																160	1.76	133.6	76.8	52.1	234,635	234,635	1.00	673,494	593,796	0.882
																200	1.71	164.1	89.1	57.1	317,461	317,461	1.00	756,320	676,622	0.895
														36	3.94	120	6.66	110.4	67.3	47.9	170,962	170,962	1.00	609,821	530,123	0.869
																160	6.43	145.3	80.7	53.7	261,011	261,011	1.00	699,870	620,172	0.886
																200	6.24	180.0	94.2	59.0	351,849	351,849	1.00	790,708	711,010	0.899
														54	5.91	120	14.33	113.3	68.3	48.3	177,855	177,855	1.00	616,714	537,016	0.871
																160	13.87	149.8	82.2	54.3	270,912	270,912	1.00	709,771	630,073	0.888
																200	13.50	186.1	96.1	59.7	364,568	364,568	1.00	803,427	723,729	0.901
	20		14.8			56.8	65.6	53.46	41.67	226,354	72,630	298,984	0.76	18	1.97	120	1.82	105.4	72.9	50.9	130,618	130,618	1.00	429,602	356,972	0.831
																160	1.75	136.1	85.0	55.9	212,009	212,009	1.00	510,993	438,363	0.858
																200	1.70	166.6	97.3	60.5	294,622	294,622	1.00	593,606	520,976	0.878
														36	3.94	120	6.64	111.8	75.1	51.8	145,729	145,729	1.00	444,713	372,083	0.837
																160	6.42	146.7	88.5	57.2	235,549	235,549	1.00	534,533	461,903	0.864
																200	6.24	181.4	102.0	62.2	326,213	326,213	1.00	625,197	552,567	0.884
														54	5.91	120	14.32	114.3	76.0	52.2	151,558	151,558	1.00	450,542	377,912	0.839
																160	13.85	150.8	89.8	57.7	244,426	244,426	1.00	543,410	470,780	0.866
																200	13.49	187.1	103.7	62.8	337,944	337,944	1.00	636,928	564,298	0.886
	50		38.4			56.4	65.2	64.38	48.64	95,193	42,820	138,013	0.69	18	1.97	120	1.81	107.7	80.7	55.6	109,402	109,402	1.00	247,415	204,595	0.827
																160	1.75	138.5	92.7	60.1	190,572	190,572	1.00	328,585	285,765	0.870
																200	1.69	169.1	105.0	64.4	272,999	272,999	1.00	411,012	368,192	0.896
														36	3.94	120	6.63	113.2	82.5	56.3	121,884	121,884	1.00	259,897	217,077	0.835
																160	6.41	148.0	95.8	61.3	211,495	211,495	1.00	349,508	306,688	0.877
																200	6.22	182.8	109.3	65.8	302,000	302,000	1.00	440,013	397,193	0.903
														54	5.91	120	14.29	115.3	83.2	56.6	126,719	126,719	1.00	264,732	221,912	0.838
																160	13.84	151.7	97.0	61.7	219,417	219,417	1.00	357,430	314,610	0.880
																200	13.47	188.1	110.9	66.4	312,807	312,807	1.00	450,820	408,000	0.905

Return air conditions are constant at 72.0 db and 54.0 wb. Outdoor air relative humidity is constant at 30%. Enthalpy Wheel leaving temperatures do not include the effect of Pre-Heater (optional) for frost control. All data based on balanced system (Exhaust cfm = Supply cfm). Coil face area is 11.25 sq. ft.

G-046 | DX COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Direct Expansion Coil							Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Refrigerant Data		LVG Air Temp		Cooling Cap - DX Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	SUC Temp (gpm)	Pr Drop (fwc)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
3000	80	5	50.4	75.0	47.8	66.87	73.25	76.27	48.46	11,701	1,711	13,412	0.87	40	1.19	56.5	38.5	64,090	64,090	1.00	77,502	75,791	0.98
														45	0.82	59.5	40.0	54,390	54,390	1.00	67,802	66,091	0.97
														50	0.54	62.5	41.6	44,680	44,680	1.00	58,092	56,381	0.97
		40	63.5		59.6	66.97	73.33	76.27	60.73	15,908	20,180	36,088	0.44	40	1.52	57.1	52.0	73,560	62,370	0.85	109,648	78,278	0.71
														45	0.84	59.4	54.4	54,900	54,650	1.00	90,988	70,558	0.78
														50	0.54	62.5	55.6	44,670	44,670	1.00	80,758	60,578	0.75
		75	73.8		69.2	67.08	73.41	76.26	70.58	11,629	25,159	36,788	0.32	40	3.81	60.2	58.5	125,100	52,050	0.42	161,888	63,679	0.39
														45	2.69	62.2	60.4	107,500	45,720	0.43	144,288	57,349	0.40
														50	1.70	64.4	62.6	86,700	38,540	0.44	123,488	50,169	0.41
	95	5	57.7	75.0	47.8	67.18	73.54	80.03	50.55	46,635	7,948	54,583	0.85	40	1.44	58.0	39.8	71,250	71,250	1.00	125,833	117,885	0.94
														45	1.02	61.0	41.3	61,550	61,550	1.00	116,133	108,185	0.93
														50	0.69	64.0	42.8	51,830	51,830	1.00	106,413	98,465	0.93
		40	75.1		59.6	67.31	73.65	80.01	64.57	46,472	67,266	113,738	0.41	40	2.33	59.2	54.2	94,080	67,390	0.72	207,818	113,862	0.55
														45	1.38	61.7	56.7	73,310	59,220	0.81	187,048	105,692	0.57
														50	0.73	64.0	59.0	53,290	51,740	0.97	167,028	98,212	0.59
		75	87.7		69.2	67.44	73.76	79.99	75.46	46,309	128,562	174,871	0.26	40	5.35	63.5	62.1	152,200	53,510	0.35	327,071	99,819	0.31
														45	3.96	65.3	63.9	134,300	47,570	0.35	309,171	93,879	0.30
														50	2.80	67.2	65.8	115,500	41,560	0.36	290,371	87,869	0.30
	110	5	64.6	75.0	47.8	67.50	73.80	83.72	52.70	81,322	17,712	99,034	0.82	40	1.70	59.5	41.2	78,410	78,410	1.00	177,444	159,732	0.90
														45	1.24	62.5	42.7	68,720	68,720	1.00	167,754	150,042	0.89
														50	0.87	65.5	44.2	59,000	59,000	1.00	158,034	140,322	0.89
		40	86.8		59.6	67.70	74.00	83.66	69.17	80,986	149,049	230,035	0.35	40	3.41	62.0	57.4	117,300	70,190	0.60	347,335	151,176	0.44
														45	2.37	64.0	59.3	99,860	63,740	0.64	329,895	144,726	0.44
														50	1.40	66.5	61.8	77,410	55,830	0.72	307,445	136,816	0.45
		75	101.7		69.2	67.9	74.10	83.61	81.49	80,646	289,907	370,553	0.22	40	7.73	67.5	66.9	189,000	52,630	0.28	559,553	133,276	0.24
														45	5.96	69.2	68.6	170,300	47,060	0.28	540,853	127,706	0.24
														50	4.49	70.8	70.2	151,700	41,680	0.27	522,253	122,326	0.23
3800	80	5	50.4	75.0	47.8	60.80	68.50	76.51	48.59	13,853	1,971	15,824	0.88	40	1.57	58.3	39.4	74,900	74,900	1.00	90,724	88,753	0.98
														45	1.08	61.0	40.8	63,620	63,620	1.00	79,444	77,473	0.98
														50	0.71	63.8	42.2	52,310	52,310	1.00	68,134	66,163	0.97
		40	63.5		59.6	60.93	68.60	76.51	60.95	13,816	15,600	29,416	0.47	40	1.97	58.8	53.1	85,610	72,710	0.85	115,026	86,526	0.75
														45	1.10	60.9	55.2	64,190	64,030	1.00	93,606	77,846	0.83
														50	0.71	63.8	56.3	52,300	52,300	1.00	81,716	66,116	0.81
		75	73.8		69.2	61.05	68.70	76.50	70.84	13,778	29,010	42,788	0.32	40	4.70	62.2	60.2	141,400	58,550	0.41	184,188	72,328	0.39
														45	3.30	64.0	61.9	120,900	51,400	0.43	163,688	65,178	0.40
														50	2.18	65.7	63.6	99,900	44,390	0.44	142,688	58,168	0.41
	95	5	57.7	75.0	47.8	61.20	68.87	80.97	51.05	55,222	9,164	64,386	0.86	40	1.94	60.2	41.1	84,810	84,810	1.00	149,196	140,032	0.94
														45	1.39	63.0	42.5	73,550	73,550	1.00	137,936	128,772	0.93
														50	0.96	65.7	43.8	62,240	62,240	1.00	126,626	117,462	0.93
		40	75.1		59.6	61.37	69.01	80.94	65.45	55,048	77,603	132,651	0.41	40	3.06	61.8	56.2	110,200	78,320	0.71	242,851	133,368	0.55
														45	1.94	63.8	58.1	89,010	70,280	0.79	221,661	125,328	0.57
														50	1.02	65.9	60.3	64,740	61,490	0.95	197,391	116,538	0.59
		75	87.7		69.2	61.54	69.15	80.92	76.56	54,873	148,406	203,279	0.27	40	6.88	66.4	64.9	176,500	59,580	0.34	379,779	114,453	0.30
														45	5.16	67.9	66.4	156,700	53,340	0.34	359,979	108,213	0.30
														50	3.67	69.5	68.0	134,900	46,800	0.35	338,179	101,673	0.30
	110	5	64.6	75.0	47.8	61.60	69.20	85.33	53.57	96,304	20,442	116,746	0.82	40	2.36	62.2	42.9	94,720	94,720	1.00	211,466	191,024	0.90
														45	1.74	65.0	44.2	83,480	83,480	1.00	200,226	179,784	0.90
														50	1.24	67.7	45.5	72,190	72,190	1.00	188,936	168,494	0.89
		40	86.8		59.6	61.80	69.40	85.26	70.77	95,940	172,138	268,078	0.36	40	4.65	65.4	60.2	140,200	81,500	0.58	408,278	177,440	0.43
														45	3.27	67.2	61.8	120,200	74,500	0.62	388,278	170,440	0.44
														50	2.14	68.9	63.6	98,830	67,310	0.68	366,908	163,250	0.44
		75	101.7		69.2	62.10	69.60	85.19	83.46	95,570	335,038	430,608	0.22	40	10.30	71.3	70.7	223,900	57,530	0.26	654,508	153,100	0.23
														45	8.05	72.7	72.1	203,100	51,860	0.26	633,708	147,430	0.23
														50	6.10	74.1	73.5	181,200	46,000	0.25	611,808	141,570	0.23
4600	80	5	50.4	75.0	47.8	54.71	63.73	76.75	48.73	15,596	2,148	17,744	0.88	40	1.94	59.7	40.1	84,660	84,660	1.00	102,404	100,256	0.98
														45	1.34	62.2	41.4	71,990	71,990	1.00	89,734	87,586	0.98
														50	0.88	64.8	42.7	59,260	59,260	1.00	77,004	74,856	0.97
		40	63.5		59.6	54.86	63.85	76.74	61.16	15,560	17,007	32,567	0.48	40	2.41	60.2	54.0	95,940	82,090	0.86	128,507	97,650	0.76
														45	1.35	62.1	55.9	72,330	72,330	1.00	104,897	87,890	0.84
														50	0.88	64.8	56.9	59,240	59,240	1.00	91,807	74,800	0.81
		75	73.8		69.2	55.02	63.98	76.74	71.10	15,524	31,648	47,172	0.33	40	5.49	63.9	61.7	154,700	63,540	0.41	201,872	79,064	0.39
														45	3.89	65.4	63.2	133,000	56,190	0.42	180,172	71,714	0.40
														50	2.58	66.9	64.7	110,200	48,740	0.44	157,372	64,264	0.41
	95	5	57.7	75.0	47.8	55.22	64.19	81.91	51.55	62,198	10,001	72,199	0.86	40	2.49	62.2	42.2	97,830	97,830	1.00	170,029	160,028	0.94
														45	1.80	64.8	43.4	85,200	85,200	1.00	157,399	147,398	0.94
														50	1.25	67.3	44.7	72,490	72,490	1.00	144,689	134,688	0.93
		40	75.1		59.6	55.43	64.36	81.87	66.32	62,030	84,761	146,791	0.42	40	3.77	64.1	57.9	124,400	88,510	0.71	271,191	150,540	0.56
														45	2.50	65.7	59.4	103,100	80,740	0.78	249,891	142,770	0.57
														50	1.36	67.6	61.3	76,260	71,200	0.93	223,051	133,230	0.60
		75	87.7		69.2	55.64	64.54	81.84	77.62	61,861	162,227	224,088	0.28	40	8.40	68.8	67.2	197,800	65,060	0.33	421,888	126,921	0.30
														45	6.33	70.1	68.5	176,100	58,520	0.33	400,188	120,381	0.30
														50	4.54	71.5	69.8	152,600	51,720	0.34	376,688	113,581	0.30
	110	5	64.6	75.0	47.8	55.70	64.60	86.94	54.42	108,519	22,346	130,865	0.83	40	3.03	64.9	44.4	109,400	109,400	1.00	240,265	217,919	0.91
														45	2.29	67.2	45.5	97,880	97,880	1.00	228,745	206,399	0.90
														50	1.66	69.7	46.7	85,230	85,230	1.00	216,095	193,749	0.90
		40	86.8		59.6	56.00	64.90	86.85	72.30	108,163	188,359	296,522	0.36	40	5.93	68.4	62.6	161,500	91,790	0.57	458,022	199,953	0.44
														45	4.25	69.9	64.1	139,900	84,630	0.60	436,422	192,793	0.44
														50	2.87	71.3	65.5	117,200	77,310	0.66	413,722	185,473	0.45
		75	101.7		69.2	56.30	65.10	86.77	85.32	107,801	366,969	474,770	0.23	40	12.84	74.5	74.0	255,400	61,550	0.24	730,170	169,351	0.23
														45	10.17	75.7	75.1	233,200	55,840	0.24	707,970	163,641	0.23
														50	7.82	76.8	76.3	209,500	49,990	0.24	684,270	157,791	0.23

All data based on balanced system (Exhaust cfm = Supply cfm). Entering liquid temperature is constant at 110°F. Coil face area is 10.93 sq. ft.

G-062 | DX COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Direct Expansion Coil							Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Refrigerant Data		LVG Air Temp		Cooling Cap - DX Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	SUC Temp (gpm)	Pr Drop (fwc)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
3400	80	5	50.4	75.0	47.8	71.46	76.85	76.10	48.36	13,916	2,073	15,989	0.87	40	1.70	54.6	37.8	79,120	79,120	1.00	95,109	93,036	0.98
														45	1.17	57.8	39.1	67,130	67,130	1.00	83,119	81,046	0.98
														50	0.76	61.1	40.8	55,100	55,100	1.00	71,089	69,016	0.97
		40	63.5		59.6	71.54	76.91	76.09	60.57	13,871	16,390	30,261	0.46	40	2.11	55.2	51.1	89,720	76,870	0.86	119,981	90,741	0.76
														45	1.19	57.7	53.6	67,960	67,750	1.00	98,221	81,621	0.83
														50	0.76	61.1	55.0	55,090	55,090	1.00	85,351	68,961	0.81
		75	73.8		69.2	71.62	76.97	76.09	70.39	13,825	30,452	44,277	0.31	40	5.02	58.9	57.5	148,200	63,040	0.43	192,477	76,865	0.40
														45	3.58	61.0	59.6	128,000	55,530	0.43	172,277	69,355	0.40
														50	2.36	63.1	61.7	105,500	47,660	0.45	149,777	61,485	0.41
	95	5	57.7	75.0	47.8	71.71	77.08	79.34	50.18	55,472	9,622	65,094	0.85	40	1.99	55.7	38.4	86,770	86,770	1.00	151,864	142,242	0.94
														45	1.41	58.9	40.2	74,810	74,810	1.00	139,904	130,282	0.93
														50	0.96	62.2	41.8	62,790	62,790	1.00	127,884	118,262	0.92
		40	75.1		59.6	71.82	77.17	79.33	63.90	55,268	81,408	136,676	0.40	40	3.01	56.9	52.9	110,100	82,110	0.75	246,776	137,378	0.56
														45	1.81	59.6	55.5	86,340	72,530	0.84	223,016	127,798	0.57
														50	0.97	62.1	57.9	63,210	63,210	1.00	199,886	118,478	0.59
		75	87.7		69.2	71.92	77.26	79.31	74.63	55,063	155,539	210,602	0.26	40	6.75	61.7	60.5	176,300	64,810	0.37	64,810	119,873	1.85
														45	4.96	63.7	62.5	154,600	57,360	0.37	365,202	112,423	0.31
														50	3.46	65.7	64.6	131,700	49,850	0.38	342,302	104,913	0.31
	110	5	64.6	75.0	47.8	72.0	77.30	82.52	52.05	96,745	21,434	118,179	0.82	40	2.31	56.8	39.7	94,430	94,430	1.00	212,609	191,175	0.90
														45	1.67	60.0	41.4	82,500	82,500	1.00	200,679	179,245	0.89
														50	1.17	63.3	43.0	70,490	70,490	1.00	188,669	167,235	0.89
		40	86.8		59.6	72.1	77.40	82.48	67.94	96,329	180,310	276,639	0.35	40	4.17	59.4	55.6	133,000	84,820	0.64	409,639	181,149	0.44
														45	2.82	61.7	57.9	111,500	76,540	0.69	388,139	172,869	0.45
														50	1.69	64.1	60.3	87,030	67,620	0.78	363,669	163,949	0.45
		75	101.7		69.2	72.3	77.60	82.44	79.97	95,909	350,590	446,499	0.21	40	9.37	65.3	64.8	213,700	63,160	0.30	660,199	159,069	0.24
														45	7.19	67.2	66.6	191,800	56,310	0.29	638,299	152,219	0.24
														50	5.31	69.1	68.5	168,700	49,370	0.29	615,199	145,279	0.24
4800	80	5	50.4	75.0	47.8	63.98	70.99	76.39	48.53	18,139	2,620	20,759	0.87	40	2.53	57.2	38.7	99,720	99,720	1.00	120,479	117,859	0.98
														45	1.75	60.1	40.2	84,770	84,770	1.00	105,529	102,909	0.98
														50	1.15	63.0	41.7	69,710	69,710	1.00	90,469	87,849	0.97
		40	63.5		59.6	64.09	71.08	76.39	60.84	18,087	20,729	38,816	0.47	40	2.93	57.9	52.9	108,400	96,190	0.89	147,216	114,277	0.78
														45	1.76	60.0	54.7	84,960	84,960	1.00	123,776	103,047	0.83
														50	1.15	63.0	55.8	69,710	69,710	1.00	108,526	87,797	0.81
		75	73.8		69.2	64.20	71.17	76.38	70.71	18,034	38,536	56,570	0.32	40	6.67	62.1	60.3	175,100	74,230	0.42	231,670	92,264	0.40
														45	4.74	63.7	62.0	150,500	65,730	0.44	207,070	83,764	0.40
														50	3.11	65.5	63.7	123,700	56,750	0.46	180,270	74,784	0.41
	95	5	57.7	75.0	47.8	64.25	71.31	80.51	50.80	72,298	12,173	84,471	0.86	40	3.05	59.1	40.3	111,000	111,000	1.00	195,471	183,298	0.94
														45	2.22	61.8	41.7	97,110	97,110	1.00	181,581	169,408	0.93
														50	1.52	64.7	43.2	82,080	82,080	1.00	166,551	154,378	0.93
		40	75.1		59.6	64.48	71.44	80.48	65.02	72,057	103,050	175,107	0.41	40	4.31	60.8	55.8	135,700	102,200	0.75	310,807	174,257	0.56
														45	2.83	62.6	57.6	111,700	93,030	0.83	286,807	165,087	0.58
														50	1.56	64.6	59.6	83,210	82,580	0.99	258,317	154,637	0.60
		75	87.7		69.2	64.63	71.56	80.46	76.01	71,815	197,006	268,821	0.27	40	9.41	66.0	64.6	214,300	75,260	0.35	483,121	147,075	0.30
														45	7.04	67.5	66.1	189,600	67,460	0.36	458,421	139,275	0.30
														50	5.00	69.1	67.7	163,000	59,360	0.36	431,821	131,175	0.30
	110	5	64.6	75.0	47.8	64.70	71.60	84.53	53.14	126,074	27,138	153,212	0.82	40	3.58	61.0	42.1	121,800	121,800	1.00	275,012	247,874	0.90
														45	2.69	63.6	43.3	108,500	108,500	1.00	261,712	234,574	0.90
														50	1.94	66.3	44.7	94,170	94,170	1.00	247,382	220,244	0.89
		40	86.8		59.6	64.90	71.80	84.47	69.98	125,572	228,440	354,012	0.35	40	6.33	64.3	59.7	169,800	104,900	0.62	523,812	230,472	0.44
														45	4.47	65.9	61.3	145,500	96,390	0.66	499,512	221,962	0.44
														50	2.89	67.7	63.0	118,700	87,250	0.74	472,712	212,822	0.45
		75	101.7		69.2	65.10	72.00	84.41	82.49	125,064	444,453	569,517	0.22	40	13.64	70.8	70.2	267,300	71,280	0.27	836,817	196,344	0.23
														45	10.76	72.1	71.5	242,400	64,400	0.27	811,917	189,464	0.23
														50	8.13	73.5	72.9	215,800	57,190	0.27	785,317	182,254	0.23
6200	80	5	50.4	75.0	47.8	56.47	65.11	76.69	48.70	21,477	2,987	24,464	0.88	40	3.28	59.4	40.0	115,700	115,700	1.00	140,164	137,177	0.98
														45	2.34	61.8	41.2	100,100	100,100	1.00	124,564	121,577	0.98
														50	1.54	64.4	42.5	82,510	82,510	1.00	106,974	103,987	0.97
		40	63.5		59.6	56.62	65.23	76.68	61.10	21,425	23,654	45,079	0.48	40	3.61	60.0	54.3	122,500	112,100	0.92	167,579	133,525	0.80
														45	2.34	61.8	55.6	100,100	100,100	1.00	145,179	121,525	0.84
														50	1.54	64.4	56.6	82,510	82,510	1.00	127,589	103,935	0.81
		75	73.8		69.2	56.76	65.34	76.68	71.04	21,373	44,007	65,380	0.33	40	8.06	64.3	62.3	195,600	83,130	0.43	260,980	104,503	0.40
														45	5.74	65.7	63.6	168,300	74,000	0.44	233,680	95,373	0.41
														50	3.81	67.1	65.0	139,300	64,610	0.46	204,680	85,983	0.42
	95	5	57.7	75.0	47.8	56.95	65.54	81.66	51.42	85,639	13,904	99,543	0.86	40	4.06	62.1	42.0	130,900	130,900	1.00	230,443	216,539	0.94
														45	3.01	64.3	43.1	115,700	115,700	1.00	215,243	201,339	0.94
														50	2.14	66.7	44.3	99,860	99,860	1.00	199,403	185,499	0.93
		40	75.1		59.6	57.15	65.70	81.63	66.10	85,397	117,814	203,211	0.42	40	5.62	63.8	58.2	158,000	119,300	0.76	361,211	204,697	0.57
														45	3.72	65.3	59.6	130,800	109,300	0.84	334,011	194,697	0.58
														50	2.24	66.8	61.1	102,500	99,380	0.97	305,711	184,777	0.60
		75	87.7		69.2	57.35	65.87	81.60	77.35	85,153	225,431	310,584	0.27	40	12.12	69.2	67.8	247,900	82,950	0.33	558,484	168,103	0.30
														45	9.10	70.4	68.9	220,400	74,860	0.34	530,984	160,013	0.30
														50	6.57	71.7	70.2	191,100	191,100	1.00	501,684	276,253	0.55
	110	5	64.6	75.0	47.8	57.40	65.96	88.52	54.20	149,395	31,051	180,446	0.83	40	4.88	64.6	44.2	145,700	145,700	1.00	326,146	295,095	0.90
														45	3.72	66.9	45.3	130,700	130,700	1.00	311,146	280,095	0.90
														50	2.75	69.2	46.4	115,400	115,400	1.00	295,846	264,795	0.90
		40	86.8		59.6	57.70	66.20	86.44	71.91	148,882	261,656	410,538	0.36	40	8.53	68.2	62.9	201,600	122,000	0.61	612,138	270,882	0.44
														45	6.10	69.5	64.3	174,300	112,900	0.65	584,838	261,782	0.45
														50	4.10	70.9	65.6	145,200	103,700	0.71	555,738	252,582	0.45
		75	101.7		69.2	58.00	66.40	86.36	84.84	148,360	509,613	657,973	0.23	40	17.87	75.0	74.5	314,200	76,610	0.24	972,173	224,970	0.23
														45	14.28	76.0	75.5	286,300	69,580	0.24	944,273	217,940	0.23
														50	10.86	77.1	76.6	256,700	62,250	0.24	914,673	210,610	0.23

All data based on balanced system (Exhaust cfm = Supply cfm). Entering liquid temperature is constant at 110°F. Coil face area is 11.71 sq. ft.

G-046 & G-062 | ENGINEERING SPECIFICATION

General
Ruskin Energy Recovery Ventilator shall be listed per UL 1995, Heating and Cooling Equipment. Energy transfer ratings of the energy recovery wheel shall be AHRI Certified. Performance shall be as scheduled on plans. Exhaust discharge and outside air intake shall not be located on the same side on roof top units. Basis of design is Ruskin Model EVT.

Unit Casing and Frames
EVT frame shall be constructed of aluminum. EVT panels shall be G90 galvanized steel. All panels exposed to the weather shall be a minimum of 18 gauge galvanized steel. EVT shall be internally lined with galvanized sheet metal creating a double wall. Where top panels are joined there shall be an overlapping, standing seam to insure positive weather protection. All metal-to-metal seams shall be factory sealed, requiring no caulking at job site. EVT base to be designed for curb mounting. EVT base shall overhang the curb for a positive seal against water run-off. Ruskin EVT exterior panels shall be powder coated for superior finish.

Weatherhoods
Weatherhoods shall be the same finish as the ERV. Outdoor air weatherhood shall incorporate a hooded design and moisture eliminator.

Energy Recovery Wheel
Wheel shall be of the enthalpy type for both sensible and latent heat recovery and be designed to insure laminar flow. Energy transfer ratings must be AHRI Certified to Standard 1060 and bear the AHRI certification symbol for AHRI Air-to-Air Energy Recovery Ventilation Equipment Certification Program based on AHRI 1060. Ratings “in accordance with 1060” without certification are not acceptable. Desiccant shall be silica gel for maximum latent energy transfer. Wheel shall be constructed of lightweight polymer media to minimize shaft and bearing loads. Polymer media shall be mounted in a stainless steel rotor for corrosion resistance. Wheel design shall consist of removable segments for ease of service and/or cleaning. Silica gel desiccant shall be permanently bonded to wheel media to retain latent heat capability after cleaning.Wheels with sprayed on desiccant coatings are not acceptable. Wheels with desiccant applied after wheel formation are not acceptable. Energy recovery device shall transfer moisture entirely in the vapor phase. Energy recovery drive belt material shall be prestretched high strength urethane and shall be factory installed, eliminating the need for field belt tension adjustment. Link style belts are not acceptable.

Insulation
EVT casing to be insulated with 1 inch fiberglass. Insulation shall meet requirements of NFPA 90A and tested to meet UL 181 requirements. Insulation to be enclosed in double wall construction.

