

Engineering Data

ED 18526-2

Group: **WSHP**

Document PN: **ED 18526-2**

Date: **May 2014**

Daikin Self-Contained Water Source Heat Pump Unit Ventilator Cooling and Heating Capacity Data

Standard Range Model ARQ

Extended Range Model ERQ

R-410A Refrigerant, MicroTech II™ (“F” Vintage)



Selecting Unit Size

Proper sizing of the water source heat pump self-contained unit ventilator is important for trouble free operation. An oversized unit can reduce performance and cause operational problems such as rapid temperature pull down. This can cause short cycling and potential compressor damage. It can also result in poor temperature and humidity control, low saturated evaporator coil conditions and low discharge air temperatures. To properly size the unit ventilator, determine the cooling load based on May

and September conditions at 1:00 p.m. when the classroom is occupied. Do not select the units for July or August or after 3:00 p.m. when the classroom is unoccupied. Select a properly sized unit based on the calculated cooling load, ambient air temperature and entering air temperature to the coil. If the calculated cooling load falls between two unit sizes, select the smaller of the two units to minimize the potential problems seen with oversized units.

ARQ, ERQ – Size 024 (1000 SCFM) – 2nd Stage High Fan

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating			
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP
50 ERQ Only	4.0	0.3	0.7	65/55	22000	18000	1.238	26200	17.8	21600	1.522	16400	4.16
		0.3	0.7	70/59	23400	17700	1.250	27700	18.7	21500	1.581	16100	3.98
		0.3	0.7	75/63	24800	18300	1.263	29100	19.6	21300	1.655	15700	3.77
		0.3	0.7	80/67	26300	18900	1.276	30700	20.6	21100	1.729	15200	3.57
	6.0	0.3	0.7	85/71	27700	19600	1.289	32100	21.5				
		0.7	1.6	65/55	22300	18100	1.160	26300	19.2	22200	1.569	16800	4.14
		0.7	1.6	70/59	23700	17800	1.172	27700	20.2	22100	1.628	16500	3.97
		0.7	1.6	75/63	25100	18400	1.185	29100	21.2	21900	1.702	16100	3.77
	8.0	0.7	1.6	80/67	26500	19000	1.198	30600	22.1	21800	1.776	15700	3.59
		0.7	1.6	85/71	27900	19600	1.211	32000	23.0				
		1.3	2.9	65/55	22500	18200	1.082	26200	20.8	22900	1.616	17400	4.15
		1.3	2.9	70/59	23900	17900	1.094	27600	21.8	22700	1.675	17000	3.97
60	4.0	1.3	2.9	75/63	25300	18500	1.107	29100	22.9	22600	1.749	16600	3.78
		1.3	2.9	80/67	26700	19100	1.120	30500	23.8	22400	1.823	16200	3.60
		1.3	2.9	85/71	28200	19700	1.133	32100	24.9				
		0.3	0.7	65/55	21700	17700	1.359	26300	16.0	24300	1.586	18900	4.49
	6.0	0.3	0.7	70/59	23100	17400	1.371	27800	16.8	24200	1.645	18600	4.31
		0.3	0.7	75/63	24500	18000	1.384	29200	17.7	24000	1.719	18100	4.09
		0.3	0.7	80/67	25900	18600	1.397	30700	18.5	23900	1.793	17800	3.90
