RUSKIN®

3900 Dr. Greaves Rd. • Kansas City, MO 64030 • (816) 761-7476 • FAX (816) 765-8955

DX COIL
TOTAL UNIT COOLING CAPACITY

EVT-046 **EVT-046**

EVT-046 TOTAL UNIT COOLING CAPACITY -- DIRECT EXPANSION COIL

SUMMER APPLICATION RATINGS - ENTHALPY WHEEL														PERFORMANCE RATINGS - DIRECT EXPANSION COIL							UNIT PERFORMANCE		
AIR VOLUME	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		
(cfm)	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 (deg F)	PR DROP (psi)	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	67.06	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		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		47.8	67.5	73.8	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	67.7	74.0	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	74.1	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		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		47.8	61.6	69.2	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	61.8	69.4	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	62.1	69.6	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		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		47.8	55.7	64.6	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	56.0	64.9	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	56.3	65.1	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

NOTES: 1. Entering liquid temperature is constant at 110°F. 2. Coil face area is 10.93 sq. ft. 3. All data based on balanced system (Exhaust cfm = Supply cfm).

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DX COIL
TOTAL UNIT COOLING CAPACITY

EVT-062

EVT-062 TOTAL UNIT COOLING CAPACITY -- DIRECT EXPANSION COIL

SUMMER APPLICATION RATINGS - ENTHALPY WHEEL														PERFORMANCE RATINGS - DIRECT EXPANSION COIL							UNIT PERFORMANCE		
AIR	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		
VOLUME (cfm)	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 (deg F)	PR DROP (psi)	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	77.3	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	77.4	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	77.6	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	64.7	71.6	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	64.9	71.8	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	65.1	72.0	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	57.4	6.0	86.52	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	57.7	66.2	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	58.0	66.4	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

NOTES: 1. Entering liquid temperature is constant at 110°F. 2. Coil face area is 11.71 sq. ft. 3. All data based on balanced system (Exhaust cfm = Supply cfm).