Free Cooling Mode
The on-board control logic shall automatically cease energy recovery when outside air conditions are within a 40°F to 70°F (4°C to 21°C) temperature range to allow for space cooling. During the free cooling period, the wheel shall automatically jog at preset time intervals to purge wheel of moisture and contaminant build up.

Access Doors
All components shall be easily accessible through hinged access doors for exhaust, supply, filter, and damper compartments. Energy recovery wheels shall be mounted in a slide-out track for inspection, removal, and cleaning.

Roof Curbs
Roof curb to be supplied by EVT manufacturer for field assembly. Curb shall consist of die formed galvanized steel sections. Curb shall be full perimeter type with gasket provided for field installation between curb and EVT base.

Fan Sections
Centrifugal fans to be double width, double inlet, forward curved type. All blower wheels shall be statically and dynamically balanced. Steel fan shafts shall be ground and polished and shall be mounted in permanently lubricated, sealed ball bearing pillow blocks. Bearings shall be selected for a minimum (L10) life in excess of 100,000 hours at maximum cataloged operating speeds. Adjustable sheaves on belt-driven fans with motors less than 15hp shall allow independent balancing of exhaust and supply airflows. Fan and motor assemblies are mounted to EVT base with neoprene isolators as standard. Fans shall be located in draw-through position in reference to the energy recovery wheel.

Motors and Drives
Motors shall be energy efficient, complying with EPACT standards, for single speed ODP and TEFC enclosures. Motors shall be permanently lubricated, heavy-duty type, matched to the fan load and furnished at the specified voltage, phase, and enclosure. Drives shall be sized for a minimum of 150% of driven horsepower. Pulleys shall be of the fully machined cast type, keyed and securely attached to the fan wheel and motor shafts; 10 horsepower and less shall be supplied with an adjustable drive pulley. Energy wheel motors shall have integral overload protection.

Filters
Supply and exhaust filters shall be 2-inch thick pleated fiberglass with a minimum MERV 8 rating.MERV 11 or 13 filters are optional. Filter racks shall be die-formed galvanized steel.

Electrical
All internal electrical components shall be factory wired for single point power connection. Units with electric preheat or post heat will be wired with independent power supply. All electrical components shall be UL Listed, Approved, or Classified where applicable and wired in compliance with the National Electrical Code. Weatherproof, integral door interlocking disconnect switch, motor starters, control circuit fusing, control transformer for 24 VAC circuit, and terminal strip shall be supplied as standard components in the control center. Motor starters consist of a contactor and Class 20 electronic adjustable overload protection and shall be provided for all motors in the unit. Ruskin’s ER optimizer PLC controller is included to control all unit functions and outputs and will be fully compliant with BAS systems including LONWORKS, BACNET, and MODBUS.

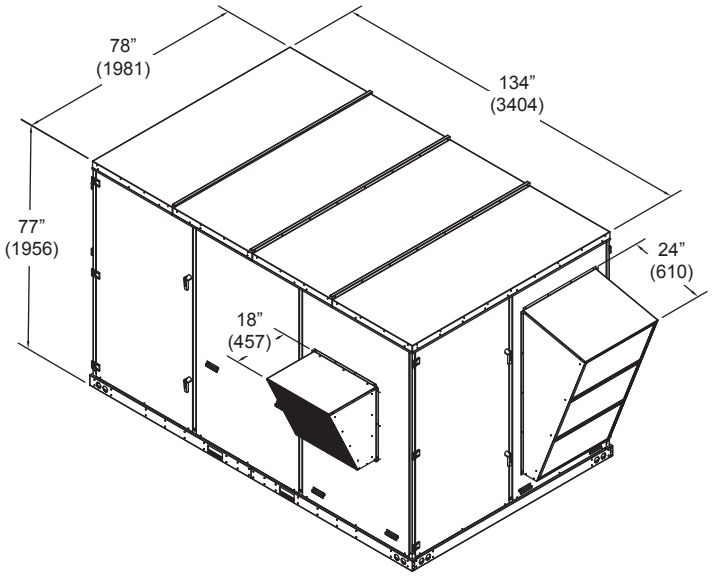
DX Cooling Coils
Direct expansion (DX) shall be factory tested and rated in accordance with AHRI 410. Coils shall have rifled copper tubes with permanently expanded aluminum fins and shall be equipped with adjustable expansion valve connected to distributors.

Chilled and Hot Water Coils
Water coils shall be factory tested and rated in accordance with AHRI 410. Coils shall have copper tubes with permanently expanded aluminum fins.

Electric Heat Coils
Electric heat shall be UL listed and circuit fused per NEC over 48 amps. Heater shall be sequentially controlled via on-board sequencers. Electric heat shall be factory wired and installed. Control will be 24 volt with class 2 transformer. Standard air flow proving switch will shut down heater if air ceases to flow across heating elements. The electric preheat option provides frost protection for year round operation. It features steel finned tubular heater with high temperature baked-on aluminum finish protecting them from corrosion and deterioration. Modular heat stages for single or dual stage heat are provided. The post electric heat option utilizes nickel chromium electric wire resistance elements and allows for modular heat stages for single or multiple stage heat.

G-074 & G-088 | INTRODUCTION

Models G-074 and G-088 are energy recovery ventilators with auxiliary heating and cooling capabilities. They are designed to provide outside air into a building without increasing the building HVAC load.The units are classified as a neutral air unit providing outside air into the building at room temperature.



G-074 & G-088 | FEATURES

- **Frame**: Modular aluminum.
- **Cabinet**: Galvanized steel, fully insulated double wall.
- **Blowers**: Silent Pro Series Class II FC.
- **Access Doors**: Hinged double wall with 1/4 turn latches.
- **Wheel**: AHRI certified polymeric Enthalpy Wheel, complete with rotation sensors.
- **Filters**: 2" pleated, MERV 8.
- **Finish**: Polyester resin based powder coat.
- **Control**: Digital programmable logic controller. Single point wiring with NEMA 3R disconnect.
- **Installed Weight**: 3,400 lbs.
- **Shipped Weight**: 3,400 lbs.

G-074 & G-088 | OPTIONS & ACCESSORIES

Heating / Cooling
- R-410A DX coil.
- Chilled water coil.
- Hot water coil.
- Electric heat (pre and post).

Frost Control
- Timed exhaust frost control.
- Variable wheel speed frost control.
- Electric preheat.

Filters
- 2" (51) Pleated MERV 11 or MERV 13 filters.

Dampers
- Actuated exhaust air damper.
- Actuated intake air damper.

Sensors
- Smoke detectors.
- CO_2 sensors.
- Dirty filter sensors.

Blower Motor
- ODP or TEFC motors available.

Roof Curbs

GFCI Service Outlet

Custom Paint

VFD Blower Control

Sensible Wheel Only

G-074 & G-088 | PERFORMANCE DATA

G-074 Supply Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5400	2368	-	-	687	2.17	789	2.70	881	3.24	968	3.80	1050	4.38	1126	4.98	1199	5.59
5900	2588	-	-	714	2.62	810	3.19	899	3.77	982	4.37	1061	4.98	1136	5.62	1207	6.27
6400	2807	-	-	741	3.13	833	3.74	918	4.36	998	5.00	1074	5.65	1147	6.32	1216	7.01
6900	3026	673	3.06	769	3.71	856	4.36	938	5.02	1015	5.69	1088	3.62	1159	7.09	1226	7.81
7400	2719	707	3.66	798	4.36	882	5.06	960	5.75	1035	6.47	1105	7.20	1174	7.94	1239	8.70

G-074 Exhaust Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
5400	1882	559	1.53	683	2.13	792	2.77	890	3.43	981	4.12	-	-	-	-	-	-
5900	2056	588	1.87	706	2.53	810	3.21	905	3.92	993	4.54	1075	5.41	-	-	-	-
6400	2230	617	2.27	729	2.97	829	3.70	921	4.45	1006	5.23	1086	6.03	1163	6.88	1233	7.69
6900	2404	646	2.71	752	3.46	848	4.24	937	5.04	1020	5.86	1098	6.70	1171	7.57	1242	8.45
7400	2578	676	3.22	777	4.02	870	4.84	955	5.69	1036	6.56	1112	7.45	1184	8.36	1252	9.28

G-088 Supply Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
6400	2807	-	-	720	3.00	813	3.61	900	4.22	981	4.86	1058	5.51	1131	6.17	1201	6.85
7000	3070	656	3.01	753	3.68	841	4.34	924	5.00	1001	5.68	1075	6.38	1145	7.08	1214	7.81
7600	3333	695	3.72	786	4.44	870	5.16	949	5.88	1023	6.61	1094	7.34	1162	8.10	1227	8.87
8200	3596	734	4.53	823	5.35	900	6.08	975	6.86	1046	7.64	1115	8.43	1180	9.22	1243	10.03
8800	2719	773	5.45	853	6.28	930	7.12	1002	7.95	1071	8.78	1136	9.61	1200	10.46	-	-

G-088 Exhaust Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
9400	2230	-	-	705	2.81	807	3.54	901	4.29	988	5.06	1069	5.85	1145	6.67	1217	7.50
7000	2439	-	-	733	3.39	831	4.17	920	4.97	1004	5.80	1082	6.65	1159	7.54	1228	8.40
7900	2648	-	-	761	4.04	854	4.87	940	5.73	1021	6.61	1097	7.51	1170	8.43	1239	9.37
8200	2857	692	3.88	789	4.76	879	5.65	961	6.57	1039	7.50	1113	8.45	1184	9.43	-	-
8800	3066	725	4.63	818	5.56	903	6.52	983	7.48	1058	8.47	1130	9.48	1199	10.51	-	-

This blower data accounts for the pressure drop across the Energy Recovery Wheel and the internal cabinet losses, but does not include the pressure drop for selected Accessories and Options which can be found in the corresponding tables and must be added to the External Static Pressure to determine correct RPM and BHP. BHP rating does not include drive losses. Performance ratings do not include the effects of appurtenances in the air stream. Drives are sized for a minimum of 150% of driven horsepower.

	Low Speed
	Medium Speed
	High Speed
-	Empty space means this operating point is outside the efficient operating range of the blower.

G-074 & G-088 | PRODUCT & ELECTRICAL DATA

		G-074			G-088		
Line Voltage - 60Hz		230v / 3Ph	460v / 3Ph	575v / 3Ph	230v / 3Ph	460v / 3Ph	575v / 3Ph
Supply Air Blower	Motor HP L/M/H	3 / 5 / 7.5	3 / 5 / 7.5	3 / 5 / 7.5	5 / 7.5 / 10	5 / 7.5 / 10	5 / 7.5 / 10
	Drive Type	Belt	Belt	Belt	Belt	Belt	Belt
	Size (DxW)	18 x 13	18 x 13	18 x 13	18 x 13	18 x 13	18 x 13
	Blower Speed	1478	1478	1478	2488	2488	2488
	Adjustment	Sheave	Sheave	Sheave	Sheave	Sheave	Sheave
	Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
	Full Load Amps	5.6 / 12.8 / 19.4	5.6 / 12.8 / 19.4	5.6 / 12.8 / 19.4	8.6 / 12.8 / 19.4	8.6 / 12.8 / 19.4	8.6 / 12.8 / 19.4
	Service Factor	1.15	1.15	1.15	1.15	1.15	1.15
Exhaust Air Blower	Motor HP L/M/H	3 / 5 / 7.5	3 / 5 / 7.5	3 / 5 / 7.5	5 / 7.5 / 10	5 / 7.5 / 10	5 / 7.5 / 10
	Drive Type	Belt	Belt	Belt	Belt	Belt	Belt
	Size (DxW)	18 x 18	18 x 18	18 x 18	18 x 18	18 x 18	18 x 18
	Blower Speed	1501	1501	1501	1501	1501	1501
	Adjustment	Sheave	Sheave	Sheave	Sheave	Sheave	Sheave
	Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
	Full Load Amps	5.6 / 8.6 / 12.8	2.8 / 4.3 / 6.4	2.08 / 3.4 / 5.1		6.4 / 9.7	5.1 / 7.8
	Service Factor	1.15	1.15	1.15	1.15	1.15	1.15
Wheel Data	Potential Volts	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph
	Motor Speed	1725 RPM	1725 RPM	1725 RPM	1725 RPM	1725 RPM	1725 RPM
	Full Load Amps	1.6	0.8	1.4	2.5	1.2	1.2
	Wheel Model	ERC-5874	ERC-5874	ERC-5874	ERC-6488	ERC-6488	ERC-6488
	Depth	3	3	3	3	3	3
	Dia. (Nom. in.)	60	60	60	65	65	65
Preheat	No. of Stages	1	1	1	2	2	2
	kW / Stage	11.1	11.1	11.1	11.1	11.1	11.1
	MCA / Circuit	33.4	16.7	13.9	33.4	16.7	13.9
	MOCP	35	17.5	15	Field Provided		
Post Heat	No. of Stages	1	1	1	3	3	3
	kW / Stage	30	30	30	30	30	30
	MCA / Circuit	45.1	22.55	18.33	45.1	22.55	18.33
	MOCP	50	25	20	50	25	20
	Total MCA	45.1	22.55	18.83	135.3	67.65	56.49
	Point Power	Separate	Separate	Separate	Separate	Separate	Separate
Total	MCA Minimum	12.8	6.4	5.57	22.6	11.3	98
	MOCP Minimum	15	7.5	7.5	25	15	10
	MCA Maximum	124	62	53.94	242.1	121.5	105.3
	MOCP Maximum	130	70	60	25	130	110

Effectiveness		Sensible	Latent	Total	Sensible	Latent	Total
AHRI Ratings	Total @ 100%	75%	69%	73%	75%	69%	73%
	Total @ 75%	79%	74%	77%	79%	74%	77%
	Net @ 100%	75%	69%	71%	75%	69%	73%
	Net @ 75%	79%	74%	77%	79%	74%	77%

G-074 | CHILLED WATER COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Chilled Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil				Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
5400	80	5	50.4	75.0	47.8	65.79	72.41	76.31	48.48	20,817	3,031	23,848	0.87	20	1.99	2.43	54.1	60.8	40.8	91,629	91,629	1.00	115,477	112,446	0.970
														40	3.98	8.66	50.1	58.9	39.8	102,645	102,645	1.00	126,493	123,462	0.980
														60	5.97	18.28	48.6	58.2	39.4	107,005	107,005	1.00	130,853	127,822	0.980
		40	63.5		59.6	65.89	72.49	76.31	60.77	20,755	23,976	44,731	0.46	20	1.99	2.43	54.2	60.7	54.8	92,412	92,412	1.00	137,143	113,167	0.830
														40	3.98	8.66	50.2	58.8	54.0	105,003	103,598	0.99	149,734	124,353	0.830
														60	5.97	18.28	48.7	58.3	53.5	111,688	106,511	0.95	156,419	127,266	0.810
		75	73.8		69.2	66.00	72.57	76.30	70.62	20,692	44,566	65,258	0.32	20	1.99	2.43	59.0	64.8	63.3	140,237	67,773	0.48	205,495	88,465	0.430
														40	3.98	8.66	54.0	62.3	61.0	180,164	82,677	0.46	245,422	103,369	0.420
														60	5.97	18.28	51.6	61.1	59.9	197,894	89,690	0.45	263,152	110,382	0.420
	95	5	57.7	75.0	47.8	66.12	72.71	80.19	50.63	82,969	14,078	97,047	0.85	20	1.99	2.42	55.3	62.7	42.2	103,124	103,124	1.00	200,171	186,093	0.930
														40	3.98	8.66	50.8	60.6	41.1	115,463	115,463	1.00	212,510	198,432	0.930
														60	5.97	18.24	49.0	59.8	40.7	120,353	120,353	1.00	217,400	203,322	0.940
		40	75.1		59.6	66.26	72.82	80.16	64.71	82,685	119,157	201,842	0.41	20	1.99	2.42	55.8	63.0	58.2	108,288	101,433	0.94	310,130	184,118	0.590
														40	3.98	8.66	51.5	61.5	56.8	130,812	110,535	0.84	332,654	193,220	0.580
														60	5.97	18.24	49.7	60.6	56.0	142,847	115,579	0.81	344,689	198,264	0.580
		75	87.7		69.2	66.40	72.94	80.14	75.64	82,399	227,761	310,160	0.27	20	1.99	2.42	62.4	68.5	67.4	173,984	68,529	0.39	484,144	150,928	0.310
														40	3.98	8.66	56.3	65.4	64.7	226,053	86,675	0.38	536,213	169,074	0.320
														60	5.97	18.24	53.3	63.9	63.4	249,820	95,579	0.38	559,980	177,978	0.320
	110	5	57.7	75.0	47.8	66.4	73.0	83.98	52.81	144,683	30,199	174,882	0.83	20	1.88	2.40	56.4	64.6	43.8	114,340	114,340	1.00	289,222	259,023	0.896
														40	3.75	8.56	51.4	62.3	42.7	127,959	127,959	1.00	302,841	272,642	0.900
														60	5.63	18.08	49.4	61.4	42.2	133,363	133,363	1.00	308,245	278,046	0.902
		40	75.1		59.6	66.6	73.2	83.92	69.43	144,091	264,071	408,162	0.35	20	1.88	2.40	58.3	66.6	62.2	133,006	102,618	0.77	541,168	246,709	0.456
														40	3.75	8.56	53.4	64.3	60.0	169,214	116,378	0.69	577,376	260,469	0.451
														60	5.63	18.08	51.2	63.2	59.0	185,713	122,992	0.66	593,875	267,083	0.450
		75	87.7		69.2	66.8	73.3	83.87	81.82	143,494	513,681	657,175	0.22	20	1.88	2.40	66.9	73.0	72.8	219,254	64,179	0.29	876,429	207,673	0.237
														40	3.75	8.56	59.4	69.3	69.3	289,256	86,346	0.30	946,431	229,840	0.243
														60	5.63	18.08	55.7	67.4	67.4	321,143	97,403	0.30	978,318	240,897	0.246
6400	80	5	50.4	75.0	47.8	61.30	68.95	76.49	48.58	23,485	3,351	26,836	0.88	20	1.99	2.42	55.1	62.0	41.5	101,359	101,369	1.00	128,195	124,854	0.970
														40	3.98	8.64	50.7	60.0	40.4	115,200	115,200	1.00	142,036	138,685	0.980
														60	5.97	18.24	49.0	59.2	40.0	120,795	120,795	1.00	147,631	144,280	0.980
		40	63.5		59.6	61.49	69.04	76.48	60.92	23,420	26,518	49,938	0.47	20	1.99	2.42	55.2	61.9	55.4	102,104	102,104	1.00	152,042	125,524	0.830
														40	3.98	8.64	50.8	59.9	54.5	116,504	116,504	1.00	166,442	139,924	0.840
														60	5.97	18.24	49.1	59.2	54.1	124,202	120,951	0.97	174,140	144,371	0.830
		75	73.8		69.2	61.61	69.14	76.48	70.82	23,356	49,311	72,667	0.32	20	1.99	2.42	59.8	66.0	64.3	148,430	73,138	0.49	221,097	96,494	0.440
														40	3.98	8.64	54.8	63.6	62.1	195,858	90,389	0.46	268,525	113,745	0.420
														60	5.97	18.24	52.2	62.4	61.0	217,461	98,725	0.45	290,128	122,081	0.420
	95	5	57.7	75.0	47.8	61.76	69.30	80.87	51.00	93,611	15,576	109,187	0.86	20	1.99	2.41	56.5	64.4	43.1	115,644	115,644	1.00	224,831	209,255	0.930
														40	3.98	8.63	51.5	62.1	42.0	131,341	131,341	1.00	240,528	224,952	0.940
														60	5.97	18.23	49.6	61.2	41.5	137,695	137,695	1.00	246,882	231,306	0.940
		40	75.1		59.6	61.93	69.44	80.85	65.36	93,314	131,899	225,213	0.41	20	1.99	2.41	57.1	64.5	59.4	121,728	114,811	0.94	346,941	208,125	0.600
														40	3.98	8.64	52.3	63.1	58.0	147,266	124,892	0.85	372,479	218,206	0.590
														60	5.97	18.23	50.4	62.2	57.2	162,069	130,953	0.81	387,282	224,267	0.580
		75	87.7		69.2	62.10	69.58	80.82	76.44	93,015	252,228	345,243	0.27	20	1.99	2.41	63.8	70.3	69.1	188,237	73,334	0.39	533,480	166,349	0.310
														40	3.98	8.63	57.5	67.3	66.4	251,001	94,343	0.38	596,244	187,358	0.310
														60	5.97	18.23	54.3	65.8	65.1	280,718	105,060	0.37	625,961	198,075	0.320
	110	5	57.7	75.0	47.8	62.1	69.7	85.16	53.44	163,254	33,438	196,692	0.83	20	1.88	2.40	57.9	66.7	44.9	129,631	129,631	1.00	304,513	292,885	0.962
														40	3.75	8.56	52.3	64.2	43.7	147,126	147,126	1.00	322,008	310,380	0.964
														60	5.63	18.08	50.1	63.2	43.2	154,216	154,216	1.00	329,098	317,470	0.965
		40	75.1		59.6	62.4	69.9	85.09	70.60	162,629	292,545	455,174	0.36	20	1.88	2.40	59.8	68.7	64.0	148,682	114,558	0.77	556,844	277,187	0.498
														40	3.75	8.56	54.6	66.4	61.9	192,845	130,714	0.68	601,007	293,343	0.488
														60	5.63	18.08	52.1	65.2	60.8	214,420	139,064	0.65	622,582	301,693	0.485
		75	87.7		69.2	62.6	70.1	85.03	83.25	161,996	569,353	731,349	0.22	20	1.88	2.40	69.1	75.5	75.4	240,889	66,149	0.27	898,064	228,145	0.254
														40	3.75	8.56	61.3	71.9	71.9	326,661	91,705	0.28	983,836	253,701	0.258
														60	5.63	18.08	57.2	70.7	70.0	367,988	105,236	0.29	1,025,163	267,232	0.261
7400	80	5	50.4	75.0	47.8	56.93	65.47	76.66	48.68	25,777	3,595	29,372	0.88	20	1.99	2.41	56.0	63.1	42.0	110,136	110,136	1.00	139,508	135,913	0.970
														40	3.98	8.63	51.3	61.0	40.9	126,813	126,813	1.00	156,185	152,590	0.980
														60	5.97	18.23	49.4	60.2	40.5	133,684	133,684	1.00	163,056	159,461	0.980
		40	63.5		59.6	57.08	65.59	76.65	61.08	25,714	28,461	54,175	0.47	20	1.99	2.41	56.0	63.0	55.9	110,828	110,828	1.00	165,003	136,542	0.830
														40	3.98	8.64	51.4	60.9	55.1	128,257	128,257	1.00	182,432	153,971	0.840
														60	5.97	18.23	49.5	60.1	54.7	138,292	134,362	0.97	192,467	160,076	0.830
		75	73.8		69.2	57.22	65.70	76.65	71.01	25,651	52,948	78,599	0.33	20	1.99	2.41	60.5	67.0	65.2	155,589	78,101	0.50	234,188	103,752	0.440
														40	3.98	8.63	55.4	64.7	63.0	209,325	97,218	0.46	287,924	122,869	0.430
														60	5.97	18.23	52.8	63.5	62.0	234,746	106,813	0.46	313,345	132,464	0.420
	95	5	57.7	75.0	47.8	57.40	65.89	81.56	51.36	102,781	16,729	119,510	0.86	20	1.99	2.40	57.7	65.9	44.0	127,349	127,349	1.00	246,859	230,130	0.930
														40	3.98	8.61	52.3	63.5	42.8	146,492	146,492	1.00	266,002	249,273	0.940
														60	5.97	18.18	50.1	62.5	42.3	154,390	154,390	1.00	273,900	257,171	0.940
		40	75.1		59.6	57.60	66.06	81.53	66.00	102,486	141,736	244,222	0.42	20	1.99	2.40	58.2	65.8	60.4	132,780	128,945	0.97	377,002	231,431	0.610
														40	3.98	8.61	53.1	64.4	59.1	162,103	138,272	0.85	406,325	240,758	0.590
														60	5.97	18.18	51.0	63.5	58.3	179,639	145,301	0.81	423,861	247,787	0.580
		75	87.7		69.2	57.79	66.22	81.49	77.23	102,190	271,188	373,378	0.27	20	1.99	2.40	65.1	71.9	70.7	200,970	77,419	0.39	574,348	179,609	0.310
														40	3.98	8.61	58.7	69.0	68.0	274,132	101,022	0.37	647,510	203,212	0.310
														60	5.97	18.18	55.3	67.5	66.7	309,330	113,268	0.37	682,708	215,458	0.320
	110	5	57.7	75.0	47.8	57.9	66.3	86.34	54.06	179,292	35,952	215,244	0.83	20	1.88	2.40	59.4	68.5	46.1	143,902	143,902	1.00	318,784	323,194	1.014
														40	3.75	8.56	53.2	65.9	44.8	165,386	165,386	1.00	340,268	344,678	1.013
														60	5.63	18.08	50.8	64.8	44.3	174,262	174,262	1.00	349,144	353,554	1.013
		40	75.1		59.6	58.1	66.5	86.26	71.74	178,668	314,738	493,406	0.36	20	1.88	2.40	61.5	70.6	65.5	165,071	127,271	0.77	573,233	305,939	0.534
														40	3.75	8.56	55.7	68.4	63.5	215,077	144,962	0.67	623,239	323,630	0.519
														60	5.63	18.08	53.0	67.2	62.4	241,716	154,941	0.64	649,878	333,609	0.513
		75	87.7		69.2	58.4	66.8	86.18	84.64	178,034	612,949	790,983	0.23	20	1.88	2.40	71.9	77.7	77.5	259,689	68,542	0.26	916,864	246,576	0.269
														40	3.75	8.56	63.0	74.2	74.2	360,324	96,974	0.27	1,017,499	275,008	0.270
														60	5.63	18.08	58.6	72.3	72.3	410,457	112,556	0.27	1,067,632	290,590	0.272

All data based on balanced system (Exhaust cfm = Supply cfm). Entering water temperature is 45°F. Coil face area is 14.72 sq. ft.