		0.3	0.7	85/71	27300	19300	1.410	32100	19.4				
	8.0	0.7	1.6	65/55	21900	17800	1.281	26300	17.1	25000	1.633	19400	4.48
		0.7	1.6	70/59	23300	17500	1.293	27700	18.0	24800	1.692	19000	4.29
		0.7	1.6	75/63	24700	18100	1.306	29200	18.9	24700	1.766	18700	4.10
		0.7	1.6	80/67	26200	18700	1.319	30700	19.9	24500	1.840	18200	3.90
8.0	0.7	1.6	85/71	27600	19300	1.332	32100	20.7					
	1.2	2.8	65/55	22100	17900	1.203	26200	18.4	25600	1.680	19900	4.46	
	1.2	2.8	70/59	23600	17600	1.215	27700	19.4	25500	1.739	19600	4.29	
	1.2	2.8	75/63	25000	18200	1.228	29200	20.4	25300	1.813	19100	4.09	
70	4.0	1.2	2.8	80/67	26400	18800	1.241	30600	21.3	25100	1.887	18700	3.89
		1.2	2.8	85/71	27800	19400	1.254	32100	22.2				
		0.3	0.7	65/55	20900	17200	1.498	26000	14.0	26900	1.648	21300	4.78
		0.3	0.7	70/59	22300	16800	1.510	27500	14.8	26700	1.707	20900	4.58
	6.0	0.3	0.7	75/63	23700	17500	1.523	28900	15.6	26600	1.781	20500	4.37
		0.3	0.7	80/67	25100	18100	1.536	30300	16.3	26400	1.855	20100	4.17
		0.3	0.7	85/71	26500	18700	1.549	31800	17.1				
		0.7	1.6	65/55	21100	17300	1.420	25900	14.9	27500	1.695	21700	4.75
	8.0	0.7	1.6	70/59	22500	16900	1.432	27400	15.7	27400	1.754	21400	4.57
		0.7	1.6	75/63	23900	17600	1.445	28800	16.5	27200	1.828	21000	4.36
		0.7	1.6	80/67	25300	18200	1.458	30300	17.4	27000	1.902	20500	4.16
		0.7	1.6	85/71	26800	18800	1.471	31800	18.2				
80	4.0	1.2	2.7	65/55	21300	17400	1.342	25900	15.9	28200	1.742	22300	4.74
		1.2	2.7	70/59	22700	17000	1.354	27300	16.8	28000	1.801	21900	4.55
		1.2	2.7	75/63	24200	17600	1.367	28900	17.7	27900	1.875	21500	4.36
		1.2	2.7	80/67	25600	18300	1.380	30300	18.6	27700	1.949	21000	4.16
	6.0	1.2	2.7	85/71	27000	18900	1.393	31800	19.4				
		0.3	0.7	65/55	19700	16600	1.655	25300	11.9	29200	1.708	23400	5.01
		0.3	0.7	70/59	21100	16300	1.667	26800	12.7	29100	1.767	23100	4.82
		0.3	0.7	75/63	22600	16900	1.680	28300	13.5	28900	1.841	22600	4.60
	8.0	0.3	0.7	80/67	24000	17500	1.693	29800	14.2	28800	1.915	22300	4.40
		0.3	0.7	85/71	25400	18100	1.706	31200	14.9				
		0.7	1.5	65/55	20000	16700	1.577	25400	12.7	29900	1.755	23900	4.99
		0.7	1.5	70/59	21400	16400	1.589	26800	13.5	29700	1.814	23500	4.79
8.0	0.7	1.5	75/63	22800	17000	1.602	28300	14.2	29600	1.888	23200	4.59	
	0.7	1.5	80/67	24200	17600	1.615	29700	15.0	29400	1.962	22700	4.39	
	0.7	1.5	85/71	25600	18200	1.628	31200	15.7					
	1.2	2.7	65/55	20200	16800	1.499	25300	13.5	30500	1.802	24300	4.96	
8.0	1.2	2.7	70/59	21600	16500	1.511	26800	14.3	30400	1.861	24000	4.78	
	1.2	2.7	75/63	23000	17100	1.524	28200	15.1	30200	1.935	23600	4.57	
	1.2	2.7	80/67	24500	17700	1.537	29700	15.9	30100	2.009	23200	4.39	
	1.2	2.7	85/71	25900	18300	1.549	31200	16.7					