G-088 | CHILLED WATER COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Chilled Water Coil									Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
6400	80	5	50.4	75.0	47.8	65.78	72.40	76.32	48.49	24,668	3,592	28,260	0.87	20	1.99	2.42	55.0	61.9	41.4	100,711	100,711	1.00	128,971	125,379	0.970
														40	3.98	8.64	50.7	59.9	40.4	114,467	114,467	1.00	142,727	139,135	0.970
														60	5.97	18.24	49.0	59.1	39.9	120,027	120,027	1.00	148,287	144,695	0.980
		40	63.5		59.6	65.88	72.48	76.32	60.78	24,595	28,410	53,005	0.46	20	1.99	2.42	55.1	61.8	55.3	101,447	101,447	1.00	154,452	126,042	0.820
														40	3.98	8.64	50.8	59.8	54.5	115,757	115,757	1.00	168,762	140,352	0.830
														60	5.97	18.24	49.1	59.1	54.0	123,335	120,216	0.97	176,340	144,811	0.820
		75	73.8		69.2	65.98	72.56	76.31	70.64	24,521	52,808	77,329	0.32	20	1.99	2.42	59.7	65.9	64.1	147,313	72,973	0.50	224,642	97,494	0.430
														40	3.98	8.64	54.7	63.4	61.9	193,801	89,931	0.46	271,130	114,452	0.420
														60	5.97	18.24	52.2	62.3	60.9	215,424	98,293	0.46	292,753	122,814	0.420
	95	5	57.7	75.0	47.8	66.10	72.70	80.23	50.65	98,322	16,681	115,003	0.85	20	1.99	2.41	56.3	64.0	43.0	113,369	113,369	1.00	228,372	211,691	0.930
														40	3.98	8.64	51.4	61.8	41.8	128,772	128,772	1.00	243,775	227,094	0.930
														60	5.97	18.23	60.0	60.9	41.4	135,006	135,006	1.00	250,009	233,328	0.930
		40	75.1		59.6	66.24	72.82	80.21	64.75	97,985	141,197	239,182	0.41	20	1.99	2.41	56.8	64.0	56.8	118,511	113,680	0.96	357,693	211,665	0.590
														40	3.98	8.64	52.1	62.6	57.6	142,674	123,299	0.86	381,856	221,284	0.580
														60	5.97	18.23	50.2	61.8	56.8	156,384	128,949	0.82	395,566	226,934	0.570
		75	87.7		69.2	66.38	72.93	80.19	75.69	97,647	269,890	367,537	0.27	20	1.99	2.41	63.3	69.7	68.5	183,200	73,135	0.40	550,737	170,782	0.310
														40	3.98	8.63	57.2	66.8	65.9	243,870	93,667	0.38	611,407	191,314	0.310
														60	5.97	18.23	54.0	65.3	64.6	272,240	103,989	0.38	639,777	201,636	0.320
	110	5	57.7	75.0	47.8	66.4	73.0	84.06	52.85	171,456	35,785	207,241	0.83	20	1.88	2.40	57.6	66.1	44.6	126,050	126,050	1.00	300,932	297,506	0.989
														40	3.75	8.56	52.1	63.7	43.4	143,087	143,087	1.00	317,969	314,543	0.989
														60	5.63	18.08	50.0	62.7	42.9	149,989	149,989	1.00	324,871	321,445	0.989
		40	75.1		59.6	66.6	73.2	84.00	69.50	170,757	312,921	483,678	0.35	20	1.88	2.40	59.1	67.8	63.0	141,877	113,372	0.80	550,039	284,129	0.517
														40	3.75	8.56	54.1	65.6	61.0	182,967	128,644	0.70	591,129	299,401	0.506
														60	5.63	18.08	51.7	64.5	60.1	202,748	136,395	0.67	610,910	307,152	0.503
		75	87.7		69.2	66.8	73.3	83.94	81.91	170,050	608,711	778,761	0.22	20	1.88	2.40	67.9	74.4	74.1	229,809	66,630	0.29	886,984	236,680	0.267
														40	3.75	8.56	60.5	70.9	70.9	310,663	91,326	0.29	967,838	261,376	0.270
														60	5.63	18.08	56.6	69.0	69.0	348,941	104,118	0.30	1,006,116	274,168	0.273
7600	80	5	50.4	75.0	47.8	61.28	68.88	76.50	48.59	27,861	3,974	31,835	0.88	20	1.99	2.41	56.1	63.2	42.0	110,941	110,941	1.00	142,776	138,802	0.970
														40	3.98	8.63	51.4	61.1	41.0	128,058	128,058	1.00	159,893	155,919	0.980
														60	5.97	18.23	49.5	60.2	40.5	135,136	135,136	1.00	166,971	162,997	0.980
		40	63.5		59.6	61.41	68.98	76.49	60.94	27,785	31,447	59,232	0.47	20	1.99	2.41	56.1	63.1	56.8	111,686	111,686	1.00	170,918	139,471	0.820
														40	3.98	8.63	51.5	60.9	55.0	129,858	129,858	1.00	189,090	157,643	0.830
														60	5.97	18.23	49.5	60.1	54.6	137,012	136,566	1.00	196,244	164,351	0.840
		75	73.8		69.2	61.53	69.08	76.49	70.83	27,708	58,476	86,184	0.32	20	1.99	2.41	60.5	67.0	65.1	155,487	78,845	0.51	241,671	106,553	0.440
														40	3.98	8.63	55.4	64.7	63.0	209,489	98,052	0.47	295,673	125,760	0.430
														60	5.97	18.23	52.8	63.5	62.0	235,374	107,813	0.46	321,558	135,521	0.420
	95	5	57.7	75.0	47.8	61.68	69.24	80.93	51.03	111,058	18,472	129,530	0.86	20	1.99	2.40	57.6	65.7	43.8	126,612	126,612	1.00	256,142	237,670	0.930
														40	3.98	8.61	52.3	63.3	42.6	146,017	146,017	1.00	275,547	257,075	0.930
														60	5.97	18.18	50.1	62.4	42.1	154,052	154,052	1.00	283,582	265,110	0.930
		40	75.1		59.6	61.85	69.38	80.90	65.41	110,707	156,421	267,128	0.41	20	1.99	2.40	58.1	65.4	59.9	131,036	126,592	0.97	398,164	237,299	0.600
														40	3.98	8.61	52.9	64.1	58.7	158,994	139,464	0.88	426,122	250,171	0.590
														60	5.97	18.18	50.8	63.3	58.0	175,565	146,136	0.83	442,693	256,843	0.580
		75	87.7		69.2	62.02	69.52	80.87	76.50	110,354	299,125	409,479	0.27	20	1.99	2.40	64.7	71.5	70.2	196,980	78,060	0.40	606,459	188,414	0.310
														40	3.98	8.61	58.4	68.7	67.6	269,057	101,486	0.38	678,536	211,840	0.310
														60	5.97	18.18	55.1	67.2	66.4	304,062	113,730	0.37	713,541	224,084	0.310
	110	5	57.7	75.0	47.8	62.1	69.6	85.25	53.49	193,684	39,656	233,340	0.83	20	1.88	2.40	59.2	68.2	45.7	142,322	142,322	1.00	317,204	336,006	1.059
														40	3.75	8.56	53.2	65.6	44.5	163,994	163,994	1.00	338,876	357,678	1.055
														60	5.63	18.08	50.7	64.5	43.9	172,977	172,977	1.00	347,859	366,661	1.054
		40	75.1		59.6	62.3	69.8	85.19	70.69	192,946	346,949	539,895	0.36	20	1.88	2.40	60.9	69.8	64.7	159,882	127,729	0.80	568,044	320,675	0.565
														40	3.75	8.56	55.3	67.8	62.9	207,279	144,699	0.70	615,441	337,645	0.549
														60	5.63	18.08	52.7	66.6	61.8	233,014	154,423	0.66	641,176	347,369	0.542
		75	87.7		69.2	62.5	70.0	85.12	83.36	192,199	675,254	867,453	0.22	20	1.88	2.40	70.1	76.8	76.5	251,119	68,760	0.27	908,294	260,959	0.287
														40	3.75	8.56	62.4	73.4	73.4	348,895	96,870	0.28	1,006,070	289,069	0.287
														60	5.63	18.08	58.2	71.6	71.6	397,625	112,228	0.28	1,054,800	304,427	0.289
8800	80	5	50.4	75.0	47.8	56.77	65.34	76.68	48.69	30,592	4,262	34,854	0.88	20	1.99	2.40	57.0	64.2	42.6	120,095	120,095	1.00	154,949	150,687	0.970
														40	3.98	8.61	52.0	62.1	41.5	140,538	140,538	1.00	175,392	171,130	0.980
														60	5.97	18.18	50.0	61.2	41.0	149,167	149,167	1.00	184,021	179,759	0.980
		40	63.5		59.6	56.91	65.46	76.67	61.10	30,518	33,748	64,266	0.47	20	1.99	2.40	57.0	64.1	56.4	120,898	120,898	1.00	185,164	151,416	0.820
														40	3.98	8.61	52.1	61.9	55.5	141,985	141,985	1.00	206,251	172,503	0.840
														60	5.97	18.18	50.0	60.9	55.1	152,173	152,173	1.00	216,439	182,691	0.840
		75	73.8		69.2	57.05	65.57	76.67	71.02	30,443	62,785	93,228	0.33	20	1.99	2.40	61.2	68.0	65.9	162,102	84,123	0.52	255,330	114,566	0.450
														40	3.98	8.61	56.1	65.8	63.9	222,929	105,292	0.47	316,157	135,735	0.430
														60	5.97	18.18	53.4	64.6	62.9	252,754	116,291	0.46	345,982	146,734	0.420
	95	5	57.7	75.0	47.8	57.24	65.77	81.62	51.40	121,986	19,837	141,823	0.86	20	1.99	2.38	58.9	67.2	44.6	138,917	138,917	1.00	280,740	260,903	0.930
														40	3.98	8.59	53.1	64.7	43.4	162,373	162,373	1.00	304,196	284,359	0.930
														60	5.97	18.16	50.7	63.7	42.9	172,287	172,287	1.00	314,110	294,273	0.940
		40	75.1		59.6	57.44	65.93	81.59	66.06	121,639	168,081	289,720	0.42	20	1.99	2.38	59.3	66.8	61.0	143,135	142,294	0.99	432,855	263,933	0.610
														40	3.98	8.59	53.8	65.5	59.8	176,097	154,824	0.88	465,817	276,463	0.590
														60	5.97	18.16	51.5	64.7	59.1	195,045	162,285	0.83	484,765	283,924	0.590
		75	87.7		69.2	57.64	66.10	81.56	77.30	121,290	321,607	442,897	0.27	20	1.99	2.38	65.9	73.0	71.6	209,656	82,380	0.39	652,553	203,670	0.310
														40	3.98	8.59	59.6	70.4	69.2	292,170	108,237	0.37	735,067	229,527	0.310
														60	5.97	18.15	56.1	68.9	67.9	333,554	122,193	0.37	776,451	243,483	0.310
	110	5	57.7	75.0	47.8	57.7	66.2	86.45	54.12	212,803	42,636	255,439	0.83	20	1.88	2.40	60.8	70.1	46.7	157,801	157,801	1.00	332,683	370,604	1.114
														40	3.75	8.56	54.2	67.4	45.4	184,236	184,236	1.00	359,118	397,039	1.106
														60	5.63	18.08	51.5	66.2	44.9	195,422	195,422	1.00	370,304	408,225	1.102
		40	75.1		59.6	58.0	66.4	86.37	71.84	212,069	373,278	585,347	0.36	20	1.88	2.40	62.4	71.7	66.3	174,940	141,205	0.81	583,102	353,274	0.606
														40	3.75	8.56	56.5	69.7	64.5	229,963	160,225	0.70	638,125	372,294	0.583
														60	5.63	18.08	53.7	68.6	63.5	261,298	171,669	0.66	669,460	383,738	0.573
		75	87.7		69.2	58.3	66.7	86.29	84.76	211,324	726,992	938,316	0.23	20	1.88	2.40	72.0	79.0	78.7	270,256	70,447	0.26	927,431	281,771	0.304
														40	3.75	8.56	64.1	75.8	75.8	383,687	101,312	0.26	1,040,862	312,636	0.300
														60	5.63	18.08	59.7	73.9	73.9	442,464	118,847	0.27	1,099,639	330,171	0.300

All data based on balanced system (Exhaust cfm = Supply cfm). Entering water temperature is 45°F. Coil face area is 14.72 sq. ft.

G-074 | HOT WATER COIL, TOTAL UNIT HEATING CAPACITY

Winter Application Ratings - Enthalpy Wheel														Perfomance Ratings - Hot Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent HWC		Heating Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil				Combined Heating Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	ENT Temp (deg. F)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
5400	-10	30	-11.5	72.0	54.0	66.4	73.2	48.41	39.56	347,214	80,969	428,183	0.81	20	1.99	120	1.55	106.3	71.7	50.7	136,272	136,272	1.00	564,455	483,486	0.857
																160	1.47	138.2	85.1	56.3	214,635	214,635	1.00	642,818	561,849	0.874
																200	1.41	170.0	98.6	61.3	293,806	293,806	1.00	721,989	641,020	0.888
														40	3.98	120	5.52	112.5	73.7	51.6	148,281	148,281	1.00	576,464	495,495	0.860
																160	5.26	148.2	88.1	57.5	232,709	232,709	1.00	660,892	579,923	0.877
																200	5.05	183.7	102.7	62.8	317,660	317,660	1.00	745,843	664,874	0.891
														60	5.97	120	11.73	114.9	74.5	52.0	152,778	152,778	1.00	580,961	499,992	0.861
																160	11.20	151.9	89.3	57.9	239,367	239,367	1.00	667,550	586,581	0.879
																200	10.79	188.8	104.1	63.3	326,349	326,349	1.00	754,532	673,563	0.893
	20		14.8			66.1	72.8	57.52	44.62	219,082	73,796	292,878	0.75	20	1.99	120	1.55	108.0	77.8	53.7	119,041	119,041	1.00	411,919	338,123	0.821
																160	1.47	140.0	91.2	60.0	197,248	197,248	1.00	490,126	416,330	0.849
																200	1.41	171.8	104.7	63.8	276,294	276,294	1.00	569,172	495,376	0.870
														40	3.98	120	5.51	113.5	79.6	54.5	129,446	129,446	1.00	422,324	348,528	0.825
																160	5.25	149.1	94.0	60.0	213,752	213,752	1.00	506,630	432,834	0.854
																200	5.05	184.7	108.5	65.0	298,611	298,611	1.00	591,489	517,693	0.875
														60	5.97	120	11.71	115.5	80.3	54.7	133,354	133,354	1.00	426,232	352,436	0.827
																160	11.18	152.5	95.1	60.4	219,845	219,845	1.00	512,723	438,927	0.856
																200	10.78	189.5	109.9	65.5	306,758	306,758	1.00	599,636	525,840	0.877
	50		38.4			65.8	72.5	66.06	49.89	92,244	43,507	135,751	0.68	20	1.99	120	1.54	109.6	83.6	57.1	102,857	102,857	1.00	238,608	195,101	0.818
																160	1.47	141.6	97.0	62.1	180,925	180,925	1.00	316,676	273,169	0.863
																200	1.41	173.4	110.4	66.5	259,859	259,859	1.00	395,610	352,103	0.890
														40	3.98	120	5.51	114.4	85.1	57.7	111,780	111,780	1.00	247,531	204,024	0.824
																160	5.25	150.0	99.5	62.9	195,973	195,973	1.00	331,724	288,217	0.869
																200	5.04	185.6	114.0	67.7	280,749	280,749	1.00	416,500	372,993	0.896
														60	5.97	120	11.69	116.1	85.7	57.9	115,140	115,140	1.00	250,891	207,384	0.827
																160	11.18	153.2	100.5	63.3	201,541	201,541	1.00	337,292	293,785	0.871
																200	10.76	190.1	115.3	68.1	288,388	288,388	1.00	424,139	380,632	0.897
6400	-10	30	-11.5	72.0	54.0	62.1	69.8	45.37	37.41	392,211	89,468	481,679	0.81	20	1.99	120	1.56	104.3	67.8	48.6	156,004	156,004	1.00	637,683	548,215	0.860
																160	1.49	135.5	80.3	54.0	242,345	242,345	1.00	724,024	634,556	0.876
																200	1.43	166.4	92.9	58.9	329,670	329,670	1.00	811,349	721,881	0.890
														40	3.98	120	5.54	111.3	70.1	49.6	171,695	171,695	1.00	653,374	563,906	0.863
																160	5.28	146.5	83.7	55.4	265,721	265,721	1.00	747,400	657,932	0.880
																200	5.07	181.5	97.3	60.5	360,389	360,389	1.00	842,068	752,600	0.894
														60	5.97	120	11.73	114.0	71.0	50.0	177,612	177,612	1.00	659,291	569,823	0.864
																160	11.22	150.7	84.9	55.8	274,375	274,375	1.00	756,054	666,586	0.882
																200	10.80	187.3	98.9	61.1	371,624	371,624	1.00	853,303	763,835	0.895
	20		14.8			61.7	69.4	55.63	43.26	247,336	81,539	328,875	0.75	20	1.99	120	1.55	106.4	75.0	50.2	134,748	134,748	1.00	463,623	382,084	0.824
																160	1.48	137.6	87.5	57.2	220,891	220,891	1.00	549,766	468,227	0.852
																200	1.42	168.8	100.0	61.8	308,052	308,052	1.00	636,927	555,388	0.872
														40	3.98	120	5.52	112.5	77.0	53.0	148,150	148,150	1.00	477,025	395,486	0.829
																160	5.27	147.7	90.5	58.4	242,007	242,007	1.00	570,882	489,343	0.857
																200	5.07	182.7	104.1	63.2	336,548	336,548	1.00	665,423	583,884	0.877
														60	5.97	120	11.73	114.8	77.7	53.3	153,224	153,224	1.00	482,099	400,560	0.831
																160	11.22	151.5	91.6	58.8	249,852	249,852	1.00	578,727	497,188	0.859
																200	10.80	188.1	105.6	63.8	347,001	347,001	1.00	675,876	594,337	0.879
	50		38.4			61.4	69.0	65.28	49.31	104,082	48,073	152,155	0.68	20	1.99	120	1.55	108.4	81.8	56.2	114,696	114,696	1.00	266,851	218,778	0.820
																160	1.47	139.7	94.2	60.9	200,664	200,664	1.00	352,819	304,746	0.864
																200	1.42	170.6	106.7	65.2	287,679	287,679	1.00	439,834	391,761	0.891
														40	3.98	120	5.51	113.6	83.4	58.9	125,987	125,987	1.00	278,142	230,069	0.827
																160	5.26	148.8	96.9	61.9	219,690	219,690	1.00	371,845	323,772	0.871
																200	5.06	183.9	110.5	66.4	314,115	314,115	1.00	466,270	418,197	0.897
														60	5.97	120	11.73	115.6	84.0	57.1	130,277	130,277	1.00	282,432	234,359	0.830
																160	11.20	152.3	98.0	62.2	226,779	226,779	1.00	378,934	330,861	0.873
																200	10.80	188.9	111.9	68.9	323,837	323,837	1.00	475,992	427,919	0.899
7400	-10	30	-11.5	72.0	54.0	57.6	66.3	42.35	35.20	431,015	95,908	526,923	0.82	20	1.99	120	1.58	102.4	64.2	48.5	175,159	175,159	1.00	702,082	606,174	0.863
																160	1.50	132.8	75.8	51.7	268,612	268,612	1.00	795,535	699,627	0.879
																200	1.44	163.1	87.6	58.5	363,218	363,218	1.00	890,141	794,233	0.892
														40	3.98	120	5.56	110.2	66.6	47.6	194,900	194,900	1.00	721,823	625,915	0.867
																160	5.30	144.9	79.5	53.3	297,746	297,746	1.00	824,669	728,761	0.884
																200	5.09	179.5	92.4	56.4	401,356	401,356	1.00	928,279	832,371	0.897
														60	5.97	120	11.77	113.2	67.6	56.5	202,387	202,387	1.00	729,310	633,402	0.868
																160	11.25	149.5	80.8	53.8	308,577	308,577	1.00	835,500	739,592	0.885
																200	10.84	185.8	94.1	59.0	415,343	415,343	1.00	942,266	846,358	0.898
	20		14.8			57.3	65.9	53.75	41.88	271,655	87,403	359,058	0.76	20	1.99	120	1.56	104.9	72.4	50.7	149,753	149,753	1.00	508,811	421,408	0.828
																160	1.49	135.4	84.0	55.5	242,969	242,969	1.00	602,027	514,624	0.855
																200	1.44	165.7	95.8	60.0	337,374	337,374	1.00	696,432	609,029	0.874
														40	3.98	120	5.54	111.6	74.5	51.6	166,382	166,382	1.00	525,440	438,037	0.834
																160	5.28	146.3	87.3	56.8	269,008	269,008	1.00	628,066	540,663	0.861
																200	5.08	180.9	100.2	61.6	372,449	372,449	1.00	731,507	644,104	0.881
														60	5.97	120	11.75	114.2	75.3	51.9	172,722	172,722	1.00	531,780	444,377	0.836
																160	11.22	150.5	88.5	57.3	278,731	278,731	1.00	637,789	550,386	0.863
																200	10.82	186.8	101.8	62.2	385,365	385,365	1.00	744,423	657,020	0.883
	50		38.4			56.9	65.5	64.50	48.73	114,252	51,531	165,783	0.69	20	1.99	120	1.55	107.3	80.2	55.4	125,688	125,688	1.00	291,471	239,940	0.823
																160	1.49	137.8	91.8	59.9	218,700	218,700	1.00	384,483	332,952	0.866
																200	1.43	168.1	103.5	63.9	312,930	312,930	1.00	478,713	427,182	0.892
														40	3.98	120	5.52	113.0	81.9	58.1	139,459	139,459	1.00	305,242	253,711	0.831
																160	5.27	147.7	94.8	60.9	241,884	241,884	1.00	407,667	356,136	0.874
																200	5.07	182.3	107.5	65.3	345,172	345,172	1.00	510,955	459,424	0.899
														60	5.97	120	11.73	115.1	82.5	56.3	144,732	144,732	1.00	310,515	258,984	0.834
																160	11.22	151.5	95.7	61.2	250,576	250,576	1.00	416,359	364,828	0.876
																200	10.80	187.8	109.0	65.8	357,087	357,087	1.00	522,870	471,339	0.901

Return air conditions are constant at 72.0 db and 54.0 wb. Outdoor air relative humidity is constant at 30%. Enthalpy Wheel leaving temperatures do not include the effect of Pre-Heater (optional) for frost control. All data based on balanced system (Exhaust cfm = Supply cfm). Coil face area is 14.72 sq. ft.

G-088 | HOT WATER COIL, TOTAL UNIT HEATING CAPACITY

Winter Application Ratings - Enthalpy Wheel														Perfomance Ratings - Hot Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent HWC		Heating Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil				Combined Heating Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	ENT Temp (deg. F)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
6400	-10	30	-11.5	72.0	54.0	66.5	73.2	48.21	39.43	411,477	95,948	507,425	0.81	20	1.99	120	1.56	103.8	71.4	50.6	160,805	160,805	1.00	668,230	572,282	0.856
																160	1.49	134.3	84.7	56.1	253,431	253,431	1.00	760,856	664,908	0.874
																200	1.42	164.6	96.2	60.5	347,202	347,202	1.00	854,627	758,679	0.888
														40	3.98	120	5.53	111.0	73.9	51.7	178,118	178,118	1.00	685,543	589,595	0.860
																160	5.28	145.8	88.5	57.6	279,621	279,621	1.00	787,046	691,098	0.878
																200	5.07	180.4	103.2	62.9	381,888	381,888	1.00	889,313	793,365	0.892
														60	5.97	120	11.73	113.8	74.8	52.1	184,695	184,695	1.00	692,120	596,172	0.861
																160	11.22	150.2	89.9	58.1	289,383	289,383	1.00	796,808	700,860	0.880
																200	10.80	186.5	105.1	63.6	394,652	394,652	1.00	902,077	806,129	0.894
	20		14.8			66.1	72.8	57.40	44.53	259,624	87,446	347,070	0.75	20	1.99	120	1.55	105.8	77.6	53.6	140,410	140,410	1.00	487,480	400,034	0.821
																160	1.48	136.4	90.9	58.8	232,835	232,835	1.00	579,905	492,459	0.849
																200	1.42	166.7	104.4	63.6	326,440	326,440	1.00	673,510	586,064	0.870
														40	3.98	120	5.52	112.2	79.8	54.5	155,377	155,377	1.00	502,447	415,001	0.826
																160	5.27	146.9	94.4	60.1	256,705	256,705	1.00	603,775	516,329	0.855
																200	5.07	181.6	109.1	65.2	358,841	358,841	1.00	705,911	618,465	0.876
														60	5.97	120	11.73	114.6	80.6	54.8	161,081	161,081	1.00	508,151	420,705	0.828
																160	11.22	151.0	95.7	60.6	265,628	265,628	1.00	612,698	525,252	0.857
																200	10.80	187.3	110.8	65.8	370,794	370,794	1.00	717,864	630,418	0.878
	50		38.4			65.8	72.5	66.01	49.84	109,311	51,553	160,864	0.68	20	1.99	120	1.55	107.8	83.5	57.1	121,247	121,247	1.00	282,111	230,558	0.817
																160	1.47	138.3	96.8	62.0	213,495	213,495	1.00	374,359	322,806	0.862
																200	1.42	168.7	110.2	66.5	306,952	306,952	1.00	467,816	416,263	0.890
														40	3.98	120	5.51	113.2	85.3	57.8	134,054	134,054	1.00	294,918	243,365	0.825
																160	5.26	148.0	99.9	63.0	235,224	235,224	1.00	396,088	344,535	0.870
																200	5.06	182.7	114.6	67.9	337,239	337,239	1.00	498,103	446,550	0.897
														60	5.97	120	11.71	115.3	86.0	58.0	138,950	138,950	1.00	299,814	248,261	0.828
																160	11.20	151.7	101.1	63.5	243,367	243,367	1.00	404,231	352,678	0.872
																200	10.80	188.1	116.2	68.3	348,437	348,437	1.00	509,301	457,748	0.899
7600	-10	30	-11.5	72.0	54.0	62.0	69.7	45.12	37.24	465,332	106,102	571,434	0.81	20	1.99	120	1.58	101.6	67.3	48.3	182,474	182,474	1.00	753,908	647,806	0.859
																160	1.50	131.3	79.5	53.6	283,617	283,617	1.00	855,051	748,949	0.876
																200	1.44	160.7	92.0	58.6	386,027	386,027	1.00	957,461	851,359	0.889
														40	3.98	120	5.56	109.7	70.0	49.6	204,841	204,841	1.00	776,275	670,173	0.863
																160	5.30	143.9	83.6	55.3	317,086	317,086	1.00	888,520	782,418	0.881
																200	5.09	178.0	97.3	60.5	430,259	430,259	1.00	1,001,693	895,591	0.894
														60	5.97	120	11.77	112.8	71.0	50.0	213,406	213,406	1.00	784,840	678,738	0.865
																160	11.26	148.8	85.1	55.9	329,653	329,653	1.00	901,087	794,985	0.882
																200	10.84	184.7	99.3	61.2	446,608	446,608	1.00	1,018,042	911,940	0.896
	20		14.8			61.6	69.3	55.48	43.16	293,437	96,694	390,131	0.75	20	1.99	120	1.56	104.1	74.6	61.6	157,556	157,556	1.00	547,687	450,993	0.823
																160	1.49	133.8	86.8	58.9	258,410	258,410	1.00	648,541	551,847	0.851
																200	1.44	163.3	99.2	61.5	360,663	360,663	1.00	750,794	654,100	0.871
														40	3.98	120	5.54	111.1	76.9	52.9	176,603	176,603	1.00	566,734	470,040	0.829
																160	5.29	145.3	90.5	58.3	288,613	288,613	1.00	678,744	582,050	0.858
																200	5.08	179.4	104.2	63.3	401,607	401,607	1.00	791,738	695,044	0.878
														60	5.97	120	11.75	113.8	77.8	53.3	183,932	183,932	1.00	574,063	477,369	0.832
																160	11.22	149.8	91.9	58.9	299,985	299,985	1.00	690,116	593,422	0.860
																200	10.82	185.7	106.0	63.9	416,796	416,796	1.00	806,927	710,233	0.880
	50		38.4			61.3	69.0	65.22	49.26	12,478	57,005	180,483	0.68	20	1.99	120	1.56	106.5	81.5	56.1	134,023	134,023	1.00	314,506	257,501	0.819
																160	1.49	136.2	93.7	60.7	234,670	234,670	1.00	415,153	358,148	0.863
																200	1.43	165.7	106.1	65.0	336,743	336,743	1.00	517,226	460,221	0.890
														40	3.98	120	5.53	112.4	83.4	56.8	150,024	150,024	1.00	330,507	273,502	0.828
																160	5.28	146.7	97.0	61.9	261,821	261,821	1.00	442,304	385,299	0.871
																200	5.08	180.8	110.7	66.5	374,650	374,650	1.00	555,133	498,128	0.897
														60	5.97	120	11.73	114.7	84.2	57.2	156,206	156,206	1.00	336,689	279,684	0.831
																160	11.22	150.8	98.2	62.3	272,081	272,081	1.00	452,564	395,559	0.874
																200	10.80	186.7	112.4	67.0	388,759	388,759	1.00	569,242	512,237	0.900
8800	-10	30	-11.5	72.0	54.0	57.4	66.2	42.06	34.99	511,585	113,729	625,314	0.82	20	1.99	120	1.59	99.6	63.3	46.0	203,126	203,126	1.00	828,440	714,711	0.863
																160	1.52	128.5	74.7	51.2	311,532	311,532	1.00	936,846	823,117	0.879
																200	1.46	156.1	86.9	56.2	427,809	427,809	1.00	1,053,123	939,394	0.892
														40	3.98	120	5.57	108.4	66.3	47.4	230,968	230,968	1.00	856,282	742,553	0.867
																160	5.32	142.1	79.0	53.0	352,903	352,903	1.00	978,217	864,488	0.884
																200	5.12	175.7	91.9	58.2	475,929	475,929	1.00	1,101,243	987,514	0.897
														60	5.97	120	11.80	111.9	67.4	47.9	241,698	241,698	1.00	867,012	753,283	0.869
																160	11.28	147.5	80.7	53.7	368,478	368,478	1.00	993,792	880,063	0.886
																200	10.87	183.0	94.0	58.9	496,092	496,092	1.00	1,121,406	1,007,677	0.899
	20		14.8			57.1	65.8	53.56	41.75	322,419	103,638	426,057	0.76	20	1.99	120	1.58	102.5	71.8	50.4	173,629	173,629	1.00	599,686	496,048	0.827
																160	1.51	131.5	83.1	55.1	281,776	281,776	1.00	707,833	604,195	0.854
																200	1.45	159.3	95.2	59.8	396,761	396,761	1.00	822,818	719,180	0.874
														40	3.98	120	5.56	110.1	74.2	51.4	196,995	196,995	1.00	623,052	519,414	0.834
																160	5.30	143.8	87.0	56.7	318,628	318,628	1.00	744,685	641,047	0.861
																200	5.10	177.4	99.8	61.4	441,420	441,420	1.00	867,477	763,839	0.881
														60	5.97	120	11.77	113.1	75.2	51.9	206,056	206,056	1.00	632,113	528,475	0.836
																160	11.26	148.7	88.4	57.2	332,582	332,582	1.00	758,639	655,001	0.863
																200	10.84	184.3	101.8	62.1	460,005	460,005	1.00	886,062	782,424	0.883
	50		38.4			56.7	65.4	64.42	48.67	125,594	61,099	186,693	0.67	20	1.99	120	1.56	105.3	79.7	55.2	145,687	145,687	1.00	332,380	271,281	0.816
																160	1.50	134.3	91.0	59.5	253,617	253,617	1.00	440,310	379,211	0.861
																200	1.44	163.1	102.5	63.6	363,157	363,157	1.00	549,850	488,751	0.889
														40	3.98	120	5.54	111.7	81.7	56.0	164,972	164,972	1.00	351,665	290,566	0.826
																160	5.29	145.5	94.4	60.8	286,335	286,335	1.00	473,028	411,929	0.871
																200	5.09	179.1	107.3	65.2	408,915	408,915	1.00	595,608	534,509	0.897
														60	5.97	120	11.75	114.2	82.5	56.3	172,491	172,491	1.00	359,184	298,085	0.830
																160	11.25	149.9	95.7	61.2	298,785	298,785	1.00	485,478	424,379	0.874
																200	10.84	185.4	109.1	65.8	426,034	426,034	1.00	612,727	551,628	0.900

Return air conditions are constant at 72.0 db and 54.0 wb. Outdoor air relative humidity is constant at 30%. Enthalpy Wheel leaving temperatures do not include the effect of Pre-Heater (optional) for frost control. All data based on balanced system (Exhaust cfm = Supply cfm). Coil face area is 14.72 sq. ft.

G-074 | DX COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Direct Expansion Coil							Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Refrigerant Data		LVG Air Temp		Cooling Cap - DX Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	SUC Temp (gpm)	Pr Drop (fwc)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
5400	80	5	50.4	75.0	47.8	65.79	72.41	76.31	48.48	20,817	3,031	23,848	0.87	40	2.73	57.2	38.8	111,500	111,500	1.00	135,348	132,317	0.98
														45	1.89	60.1	40.3	94,690	94,690	1.00	118,538	115,507	0.97
														50	1.23	63.0	41.8	77,740	77,740	1.00	101,588	98,557	0.97
		40	63.5		59.6	65.89	72.49	76.31	60.77	20,755	23,976	44,731	0.46	40	3.28	57.9	52.7	124,200	107,500	0.87	168,931	128,255	0.76
														45	1.90	60.0	54.7	95,200	95,200	1.00	139,931	115,955	0.83
														50	1.23	63.0	55.9	77,710	77,710	1.00	122,441	98,465	0.80
		75	73.8		69.2	66.00	72.57	76.30	70.62	20,692	44,566	65,258	0.32	40	7.49	61.8	60.0	200,400	84,480	0.42	265,658	105,172	0.40
														45	5.34	63.5	61.6	173,000	74,870	0.43	238,258	95,562	0.40
														50	3.52	65.2	63.4	142,600	64,630	0.45	207,858	85,322	0.41
	95	5	57.7	75.0	47.8	66.12	72.71	80.19	50.63	82,969	14,078	97,047	0.85	40	3.27	59.0	40.2	123,900	123,900	1.00	220,947	206,869	0.94
														45	2.36	61.7	41.6	107,700	107,700	1.00	204,747	190,669	0.93
														50	1.61	64.6	43.0	90,770	90,770	1.00	187,817	173,739	0.93
		40	75.1		59.6	66.26	72.82	80.16	64.71	82,685	119,157	201,842	0.41	40	4.70	60.6	55.5	152,800	114,200	0.75	354,642	196,885	0.56
														45	3.03	62.5	57.3	124,500	103,300	0.83	326,342	185,985	0.57
														50	1.64	64.6	59.4	91,840	91,190	0.99	293,682	173,875	0.59
		75	87.7		69.2	66.40	72.94	80.14	75.64	82,399	227,761	310,160	0.27	40	10.38	65.5	64.0	242,800	85,940	0.35	552,960	168,339	0.30
														45	7.73	67.0	65.5	214,700	76,940	0.36	524,860	159,339	0.30
														50	5.50	68.6	67.1	184,700	67,670	0.37	494,860	150,069	0.30
	110	5	64.6	75.0	47.8	66.40	73.00	83.98	52.81	144,683	30,199	174,882	0.83	40	3.80	60.7	41.8	135,100	135,100	1.00	309,982	279,783	0.90
														45	2.85	63.3	43.1	120,000	120,000	1.00	294,882	264,683	0.90
														50	2.01	66.2	44.5	103,100	103,100	1.00	277,982	247,783	0.89
		40	86.8		59.6	66.60	73.20	83.92	69.43	144,091	264,071	408,162	0.35	40	6.78	63.8	59.0	189,100	117,100	0.62	597,262	261,191	0.44
														45	4.78	65.5	60.7	162,100	107,400	0.66	570,262	251,491	0.44
														50	3.10	67.2	62.4	132,400	97,180	0.73	540,562	241,271	0.45
		75	101.7		69.2	66.80	73.30	83.87	81.82	143,494	513,681	657,175	0.22	40	14.82	69.9	69.3	300,200	81,690	0.27	957,375	225,184	0.24
														45	11.55	71.3	70.6	272,100	73,700	0.27	929,275	217,194	0.23
														50	8.72	72.7	72.1	241,900	65,390	0.27	899,075	208,884	0.23
6400	80	5	50.4	75.0	47.8	61.30	68.95	76.49	48.58	23,485	3,351	26,836	0.88	40	3.27	58.6	39.5	123,900	123,900	1.00	150,736	147,385	0.98
														45	2.29	61.2	40.9	105,800	105,800	1.00	132,636	129,285	0.97
														50	1.50	63.9	42.3	87,030	87,030	1.00	113,866	110,515	0.97
		40	63.5		59.6	61.49	69.04	76.48	60.92	23,420	26,518	49,938	0.47	40	3.75	59.3	53.6	134,100	119,100	0.89	184,038	142,520	0.77
														45	2.28	61.2	55.2	105,800	105,800	1.00	155,738	129,220	0.83
														50	1.49	63.9	56.3	86,990	86,990	1.00	136,928	110,410	0.81
		75	73.8		69.2	61.61	69.14	76.48	70.82	23,356	49,311	72,667	0.32	40	8.50	63.3	61.3	216,300	91,070	0.42	288,967	114,426	0.40
														45	6.12	64.7	62.7	187,400	81,250	0.43	260,067	104,606	0.40
														50	4.05	66.3	64.3	154,700	70,460	0.46	227,367	93,816	0.41
	95	5	57.7	75.0	47.8	61.76	69.30	80.87	51.00	93,611	15,576	109,187	0.86	40	3.97	60.9	41.3	138,600	138,600	1.00	247,787	232,211	0.94
														45	2.93	63.2	42.5	122,100	122,100	1.00	231,287	215,711	0.93
														50	2.02	66.0	43.8	103,400	103,400	1.00	212,587	197,011	0.93
		40	75.1		59.6	61.93	69.44	80.85	65.36	93,314	131,899	225,213	0.41	40	5.67	62.5	56.9	170,400	126,900	0.74	395,613	220,214	0.56
														45	3.74	64.2	58.5	140,700	115,800	0.82	365,913	209,114	0.57
														50	2.09	66.0	60.3	105,500	103,100	0.98	330,713	196,414	0.59
		75	87.7		69.2	62.10	69.58	80.82	76.44	93,015	252,228	345,243	0.27	40	12.12	67.6	66.0	267,100	92,190	0.35	612,343	185,205	0.30
														45	9.18	68.9	67.3	237,400	83,150	0.35	582,643	176,165	0.30
														50	6.60	70.3	68.7	205,300	73,640	0.36	550,543	166,655	0.30
	110	5	64.6	75.0	47.8	62.10	69.70	85.16	53.44	163,254	33,438	196,692	0.83	40	4.68	63.0	43.1	152,500	152,500	1.00	349,192	315,754	0.90
														45	3.54	65.4	44.3	136,300	136,300	1.00	332,992	299,554	0.90
														50	2.57	67.9	45.5	119,000	119,000	1.00	315,692	282,254	0.89
		40	86.8		59.6	62.40	69.90	85.09	70.60	162,629	292,545	455,174	0.36	40	8.37	66.3	61.0	213,900	130,000	0.61	669,074	292,629	0.44
														45	5.96	67.8	62.5	184,300	119,900	0.65	639,474	282,529	0.44
														50	3.92	69.3	64.0	151,800	109,100	0.72	606,974	271,729	0.45
		75	101.7		69.2	62.60	70.10	85.03	83.25	161,996	569,353	731,349	0.22	40	17.17	72.6	72.1	336,100	86,150	0.26	1,067,449	248,146	0.23
														45	14.10	73.8	73.2	306,300	78,140	0.26	1,037,649	240,136	0.23
														50	10.80	75.0	74.4	274,200	69,860	0.25	1,005,549	231,856	0.23
7400	80	5	50.4	75.0	47.8	56.93	65.47	76.66	48.68	25,777	3,595	29,372	0.88	40	3.77	59.9	40.2	134,600	134,600	1.00	163,972	160,377	0.98
														45	2.69	62.2	41.4	116,200	116,200	1.00	145,572	141,977	0.98
														50	1.76	64.7	42.7	95,680	95,680	1.00	125,052	121,457	0.97
		40	63.5		59.6	57.08	65.59	76.65	61.08	25,714	28,461	54,175	0.47	40	4.26	60.4	54.4	144,500	130,100	0.90	198,675	155,814	0.78
														45	2.69	62.2	55.8	116,200	116,200	1.00	170,375	141,914	0.83
														50	1.76	64.7	56.7	95,680	95,680	1.00	149,855	121,394	0.81
		75	73.8		69.2	57.22	65.70	76.65	71.01	25,651	52,948	78,599	0.33	40	9.47	64.6	62.4	230,600	97,100	0.42	309,199	122,751	0.40
														45	6.81	65.9	63.7	199,300	86,750	0.44	277,899	112,401	0.40
														50	4.56	67.2	65.0	165,700	75,810	0.46	244,299	101,461	0.42
	95	5	57.7	75.0	47.8	57.40	65.89	81.56	51.36	102,781	16,729	119,510	0.86	40	4.64	62.5	42.3	151,800	151,800	1.00	271,310	254,581	0.94
														45	3.45	64.7	43.4	134,300	134,300	1.00	253,810	237,081	0.93
														50	2.43	67.1	44.5	115,200	115,200	1.00	234,710	217,981	0.93
		40	75.1		59.6	57.60	66.06	81.53	66.00	102,486	141,736	244,222	0.42	40	6.57	64.2	58.2	186,000	138,500	0.74	430,222	240,986	0.56
														45	4.36	65.7	59.6	153,700	126,600	0.82	397,922	229,086	0.58
														50	2.55	67.2	61.2	118,400	114,300	0.97	362,622	216,786	0.60
		75	87.7		69.2	57.79	66.22	81.49	77.23	102,190	271,188	373,378	0.27	40	13.94	69.3	67.7	290,200	97,360	0.34	663,578	199,550	0.30
														45	10.62	70.5	68.9	257,800	87,870	0.34	631,178	190,060	0.30
														50	7.65	71.7	70.1	223,900	78,040	0.35	597,278	180,230	0.30
	110	5	64.6	75.0	47.8	57.90	66.30	86.34	54.06	179,292	35,952	215,244	0.83	40	5.58	65.2	44.4	169,000	169,000	1.00	384,244	348,292	0.91
														45	4.26	67.3	45.5	151,700	151,700	1.00	366,944	330,992	0.90
														50	3.16	69.5	46.5	134,000	134,000	1.00	349,244	313,292	0.90
		40	86.8		59.6	58.10	66.50	86.26	71.74	176,668	314,738	493,406	0.36	40	9.87	68.6	62.9	235,700	141,900	0.60	729,106	320,568	0.44
														45	7.12	69.9	64.2	204,100	131,500	0.64	697,506	310,168	0.44
														50	4.78	71.2	65.5	170,200	120,700	0.71	663,606	299,368	0.45
		75	101.7		69.2	58.40	66.80	86.18	84.64	178,034	612,949	790,983	0.23	40	20.64	75.0	74.4	367,800	90,250	0.25	1,158,783	268,284	0.23
														45	16.55	82.1	76.0	335,800	82,090	0.24	1,126,783	260,124	0.23
														50	12.79	77.1	76.5	301,800	73,730	0.24	1,092,783	251,764	0.23

All data based on balanced system (Exhaust cfm = Supply cfm). Entering liquid temperature is constant at 110°F. Coil face area is 14.89 sq. ft.

G-088 | DX COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Direct Expansion Coil							Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Refrigerant Data		LVG Air Temp		Cooling Cap - DX Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	SUC Temp (gpm)	Pr Drop (fwc)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
6400	80	5	50.4	75.0	47.8	65.78	72.40	76.32	48.49	24,668	3,592	28,260	0.87	40	3.59	56.2	38.3	139,000	139,000	1.00	167,260	163,668	0.98
														45	2.54	59.0	39.8	119,400	119,400	1.00	147,660	144,068	0.98
														50	1.66	62.1	41.3	98,120	98,120	1.00	126,380	122,788	0.97
		40	63.5		59.6	65.88	72.48	76.32	60.78	24,595	28,410	53,005	0.46	40	4.12	56.9	52.5	150,700	134,100	0.89	203,705	158,695	0.78
														45	2.55	59.0	54.3	119,800	119,800	1.00	172,805	144,395	0.84
														50	1.66	62.1	55.5	98,120	98,120	1.00	151,125	122,715	0.81
		75	73.8		69.2	65.98	72.56	76.31	70.64	24,521	52,808	77,329	0.32	40	9.15	61.4	59.9	240,000	102,900	0.43	317,329	127,421	0.40
														45	6.57	63.1	61.5	207,000	91,360	0.44	284,329	115,881	0.41
														50	4.40	64.8	63.2	172,300	79,570	0.46	249,629	104,091	0.42
	95	5	57.7	75.0	47.8	66.10	72.70	80.23	50.65	98,322	16,681	115,003	0.85	40	4.27	58.0	39.8	153,600	153,600	1.00	268,603	251,922	0.94
														45	3.15	60.6	41.2	135,300	135,300	1.00	250,303	233,622	0.93
														50	2.17	63.6	42.7	114,600	114,600	1.00	229,603	212,922	0.93
		40	75.1		59.6	66.24	72.82	80.21	64.75	97,985	141,197	239,182	0.41	40	5.93	59.7	55.3	186,200	141,800	0.76	425,382	239,785	0.56
														45	3.83	61.6	57.2	151,600	128,500	0.85	390,782	226,485	0.58
														50	2.22	63.5	59.1	116,000	115,300	0.99	355,182	213,285	0.60
		75	87.7		69.2	66.38	72.93	80.19	75.69	97,647	269,890	367,537	0.27	40	12.64	65.2	64.0	290,900	103,700	0.36	658,437	201,347	0.31
														45	9.53	66.7	65.5	258,000	93,160	0.36	625,537	190,807	0.31
														50	6.83	68.3	67.1	222,600	82,210	0.37	590,137	179,857	0.30
	110	5	64.6	75.0	47.8	66.40	73.00	84.06	52.85	171,456	35,785	207,241	0.83	40	4.97	59.7	41.4	167,800	167,800	1.00	375,041	339,256	0.90
														45	3.75	62.4	42.7	149,700	149,700	1.00	356,941	321,156	0.90
														50	2.72	65.1	44.1	130,600	130,600	1.00	337,841	302,056	0.89
		40	86.8		59.6	66.60	73.20	84.00	69.50	170,757	312,921	483,678	0.35	40	8.47	63.0	58.9	229,400	145,400	0.63	713,078	316,157	0.44
														45	6.01	64.7	60.5	196,700	133,700	0.68	680,378	304,457	0.45
														50	3.87	66.5	62.4	160,100	121,100	0.76	643,778	291,857	0.45
		75	101.7		69.2	66.80	73.30	83.94	81.91	170,050	608,711	778,761	0.22	40	17.92	69.8	69.3	358,800	98,210	0.27	1,137,561	268,260	0.24
														45	14.13	71.1	70.6	326,100	88,900	0.27	1,104,861	258,950	0.23
														50	10.74	72.6	72.0	290,400	79,120	0.27	1,069,161	249,170	0.23
7600	80	5	50.4	75.0	47.8	61.28	68.88	76.50	48.59	27,861	3,974	31,835	0.88	40	4.27	57.8	39.1	153,700	153,700	1.00	185,535	181,561	0.98
														45	3.08	60.2	40.4	133,500	133,500	1.00	165,335	161,361	0.98
														50	2.03	63.1	41.8	110,100	110,100	1.00	141,935	137,961	0.97
		40	63.5		59.6	61.41	68.98	76.49	60.94	27,785	31,447	59,232	0.47	40	4.72	58.3	53.4	162,600	149,100	0.92	221,832	176,885	0.80
														45	3.07	60.3	54.8	133,400	133,400	1.00	192,632	161,185	0.84
														50	2.03	63.1	56.0	110,100	110,100	1.00	169,332	137,885	0.81
		75	73.8		69.2	61.53	69.08	76.49	70.83	27,708	58,476	86,184	0.32	40	10.37	63.0	61.2	258,600	111,100	0.43	344,784	138,808	0.40
														45	7.51	64.4	62.7	224,200	99,390	0.44	310,384	127,098	0.41
														50	4.99	66.0	64.2	185,500	86,490	0.47	271,684	114,198	0.42
	95	5	57.7	75.0	47.8	61.68	69.24	80.83	51.03	111,058	18,472	129,530	0.86	40	5.17	60.0	40.8	171,800	171,800	1.00	301,330	282,858	0.94
														45	3.85	62.4	42.1	151,800	151,800	1.00	281,330	262,858	0.93
														50	2.73	65.0	43.3	130,800	130,800	1.00	260,330	241,858	0.93
		40	75.1		59.6	61.85	69.38	80.90	65.41	110,707	156,421	267,128	0.41	40	7.00	61.7	56.8	204,700	157,800	0.77	471,828	268,507	0.57
														45	4.60	63.3	58.5	168,400	144,200	0.86	435,528	254,907	0.59
														50	2.80	64.9	60.0	132,700	131,300	0.99	399,828	242,007	0.61
		75	87.7		69.2	62.02	69.52	80.87	76.50	110,354	299,125	409,479	0.27	40	14.88	67.3	66.0	320,700	111,700	0.35	730,179	222,054	0.30
														45	11.29	68.7	67.3	284,100	100,500	0.35	693,579	210,854	0.30
														50	8.10	70.1	68.7	246,000	89,060	0.36	655,479	199,414	0.30
	110	5	64.6	75.0	47.8	62.10	69.60	85.25	53.49	193,684	39,656	233,340	0.83	40	6.12	62.1	42.8	189,400	189,400	1.00	422,740	383,084	0.91
														45	4.66	64.5	43.9	169,600	169,600	1.00	402,940	363,284	0.90
														50	3.44	67.0	45.1	149,400	149,400	1.00	382,740	343,084	0.90
		40	86.8		59.6	62.30	69.80	85.19	70.69	192,946	346,949	539,895	0.36	40	10.30	65.6	61.1	256,800	161,000	0.63	796,695	353,946	0.44
														45	7.34	67.1	62.5	221,300	148,900	0.67	761,195	341,846	0.45
														50	4.88	68.6	64.0	183,100	136,200	0.74	722,995	329,146	0.46
		75	101.7		69.2	62.50	70.00	85.12	83.36	192,199	675,254	867,453	0.22	40	21.42	72.6	72.2	400,200	103,100	0.26	1,267,653	295,299	0.23
														45	17.16	73.8	73.3	364,700	93,580	0.26	1,232,153	285,779	0.23
														50	13.09	75.0	74.5	480,400	326,700	0.68	1,347,853	518,899	0.38
8800	80	5	50.4	75.0	47.8	56.77	65.34	76.68	48.69	30,592	4,262	34,854	0.88	40	4.93	59.1	39.8	166,900	166,900	1.00	201,754	197,492	0.98
														45	3.56	61.4	41.0	145,200	145,200	1.00	180,054	175,792	0.98
														50	2.40	63.9	42.3	121,300	121,300	1.00	156,154	151,892	0.97
		40	63.5		59.6	56.91	65.46	76.67	61.10	30,518	33,748	64,266	0.47	40	5.29	59.6	54.3	174,100	162,800	0.36	238,366	193,318	0.81
														45	3.56	61.4	55.5	145,200	145,200	1.00	209,466	175,718	0.84
														50	2.40	63.9	56.4	121,300	121,300	1.00	185,566	151,818	0.82
		75	73.8		69.2	57.05	65.57	76.67	71.02	30,443	62,785	93,228	0.33	40	11.56	64.3	62.4	274,900	118,400	0.43	368,128	148,843	0.40
														45	8.28	65.6	63.7	237,500	105,900	0.45	330,728	136,343	0.41
														50	5.55	66.9	65.0	197,400	92,910	0.47	290,628	123,353	0.42
	95	5	57.7	75.0	47.8	57.24	65.77	81.62	51.40	121,986	19,837	141,823	0.86	40	6.07	61.8	41.8	188,600	188,600	1.00	330,423	310,586	0.94
														45	4.55	64.0	43.0	167,200	167,200	1.00	309,023	289,186	0.94
														50	3.28	66.3	44.1	145,300	145,300	1.00	287,123	267,286	0.93
		40	75.1		59.6	57.44	65.93	81.59	66.06	121,639	168,081	289,720	0.42	40	8.10	63.5	58.2	223,000	172,400	0.77	512,720	294,039	0.57
														45	5.42	64.9	59.7	184,900	158,500	0.86	474,620	280,139	0.59
														50	3.36	66.3	61.0	147,500	145,200	0.98	437,220	266,839	0.61
		75	87.7		69.2	57.64	66.10	81.56	77.30	121,290	321,607	442,897	0.27	40	16.83	69.2	67.8	345,600	117,600	0.34	788,497	238,890	0.30
														45	12.96	70.4	69.0	308,300	106,700	0.35	751,197	227,990	0.30
														50	9.38	71.6	70.2	268,300	95,260	0.36	711,197	216,550	0.30
	110	5	64.6	75.0	47.8	57.70	66.20	86.45	54.12	212,803	42,636	255,439	0.83	40	7.28	64.3	44.0	209,800	209,800	1.00	465,239	422,603	0.91
														45	5.59	66.6	45.0	188,600	188,600	1.00	444,039	401,403	0.90
														50	4.17	68.8	46.1	167,000	167,000	1.00	422,439	379,803	0.90
		40	86.8		59.6	58.00	66.40	86.37	71.84	212,069	373,278	585,347	0.36	40	12.10	67.9	62.9	282,600	176,100	0.62	867,947	388,169	0.45
														45	8.79	69.2	64.2	245,300	163,800	0.67	830,647	375,869	0.45
														50	5.93	70.5	65.5	205,100	150,900	0.74	790,447	362,969	0.46
		75	101.7		69.2	58.30	66.70	86.29	84.76	211,324	726,992	938,316	0.23	40	24.68	75.2	74.7	436,500	106,700	0.24	1,374,816	318,024	0.23
														45	19.84	76.1	75.7	399,600	97,480	0.24	1,337,916	308,804	0.23
														50	15.48	77.2	76.7	359,400	87,500	0.24	1,297,716	298,824	0.23

All data based on balanced system (Exhaust cfm = Supply cfm). Entering liquid temperature is constant at 110°F. Coil face area is 15.82 sq. ft.

G-074 & G-088 | ENGINEERING SPECIFICATION

General
Ruskin Energy Recovery Ventilator shall be listed per UL 1995, Heating and Cooling Equipment. Energy transfer ratings of the energy recovery wheel shall be AHRI Certified. Performance shall be as scheduled on plans. Exhaust discharge and outside air intake shall not be located on the same side on roof top units. Basis of design is Ruskin Model EVT.

Unit Casing and Frames
EVT frame shall be constructed of aluminum. EVT panels shall be G90 galvanized steel. All panels exposed to the weather shall be a minimum of 18 gauge galvanized steel. EVT shall be internally lined with galvanized sheet metal creating a double wall. Where top panels are joined there shall be an overlapping, standing seam to insure positive weather protection. All metal-to-metal seams shall be factory sealed, requiring no caulking at job site. EVT base to be designed for curb mounting. EVT base shall overhang the curb for a positive seal against water run-off. Ruskin EVT exterior panels shall be powder coated for superior finish.

Weatherhoods
Weatherhoods shall be the same finish as the ERV. Outdoor air weatherhood shall incorporate a hooded design and moisture eliminator.