ARQ, ERQ – Size 024 (1000 SCFM) – 2nd Stage High Fan (Continued)

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating				
		PSI	Ft of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP	
90	4.0	0.3	0.7	65/55	18500	16200	1.829	24700	10.1	31500	1.766	25500	5.22	
		0.3	0.7	70/59	19900	15900	1.842	26200	10.8	31300	1.825	25100	5.02	
		0.3	0.7	75/63	21300	16500	1.855	27600	11.5	31200	1.899	24700	4.81	
		0.3	0.7	80/67	22700	17100	1.867	29100	12.2	31000	1.973	24300	4.60	
	6.0	0.3	0.7	85/71	24100	17700	1.880	30500	12.8	Operation Not Recommended				
		0.7	1.5	65/55	18700	16300	1.751	24700	10.7					
		0.7	1.5	70/59	20100	15900	1.764	26100	11.4					
		0.7	1.5	75/63	21500	16600	1.776	27600	12.1					
	8.0	0.7	1.5	80/67	23000	17200	1.789	29100	12.9					
		0.7	1.5	85/71	24400	17800	1.802	30600	13.5					
		1.2	2.7	65/55	18900	16400	1.673	24600	11.3					
		1.2	2.7	70/59	20400	16000	1.685	26200	12.1					
	100	4.0	0.3	0.7	65/55	17300	15900	2.022	24200					8.6
			0.3	0.7	70/59	18700	15600	2.034	25600					9.2
			0.3	0.7	75/63	20100	16200	2.047	27100					9.8
			0.3	0.7	80/67	21500	16800	2.060	28500					10.4
6.0		0.3	0.7	85/71	22900	17500	2.073	30000	11.0					
		0.7	1.5	65/55	17500	16000	1.944	24100	9.0					
		0.7	1.5	70/59	18900	15700	1.956	25600	9.7					
		0.7	1.5	75/63	20300	16300	1.969	27000	10.3					
8.0		0.7	1.5	80/67	21700	16900	1.982	28500	10.9					
		0.7	1.5	85/71	23200	17500	1.995	30000	11.6					
		1.1	2.6	65/55	17700	16100	1.866	24100	9.5					
		1.1	2.6	70/59	19100	15800	1.878	25500	10.2					
110		4.0	1.1	2.6	75/63	20600	16400	1.891	27100	10.9				
			1.1	2.6	80/67	22000	17000	1.904	28500	11.6				
			1.1	2.6	85/71	23400	17600	1.917	29900	12.2				
			0.3	0.7	65/55	16300	15800	2.232	23900	7.3				
	6.0	0.3	0.7	70/59	17700	15400	2.244	25400	7.9					
		0.3	0.7	75/63	19100	16100	2.257	26800	8.5					
		0.3	0.7	80/67	20500	16700	2.270	28200	9.0					
		0.3	0.7	85/71	21900	17300	2.283	29700	9.6					
	8.0	0.6	1.5	65/55	16500	15900	2.154	23900	7.7					
		0.6	1.5	70/59	17900	15500	2.166	25300	8.3					
		0.6	1.5	75/63	19300	16200	2.179	26700	8.9					
		0.6	1.5	80/67	20700	16800	2.192	28200	9.4					
	8.0	0.6	1.5	85/71	22200	17400	2.205	29700	10.1					
		1.1	2.6	65/55	16700	16000	2.076	23800	8.0					
		1.1	2.6	70/59	18100	15600	2.088	25200	8.7					
		1.1	2.6	75/63	19600	16200	2.101	26800	9.3					
8.0	1.1	2.6	80/67	21000	16900	2.114	28200	9.9						
	1.1	2.6	85/71	22400	17500	2.127	29700	10.5						

Legend:

Btu/hr = British Thermal Units per Hour

CFM = Airflow Rate, Cubic Feet per Minute

COP = Coefficient of Performance

EAT = Entering Air Temperature

EER = Energy Efficiency Ratio

EWT = Entering Water Temperature

Ft of W.C. = Feet of Water Column

WPD = Waterside Pressure Drop

GPM = Gallons per Minute

kW = Kilowatts

LAT = Leaving Air Temperature

PSI = Pounds per Square Inch

THA = Total Heat of Absorption

THR = Total Heat of Rejection

ARQ, ERQ – Size 024 (750 SCFM) – 1st Stage Medium Fan

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating			
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP
50 ERQ Only	4.0	0.3	0.7	65/55	16600	13700	0.770	19200	21.6	14900	1.065	11300	4.10
		0.3	0.7	70/59	18000	13400	0.782	20700	23.0	14700	1.124	10900	3.83
		0.3	0.7	75/63	19400	14000	0.795	22100	24.4	14600	1.198	10500	3.57
		0.3	0.7	80/67	20800	14600	0.808	23600	25.7	14400	1.272	10100	3.31
	6.0	0.3	0.7	85/71	22200	15300	0.821	25000	27.0				
		0.7	1.6	65/55	16800	13800	0.692	19200	24.3	15400	1.076	11700	4.19
		0.7	1.6	70/59	18200	13500	0.704	20600	25.9	15300	1.135	11400	3.95
		0.7	1.6	75/63	19600	14100	0.717	22000	27.3	15100	1.209	11000	3.66
	8.0	0.7	1.6	80/67	21100	14700	0.730	23600	28.9	15000	1.283	10600	3.42
		0.7	1.6	85/71	22500	15300	0.743	25000	30.3				
		1.3	2.9	65/55	17000	13900	0.614	19100	27.7	16000	1.087	12300	4.31
		1.3	2.9	70/59	18400	13600	0.626	20500	29.4	15900	1.147	12000	4.06
60	4.0	1.3	2.9	75/63	19900	14200	0.639	22100	31.1	15700	1.221	11500	3.77
		1.3	2.9	80/67	21300	14800	0.652	23500	32.7	15500	1.295	11100	3.50
		1.3	2.9	85/71	22700	15400	0.665	25000	34.1				
		0.3	0.7	65/55	15800	13400	0.861	18700	18.4	17100	1.078	13400	4.64
	6.0	0.3	0.7	70/59	17200	13000	0.873	20200	19.7	17000	1.137	13100	4.38
		0.3	0.7	75/63	18700	13600	0.886	21700	21.1	16800	1.211	12700	4.06
		0.3	0.7	80/67	20100	14300	0.899	23200	22.4	16700	1.285	12300	3.81
		0.3	0.7	85/71	21500	14900	0.912	24600	23.6				
	8.0	0.7	1.6	65/55	16100	13400	0.783	18800	20.6	17700	1.089	14000	4.76
		0.7	1.6	70/59	17500	13100	0.795	20200	22.0	17600	1.148	13700	4.49
		0.7	1.6	75/63	18900	13700	0.808	21700	23.4	17400	1.222	13200	4.17
		0.7	1.6	80/67	20300	14300	0.821	23100	24.7	17200	1.296	12800	3.89
8.0	0.7	1.6	85/71	21700	15000	0.833	24500	26.1					
	1.2	2.8	65/55	16300	13500	0.704	18700	23.2	18300	1.100	14500	4.87	
	1.2	2.8	70/59	17700	13200	0.717	20100	24.7	18100	1.159	14100	4.57	
	1.2	2.8	75/63	19100	13800	0.730	21600	26.2	18000	1.233	13800	4.27	
70	4.0	1.2	2.8	80/67	20600	14400	0.742	23100	27.8	17800	1.307	13300	3.99
		1.2	2.8	85/71	22000	15000	0.755	24600	29.1				
		0.3	0.7	65/55	14800	12900	0.977	18100	15.1	19200	1.087	15500	5.17
		0.3	0.7	70/59	16200	12500	0.989	19600	16.4	19100	1.147	15200	4.88
	6.0	0.3	0.7	75/63	17600	13200	1.002	21000	17.6	18900	1.221	14700	4.53
		0.3	0.7	80/67	19000	13800	1.015	22500	18.7	18800	1.295	14400	4.25
		0.3	0.7	85/71	20500	14400	1.027	24000	20.0				
		0.7	1.6	65/55	15000	13000	0.898	18100	16.7	19800	1.099	16000	5.28
	8.0	0.7	1.6	70/59	16400	12600	0.911	19500	18.0	19700	1.158	15700	4.98
		0.7	1.6	75/63	17800	13200	0.924	21000	19.3	19500	1.232	15300	4.63
		0.7	1.6	80/67	19300	13900	0.936	22500	20.6	19300	1.306	14800	4.33
		0.7	1.6	85/71	20700	14500	0.949	23900	21.8				
80	4.0	1.2	2.7	65/55	15300	13100	0.820	18100	18.7	20400	1.110	16600	5.38
		1.2	2.7	70/59	16700	12700	0.833	19500	20.0	20300	1.169	16300	5.08
		1.2	2.7	75/63	18100	13300	0.845	21000	21.4	20100	1.243	15900	4.73
		1.2	2.7	80/67	19500	14000	0.858	22400	22.7	19900	1.317	15400	4.42
	6.0	1.2	2.7	85/71	20900	14600	0.871	23900	24.0				
		0.3	0.7	65/55	13600	12400	1.117	17400	12.2	21200	1.094	17500	5.67
		0.3	0.7	70/59	15000	12000	1.129	18900	13.3	21000	1.153	17100	5.33
		0.3	0.7	75/63	16400	12700	1.142	20300	14.4	20900	1.227	16700	4.99
	8.0	0.3	0.7	80/67	17800	13300	1.155	21700	15.4	20700	1.301	16300	4.66
		0.3	0.7	85/71	19300	13900	1.168	23300	16.5				
		0.7	1.5	65/55	13800	12500	1.039	17300	13.3	21700	1.105	17900	5.75
		0.7	1.5	70/59	15200	12100	1.051	18800	14.5	21600	1.164	17600	5.43
8.0	0.7	1.5	75/63	16700	12800	1.064	20300	15.7	21400	1.238	17200	5.06	
	0.7	1.5	80/67	18100	13400	1.077	21800	16.8	21300	1.312	16800	4.75	
	0.7	1.5	85/71	19500	14000	1.090	23200	17.9					
	1.2	2.7	65/55	14100	12600	0.961	17400	14.7	22300	1.116	18500	5.85	
8.0	1.2	2.7	70/59	15500	12200	0.973	18800	15.9	22200	1.175	18200	5.53	
	1.2	2.7	75/63	16900	12800	0.986	20300	17.1	22000	1.249	17700	5.16	
	1.2	2.7	80/67	18300	13500	0.999	21700	18.3	21800	1.323	17300	4.82	
	1.2	2.7	85/71	19700	14100	1.012	23200	19.5					