Energy Recovery Wheel
Wheel shall be of the enthalpy type for both sensible and latent heat recovery and be designed to insure laminar flow. Energy transfer ratings must be AHRI Certified to Standard 1060 and bear the AHRI certification symbol for AHRI Air-to-Air Energy Recovery Ventilation Equipment Certification Program based on AHRI 1060. Ratings “in accordance with 1060” without certification are not acceptable. Desiccant shall be silica gel for maximum latent energy transfer. Wheel shall be constructed of lightweight polymer media to minimize shaft and bearing loads. Polymer media shall be mounted in a stainless steel rotor for corrosion resistance. Wheel design shall consist of removable segments for ease of service and/or cleaning. Silica gel desiccant shall be permanently bonded to wheel media to retain latent heat capability after cleaning.Wheels with sprayed on desiccant coatings are not acceptable. Wheels with desiccant applied after wheel formation are not acceptable. Energy recovery device shall transfer moisture entirely in the vapor phase. Energy recovery drive belt material shall be prestretched high strength urethane and shall be factory installed, eliminating the need for field belt tension adjustment. Link style belts are not acceptable.

Insulation
EVT casing to be insulated with 1 inch fiberglass. Insulation shall meet requirements of NFPA 90A and tested to meet UL 181 requirements. Insulation to be enclosed in double wall construction.

Free Cooling Mode
The on-board control logic shall automatically cease energy recovery when outside air conditions are within a 40°F to 70°F (4°C to 21°C) temperature range to allow for space cooling. During the free cooling period, the wheel shall automatically jog at preset time intervals to purge wheel of moisture and contaminant build up.

Access Doors
All components shall be easily accessible through hinged access doors for exhaust, supply, filter, and damper compartments. Energy recovery wheels shall be mounted in a slide-out track for inspection, removal, and cleaning.

Roof Curbs
Roof curb to be supplied by EVT manufacturer for field assembly. Curb shall consist of die formed galvanized steel sections. Curb shall be full perimeter type with gasket provided for field installation between curb and EVT base.

Fan Sections
Centrifugal fans to be double width, double inlet, forward curved type. All blower wheels shall be statically and dynamically balanced. Steel fan shafts shall be ground and polished and shall be mounted in permanently lubricated, sealed ball bearing pillow blocks. Bearings shall be selected for a minimum (L10) life in excess of 100,000 hours at maximum cataloged operating speeds. Adjustable sheaves on belt-driven fans with motors less than 15hp shall allow independent balancing of exhaust and supply airflows. Fan and motor assemblies are mounted to EVT base with neoprene isolators as standard. Fans shall be located in draw-through position in reference to the energy recovery wheel.

Motors and Drives
Motors shall be energy efficient, complying with EPACT standards, for single speed ODP and TEFC enclosures. Motors shall be permanently lubricated, heavy-duty type, matched to the fan load and furnished at the specified voltage, phase, and enclosure. Drives shall be sized for a minimum of 150% of driven horsepower. Pulleys shall be of the fully machined cast type, keyed and securely attached to the fan wheel and motor shafts; 10 horsepower and less shall be supplied with an adjustable drive pulley. Energy wheel motors shall have integral overload protection.

Filters
Supply and exhaust filters shall be 2-inch thick pleated fiberglass with a minimum MERV 8 rating.MERV 11 or 13 filters are optional. Filter racks shall be die-formed galvanized steel.

Electrical
All internal electrical components shall be factory wired for single point power connection. Units with electric preheat or post heat will be wired with independent power supply. All electrical components shall be UL Listed, Approved, or Classified where applicable and wired in compliance with the National Electrical Code. Weatherproof, integral door interlocking disconnect switch, motor starters, control circuit fusing, control transformer for 24 VAC circuit, and terminal strip shall be supplied as standard components in the control center. Motor starters consist of a contactor and Class 20 electronic adjustable overload protection and shall be provided for all motors in the unit. Ruskin’s ER optimizer PLC controller is included to control all unit functions and outputs and will be fully compliant with BAS systems including LONWORKS, BACNET, and MODBUS.

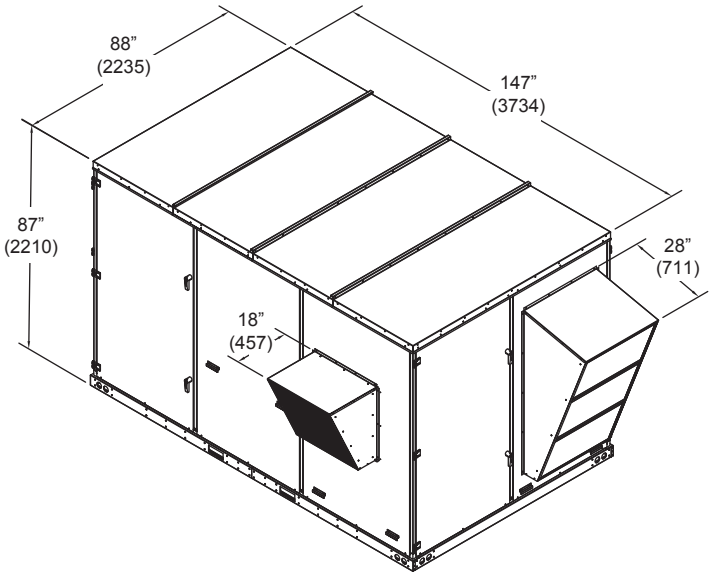
DX Cooling Coils
Direct expansion (DX) shall be factory tested and rated in accordance with AHRI 410. Coils shall have rifled copper tubes with permanently expanded aluminum fins and shall be equipped with adjustable expansion valve connected to distributors.

Chilled and Hot Water Coils
Water coils shall be factory tested and rated in accordance with AHRI 410. Coils shall have copper tubes with permanently expanded aluminum fins.

Electric Heat Coils
Electric heat shall be UL listed and circuit fused per NEC over 48 amps. Heater shall be sequentially controlled via on-board sequencers. Electric heat shall be factory wired and installed. Control will be 24 volt with class 2 transformer. Standard air flow proving switch will shut down heater if air ceases to flow across heating elements. The electric preheat option provides frost protection for year round operation. It features steel finned tubular heater with high temperature baked-on aluminum finish protecting them from corrosion and deterioration. Modular heat stages for single or dual stage heat are provided. The post electric heat option utilizes nickel chromium electric wire resistance elements and allows for modular heat stages for single or multiple stage heat.

G-100 & G-120 | INTRODUCTION

Models G-100 and G-120 are energy recovery ventilators with auxiliary heating and cooling capabilities. They are designed to provide outside air into a building without increasing the building HVAC load.The units are classified as a neutral air unit providing outside air into the building at room temperature.



G-100 & G-120 | FEATURES

- **Frame**: Modular aluminum.
- **Cabinet**: Galvanized steel, fully insulated double wall.
- **Blowers**: Silent Pro Series Class II FC.
- **Access Doors**: Hinged double wall with 1/4 turn latches.
- **Wheel**: AHRI certified polymeric Enthalpy Wheel, complete with rotation sensors.
- **Filters**: 2" pleated, MERV 8.
- **Finish**: Polyester resin based powder coat.
- **Control**: Digital programmable logic controller. Single point wiring with NEMA 3R disconnect.
- **Installed Weight**: 3,800 lbs.
- **Shipped Weight**: 3,800 lbs.

G-100 & G-120 | OPTIONS & ACCESSORIES

Heating / Cooling
- R-410A DX coil.
- Chilled water coil.
- Hot water coil.
- Electric heat (pre and post).

Frost Control
- Timed exhaust frost control.
- Variable wheel speed frost control.
- Electric preheat.

Filters
- 2" (51) Pleated MERV 11 or MERV 13 filters.

Dampers
- Actuated exhaust air damper.
- Actuated intake air damper.

Sensors
- Smoke detectors.
- CO_2 sensors.
- Dirty filter sensors.

Blower Motor
- ODP or TEFC motors available.

Roof Curbs

GFCI Service Outlet

Custom Paint

VFD Blower Control

Sensible Wheel Only

G-100 & G-120 | PERFORMANCE DATA

G-100 Supply Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7600	2242	-	-	610	3.05	694	3.80	775	4.60	851	5.44	923	6.32	991	7.23	1060	8.17
8200	2419	-	-	632	3.58	713	4.37	788	5.21	861	6.09	931	7.01	998	7.97	1061	8.94
8800	2596	575	340	655	4.18	731	5.01	803	5.89	873	6.81	941	7.78	1005	8.76	1067	9.78
9400	2773	603	4.03	679	4.85	750	5.72	820	6.63	886	7.59	951	8.59	1013	9.62	1074	10.68
10000	2950	630	4.72	702	5.59	771	6.49	837	7.45	901	8.44	963	9.47	1023	10.55	-	-

G-100 Exhaust Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
7600	1788	484	2.06	584	2.86	678	3.75	764	4.69	-	-	-	-	-	-	-	-
8200	1929	507	2.46	602	3.31	691	4.24	774	5.23	851	6.26	-	-	-	-	-	-
8800	2071	530	2.91	620	3.80	704	4.77	784	5.81	859	6.89	-	-	-	-	-	-
9400	2212	554	3.42	638	4.34	719	5.36	795	6.43	868	7.56	-	-	-	-	-	-
10000	2353	577	3.97	657	4.94	734	5.99	807	7.11	878	8.29	-	-	-	-	-	-

G-120 Supply Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	2360	-	-	-	-	692	4.03	770	4.85	845	5.72	916	6.62	984	7.55	1049	8.51
9000	2655	-	-	649	4.25	707	4.89	795	5.96	865	6.89	932	7.85	996	8.85	1058	9.88
10000	2950	615	4.56	688	5.41	757	6.31	824	7.25	888	8.24	951	9.26	1011	10.33	1070	11.43
11000	3245	660	5.85	728	6.78	793	7.75	854	8.75	914	9.80	973	10.89	1030	12.01	1086	13.17
12000	3540	703	7.32	768	8.36	828	9.39	886	10.46	942	11.57	997	12.71	1051	13.89	1103	15.11

G-120 Exhaust Air Performance Ratings

Air Volume (CFM)	Outlet Velocity (FMP)	External Static Pressure (in. w.g.)															
		0.00		0.50		1.00		1.50		2.00		2.50		3.00		3.50	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
8000	1882	-	-	580	3.00	671	3.90	756	4.87	835	5.88	-	-	-	-	-	-
9000	2118	-	-	610	3.80	676	4.55	773	5.81	849	6.90	920	8.03	-	-	-	-
10000	2353	-	-	641	4.74	719	5.78	793	6.88	864	8.05	932	9.26	997	10.51	-	-
11000	2588	599	4.81	673	5.84	746	6.94	814	8.11	881	9.34	946	10.62	-	-	-	-
12000	2824	624	5.75	705	7.08	771	8.22	837	9.47	900	10.77	-	-	-	-	-	-

This blower data accounts for the pressure drop across the Energy Recovery Wheel and the internal cabinet losses, but does not include the pressure drop for selected Accessories and Options which can be found in the corresponding tables and must be added to the External Static Pressure to determine correct RPM and BHP. BHP rating does not include drive losses. Performance ratings do not include the effects of appurtenances in the air stream. Drives are sized for a minimum of 150% of driven horsepower.

	Low Speed
	Medium Speed
	High Speed
-	Empty space means this operating point is outside the efficient operating range of the blower.

G-100 & G-120 | PRODUCT & ELECTRICAL DATA

		G-100			G-120		
Line Voltage - 60Hz		230v / 3Ph	460v / 3Ph	575v / 3Ph	230v / 3Ph	460v / 3Ph	575v / 3Ph
Supply Air Blower	Motor HP L/M/H	5 / 7.5 / 10	5 / 7.5 / 10	5 / 7.5 / 10	7.5 / 10 / 15	7.5 / 10 / 15	7.5 / 10 / 15
	Drive Type	Belt	Belt	Belt	Belt	Belt	Belt
	Size (DxW)	20 x 15	20 x 15	20 x 15	20 x 15	20 x 15	20 x 15
	Blower Speed	1300	1300	1300	1300	1300	1300
	Adjustment	Sheave	Sheave	Sheave	Sheave	Sheave	Sheave
	Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
	Full Load Amps	12.8 / 19.4 / 26.8	6.4 / 9.7 / 13.4	5.6 / 8.4 / 11.6	3719.4	9.7 / 13.4 / 18.7	8.4 / 11.6 / 16.3
	Service Factor	1.15	1.15	1.15	1.15	1.15	1.15
Exhaust Air Blower	Motor HP L/M/H	3 / 5 / 7.5	3 / 5 / 7.5	3 / 5 / 7.5	5 / 7.5 / 10	5 / 7.5 / 10	5 / 7.5 / 10
	Drive Type	Belt	Belt	Belt	Belt	Belt	Belt
	Size (DxW)	20 x 20	20 x 20	20 x 20	20 x 20	20 x 20	20 x 20
	Blower Speed	1281	1281	1281	1281	1281	1281
	Adjustment	Sheave	Sheave	Sheave	Sheave	Sheave	Sheave
	Bearing Type	Ball	Ball	Ball	Ball	Ball	Ball
	Full Load Amps	8.6 / 12.8 / 19.4	4.8 / 6.4 / 9.7	4.2 / 5.6 / 8.4	12.8 / 19.4 / 26.8	6.4 / 9.7 / 13.4	5.6 / 8.5 / 11.6
	Service Factor	1.15	1.15	1.15	1.15	1.15	1.15
Wheel Data	Potential Volts	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph	208/230v / 1Ph
	Motor Speed	850 RPM	850 RPM	850 RPM	850 RPM	850 RPM	850 RPM
	Full Load Amps	2.5	1.2	1.2	2.5	1.2	1.2
	Wheel Model	ERC-68100	ERC-68100	ERC-68100	ERC-74122	ERC-74122	ERC-74122
	Depth	3	3	3	3	3	3
	Dia. (Nom. in.)	69	69	69	74	74	74
Preheat	No. of Stages	1	1	1	2	2	2
	kW / Stage	16.2	16.2	16.2	16.2	16.2	16.2
	MCA / Circuit	47.7	24.4	20.3	47.7	24.2	20.3
	MOCP	50	25	25	Field Provided		
Post Heat	No. of Stages	3	3	3	4	4	4
	kW / Stage	16.2	16.2	16.2	16.2	16.2	16.2
	MCA / Circuit	47.7	24.4	20.3	47.7	24.4	20.3
	MOCP	50	25	20	50	25	20
	Total MCA	135.3	67.65	58.86	180.4	90.2	78.5
	Point Power	Separate	Separate	Separate	Separate	Separate	Separate
Total	MCA Minimum	23.9	11.95	10.4	34.7	17.35	12.1
	MOCP Minimum	25	15	15	40	20	20
	MCA Maximum	231.7	115.85	100.8	297.4	148.7	129.4
	MOCP Maximum	250	120	110	300	150	130

Effectiveness		Sensible	Latent	Total	Sensible	Latent	Total
AHRI Ratings	Total @ 100%	75%	69%	73%	75%	69%	73%
	Total @ 75%	79%	74%	76%	79%	74%	76%
	Net @ 100%	75%	69%	71%	75%	69%	73%
	Net @ 75%	79%	74%	77%	79%	74%	76%

G-100 | CHILLED WATER COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Chilled Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil				Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
7600	80	5	50.4	75.0	47.8	65.10	71.87	76.35	48.51	29,077	4,221	33,298	0.87	24	2.02	2.57	55.2	61.7	41.2	122,081	122,081	1.00	155,379	151,158	0.970
														48	4.04	9.14	50.7	59.8	40.2	137,776	137,776	1.00	171,074	166,853	0.980
														72	6.06	19.15	49.0	59.1	39.8	144,005	144,005	1.00	177,303	173,082	0.980
		40	63.5		59.6	65.20	71.95	76.35	60.80	28,991	33,391	62,382	0.46	24	2.02	2.57	55.2	61.6	55.2	122,860	122,860	1.00	185,242	151,851	0.820
														48	4.04	9.14	50.8	59.7	54.4	138,654	138,654	1.00	201,036	167,645	0.830
														72	6.06	19.15	49.1	58.9	54.0	146,790	145,830	0.99	209,172	174,821	0.840
		75	73.8		69.2	65.31	72.03	76.34	70.67	28,905	62,069	90,974	0.32	24	2.02	2.57	59.8	65.7	64.1	178,117	87,818	0.49	269,091	116,723	0.430
														48	4.04	9.14	54.6	63.4	62.0	231,205	107,025	0.46	322,179	135,930	0.420
														72	6.06	19.15	52.1	62.3	61.0	255,373	116,252	0.46	346,347	145,157	0.420
	95	5	57.7	75.0	47.8	65.43	72.17	80.35	50.72	115,891	19,606	135,497	0.86	24	2.02	2.56	56.5	63.8	42.8	137,750	137,750	1.00	273,247	253,641	0.930
														48	4.04	9.11	51.5	61.7	41.7	155,373	155,373	1.00	290,870	271,264	0.930
														72	6.06	19.15	49.5	60.9	41.3	162,374	162,374	1.00	297,871	278,265	0.930
		40	75.1		59.6	65.58	72.29	80.33	64.87	115,498	165,964	281,462	0.41	24	2.02	2.56	56.9	63.6	58.8	143,664	138,408	0.96	425,126	253,906	0.600
														48	4.04	9.11	52.1	62.4	57.6	170,630	149,075	0.87	452,092	264,573	0.590
														72	6.06	19.15	50.1	61.6	57.0	185,596	155,182	0.84	467,058	270,680	0.580
		75	87.7		69.2	65.72	72.41	80.31	75.83	115,103	317,250	432,353	0.27	24	2.02	2.56	63.4	69.7	68.5	221,294	88,392	0.40	653,647	203,495	0.310
														48	4.04	9.11	57.0	66.9	66.0	290,087	111,440	0.38	722,440	226,543	0.310
														72	6.06	19.15	53.9	65.5	64.8	321,942	122,843	0.38	754,295	237,946	0.320
	110	5	57.7	75.0	47.8	65.80	72.50	84.26	53.00	202,090	43,703	245,793	0.82	24	1.88	2.40	57.7	65.9	44.5	153,052	153,052	1.00	398,845	355,142	0.890
														48	3.75	8.56	52.2	63.5	43.4	172,539	172,539	1.00	418,332	374,629	0.896
														72	5.63	18.08	50.0	62.6	42.9	180,289	180,289	1.00	426,082	382,379	0.897
		40	75.1		59.6	66.00	72.70	84.21	69.71	201,273	367,840	569,113	0.35	24	1.88	2.40	59.3	67.6	63.1	172,720	138,092	0.80	741,833	339,365	0.457
														48	3.75	8.56	54.1	65.5	61.2	219,441	155,301	0.71	788,554	356,574	0.452
														72	5.63	18.08	51.7	64.5	60.3	241,806	163,950	0.68	810,919	365,223	0.450
		75	87.7		69.2	66.20	72.80	84.15	82.16	200,445	715,586	916,031	0.22	24	1.88	2.40	68.2	74.5	74.3	279,317	80,419	0.29	1,195,348	280,864	0.235
														48	3.75	8.56	60.5	71.2	71.2	372,134	108,341	0.29	1,288,165	308,786	0.240
														72	5.63	18.08	56.5	69.5	69.5	415,310	122,450	0.29	1,331,341	322,895	0.243
8800	80	5	50.4	75.0	47.8	61.22	68.83	76.51	48.60	32,236	4,596	36,832	0.88	24	2.02	2.56	56.0	62.8	41.8	132,222	132,222	1.00	169,054	164,458	0.970
														48	4.04	9.11	51.3	60.8	40.8	151,111	151,111	1.00	187,943	183,347	0.980
														72	6.06	19.15	49.4	60.0	40.4	158,745	148,745	0.94	195,577	180,981	0.930
		40	63.5		59.6	61.34	68.93	76.50	60.94	32,148	36,374	68,522	0.47	24	2.02	2.56	56.0	62.7	55.7	133,050	133,050	1.00	201,572	165,198	0.820
														48	4.04	9.11	51.3	60.8	54.9	151,559	151,559	1.00	220,081	183,707	0.830
														72	6.06	19.15	49.4	59.8	54.5	160,407	160,407	1.00	228,929	192,555	0.840
		75	73.8		69.2	61.46	69.02	76.50	70.84	32,059	67,638	99,697	0.32	24	2.02	2.56	60.5	66.8	65.0	186,609	93,819	0.50	286,306	125,878	0.440
														48	4.04	9.11	55.3	64.5	63.0	247,177	115,250	0.47	346,874	147,309	0.420
														72	6.06	19.15	52.6	63.4	62.0	274,962	125,623	0.46	374,659	157,682	0.420
	95	5	57.7	75.0	47.8	61.61	69.19	80.95	51.04	128,494	21,365	149,859	0.85	24	2.02	2.55	57.6	65.3	43.5	151,289	151,289	1.00	301,148	279,783	0.930
														48	4.04	9.09	52.2	63.0	42.4	172,770	172,770	1.00	322,629	301,264	0.930
														72	6.06	19.09	50.0	62.1	42.0	181,461	181,461	1.00	331,320	309,955	0.940
		40	75.1		59.6	61.78	69.33	80.92	65.43	128,088	180,925	309,013	0.41	24	2.02	2.55	58.0	64.9	59.8	156,449	153,945	0.98	465,462	282,033	0.610
														48	4.04	9.09	52.8	63.7	58.6	187,308	165,915	0.89	496,321	294,003	0.590
														72	6.06	19.10	50.7	62.9	57.9	205,026	173,006	0.84	514,039	301,094	0.590
		75	87.7		69.2	61.95	69.47	80.90	76.53	127,678	345,985	473,663	0.27	24	2.02	2.55	64.6	71.2	69.9	235,609	93,421	0.40	709,272	221,099	0.310
														48	4.04	9.08	58.1	68.5	67.5	315,535	119,283	0.38	789,198	246,961	0.310
														72	6.06	19.09	54.8	67.1	66.3	353,681	132,484	0.37	827,344	260,162	0.310
	110	5	57.7	75.0	47.8	62.00	69.50	85.30	53.55	224,087	47,656	271,743	0.82	24	1.88	2.40	59.1	67.7	45.6	169,546	169,546	1.00	415,339	393,633	0.948
														48	3.75	8.56	53.0	65.2	44.4	193,482	193,482	1.00	439,275	417,569	0.951
														72	5.63	18.08	50.6	64.2	43.9	203,177	203,177	1.00	448,970	427,264	0.952
		40	75.1		59.6	62.20	69.70	85.23	70.73	223,233	401,293	624,526	0.36	24	1.88	2.40	60.9	69.3	64.5	191,147	152,970	0.80	760,260	376,203	0.495
														48	3.75	8.56	55.1	67.3	62.7	243,824	171,770	0.70	812,937	395,003	0.486
														72	5.63	18.08	52.5	66.3	61.8	271,028	181,964	0.67	840,141	405,197	0.482
		75	87.7		69.2	62.50	69.90	85.16	83.41	222,367	781,015	1,003,382	0.22	24	1.88	2.40	70.0	76.6	76.3	300,474	82,921	0.28	1,216,505	305,288	0.251
														48	3.75	8.56	62.0	73.3	73.3	409,339	114,061	0.28	1,325,370	336,428	0.254
														72	5.63	18.08	57.8	71.7	71.7	461,054	130,140	0.28	1,377,085	352,507	0.256
10000	80	5	50.4	75.0	47.8	57.33	65.78	76.66	48.69	35,000	4,891	39,891	0.88	24	2.02	2.55	56.8	63.7	42.3	141,803	141,803	1.00	181,694	176,803	0.970
														48	4.04	9.09	51.8	61.7	41.3	163,910	163,910	1.00	203,801	198,910	0.980
														72	6.06	19.09	49.8	60.9	40.9	172,993	172,993	1.00	212,884	207,993	0.980
		40	63.5		59.6	57.47	65.89	76.65	61.08	34,913	38,725	73,638	0.47	24	2.02	2.55	56.8	63.6	56.2	142,808	142,808	1.00	216,446	177,721	0.820
														48	4.04	9.09	51.9	61.6	55.4	165,664	165,664	1.00	239,302	200,577	0.840
														72	6.06	19.10	49.8	60.8	55.1	174,025	174,025	1.00	247,663	208,938	0.840
		75	73.8		69.2	57.61	66.00	76.65	71.00	34,826	72,041	106,867	0.33	24	2.02	2.55	61.1	67.5	65.7	193,501	100,079	0.52	300,368	134,905	0.450
														48	4.04	9.09	55.8	65.4	63.7	259,586	123,050	0.47	366,453	157,876	0.430
														72	6.06	19.09	53.1	64.4	62.8	291,695	134,818	0.46	398,562	169,644	0.430
	95	5	57.7	75.0	47.8	57.79	66.20	81.55	51.36	139,547	22,760	162,307	0.86	24	2.02	2.54	58.6	66.6	44.4	163,970	163,970	1.00	326,277	303,517	0.930
														48	4.04	9.06	48.0	64.3	43.2	189,350	189,350	1.00	351,657	328,897	0.940
														72	6.06	19.09	50.5	63.3	42.7	199,791	199,791	1.00	362,098	339,338	0.940
		40	75.1		59.6	57.98	66.36	81.52	65.99	139,143	192,828	331,971	0.42	24	2.02	2.54	59.0	66.1	60.7	168,849	168,225	1.00	500,820	307,368	0.610
														48	4.04	9.06	53.5	64.9	59.6	204,141	181,641	0.89	536,112	320,784	0.600
														72	6.06	19.09	51.2	64.2	58.9	223,971	189,421	0.85	555,942	328,564	0.590
		75	87.7		69.2	58.18	66.52	81.49	77.22	138,736	368,922	507,658	0.27	24	2.02	2.53	65.7	72.5	71.2	249,063	97,926	0.39	756,721	236,662	0.310
														48	4.04	9.06	59.1	70.0	68.9	339,002	126,114	0.37	846,660	264,850	0.310
														72	6.06	19.09	55.6	68.6	67.7	383,046	140,876	0.37	890,704	279,612	0.310
	110	5	57.7	75.0	47.8	58.20	66.60	86.33	54.10	243,418	50,815	294,233	0.83	24	1.88	2.40	60.4	69.4	46.5	185,288	185,288	1.00	431,081	428,706	0.994
														48	3.75	8.56	53.9	66.8	45.3	213,777	213,777	1.00	459,570	457,195	0.995
														72	5.63	18.08	51.2	65.7	44.7	225,508	225,508	1.00	471,301	468,926	0.995
		40	75.1		59.6	58.50	66.80	86.25	71.73	242,563	428,136	670,699	0.36	24	1.88	2.40	62.2	71.0	66.0	207,029	167,165	0.81	776,142	409,728	0.528
														48	3.75	8.56	56.1	69.1	64.2	267,434	188,055	0.70	836,547	430,618	0.515
														72	5.63	18.08	53.3	68.0	63.2	300,077	199,922	0.67	869,190	442,485	0.509
		75	87.7		69.2	58.80	67.10	86.17	84.63	241,695	833,735	1,075,430	0.22	24	1.88	2.40	71.7	78.5	78.2	320,708	84,711	0.26	1,236,739	326,406	0.264
														48	3.75	8.56	63.5	75.4	75.4	444,979	118,620	0.27	1,361,010	360,315	0.265
														72	5.63	18.08	59.0	73.7	73.7	506,350	136,831	0.27	1,422,381	378,526	0.266

All data based on balanced system (Exhaust cfm = Supply cfm). Entering water temperature is 45°F. Coil face area is 20.17 sq. ft.

G-120 | CHILLED WATER COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Chilled Water Coil									Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
8000	80	5	50.4	75.0	47.8	67.76	73.95	76.25	48.45	31,501	4,625	36,126	0.87	24	2.02	2.57	56.1	61.1	41.0	133,175	133,175	1.00	169,301	164,676	0.970
														48	4.04	9.11	51.3	58.9	39.8	152,036	152,036	1.00	188,162	183,537	0.980
														72	6.06	19.15	49.4	58.1	39.4	159,574	159,574	1.00	195,700	191,075	0.980
		40	63.5		59.6	67.85	74.02	76.25	60.71	31,403	36,578	67,981	0.46	24	2.02	2.57	56.1	61.0	54.9	133,912	133,912	1.00	201,893	165,315	0.820
														48	4.04	9.11	51.3	58.9	54.0	152,394	152,394	1.00	220,375	183,797	0.830
														72	6.06	19.15	49.5	57.8	53.6	161,742	161,742	1.00	229,723	193,145	0.840
		75	73.8		69.2	67.95	74.10	76.24	70.56	31,306	67,978	99,284	0.32	24	2.02	2.57	60.6	65.4	64.0	187,345	94,294	0.50	286,629	125,600	0.440
														48	4.04	9.11	55.3	62.9	61.7	248,701	116,251	0.47	347,985	147,557	0.420
														72	6.06	19.15	52.7	61.7	60.6	276,910	126,919	0.46	376,194	158,225	0.420
	95	5	57.7	75.0	47.8	68.06	74.22	79.95	50.50	125,554	21,475	147,029	0.85	24	2.02	2.56	57.4	63.0	42.3	149,053	149,053	1.00	296,082	274,607	0.930
														48	4.04	9.11	52.1	60.6	41.1	170,062	170,062	1.00	317,091	295,616	0.930
														72	6.06	19.15	49.9	59.6	40.6	178,466	178,466	1.00	325,495	304,020	0.930
		40	75.1		59.6	68.19	74.33	79.93	64.48	125,111	181,737	306,848	0.41	24	2.02	2.56	57.7	62.5	58.3	153,090	153,090	1.00	459,938	278,201	0.600
														48	4.04	9.11	48.0	61.1	57.0	182,943	164,949	0.90	489,791	290,060	0.590
														72	6.06	19.15	50.5	60.4	56.3	199,037	171,510	0.86	505,885	296,621	0.590
		75	87.7		69.2	68.31	74.44	79.91	75.35	124,667	347,322	471,989	0.26	24	2.02	2.56	64.1	69.2	68.1	229,488	93,835	0.41	701,477	218,502	0.310
														48	4.04	9.11	57.8	66.2	65.4	308,161	119,967	0.39	780,150	244,634	0.310
														72	6.06	19.15	54.5	64.7	64.1	344,002	132,696	0.39	815,991	257,363	0.320
	110	5	57.7	75.0	47.8	68.40	74.50	83.57	52.62	218,944	47,852	266,796	0.82	24	1.88	2.40	58.7	64.8	43.9	164,526	164,526	1.00	410,319	383,470	0.935
														48	3.75	8.56	52.8	62.2	42.5	187,610	187,610	1.00	433,403	406,554	0.938
														72	5.63	18.08	50.4	61.1	42.0	196,853	196,853	1.00	442,646	415,797	0.939
		40	75.1		59.6	68.50	74.70	83.51	69.01	218,032	402,658	620,690	0.35	24	1.88	2.40	60.0	66.3	62.4	180,031	150,891	0.84	749,144	368,923	0.492
														48	3.75	8.56	54.5	64.2	60.4	228,789	168,849	0.74	797,902	386,881	0.485
														72	5.63	18.08	52.0	63.1	59.4	254,373	178,723	0.70	823,486	396,755	0.482
		75	87.7		69.2	68.70	74.80	83.46	81.30	217,108	783,126	1,000,234	0.22	24	1.88	2.40	68.7	73.8	73.4	284,932	85,225	0.30	1,200,963	302,333	0.252
														48	3.75	8.56	61.1	70.2	70.2	387,502	116,007	0.30	1,303,533	333,115	0.256
														72	5.63	18.08	57.1	68.4	68.4	436,672	132,029	0.30	1,352,703	349,137	0.258
10000	80	5	50.4	75.0	47.8	62.29	69.67	76.47	48.58	37,081	5,315	42,396	0.87	24	2.02	2.55	57.5	62.8	41.9	149,895	149,895	1.00	192,291	186,976	0.970
														48	4.04	9.09	52.3	60.5	40.7	174,826	174,826	1.00	217,222	211,907	0.980
														72	6.06	19.12	50.1	59.6	40.2	185,109	185,109	1.00	227,505	222,190	0.980
		40	63.5		59.6	62.41	69.76	76.46	60.91	36,977	42,053	79,030	0.47	24	2.02	2.55	57.5	62.7	55.7	151,049	151,049	1.00	230,079	188,026	0.820
														48	4.04	9.09	52.2	60.6	54.8	174,245	174,245	1.00	253,275	211,222	0.830
														72	6.06	19.12	50.1	59.5	54.4	185,893	185,893	1.00	264,923	222,870	0.840
		75	73.8		69.2	62.53	69.85	76.46	70.79	36,873	78,189	115,062	0.32	24	2.02	2.55	61.5	66.9	65.3	199,055	104,970	0.53	314,117	141,843	0.450
														48	4.04	9.09	56.3	64.6	63.1	272,100	130,284	0.48	387,162	167,157	0.430
														72	6.06	19.12	53.5	63.4	62.0	307,812	143,351	0.47	422,874	180,224	0.430
	95	5	57.7	75.0	47.8	62.27	70.01	80.80	50.96	147,801	24,698	172,499	0.86	24	2.02	2.54	59.2	65.2	43.6	170,598	170,598	1.00	343,097	318,399	0.930
														48	4.04	9.06	53.3	62.6	42.3	198,794	198,794	1.00	371,293	346,595	0.930
														72	6.06	19.09	50.8	61.6	41.8	210,434	210,434	1.00	382,933	358,235	0.940
		40	75.1		59.6	62.83	70.15	80.77	65.29	147,324	209,123	356,447	0.41	24	2.02	2.54	59.5	64.8	59.8	174,534	174,534	1.00	530,981	321,858	0.610
														48	4.04	9.06	53.8	63.1	58.6	210,864	193,399	0.92	567,311	340,723	0.600
														72	6.06	19.09	51.4	62.4	57.9	231,189	201,436	0.87	587,636	348,760	0.590
		75	87.7		69.2	62.99	70.28	80.74	76.35	146,844	399,861	546,705	0.27	24	2.02	2.54	65.8	71.4	70.3	250,561	101,594	0.41	797,266	248,438	0.310
														48	4.04	9.06	59.4	68.6	67.7	346,598	131,881	0.38	893,303	278,725	0.310
														72	6.06	19.09	55.9	67.2	66.4	394,176	147,924	0.38	940,881	294,768	0.310
	110	5	57.7	75.0	47.8	63.00	70.40	85.03	53.41	257,749	55,079	312,828	0.82	24	1.88	2.40	60.9	67.5	45.4	190,870	190,870	1.00	436,663	448,619	1.027
														48	3.75	8.56	54.2	64.7	44.1	222,226	222,226	1.00	468,019	479,975	1.026
														72	5.63	18.08	51.5	63.5	43.5	235,183	235,183	1.00	480,976	492,932	1.025
		40	75.1		59.6	63.30	70.50	84.96	70.47	256,748	463,731	720,479	0.36	24	1.88	2.40	62.3	68.9	64.6	208,346	176,287	0.85	777,459	433,035	0.557
														48	3.75	8.56	56.1	67.0	62.8	267,185	196,934	0.74	836,298	453,682	0.542
														72	5.63	18.08	53.4	65.8	61.7	302,292	209,851	0.69	871,405	466,599	0.535
		75	87.7		69.2	63.50	70.70	84.90	83.09	255,735	902,414	1,158,149	0.22	24	1.88	2.40	71.3	76.8	76.5	316,573	88,385	0.28	1,232,604	344,120	0.279
														48	3.75	8.56	63.5	73.6	73.5	444,739	124,052	0.28	1,360,770	379,787	0.279
														72	5.63	18.08	59.1	71.8	71.8	509,953	143,756	0.28	1,425,984	399,491	0.280
12000	80	5	50.4	75.0	47.8	56.80	65.37	76.68	48.70	41,732	5,815	47,547	0.88	24	2.02	2.53	58.7	64.2	42.6	164,111	164,111	1.00	211,658	205,843	0.970
														48	4.04	9.06	53.1	61.8	41.4	194,919	194,919	1.00	242,466	236,651	0.980
														72	6.06	19.09	50.8	60.9	40.9	207,977	407,977	1.96	255,524	449,709	1.760
		40	63.5		59.6	56.94	65.48	76.68	61.10	41,631	46,044	87,675	0.47	24	2.02	2.53	58.7	64.1	56.3	165,632	165,632	1.00	253,307	207,263	0.820
														48	4.04	9.06	53.1	61.7	55.4	196,218	196,218	1.00	283,893	237,849	0.840
														72	6.06	19.09	50.8	60.9	55.1	207,984	207,984	1.00	295,659	249,615	0.840
		75	73.8		69.2	57.08	65.59	76.67	71.03	41,528	85,660	127,188	0.33	24	2.02	2.02	62.3	68.0	66.2	208,328	114,052	0.55	335,516	155,580	0.460
														48	4.04	9.06	57.1	65.9	64.2	290,891	141,945	0.49	418,079	183,473	0.440
														72	6.06	19.09	54.2	64.7	63.2	333,350	157,065	0.47	460,538	198,593	0.430
	95	5	57.7	75.0	47.8	57.27	65.79	81.64	51.41	166,400	27,064	193,464	0.86	24	2.02	2.52	60.8	67.1	44.6	189,862	189,862	1.00	383,326	356,262	0.930
														48	4.04	9.03	54.4	64.4	43.3	225,222	225,222	1.00	418,686	391,622	0.940
														72	6.06	19.03	51.7	63.3	42.7	240,223	240,223	1.00	433,687	406,623	0.940
		40	75.1		59.6	57.47	65.95	81.61	66.08	165,926	229,309	395,235	0.42	24	2.02	2.52	61.0	66.9	61.1	193,200	193,200	1.00	588,435	359,126	0.610
														48	4.04	9.03	54.9	64.8	59.8	239,222	220,887	0.92	634,457	386,813	0.610
														72	6.06	19.03	52.2	64.1	59.3	261,061	229,294	0.88	656,296	395,220	0.600
		75	87.7		69.2	57.66	66.12	81.58	77.32	165,447	436,751	604,198	0.27	24	2.02	2.52	67.3	73.2	72.0	268,469	109,618	0.41	872,667	275,065	0.320
														48	4.04	9.03	60.8	70.7	69.6	380,287	143,405	0.38	984,485	308,852	0.310
														72	6.06	19.03	57.1	69.2	68.3	438,173	162,088	0.37	1,042,371	327,535	0.310
	110	5	57.7	75.0	47.8	57.70	66.20	86.48	54.18	290,273	60,434	350,707	0.83	24	1.88	2.40	63.0	70.1	46.8	215,704	215,704	1.00	461,497	505,977	1.096
														48	3.75	8.56	55.6	67.0	45.4	255,568	255,568	1.00	501,361	545,841	1.089
														72	5.63	18.08	52.5	65.7	44.8	272,493	272,493	1.00	518,286	562,766	1.086
		40	75.1		59.6	58.00	66.40	86.40	71.87	289,268	509,225	798,493	0.36	24	1.88	2.40	64.3	71.2	66.6	231,909	198,987	0.86	801,022	488,255	0.610
														48	3.75	8.56	57.6	69.4	64.9	302,816	222,780	0.74	871,929	512,048	0.587
														72	5.63	18.08	54.6	68.3	63.8	345,857	237,929	0.69	914,970	527,197	0.576
		75	87.7		69.2	58.30	66.70	86.32	84.80	288,246	991,736	1,279,982	0.23	24	1.88	2.40	73.6	79.4	79.1	343,847	90,123	0.26	1,259,878	378,369	0.300
														48	3.75	8.56	65.7	76.4	76.4	497,141	130,041	0.26	1,413,172	418,287	0.296
														72	5.63	18.08	61.0	74.6	74.6	578,180	152,936	0.26	1,494,211	441,182	0.295

All data based on balanced system (Exhaust cfm = Supply cfm). Entering water temperature is 45°F. Coil face area is 20.17 sq. ft.

G-100 | HOT WATER COIL, TOTAL UNIT HEATING CAPACITY

Winter Application Ratings - Enthalpy Wheel														Perfomance Ratings - Hot Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent HWC		Heating Cap - Enthalpy Wheel				Fluid Data				LVG Air Temp		Cooling Cap - CW Coil			Combined Heating Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	ENT Temp (deg. F)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
7600	-10	30	-11.5	72.0	54.0	65.8	72.7	47.67	39.05	485,082	112,747	597,829	0.81	24	2.02	120	1.81	104.1	70.8	50.3	189,017	189,017	1.00	786,846	674,099	0.857
																160	1.52	135.0	83.6	55.6	296,510	296,510	1.00	894,339	781,592	0.874
																200	1.45	165.6	96.8	60.6	405,081	405,081	1.00	1,002,910	890,163	0.888
														48	4.04	120	5.64	111.3	72.8	51.1	207,403	207,403	1.00	805,232	692,485	0.860
																160	5.35	146.3	87.0	57.0	324,267	324,267	1.00	922,096	809,349	0.878
																200	5.11	181.1	101.3	62.2	441,834	441,834	1.00	1,039,663	926,916	0.892
														72	6.06	120	11.89	114.0	73.7	51.5	214,292	214,292	1.00	812,121	699,374	0.861
																160	11.30	150.5	88.3	57.5	334,495	334,495	1.00	932,324	819,577	0.879
																200	10.84	187.0	102.9	62.8	455,229	455,229	1.00	1,053,058	940,311	0.893
	20		14.8			65.5	72.3	57.06	44.30	306,046	102,759	408,805	0.75	24	2.02	120	1.60	106.2	77.0	53.3	164,667	164,667	1.00	573,472	470,713	0.821
																160	1.52	137.0	90.1	58.5	271,956	271,956	1.00	680,761	578,002	0.849
																200	1.45	167.7	103.2	63.2	380,361	380,361	1.00	789,166	686,407	0.870
														48	4.04	120	5.62	112.4	79.0	54.1	180,536	180,536	1.00	589,341	486,582	0.826
																160	5.33	147.4	93.1	59.6	297,229	297,229	1.00	706,034	603,275	0.854
																200	5.10	182.3	107.4	64.6	414,668	414,668	1.00	823,473	720,714	0.875
														72	6.06	120	11.85	114.8	79.7	54.4	186,502	186,502	1.00	595,307	492,548	0.827
																160	11.28	151.3	94.3	60.0	306,567	306,567	1.00	715,372	612,613	0.856
																200	10.82	187.8	108.9	65.1	427,202	427,202	1.00	836,007	733,248	0.877
	50		38.4			65.1	72.0	65.88	49.74	128,849	60,582	189,431	0.68	24	2.02	120	1.59	108.1	83.1	56.9	141,739	141,739	1.00	331,170	270,588	0.817
																160	1.51	139.0	96.1	61.7	248,849	248,849	1.00	438,280	377,698	0.862
																200	1.44	169.6	109.2	66.1	357,105	357,105	1.00	546,536	485,954	0.889
														48	4.04	120	5.61	113.5	84.7	57.5	155,283	155,283	1.00	344,714	284,132	0.824
																160	5.33	148.5	98.9	62.7	271,820	271,820	1.00	461,251	400,669	0.869
																200	5.10	183.4	113.1	67.4	369,142	369,142	1.00	558,573	497,991	0.892
														72	6.06	120	11.85	115.5	85.3	57.7	160,390	160,390	1.00	349,821	289,239	0.827
																160	11.27	152.1	99.9	63.0	280,329	280,329	1.00	469,760	409,178	0.871
																200	10.80	188.6	114.5	67.8	400,871	400,871	1.00	590,302	529,720	0.897
8800	-10	30	-11.5	72.0	54.0	61.9	69.7	45.01	37.15	538,378	122,714	661,092	0.81	24	2.02	120	1.62	102.2	67.2	48.3	212,041	212,041	1.00	873,133	750,419	0.859
																160	1.54	132.3	79.4	53.6	328,650	328,650	1.00	989,742	867,028	0.876
																200	1.47	162.1	91.8	58.5	446,533	446,533	1.00	1,107,625	984,911	0.889
														48	4.04	120	5.65	110.1	69.7	49.4	235,184	235,184	1.00	896,276	773,562	0.863
																160	5.37	144.6	83.1	55.1	363,284	363,284	1.00	1,024,376	901,662	0.880
																200	5.13	179.0	96.6	60.2	492,225	492,225	1.00	1,153,317	1,030,603	0.894
														72	6.06	120	11.89	113.2	70.6	49.8	243,911	243,911	1.00	905,003	782,289	0.864
																160	11.32	149.4	84.4	56.6	376,108	376,108	1.00	1,037,200	914,486	0.882
																200	10.85	185.5	98.3	60.8	508,941	508,941	1.00	1,170,033	1,047,319	0.895
	20		14.8			61.6	69.3	55.41	43.11	339,508	111,838	451,344	0.75	24	2.02	120	1.61	104.6	74.6	52.0	182,937	182,937	1.00	634,281	522,443	0.824
																160	1.53	134.7	88.8	57.7	299,304	299,304	1.00	750,648	638,810	0.851
																200	1.46	164.6	99.1	61.5	416,981	416,981	1.00	868,325	756,487	0.871
														48	4.04	120	5.64	111.5	76.6	52.8	202,661	202,661	1.00	654,005	542,167	0.829
																160	5.35	146.0	90.0	58.2	330,538	330,538	1.00	781,882	670,044	0.857
																200	5.12	180.4	103.5	63.0	459,310	459,310	1.00	910,654	798,816	0.877
														72	6.06	120	11.89	114.1	77.4	53.2	210,131	210,131	1.00	661,475	549,637	0.831
																160	11.31	150.3	91.3	58.6	342,145	342,145	1.00	793,489	681,651	0.859
																200	10.84	186.5	105.2	63.6	474,845	474,845	1.00	926,189	814,351	0.879
	50		38.4			61.2	68.9	65.19	49.24	142,866	65,936	208,802	0.68	24	2.02	120	1.60	106.9	81.5	58.1	155,471	155,471	1.00	364,273	298,337	0.819
																160	1.52	137.1	93.7	60.7	271,628	271,628	1.00	480,430	414,494	0.863
																200	1.46	167.0	106.0	64.9	389,125	389,125	1.00	597,927	531,991	0.890
														48	4.04	120	5.62	112.8	83.2	56.8	172,049	172,049	1.00	380,851	314,915	0.827
																160	5.35	147.3	96.6	61.7	299,722	299,722	1.00	508,524	442,588	0.870
																200	5.12	181.7	110.1	66.3	428,340	428,340	1.00	637,142	571,206	0.897
														72	6.06	120	11.85	115.0	83.9	57.0	178,350	178,350	1.00	387,152	321,216	0.830
																160	11.28	151.2	97.7	62.1	310,197	310,197	1.00	518,999	453,063	0.873
																200	10.84	187.4	111.6	66.7	442,774	442,774	1.00	651,576	585,640	0.899
10000	-10	30	-11.5	72.0	54.0	58.0	66.6	42.37	35.22	585,153	130,511	715,664	0.82	24	2.02	120	1.64	100.4	64.0	46.4	234,381	234,381	1.00	950,045	819,534	0.863
																160	1.55	129.8	75.5	51.6	359,177	359,177	1.00	1,074,841	944,330	0.879
																200	1.49	158.0	87.6	56.6	490,834	490,834	1.00	1,206,498	1,075,987	0.892
														48	4.04	120	5.67	109.0	66.6	47.6	262,691	262,691	1.00	978,355	847,844	0.867
																160	5.38	143.0	79.4	53.2	401,206	401,206	1.00	1,116,870	986,359	0.883
																200	5.16	177.0	92.2	58.3	540,701	540,701	1.00	1,256,365	1,125,854	0.896
														72	6.06	120	11.93	112.3	67.6	48.1	273,424	273,424	1.00	989,088	858,577	0.868
																160	11.36	148.2	80.8	53.8	436,824	436,824	1.00	1,152,488	1,021,977	0.887
																200	10.89	184.0	94.1	59.0	560,967	560,967	1.00	1,276,631	1,146,120	0.898
	20		14.8			57.6	66.2	53.76	41.89	368,823	118,939	487,762	0.76	24	2.02	120	1.62	103.2	72.2	50.6	200,456	200,456	1.00	688,218	569,279	0.827
																160	1.54	132.6	83.7	55.4	324,981	324,981	1.00	812,743	693,804	0.854
																200	1.48	161.8	95.3	59.8	451,001	451,001	1.00	938,763	819,824	0.873
														48	4.04	120	5.65	110.6	74.4	51.6	224,291	224,291	1.00	712,053	593,114	0.833
																160	5.37	144.7	87.2	56.8	362,525	362,525	1.00	850,287	731,348	0.860
																200	5.14	178.6	100.0	61.5	501,803	501,803	1.00	989,565	870,626	0.880
														72	6.06	120	11.89	113.5	75.3	51.9	233,377	233,377	1.00	721,139	602,200	0.835
																160	11.32	149.4	88.5	57.3	376,545	376,545	1.00	864,307	745,368	0.862
																200	10.87	185.2	101.8	62.7	520,515	520,515	1.00	1,008,277	889,338	0.882
	50		38.4			57.3	65.8	65.50	48.73	155,127	70,123	225,250	0.69	24	2.02	120	1.61	105.9	80.0	55.3	168,304	168,304	1.00	393,554	323,431	0.822
																160	1.53	135.3	91.5	59.7	292,600	292,600	1.00	517,850	447,727	0.865
																200	1.47	164.5	103.1	63.8	418,416	418,416	1.00	643,666	573,543	0.891
														48	4.04	120	5.64	112.1	81.8	58.0	188,036	188,036	1.00	413,286	343,163	0.830
																160	5.36	146.2	94.6	60.9	326,015	326,015	1.00	551,265	481,142	0.873
																200	5.13	180.2	107.4	5.2	465,098	465,098	1.00	690,348	620,225	0.898
														72	6.06	120	11.89	114.5	82.5	58.3	195,593	195,593	1.00	420,843	350,720	0.833
																160	11.31	150.4	95.7	61.2	338,547	338,547	1.00	563,797	493,674	0.876
																200	10.85	186.2	109.0	65.8	482,359	482,359	1.00	707,609	637,486	0.901

Return air conditions are constant at 72.0 db and 54.0 wb. Outdoor air relative humidity is constant at 30%. Enthalpy Wheel leaving temperatures do not include the effect of Pre-Heater (optional) for frost control. All data based on balanced system (Exhaust cfm = Supply cfm). Coil face area is 20.17 sq. ft.

G-120 | HOT WATER COIL, TOTAL UNIT HEATING CAPACITY

Winter Application Ratings - Enthalpy Wheel														Perfomance Ratings - Hot Water Coil										Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent HWC		Heating Cap - Enthalpy Wheel				Fluid Data					LVG Air Temp		Cooling Cap - CW Coil			Combined Heating Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	FR (gpm)	Vel (ft/sec)	ENT Temp (deg. F)	Pr Drop (fwc)	LVG Temp (deg. F)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
8000	-10	30	-11.5	72.0	54.0	68.4	74.7	49.47	40.30	525,112	125,570	648,682	0.81	24	2.02	120	1.61	102.9	72.9	51.4	203,491	203,491	1.00	852,173	728,603	0.855
																160	1.53	132.8	86.6	57.0	322,406	322,406	1.00	971,088	847,518	0.873
																200	1.46	162.4	100.5	62.1	442,659	442,659	1.00	1,091,341	967,771	0.887
														48	4.04	120	5.64	110.5	75.5	52.5	225,592	225,592	1.00	874,274	750,704	0.859
																160	5.35	144.9	90.5	58.5	356,172	356,172	1.00	1,004,854	881,284	0.877
																200	5.12	179.2	105.7	63.9	487,645	487,645	1.00	1,136,327	1,012,757	0.891
														72	6.06	120	11.89	113.4	76.4	52.9	233,950	233,950	1.00	882,632	759,062	0.860
																160	11.30	149.6	92.0	59.1	368,714	368,714	1.00	1,017,396	893,826	0.879
																200	10.84	185.6	107.6	64.6	504,158	504,158	1.00	1,152,840	1,029,270	0.893
	20		14.8			68.1	74.4	58.18	45.09	331,411	112,625	444,036	0.75	24	2.02	120	1.60	105.0	78.8	54.3	178,582	178,582	1.00	622,618	509,993	0.819
																160	1.52	134.9	92.4	59.5	297,278	297,278	1.00	741,314	628,689	0.848
																200	1.45	164.5	106.3	64.4	417,347	417,347	1.00	861,383	748,758	0.869
														48	4.04	120	5.62	111.7	81.0	55.1	197,802	197,802	1.00	641,838	529,213	0.825
																160	5.34	146.1	96.0	60.8	328,188	328,188	1.00	772,224	659,599	0.854
																200	5.11	180.4	111.1	66.0	459,514	459,514	1.00	903,550	790,925	0.875
														72	6.06	120	11.85	114.2	81.8	55.5	205,094	205,094	1.00	649,130	536,505	0.826
																160	11.28	150.4	97.3	61.3	339,699	339,699	1.00	783,735	671,110	0.856
																200	10.82	186.4	112.9	66.5	475,028	475,028	1.00	919,064	806,439	0.877
	50		38.4			67.8	74.0	66.34	50.08	139,573	66,398	205,971	0.68	24	2.02	120	1.59	107.0	84.2	57.4	155,185	155,185	1.00	361,156	294,758	0.816
																160	4.51	136.9	97.9	62.4	273,687	273,687	1.00	479,658	413,260	0.862
																200	1.45	166.5	111.7	67.0	393,593	393,593	1.00	599,564	533,166	0.889
														48	4.04	120	5.62	112.8	86.1	58.1	171,749	171,749	1.00	377,720	311,322	0.824
																160	5.33	147.2	101.1	63.5	301,957	301,957	1.00	507,928	441,530	0.869
																200	5.10	181.5	116.3	68.4	433,150	433,150	1.00	639,121	572,723	0.896
														72	6.06	120	11.85	115.0	86.9	58.4	178,050	178,050	1.00	384,021	317,623	0.827
																160	11.28	151.2	102.4	64.0	312,510	312,510	1.00	518,481	452,083	0.872
																200	10.81	187.2	117.9	68.9	447,732	447,732	1.00	653,703	587,305	0.898
10000	-10	30	-11.5	72.0	54.0	63.0	70.5	45.70	37.65	619,120	141,911	761,031	0.81	24	2.02	120	1.63	100.0	67.8	48.6	239,166	239,166	1.00	1,000,197	858,286	0.858
																160	1.55	128.6	80.0	53.9	372,309	372,309	1.00	1,133,340	991,429	0.875
																200	1.49	157.1	92.5	58.8	507,132	507,132	1.00	1,268,163	1,126,252	0.888
														48	4.04	120	5.67	108.7	70.6	49.9	269,956	269,956	1.00	1,030,987	889,076	0.862
																160	5.38	142.3	84.3	55.7	418,805	418,805	1.00	1,179,836	1,037,925	0.880
																200	5.15	175.8	98.1	60.9	568,811	568,811	1.00	1,329,842	1,187,931	0.893
														72	6.06	120	11.93	112.1	71.7	50.4	281,733	281,733	1.00	1,042,764	900,853	0.864
																160	11.34	147.7	85.9	56.3	436,226	436,226	1.00	1,197,257	1,055,346	0.881
																200	10.89	183.1	100.3	61.6	591,602	591,602	1.00	1,352,633	1,210,722	0.895
	20		14.8			62.6	70.1	55.84	43.42	390,474	129,334	519,808	0.75	24	2.02	120	1.62	102.6	74.9	52.2	206,975	206,975	1.00	726,783	597,449	0.822
																160	1.54	131.4	87.2	57.2	339,852	339,852	1.00	859,660	730,326	0.850
																200	1.48	159.8	99.6	61.7	474,440	474,440	1.00	994,248	864,914	0.870
														48	4.04	120	5.65	110.2	77.3	53.2	233,255	233,255	1.00	753,063	623,729	0.828
																160	5.37	143.8	91.0	58.6	381,819	381,819	1.00	901,627	772,293	0.857
																200	5.14	177.3	104.9	63.6	531,605	531,605	1.00	1,051,413	922,079	0.877
														72	6.06	120	11.89	113.2	78.3	53.6	243,355	243,355	1.00	763,163	633,829	0.831
																160	11.32	148.8	92.5	59.2	397,609	397,609	1.00	917,417	788,083	0.859
																200	10.87	184.2	106.8	64.2	552,808	552,808	1.00	1,072,616	943,282	0.879
	50		38.4			62.3	69.7	65.37	49.37	164,335	76,250	240,585	0.68	24	2.02	120	1.61	105.2	81.7	56.2	176,576	176,576	1.00	417,161	340,911	0.817
																160	1.53	133.9	93.9	60.8	309,228	309,228	1.00	549,813	473,563	0.861
																200	1.47	162.4	106.3	65.1	443,613	443,613	1.00	684,198	607,948	0.889
														48	4.04	120	5.64	111.6	83.7	57.0	198,719	198,719	1.00	439,304	363,054	0.826
																160	5.35	145.3	97.4	62.1	347,025	347,025	1.00	587,610	511,360	0.870
																200	5.13	178.8	111.2	66.7	496,612	496,612	1.00	737,197	660,947	0.897
														72	6.06	120	11.89	114.2	84.5	57.3	207,264	207,264	1.00	447,849	371,599	0.830
																160	11.32	149.8	98.7	62.5	361,299	361,299	1.00	601,884	525,634	0.873
																200	10.86	185.3	113.0	67.2	516,336	516,336	1.00	756,921	680,671	0.899
12000	-10	30	-11.5	72.0	54.0	57.5	66.2	41.97	34.92	697,825	155,154	852,979	0.82	24	2.02	120	1.66	97.2	62.9	45.8	272,562	272,562	1.00	1,125,541	970,387	0.862
																160	1.58	124.9	74.0	50.9	417,415	417,415	1.00	1,270,394	1,115,240	0.878
																200	1.52	151.0	86.1	55.9	573,989	573,989	1.00	1,426,968	1,271,814	0.891
														48	4.04	120	5.71	106.9	66.0	47.3	312,957	312,957	1.00	1,165,936	1,010,782	0.867
																160	5.42	139.8	78.7	52.9	477,803	477,803	1.00	1,330,782	1,175,628	0.883
																200	5.20	172.6	91.5	58.0	644,066	644,066	1.00	1,497,045	1,341,891	0.896
														72	6.06	120	11.97	110.8	67.2	47.9	328,537	328,537	1.00	1,181,516	1,026,362	0.869
																160	11.40	145.9	80.4	53.6	500,549	500,549	1.00	1,353,528	1,198,374	0.885
																200	10.93	180.8	93.7	58.8	673,644	673,644	1.00	1,526,623	1,371,469	0.898
	20		14.8			57.1	65.8	53.51	41.71	439,808	141,394	581,202	0.76	24	2.02	120	1.64	100.5	71.4	50.2	233,065	233,065	1.00	814,267	672,873	0.826
																160	1.57	128.2	82.5	54.9	377,657	377,657	1.00	958,859	817,465	0.853
																200	1.50	154.5	94.4	59.5	532,295	532,295	1.00	1,113,497	972,103	0.873
														48	4.04	120	5.67	108.8	74.0	51.3	266,926	266,926	1.00	848,128	706,734	0.833
																160	5.40	141.8	86.7	56.5	431,388	431,388	1.00	1,012,590	871,196	0.860
																200	5.18	174.6	99.4	61.3	597,349	597,349	1.00	1,178,551	1,037,157	0.880
														72	6.06	120	11.93	112.1	75.0	51.8	280,075	280,075	1.00	861,277	719,883	0.836
																160	11.36	147.2	88.2	57.1	451,756	451,756	1.00	1,032,958	891,564	0.863
																200	10.89	182.2	101.5	62.0	624,601	624,601	1.00	1,205,803	1,064,409	0.883
	50		38.4			56.8	65.4	64.40	48.66	184,969	83,361	268,330	0.69	24	2.02	120	1.62	103.6	79.4	55.1	195,498	195,498	1.00	463,828	380,467	0.820
																160	1.55	131.4	90.5	59.3	339,882	339,882	1.00	608,212	524,851	0.863
																200	1.49	157.9	102.3	63.5	492,917	492,917	1.00	761,247	677,886	0.890
														48	4.04	120	5.65	110.6	81.6	55.9	223,402	223,402	1.00	491,732	408,371	0.830
																160	5.38	143.6	94.2	60.7	387,521	387,521	1.00	655,851	572,490	0.873
																200	5.16	176.4	106.9	65.1	553,210	553,210	1.00	821,540	738,179	0.899
														72	6.06	120	11.89	113.4	82.4	58.3	234,301	234,301	1.00	502,631	419,270	0.834
																160	11.34	148.5	95.6	61.2	405,680	405,680	1.00	674,010	590,649	0.876
																200	10.89	183.5	108.8	65.7	578,298	578,298	1.00	846,628	763,267	0.902

Return air conditions are constant at 72.0 db and 54.0 wb. Outdoor air relative humidity is constant at 30%. Enthalpy Wheel leaving temperatures do not include the effect of Pre-Heater (optional) for frost control. All data based on balanced system (Exhaust cfm = Supply cfm). Coil face area is 20.17 sq. ft.

G-100 | DX COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Direct Expansion Coil							Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Refrigerant Data		LVG Air Temp		Cooling Cap - DX Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	SUC Temp (gpm)	Pr Drop (fwc)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
7600	80	5	50.4	75.0	47.8	65.10	71.87	76.35	48.51	29,077	4,221	33,298	0.87	40	1.40	58.5	39.4	147,000	147,000	1.00	180,298	176,077	0.98
														45	0.96	61.2	40.8	124,600	124,600	1.00	157,898	153,677	0.97
														50	0.63	64.0	42.2	102,200	102,200	1.00	135,498	131,277	0.97
		40	63.5		59.6	65.20	71.95	76.35	60.80	28,991	33,391	62,382	0.46	40	1.61	59.1	53.5	159,300	142,400	0.89	221,682	171,391	0.77
														45	0.96	61.2	55.2	124,600	124,600	1.00	186,982	153,591	0.82
														50	0.63	64.0	56.2	102,200	102,200	1.00	164,582	131,191	0.80
		75	73.8		69.2	65.31	72.03	76.34	70.67	28,905	62,069	90,974	0.32	40	3.99	62.7	60.7	269,000	112,900	0.42	359,974	141,805	0.39
														45	2.83	64.2	62.2	231,300	99,910	0.43	322,274	128,815	0.40
														50	1.78	66.1	64.1	185,900	84,830	0.46	276,874	113,735	0.41
	95	5	57.7	75.0	47.8	65.43	72.17	80.35	50.72	115,891	19,606	135,497	0.86	40	1.70	60.3	40.9	164,400	164,400	1.00	299,897	280,291	0.93
														45	1.21	63.0	42.3	142,000	142,000	1.00	277,497	257,891	0.93
														50	0.82	65.7	43.6	119,600	119,600	1.00	255,097	235,491	0.92
		40	75.1		59.6	65.58	72.29	80.33	64.87	115,498	165,964	281,462	0.41	40	2.50	61.7	56.2	205,100	152,900	0.75	486,562	268,398	0.55
														45	1.51	63.7	58.2	161,600	136,300	0.84	443,062	251,798	0.57
														50	0.83	65.7	60.0	120,200	120,200	1.00	401,662	235,698	0.59
		75	87.7		69.2	65.72	72.41	80.31	75.83	115,103	317,250	432,353	0.27	40	5.63	66.3	64.8	328,500	114,700	0.35	760,853	229,803	0.30
														45	4.16	67.8	66.3	289,300	102,400	0.35	721,653	217,503	0.30
														50	2.93	69.4	67.8	248,000	89,890	0.36	680,353	204,993	0.30
	110	5	64.6	75.0	47.8	65.80	72.50	84.26	53.00	202,090	43,703	245,793	0.82	40	2.03	62.1	42.6	181,800	181,800	1.00	427,593	383,890	0.90
														45	1.48	64.8	44.0	159,500	159,500	1.00	405,293	361,590	0.89
														50	1.05	67.5	45.3	137,100	137,100	1.00	382,893	339,190	0.89
		40	86.8		59.6	66.00	72.70	84.21	69.71	201,273	367,840	569,113	0.35	40	3.66	65.0	59.8	255,700	157,500	0.62	824,813	358,773	0.43
														45	2.56	66.6	61.4	218,600	144,500	0.66	787,713	345,773	0.44
														50	1.54	68.5	63.3	171,400	128,600	0.75	740,513	329,873	0.45
		75	101.7		69.2	66.20	72.80	84.15	82.16	200,445	715,586	916,031	0.22	40	8.25	70.8	70.2	411,100	109,600	0.27	1,327,131	310,045	0.23
														45	6.38	72.2	71.6	371,100	98,570	0.27	1,287,131	299,015	0.23
														50	4.78	73.6	72.9	329,100	87,250	0.27	1,245,131	287,695	0.23
8800	80	5	50.4	75.0	47.8	61.22	68.83	76.51	48.60	32,236	4,596	36,832	0.88	40	1.67	59.4	40.0	162,600	162,600	1.00	199,432	194,836	0.98
														45	1.15	62.0	41.3	137,900	137,900	1.00	174,732	170,136	0.97
														50	0.75	64.6	42.6	113,200	113,200	1.00	150,032	145,436	0.97
		40	63.5		59.6	61.34	68.93	76.50	60.94	32,148	36,374	68,522	0.47	40	1.89	59.9	54.0	175,000	158,100	0.90	243,522	190,248	0.78
														45	1.15	62.0	55.5	137,900	137,900	1.00	206,422	170,048	0.82
														50	0.75	64.6	56.5	113,100	113,100	1.00	181,622	145,248	0.80
		75	73.8		69.2	61.46	69.02	76.50	70.84	32,059	67,638	99,697	0.32	40	4.53	63.7	61.6	289,600	121,800	0.42	389,297	153,859	0.40
														45	3.18	65.2	63.1	247,800	107,800	0.44	347,497	139,859	0.40
														50	2.07	66.7	64.6	203,000	93,070	0.46	302,697	125,129	0.41
	95	5	57.7	75.0	47.8	61.61	69.19	80.95	51.04	128,494	21,365	149,859	0.86	40	2.08	61.5	41.6	184,300	184,300	1.00	334,159	312,794	0.94
														45	1.49	64.1	42.9	159,600	159,600	1.00	309,459	288,094	0.93
														50	1.02	66.7	44.2	134,900	134,900	1.00	284,759	263,394	0.92
		40	75.1		59.6	61.78	69.33	80.92	65.43	128,088	180,925	309,013	0.41	40	2.96	63.1	57.2	226,500	169,700	0.75	535,513	297,788	0.56
														45	1.87	64.8	58.9	182,200	153,200	0.84	491,213	281,288	0.57
														50	1.03	66.6	60.7	135,800	135,800	1.00	444,813	263,888	0.59
		75	87.7		69.2	61.95	69.47	80.90	76.53	127,678	345,985	473,663	0.27	40	6.55	68.0	66.4	359,000	122,900	0.34	832,663	250,578	0.30
														45	4.91	69.3	67.7	318,400	110,500	0.35	792,063	238,178	0.30
														50	3.48	70.7	69.0	274,100	97,410	0.36	747,763	225,088	0.30
	110	5	64.6	75.0	47.8	62.00	69.50	85.30	53.55	224,087	47,656	271,743	0.82	40	2.50	63.6	43.6	205,400	205,400	1.00	477,143	429,487	0.90
														45	1.85	66.2	44.9	180,900	180,900	1.00	452,643	404,987	0.89
														50	1.31	68.8	46.1	156,200	156,200	1.00	427,943	380,287	0.89
		40	86.8		59.6	62.20	69.70	85.23	70.73	223,233	401,293	624,526	0.36	40	4.47	66.9	61.4	286,800	174,400	0.61	911,326	397,633	0.44
														45	3.14	68.3	62.9	246,000	160,400	0.65	870,526	383,633	0.44
														50	2.01	69.9	64.5	199,500	145,100	0.73	824,026	368,333	0.45
		75	101.7		69.2	62.50	69.90	85.16	83.41	222,367	781,015	1,003,382	0.22	40	9.85	73.0	72.4	456,300	116,400	0.26	1,459,682	338,767	0.23
														45	7.64	74.2	73.6	412,300	104,800	0.25	1,415,682	327,167	0.23
														50	5.76	75.4	74.8	366,600	92,970	0.25	1,369,982	315,337	0.23
10000	80	5	50.4	75.0	47.8	57.33	65.78	76.66	48.69	35,000	4,891	39,891	0.88	40	1.95	60.2	40.4	177,800	177,800	1.00	217,691	212,800	0.98
														45	1.35	62.7	41.7	151,000	151,000	1.00	190,891	186,000	0.97
														50	0.88	65.2	42.9	124,100	124,100	1.00	163,991	159,100	0.97
		40	63.5		59.6	57.47	65.89	76.65	61.08	34,913	38,725	73,638	0.47	40	2.21	60.6	54.5	191,100	173,400	0.91	264,738	208,313	0.79
														45	1.35	62.7	56.0	151,000	151,000	1.00	224,638	185,913	0.83
														50	0.88	65.2	56.9	124,000	124,000	1.00	197,638	158,913	0.80
		75	73.8		69.2	57.61	66.00	76.65	71.00	34,826	72,041	106,867	0.33	40	5.06	64.7	62.5	308,700	130,000	0.42	415,567	164,826	0.40
														45	3.58	66.0	63.8	265,000	115,500	0.44	371,867	150,326	0.40
														50	2.35	67.4	65.2	218,100	100,400	0.46	324,967	135,226	0.42
	95	5	57.7	75.0	47.8	57.79	66.20	81.55	51.36	139,547	22,760	162,307	0.86	40	2.46	62.7	42.3	203,500	203,500	1.00	365,807	343,047	0.94
														45	1.77	65.1	43.6	176,800	176,800	1.00	339,107	316,347	0.93
														50	1.22	67.6	44.8	149,900	149,900	1.00	312,207	289,447	0.93
		40	75.1		59.6	57.98	66.36	81.52	65.99	139,143	192,828	331,971	0.42	40	3.45	64.4	58.3	247,500	185,100	0.75	579,471	324,243	0.56
														45	2.24	65.9	59.8	202,100	168,500	0.83	534,071	307,643	0.58
														50	1.25	67.5	61.4	151,700	151,700	1.00	483,671	290,843	0.60
		75	87.7		69.2	58.18	66.52	81.49	77.22	138,736	368,922	507,658	0.27	40	7.57	69.4	67.8	389,600	130,800	0.34	897,258	269,536	0.30
														45	5.63	70.6	69.0	344,900	117,500	0.34	852,558	256,236	0.30
														50	4.02	71.9	70.2	297,800	103,900	0.35	805,458	242,636	0.30
	110	5	64.6	75.0	47.8	58.20	66.60	86.33	54.10	243,418	50,815	294,233	0.83	40	2.98	65.3	44.5	227,000	227,000	1.00	521,233	470,418	0.90
														45	2.25	67.5	45.6	202,600	202,600	1.00	496,833	446,018	0.90
														50	1.61	70.0	46.7	175,700	175,700	1.00	469,933	419,118	0.89
		40	86.8		59.6	58.50	66.80	86.25	71.73	242,563	428,136	670,699	0.36	40	5.27	68.7	63.0	315,500	190,200	0.60	986,199	432,763	0.44
														45	3.73	70.0	64.3	271,500	175,700	0.65	942,199	418,263	0.44
														50	2.48	71.4	65.7	225,200	160,900	0.71	895,899	403,463	0.45
		75	101.7		69.2	58.80	67.10	86.17	84.63	241,695	833,735	1,075,430	0.22	40	11.52	75.0	74.4	498,600	122,300	0.25	1,574,030	363,995	0.23
														45	9.03	76.0	75.4	453,000	110,800	0.24	1,528,430	352,495	0.23
														50	6.81	77.2	76.5	404,600	98,780	0.24	1,480,030	340,475	0.23

All data based on balanced system (Exhaust cfm = Supply cfm). Entering liquid temperature is constant at 110°F. Coil face area is 20.12 sq. ft.

G-120 | DX COIL, TOTAL UNIT COOLING CAPACITY

Summer Application Ratings - Enthalpy Wheel														Perfomance Ratings - Direct Expansion Coil							Unit Performance		
Air Volume (cfm)	OA Conditions			RA Conditions		Effectiveness		Air - LVG Whl / Ent DXC		Cooling Cap - Enthalpy Wheel				Refrigerant Data		LVG Air Temp		Cooling Cap - DX Coil			Combined Cooling Cap		
	DB (deg. F)	RH (%)	WB (deg. F)	DB (deg. F)	WB (deg. F)	Latent (%)	Sens (%)	DB (deg. F)	WB (deg. F)	Sens (Btuh)	Latent (Btuh)	Total (Btuh)	S/T	SUC Temp (gpm)	Pr Drop (fwc)	DB (deg. F)	WB (deg. F)	Total (Btuh)	Sens (Btuh)	S/T	Total (Btuh)	Sens (Btuh)	S/T
8000	80	5	50.4	75.0	47.8	67.76	73.95	76.25	48.45	31,501	4,625	36,126	0.87	40	1.88	56.2	38.3	174,000	174,000	1.00	210,126	205,501	0.98
														45	1.30	59.2	39.9	147,600	147,600	1.00	183,726	179,101	0.97
														50	0.84	62.3	41.4	121,000	121,000	1.00	157,126	152,501	0.97
		40	63.5		59.6	67.85	74.02	76.25	60.71	31,403	36,578	67,981	0.46	40	2.15	56.7	52.4	188,200	169,700	0.90	256,181	201,103	0.79
														45	1.29	59.2	54.3	147,500	147,500	1.00	215,481	178,903	0.83
														50	0.84	62.3	55.5	120,900	120,900	1.00	188,881	152,303	0.81
		75	73.8		69.2	67.95	74.10	76.24	70.56	31,306	67,976	99,284	0.32	40	4.98	61.1	59.6	305,800	131,200	0.43	405,084	162,506	0.40
														45	3.51	62.9	61.4	262,300	115,900	0.44	361,584	147,206	0.41
														50	2.29	64.7	63.2	215,300	99,940	0.46	314,584	131,246	0.42
	95	5	57.7	75.0	47.8	68.06	74.22	79.95	50.50	125,554	21,475	147,029	0.85	40	2.25	57.6	39.5	193,000	193,000	1.00	340,029	318,554	0.94
														45	1.60	60.6	41.1	166,600	166,600	1.00	313,629	292,154	0.93
														50	1.09	63.7	42.6	140,100	140,100	1.00	287,129	265,654	0.93
		40	75.1		59.6	68.19	74.33	79.93	64.48	125,111	181,737	306,848	0.41	40	3.10	59.2	54.9	232,400	179,100	0.77	539,248	304,211	0.56
														45	1.92	61.3	57.1	185,200	160,800	0.87	492,048	285,911	0.58
														50	1.09	63.6	59.0	140,500	140,500	1.00	447,348	265,611	0.59
		75	87.7		69.2	68.31	74.44	79.91	75.35	124,667	347,322	471,989	0.26	40	6.88	64.6	63.4	368,600	132,500	0.36	840,589	257,167	0.31
														45	5.07	66.2	65.1	324,600	118,200	0.36	796,589	242,867	0.30
														50	3.59	67.9	66.7	278,900	103,900	0.37	750,889	228,567	0.30
	110	5	64.6	75.0	47.8	68.40	74.50	83.57	52.62	218,944	47,852	266,796	0.82	40	2.64	59.1	40.9	212,000	212,000	1.00	478,796	430,944	0.90
														45	1.94	62.0	42.4	186,200	186,200	1.00	452,996	405,144	0.89
														50	1.36	65.1	43.9	159,700	159,700	1.00	426,496	378,644	0.89
		40	86.8		59.6	68.50	74.70	83.51	69.01	218,032	402,658	620,690	0.35	40	4.43	62.3	58.3	285,700	184,400	0.65	906,390	402,432	0.44
														45	3.04	64.1	60.1	241,300	168,300	0.70	861,990	386,332	0.45
														50	1.87	66.1	62.1	191,600	151,000	0.79	812,290	369,032	0.45
		75	101.7		69.2	68.70	74.80	83.46	81.30	217,108	783,126	1,000,234	0.22	40	9.75	68.8	68.3	453,900	127,600	0.28	1,454,134	344,708	0.24
														45	7.60	70.3	69.8	410,100	114,900	0.28	1,410,334	332,008	0.24
														50	5.65	71.9	71.3	362,000	101,400	0.28	1,362,234	318,508	0.23
10000	80	5	50.4	75.0	47.8	62.29	69.67	76.47	48.58	37,081	5,315	42,396	0.87	40	2.46	57.7	39.1	203,200	203,200	1.00	245,596	240,281	0.98
														45	1.70	60.5	40.6	172,500	172,500	1.00	214,896	209,581	0.98
														50	1.11	63.4	42.0	141,600	141,600	1.00	183,996	178,681	0.97
		40	63.5		59.6	62.41	69.76	76.46	60.91	36,977	42,053	79,030	0.47	40	2.69	58.2	53.4	214,100	197,900	0.92	293,130	234,877	0.80
														45	1.70	60.5	55.0	172,400	172,400	1.00	251,430	209,377	0.83
														50	1.11	63.4	56.1	141,600	141,600	1.00	220,630	178,577	0.81
		75	73.8		69.2	62.53	69.85	76.46	70.79	36,873	78,189	115,062	0.32	40	5.98	62.9	61.2	340,300	146,700	0.43	455,362	183,573	0.40
														45	4.22	64.5	62.8	291,700	130,200	0.45	406,762	167,073	0.41
														50	2.78	66.0	64.3	240,500	113,300	0.47	355,562	150,173	0.42
	95	5	57.7	75.0	47.8	62.27	70.01	80.80	50.96	147,801	24,698	172,499	0.86	40	2.98	59.8	40.8	227,100	227,100	1.00	399,599	374,901	0.94
														45	2.18	62.4	42.1	199,000	199,000	1.00	371,499	346,801	0.93
														50	1.49	65.2	43.5	168,200	168,200	1.00	340,699	316,001	0.93
		40	75.1		59.6	62.83	70.15	80.77	65.29	147,324	209,123	356,447	0.41	40	3.92	61.5	56.8	266,200	208,400	0.78	622,647	355,724	0.57
														45	2.58	63.1	58.4	219,200	190,800	0.87	575,647	338,124	0.59
														50	1.50	65.2	60.1	169,000	169,000	1.00	525,447	316,324	0.60
		75	87.7		69.2	62.99	70.28	80.74	76.35	146,844	399,861	546,705	0.27	40	8.60	67.1	65.9	421,300	147,500	0.35	968,005	294,344	0.30
														45	6.41	68.6	67.3	372,100	132,300	0.36	918,805	279,144	0.30
														50	4.55	70.0	68.7	320,000	116,900	0.37	866,705	263,744	0.30
	110	5	64.6	75.0	47.8	63.00	70.40	85.03	53.41	257,749	55,079	312,828	0.82	40	3.52	61.8	42.6	250,100	250,100	1.00	562,928	507,849	0.90
														45	2.66	64.3	43.8	223,200	223,200	1.00	536,028	480,949	0.90
														50	1.92	67.0	45.1	194,200	194,200	1.00	507,028	451,949	0.89
		40	86.8		59.6	63.30	70.50	84.96	70.47	256,748	463,731	720,479	0.36	40	5.80	65.3	60.9	334,400	212,800	0.64	1,054,879	469,548	0.45
														45	4.08	66.9	62.4	285,900	196,000	0.69	1,006,379	452,748	0.45
														50	2.66	68.4	64.0	234,600	179,100	0.76	955,079	435,848	0.46
		75	101.7		69.2	63.50	70.70	84.90	83.09	255,735	902,414	1,158,149	0.22	40	12.64	72.3	71.8	526,700	137,700	0.26	1,684,849	393,435	0.23
														45	9.78	73.5	73.0	476,800	124,200	0.26	1,634,949	379,935	0.23
														50	7.37	74.7	74.3	423,800	110,400	0.26	1,581,949	366,135	0.23
12000	80	5	50.4	75.0	47.8	56.80	65.37	76.68	48.70	41,732	5,815	47,547	0.88	40	2.98	59.2	39.9	227,000	227,000	1.00	274,547	268,732	0.98
														45	2.11	61.6	41.1	195,300	195,300	1.00	242,847	237,032	0.98
														50	1.38	64.3	42.5	160,600	160,600	1.00	208,147	202,332	0.97
		40	63.5		59.6	56.94	65.48	76.68	61.10	41,631	46,044	87,675	0.47	40	3.15	59.5	54.3	234,600	223,100	0.95	322,275	264,731	0.82
														45	2.11	61.6	55.5	195,300	195,300	1.00	282,975	236,931	0.84
														50	1.38	64.3	56.6	160,600	160,600	1.00	248,275	202,231	0.81
		75	73.8		69.2	57.08	65.59	76.67	71.03	41,528	85,660	127,188	0.33	40	6.87	64.3	62.5	369,300	160,400	0.43	496,488	201,928	0.41
														45	4.87	65.7	63.8	316,900	143,000	0.45	444,088	184,528	0.42
														50	3.21	67.0	65.2	261,500	125,200	0.48	388,688	166,728	0.43
	95	5	57.7	75.0	47.8	57.27	65.79	81.64	51.41	166,400	27,064	193,464	0.86	40	3.69	61.8	41.8	256,800	256,800	1.00	450,264	423,200	0.94
														45	2.73	64.1	43.0	226,900	226,900	1.00	420,364	393,300	0.94
														50	1.93	66.6	44.2	194,700	194,700	1.00	388,164	361,100	0.93
		40	75.1		59.6	57.47	65.95	81.61	66.08	165,926	229,309	395,235	0.42	40	4.77	63.5	58.4	298,200	235,100	0.79	693,435	401,026	0.58
														45	3.16	64.9	59.8	246,800	216,400	0.88	642,035	382,326	0.60
														50	1.95	66.5	61.2	196,200	196,200	1.00	591,435	362,126	0.61
		75	87.7		69.2	57.66	66.12	81.58	77.32	165,447	438,751	604,198	0.27	40	10.19	69.3	67.9	465,700	159,400	0.34	1,069,898	324,847	0.30
														45	7.65	70.5	69.1	412,700	143,900	0.35	1,016,898	309,347	0.30
														50	5.49	71.7	70.4	356,600	127,900	0.36	960,798	293,347	0.31
	110	5	64.6	75.0	47.8	57.70	66.20	86.48	54.18	290,273	60,434	350,707	0.83	40	4.44	64.3	44.1	285,900	285,900	1.00	636,607	576,173	0.91
														45	3.38	66.6	45.2	256,300	256,300	1.00	607,007	546,573	0.90
														50	2.50	68.9	46.3	226,200	226,200	1.00	576,907	516,473	0.90
		40	86.8		59.6	58.00	66.40	86.40	71.87	289,268	509,225	798,493	0.36	40	7.28	67.9	63.2	380,800	239,500	0.63	1,179,293	528,768	0.45
														45	5.17	69.3	64.5	328,200	222,300	0.68	1,126,693	511,568	0.45
														50	3.45	70.6	65.8	272,700	204,600	0.75	1,071,193	493,868	0.46
		75	101.7		69.2	58.30	66.70	86.32	84.80	288,246	991,736	1,279,982	0.23	40	15.20	75.2	74.8	591,400	144,700	0.24	1,871,382	432,946	0.23
														45	11.98	76.3	75.8	537,700	131,200	0.24	1,817,682	419,446	0.23
														50	9.19	77.4	76.9	480,500	117,300	0.24	1,760,482	405,546	0.23

All data based on balanced system (Exhaust cfm = Supply cfm). Entering liquid temperature is constant at 110°F. Coil face area is 20.12 sq. ft.

G-100 & G-120 | ENGINEERING SPECIFICATION

General
Ruskin Energy Recovery Ventilator shall be listed per UL 1995, Heating and Cooling Equipment. Energy transfer ratings of the energy recovery wheel shall be AHRI Certified. Performance shall be as scheduled on plans. Exhaust discharge and outside air intake shall not be located on the same side on roof top units. Basis of design is Ruskin Model EVT.

Unit Casing and Frames
EVT frame shall be constructed of aluminum. EVT panels shall be G90 galvanized steel. All panels exposed to the weather shall be a minimum of 18 gauge galvanized steel. EVT shall be internally lined with galvanized sheet metal creating a double wall. Where top panels are joined there shall be an overlapping, standing seam to insure positive weather protection. All metal-to-metal seams shall be factory sealed, requiring no caulking at job site. EVT base to be designed for curb mounting. EVT base shall overhang the curb for a positive seal against water run-off. Ruskin EVT exterior panels shall be powder coated for superior finish.

Weatherhoods
Weatherhoods shall be the same finish as the ERV. Outdoor air weatherhood shall incorporate a hooded design and moisture eliminator.

Energy Recovery Wheel
Wheel shall be of the enthalpy type for both sensible and latent heat recovery and be designed to insure laminar flow. Energy transfer ratings must be AHRI Certified to Standard 1060 and bear the AHRI certification symbol for AHRI Air-to-Air Energy Recovery Ventilation Equipment Certification Program based on AHRI 1060. Ratings “in accordance with 1060” without certification are not acceptable. Desiccant shall be silica gel for maximum latent energy transfer. Wheel shall be constructed of lightweight polymer media to minimize shaft and bearing loads. Polymer media shall be mounted in a stainless steel rotor for corrosion resistance. Wheel design shall consist of removable segments for ease of service and/or cleaning. Silica gel desiccant shall be permanently bonded to wheel media to retain latent heat capability after cleaning.Wheels with sprayed on desiccant coatings are not acceptable. Wheels with desiccant applied after wheel formation are not acceptable. Energy recovery device shall transfer moisture entirely in the vapor phase. Energy recovery drive belt material shall be prestretched high strength urethane and shall be factory installed, eliminating the need for field belt tension adjustment. Link style belts are not acceptable.

Insulation
EVT casing to be insulated with 1 inch fiberglass. Insulation shall meet requirements of NFPA 90A and tested to meet UL 181 requirements. Insulation to be enclosed in double wall construction.

Free Cooling Mode
The on-board control logic shall automatically cease energy recovery when outside air conditions are within a 40°F to 70°F (4°C to 21°C) temperature range to allow for space cooling. During the free cooling period, the wheel shall automatically jog at preset time intervals to purge wheel of moisture and contaminant build up.

Access Doors
All components shall be easily accessible through hinged access doors for exhaust, supply, filter, and damper compartments. Energy recovery wheels shall be mounted in a slide-out track for inspection, removal, and cleaning.

Roof Curbs
Roof curb to be supplied by EVT manufacturer for field assembly. Curb shall consist of die formed galvanized steel sections. Curb shall be full perimeter type with gasket provided for field installation between curb and EVT base.

Fan Sections
Centrifugal fans to be double width, double inlet, forward curved type. All blower wheels shall be statically and dynamically balanced. Steel fan shafts shall be ground and polished and shall be mounted in permanently lubricated, sealed ball bearing pillow blocks. Bearings shall be selected for a minimum (L10) life in excess of 100,000 hours at maximum cataloged operating speeds. Adjustable sheaves on belt-driven fans with motors less than 15hp shall allow independent balancing of exhaust and supply airflows. Fan and motor assemblies are mounted to EVT base with neoprene isolators as standard. Fans shall be located in draw-through position in reference to the energy recovery wheel.

Motors and Drives
Motors shall be energy efficient, complying with EPACT standards, for single speed ODP and TEFC enclosures. Motors shall be permanently lubricated, heavy-duty type, matched to the fan load and furnished at the specified voltage, phase, and enclosure. Drives shall be sized for a minimum of 150% of driven horsepower. Pulleys shall be of the fully machined cast type, keyed and securely attached to the fan wheel and motor shafts; 10 horsepower and less shall be supplied with an adjustable drive pulley. Energy wheel motors shall have integral overload protection.

Filters
Supply and exhaust filters shall be 2-inch thick pleated fiberglass with a minimum MERV 8 rating.MERV 11 or 13 filters are optional. Filter racks shall be die-formed galvanized steel.

Electrical
All internal electrical components shall be factory wired for single point power connection. Units with electric preheat or post heat will be wired with independent power supply. All electrical components shall be UL Listed, Approved, or Classified where applicable and wired in compliance with the National Electrical Code. Weatherproof, integral door interlocking disconnect switch, motor starters, control circuit fusing, control transformer for 24 VAC circuit, and terminal strip shall be supplied as standard components in the control center. Motor starters consist of a contactor and Class 20 electronic adjustable overload protection and shall be provided for all motors in the unit. Ruskin’s ER optimizer PLC controller is included to control all unit functions and outputs and will be fully compliant with BAS systems including LONWORKS, BACNET, and MODBUS.

DX Cooling Coils
Direct expansion (DX) shall be factory tested and rated in accordance with AHRI 410. Coils shall have rifled copper tubes with permanently expanded aluminum fins and shall be equipped with adjustable expansion valve connected to distributors.

Chilled and Hot Water Coils
Water coils shall be factory tested and rated in accordance with AHRI 410. Coils shall have copper tubes with permanently expanded aluminum fins.

Electric Heat Coils
Electric heat shall be UL listed and circuit fused per NEC over 48 amps. Heater shall be sequentially controlled via on-board sequencers. Electric heat shall be factory wired and installed. Control will be 24 volt with class 2 transformer. Standard air flow proving switch will shut down heater if air ceases to flow across heating elements. The electric preheat option provides frost protection for year round operation. It features steel finned tubular heater with high temperature baked-on aluminum finish protecting them from corrosion and deterioration. Modular heat stages for single or dual stage heat are provided. The post electric heat option utilizes nickel chromium electric wire resistance elements and allows for modular heat stages for single or multiple stage heat.

ACCESSORIES PRESSURE DROP

Unit	Air Volume	Filters				Cooling		Heating	Electric Heat				Dampers		Louvers
		Mist Elim	2" Pleated			DX	CW	HW	Pre-heat		Post-heat		Intake	Exhaust	EME Intake Louvers
			MERV 8	MERV 11	MERV 13				1 Stage	2 Stage	1 Stage	2 Stage	Mtrzd	Gravity	
Model	cfm	in. wg.	in. wg.	in. wg.	in. wg.	in. wg.	in. wg.	in. wg.	in. wg.	in. wg.	in. wg.	in. wg.	in. wg.	in. wg.	in. wg.
G-010	600	0.02	0.04	0.05	0.05	0.07	0.07	0.03	0.01	0.02	0.01	0.01	0.02	0.02	0.04
	700	0.03	0.05	0.06	0.06	0.08	0.08	0.03	0.01	0.02	0.01	0.02	0.02	0.03	0.05
	800	0.03	0.06	0.07	0.07	0.09	0.11	0.03	0.01	0.02	0.01	0.03	0.03	0.03	0.07
	900	0.04	0.07	0.08	0.09	0.11	0.12	0.04	0.01	0.03	0.02	0.03	0.03	0.04	0.08
	1000	0.05	0.08	0.09	0.10	0.12	0.13	0.04	0.02	0.04	0.02	0.04	0.03	0.05	0.10
G-019	900	0.04	0.07	0.08	0.09	0.20	0.20	0.06	0.01	0.03	0.02	0.03	0.03	0.03	0.08
	1150	0.06	0.10	0.11	0.12	0.28	0.29	0.09	0.02	0.04	0.03	0.06	0.04	0.04	0.14
	1400	0.10	0.13	0.14	0.16	0.37	0.37	0.11	0.03	0.06	0.04	0.08	0.06	0.05	0.20
	1650	0.13	0.17	0.19	0.20	0.41	0.41	0.14	0.04	0.09	0.06	0.12	0.08	0.07	0.28
	1900	0.18	0.22	0.24	0.26	0.53	0.52	0.18	0.06	0.11	0.08	0.16	0.10	0.08	0.38
G-028	1600	0.05	0.08	0.09	0.10	0.13	0.17	0.06	0.02	0.03	0.03	0.05	0.03	0.03	0.10
	1900	0.06	0.11	0.12	0.13	0.17	0.21	0.08	0.02	0.04	0.04	0.07	0.04	0.03	0.14
	2200	0.08	0.13	0.15	0.16	0.21	0.27	0.10	0.03	0.06	0.05	0.10	0.05	0.04	0.18
	2500	0.11	0.16	0.18	0.19	0.25	0.33	0.11	0.04	0.07	0.06	0.13	0.06	0.05	0.24
	2800	0.14	0.20	0.21	0.23	0.29	0.37	0.14	0.04	0.09	0.08	0.16	0.08	0.06	0.30
G-036	2400	0.10	0.15	0.17	0.18	0.36	0.37	0.12	0.03	0.07	0.06	0.12	0.06	0.03	0.22
	2700	0.13	0.19	0.20	0.22	0.39	0.39	0.14	0.04	0.08	0.07	0.15	0.07	0.04	0.28
	3000	0.16	0.22	0.24	0.26	0.43	0.43	0.17	0.05	0.10	0.09	0.19	0.09	0.05	0.34
	3300	0.19	0.26	0.28	0.30	0.49	0.51	0.19	0.06	0.12	0.11	0.23	0.10	0.06	0.41
	3600	0.23	0.30	0.33	0.35	0.57	0.57	0.22	0.07	0.14	0.14	0.27	0.12	0.06	0.45
G-046	3000	0.05	0.11	0.11	0.13	0.19	0.27	0.10	0.02	0.04	0.01	0.03	0.04	0.04	0.10
	3400	0.07	0.13	0.14	0.15	0.23	0.32	0.12	0.02	0.05	0.02	0.04	0.04	0.05	0.13
	3800	0.08	0.15	0.16	0.18	0.28	0.37	0.14	0.03	0.06	0.02	0.05	0.05	0.06	0.17
	4200	0.10	0.18	0.19	0.21	0.32	0.39	0.17	0.03	0.07	0.03	0.06	0.06	0.07	0.20
	4600	0.12	0.21	0.22	0.24	0.37	0.43	0.20	0.04	0.08	0.04	0.07	0.07	0.08	0.25
G-062	3400	0.07	0.13	0.14	0.15	0.27	0.37	0.12	0.02	0.05	0.02	0.04	0.04	0.03	0.13
	4100	0.10	0.17	0.19	0.20	0.36	0.43	0.17	0.03	0.06	0.03	0.06	0.06	0.04	0.19
	4800	0.13	0.22	0.24	0.26	0.40	0.55	0.22	0.04	0.09	0.04	0.08	0.08	0.05	0.27
	5500	0.18	0.28	0.30	0.33	0.48	0.67	0.28	0.06	0.11	0.05	0.11	0.10	0.06	0.35
	6200	0.23	0.34	0.37	0.40	0.59	0.81	0.30	0.07	0.14	0.07	0.14	0.12	0.07	0.44
G-074	5400	0.10	0.12	0.13	0.15	0.29	0.40	0.16	0.03	0.07	0.02	0.04	0.06	0.04	0.09
	5900	0.12	0.14	0.15	0.17	0.36	0.44	0.19	0.04	0.08	0.03	0.05	0.07	0.05	0.11
	6400	0.14	0.16	0.17	0.19	0.37	0.51	0.22	0.04	0.09	0.03	0.06	0.08	0.05	0.13
	6900	0.16	0.18	0.20	0.21	0.39	0.56	0.25	0.05	0.10	0.04	0.07	0.09	0.06	0.15
	7400	0.19	0.20	0.22	0.24	0.41	0.63	0.28	0.06	0.12	0.04	0.09	0.10	0.07	0.17
G-088	6400	0.14	0.16	0.17	0.19	0.37	0.51	0.22	0.04	0.09	0.03	0.06	0.08	0.05	0.13
	7000	0.17	0.19	0.20	0.22	0.40	0.57	0.27	0.05	0.11	0.04	0.08	0.09	0.06	0.15
	7600	0.20	0.21	0.23	0.25	0.45	0.67	0.28	0.06	0.12	0.05	0.09	0.11	0.07	0.18
	8200	0.23	0.24	0.26	0.28	0.52	0.74	0.30	0.07	0.14	0.05	0.11	0.12	0.08	0.21
	8800	0.27	0.27	0.30	0.32	0.57	0.84	0.33	0.08	0.17	0.06	0.12	0.14	0.09	0.24
G-100	7600	0.09	0.15	0.16	0.18	0.27	0.39	0.17	0.03	0.06	0.03	0.07	0.05	0.04	0.18
	8200	0.11	0.17	0.19	0.20	0.29	0.43	0.20	0.04	0.07	0.04	0.08	0.06	0.04	0.21
	8800	0.12	0.19	0.21	0.23	0.33	0.47	0.22	0.04	0.08	0.05	0.09	0.07	0.05	0.24
	9400	0.14	0.21	0.23	0.25	0.36	0.52	0.25	0.05	0.09	0.05	0.11	0.08	0.05	0.27
	10000	0.16	0.24	0.26	0.28	0.37	0.57	0.28	0.05	0.10	0.06	0.12	0.09	0.06	0.31
G-120	8000	0.10	0.16	0.18	0.19	0.37	0.44	0.19	0.03	0.07	0.04	0.08	0.06	0.04	0.20
	9000	0.13	0.20	0.22	0.23	0.40	0.53	0.24	0.04	0.08	0.05	0.10	0.07	0.05	0.25
	10000	0.16	0.24	0.26	0.28	0.45	0.63	0.28	0.05	0.10	0.06	0.12	0.09	0.06	0.31
	11000	0.19	0.28	0.30	0.33	0.53	0.73	0.29	0.06	0.12	0.07	0.15	0.10	0.07	0.37
	12000	0.23	0.33	0.35	0.38	0.63	0.85	0.32	0.07	0.14	0.09	0.17	0.12	0.08	0.44

This pressure drop information must be added to the External Static Pressure in the blower tables to determine correct RPM and BHP.

PRE-HEAT DATA

Unit	Air Volume (cfm)	No. of Stages	Input				Minimum Circuit Ampacity per Circuit		Maximum Overcurrent Protection per Circuit	Heating Section		
			Volts	kW	Temp Rise (deg F)	Btuh	1	2		Minimum Circuit Ampacity	Maximum Overcurrent Protection	Source of Protection
G-010 G-019	1,000 1,900	1	240	3	9.5 / 5.0	10,237	9.00	-	-	9.00	9.0	Provided
			480				4.50	-	-	4.50	5.0	Provided
			575				3.80	-	-	3.80	4.0	Provided
		2	240	6	20 / 10	20,473	9.00	9.00	-	18.00	20.0	Provided
			480				4.50	4.50	-	9.00	9.0	Provided
			575				3.80	3.80	-	7.60	8.0	Provided
G-028 G-036	2,800 3,600	1	240	4.8	5.4 / 4.2	16,379	14.40	-	-	14.40	15.0	Provided
			480				7.20	-	-	7.20	8.0	Provided
			575				6.00	-	-	6.00	6.0	Provided
		2	240	9.6	16.8 / 8.4	32,757	14.40	-	-	28.90	30.0	Provided
			480				7.20	7.20	-	14.40	15.0	Provided
			575				6.00	6.00	-	12.10	15.0	Provided
G-046 G-062	4,600 6,200	1	240	7.8	5.4 / 4.0	26,615	23.50	-	-	23.50	25.0	Provided
			480				11.75	-	-	11.75	12.0	Provided
			575				9.80	-	-	9.80	10.0	Provided
		2	240	15.6	16 / 8	53,230	23.50	23.50	-	47.00	50.0	Provided
			480				11.75	11.75	-	23.50	25.0	Provided
			575				9.80	9.80	-	19.60	20.0	Provided
G-074 G-088	7,400 8,800	1	240	11.1	4.7 / 4	37,875	33.40	-	-	33.40	35.0	Provided
			480				16.70	-	-	16.70	17.5	Provided
			575				13.90	-	-	13.90	15.0	Provided
		2	240	22.2	16 / 8	75,750	33.40	33.40	35	66.80	70.0	Field
			480				16.70	16.70	17.5	33.40	35.0	Field
			575				13.90	13.90	15	27.90	30.0	Field
G-100 G-120	10,000 12,000	1	240	16.2	5.1 / 4.6	55,277	47.70	-	-	47.70	50.0	Provided
			480				24.40	-	-	24.40	25.0	Provided
			575				20.30	-	-	20.30	25.0	Provided
		2	240	32.4	17 / 8.5	110,553	47.70	47.70	50	97.40	100.0	Field
			480				24.40	24.40	25	48.80	50.0	Field
			575				20.30	20.30	25	40.60	45.0	Field

POST-HEAT DATA

Unit	Air Volume (cfm)	No of Stages	Input				Minimum Circuit Ampacity per Circuit								Maximum Overcurrent Protection per Circuit						Heating Section			
																					Minimum Circuit Ampacity		Maximum Circuit Ampacity	
			Volts	kW	Temp Rise (deg F)	Btuh	1	2	3	4	5	6	7	8	1	2	3	4	7	8	1	2	1	2
G-010	1,000	1	240	9.6	30.3	32,755	28.88	-	-	-	-	-	-	-	-	-	-	-	-	-	28.88	-	30	-
			480				14.44	-	-	-	-	-	-	-	-	-	-	-	-	-	14.44	-	15	-
			575				12.05	-	-	-	-	-	-	-	-	-	-	-	-	-	12.05	-	15	-
G-019	1,900		240		16.0		28.88	-	-	-	-	-	-	-	-	-	-	-	-	-	28.88	-	30	-
			480				14.44	-	-	-	-	-	-	-	-	-	-	-	-	-	14.44	-	15	-
			575				12.05	-	-	-	-	-	-	-	-	-	-	-	-	-	12.05	-	15	-
G-019	1,900		240	19.2	32.0	65,513	28.88	28.88	-	-	-	-	-	-	-	-	-	-	-	-	57.80	-	60	-
			480				14.44	14.44	-	-	-	-	-	-	-	-	-	-	-	-	28.90	-	30	-
			575				12.05	12.05	-	-	-	-	-	-	-	-	-	-	-	-	24.10	-	25	-
G-028	2,800	1	240	19.2	21.7	65,513	28.88	28.88	-	-	-	-	-	-	30	30	-	-	-	-	57.80	-	60	-
			480				14.44	14.44	-	-	-	-	-	-	15	15	-	-	-	-	28.90	-	30	-
			575				12.05	12.05	-	-	-	-	-	-	15	15	-	-	-	-	24.10	-	25	-
G-036	3,600		240		16.9		28.88	28.88	-	-	-	-	-	-	30	30	-	-	-	-	57.80	-	60	-
			480				14.44	14.44	-	-	-	-	-	-	15	15	-	-	-	-	28.90	-	30	-
			575				12.05	12.05	-	-	-	-	-	-	15	15	-	-	-	-	24.10	-	25	-
G-036	3,600	2	240	38.4	33.7	131,026	28.88	28.88	28.88	28.88	-	-	-	-	30	30	30	30	-	-	57.80	57.80	60	60
			480				14.44	14.44	14.44	14.44	-	-	-	-	15	15	15	15	-	-	28.90	28.90	30	30
			575				12.05	12.05	12.05	12.05	-	-	-	-	15	15	15	15	-	-	24.10	24.10	25	25
G-046	4,600	1	240	19.2	13.2	65,513	28.88	28.88	-	-	-	-	-	-	30	30	-	-	-	-	57.80	-	60	-
			480				14.44	14.44	-	-	-	-	-	-	15	15	-	-	-	-	28.90	-	30	-
			575				12.05	12.05	-	-	-	-	-	-	15	15	-	-	-	-	24.10	-	25	-
G-062	6,200		240		9.8		28.88	28.88	-	-	-	-	-	-	30	30	-	-	-	-	57.80	-	60	-
			480				14.44	14.44	-	-	-	-	-	-	15	15	-	-	-	-	28.90	-	30	-
			575				12.05	12.05	-	-	-	-	-	-	15	15	-	-	-	-	24.10	-	25	-
G-046	4,600	2	240	38.4	26.4	131,026	28.88	28.88	28.88	28.88	-	-	-	-	30	30	30	30	-	-	57.80	57.80	60	60
			480				14.44	14.44	14.44	14.44	-	-	-	-	15	15	15	15	-	-	28.90	28.90	30	30
			575				12.05	12.05	12.05	12.05	-	-	-	-	15	15	15	15	-	-	24.10	24.10	25	25
G-062	6,200		240		19.6		28.88	28.88	28.88	28.88	-	-	-	-	30	30	30	30	-	-	57.80	57.80	60	60
			480				14.44	14.44	14.44	14.44	-	-	-	-	15	15	15	15	-	-	28.90	28.90	30	30
			575				12.05	12.05	12.05	12.05	-	-	-	-	15	15	15	15	-	-	24.10	24.10	25	25
G-062	6,200	3	240	57.6	29.4	196,540	28.88	28.88	28.88	28.88	28.88	28.88	-	-	30	30	30	30	-	-	115.30	57.8	120	60
			480				14.44	14.44	14.44	14.44	14.44	14.44	-	-	15	15	15	15	-	-	57.70	28.9	60	30
			575				12.05	12.05	12.05	12.05	12.05	12.05	-	-	15	15	15	15	-	-	48.20	24.1	50	25
G-074	7,700	1	240	30.0	12.8	102,365	45.10	45.10	-	-	-	-	-	-	50	50	-	-	-	-	90.23	-	100	-
			480				22.55	22.55	-	-	-	-	-	-	25	25	-	-	-	-	45.15	-	50	-
			575				18.83	18.83	-	-	-	-	-	-	20	20	-	-	-	-	37.55	-	40	-
G-088	8,800		240		10.8		45.10	45.10	-	-	-	-	-	-	50	50	-	-	-	-	90.23	-	100	-
			480				22.55	22.55	-	-	-	-	-	-	25	25	-	-	-	-	45.15	-	50	-
			575				18.83	18.83	-	-	-	-	-	-	20	20	-	-	-	-	37.55	-	40	-
G-074	7,400	2	240	60.0	25.6	204,729	45.10	45.10	45.10	45.10	-	-	-	-	50	50	50	50	-	-	90.23	90.23	100	100
			480				22.55	22.55	22.55	22.55	-	-	-	-	25	25	25	25	-	-	45.15	45.15	50	50
			575				18.83	18.83	18.83	18.83	-	-	-	-	20	20	20	20	-	-	37.55	37.55	40	40
G-088	8,800		240		21.5		45.10	45.10	45.10	45.10	-	-	-	-	50	50	50	50	-	-	90.23	90.23	100	100
			480				22.55	22.55	22.55	22.55	-	-	-	-	25	25	25	25	-	-	45.15	45.15	50	50
			575				18.83	18.83	18.83	18.83	-	-	-	-	20	20	20	20	-	-	37.55	37.55	40	40
G-088	8,800	3	240	90.0	32.3	307,093	45.10	45.10	45.10	45.10	45.10	45.10	-	-	50	50	50	50	-	-	180.45	90.23	200	100
			480				22.55	22.55	22.55	22.55	22.55	22.55	-	-	25	25	25	25	-	-	90.21	45.15	100	50
			575				18.83	18.83	18.83	18.83	18.83	18.83	-	-	20	20	20	20	-	-	75.30	37.55	80	40
G-100	10,000	1	240	30.0	9.5	102,365	45.10	45.10	-	-	-	-	-	-	50	50	-	-	-	-	90.23	-	100	-
			480				22.55	22.55	-	-	-	-	-	-	25	25	-	-	-	-	45.15	-	50	-
			575				18.83	18.83	-	-	-	-	-	-	20	20	-	-	-	-	37.55	-	40	-
G-120	12,000		240		7.9		45.10	45.10	-	-	-	-	-	-	50	50	-	-	-	-	90.23	-	100	-
			480				22.55	22.55	-	-	-	-	-	-	25	25	-	-	-	-	45.15	-	50	-
			575				18.83	18.83	-	-	-	-	-	-	20	20	-	-	-	-	37.55	-	40	-
G-100	10,000	2	240	60.0	19.0	204,729	45.10	45.10	45.10	45.10	-	-	-	-	50	50	50	50	-	-	90.23	90.23	100	100
			480				22.55	22.55	22.55	22.55	-	-	-	-	25	25	25	25	-	-	45.15	45.15	50	50
			575				18.83	18.83	18.83	18.83	-	-	-	-	20	20	20	20	-	-	37.55	37.55	40	40
G-120	12,000		240		15.8		45.10	45.10	45.10	45.10	-	-	-	-	50	50	50	50	-	-	90.23	90.23	100	100
			480				22.55	22.55	22.55	22.55	-	-	-	-	25	25	25	25	-	-	45.15	45.15	50	50
			575				18.83	18.83	18.83	18.83	-	-	-	-	20	20	20	20	-	-	37.55	37.55	40	40
G-100	10,000	3	240	90.0	28.4	307,093	45.10	45.10	45.10	45.10	45.10	45.10	-	-	50	50	50	50	-	-	180.45	90.23	200	100
			480				22.55	22.55	22.55	22.55	22.55	22.55	-	-	25	25	25	25	-	-	90.21	45.15	100	50
			575				18.83	18.83	18.83	18.83	18.83	18.83	-	-	20	20	20	20	-	-	75.30	37.55	80	40
G-120	12,000		240		23.7		45.10	45.10	45.10	45.10	45.10	45.10	-	-	50	50	50	50	-	-	180.45	90.23	200	100
			480				22.55	22.55	22.55	22.55	22.55	22.55	-	-	25	25	25	25	-	-	90.21	45.15	100	50
			575				18.83	18.83	18.83	18.83	18.83	18.83	-	-	20	20	20	20	-	-	75.30	37.55	80	40
G-120	12,000	4	240	120.0	31.6	409,457	45.10	45.10	45.10	45.10	45.10	45.10	45.10	45.10	50	50	50	50	50	50	180.45	180.45	200	200
			480				22.55	22.55	22.55	22.55	22.55	22.55	22.55	22.55	25	25	25	25	25	25	90.21	90.21	100	100
			575				18.83	18.83	18.83	18.83	18.83	18.83	18.83	18.83	20	20	20	20	20	20	75.30	75.30	80	80

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