ARQ, ERQ – Size 024 (750 SCFM) – 1st Stage Medium Fan (Continued)

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating			
		PSI	Ft of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP
90	4.0	0.3	0.7	65/55	12400	12000	1.282	16800	9.7	22800	1.097	19100	6.09
		0.3	0.7	70/59	13800	11600	1.294	18200	10.7	22700	1.156	18800	5.75
		0.3	0.7	75/63	15300	12200	1.307	19800	11.7	22500	1.230	18300	5.36
		0.3	0.7	80/67	16700	12900	1.320	21200	12.7	22400	1.304	17900	5.03
	6.0	0.3	0.7	85/71	18100	13500	1.333	22600	13.6	Operation Not Recommended			
		0.7	1.5	65/55	12700	12000	1.204	16800	10.5				
		0.7	1.5	70/59	14100	11700	1.216	18300	11.6				
		0.7	1.5	75/63	15500	12300	1.229	19700	12.6				
	8.0	0.7	1.5	80/67	16900	12900	1.242	21100	13.6				
		0.7	1.5	85/71	18300	13600	1.255	22600	14.6				
		1.2	2.7	65/55	12900	12100	1.126	16700	11.5				
		1.2	2.7	70/59	14300	11800	1.138	18200	12.6				
100	4.0	1.2	2.7	75/63	15700	12400	1.151	19600	13.6				
		1.2	2.7	80/67	17200	13000	1.164	21200	14.8				
		1.2	2.7	85/71	18600	13600	1.177	22600	15.8				
		0.3	0.7	65/55	11500	11700	1.470	16500	7.8				
	6.0	0.3	0.7	70/59	12900	11300	1.482	18000	8.7				
		0.3	0.7	75/63	14300	11900	1.495	19400	9.6				
		0.3	0.7	80/67	15700	12600	1.508	20800	10.4				
		0.3	0.7	85/71	17200	13200	1.521	22400	11.3				
	8.0	0.7	1.5	65/55	11700	11700	1.392	16500	8.4				
		0.7	1.5	70/59	13100	11400	1.404	17900	9.3				
		0.7	1.5	75/63	14600	12000	1.417	19400	10.3				
		0.7	1.5	80/67	16000	12600	1.430	20900	11.2				
110	4.0	0.7	1.5	85/71	17400	13300	1.443	22300	12.1				
		1.1	2.6	65/55	12000	11800	1.314	16500	9.1				
		1.1	2.6	70/59	13400	11500	1.326	17900	10.1				
		1.1	2.6	75/63	14800	12100	1.339	19400	11.1				
	6.0	1.1	2.6	80/67	16200	12700	1.352	20800	12.0				
		1.1	2.6	85/71	17600	13300	1.365	22300	12.9				
		0.3	0.7	65/55	10900	11600	1.681	16600	6.5				
		0.3	0.7	70/59	12300	11200	1.694	18100	7.3				
	8.0	0.3	0.7	75/63	13800	11800	1.706	19600	8.1				
		0.3	0.7	80/67	15200	12500	1.719	21100	8.8				
		0.3	0.7	85/71	16600	13100	1.732	22500	9.6				
		0.6	1.5	65/55	11200	11700	1.603	16700	7.0				
110	6.0	0.6	1.5	70/59	12600	11300	1.615	18100	7.8				
		0.6	1.5	75/63	14000	11900	1.628	19600	8.6				
		0.6	1.5	80/67	15400	12500	1.641	21000	9.4				
		0.6	1.5	85/71	16800	13200	1.654	22400	10.2				
	8.0	1.1	2.6	65/55	11400	11700	1.525	16600	7.5				
		1.1	2.6	70/59	12800	11400	1.537	18000	8.3				
		1.1	2.6	75/63	14200	12000	1.550	19500	9.2				
		1.1	2.6	80/67	15700	12600	1.563	21000	10.0				
	8.0	1.1	2.6	85/71	17100	13300	1.576	22500	10.9				

Legend:

Btu/hr = British Thermal Units per Hour

CFM = Airflow Rate, Cubic Feet per Minute

COP = Coefficient of Performance

EAT = Entering Air Temperature

EER = Energy Efficiency Ratio

EWT = Entering Water Temperature

Ft of W.C. = Feet of Water Column

WPD = Waterside Pressure Drop

GPM = Gallons per Minute

kW = Kilowatts

LAT = Leaving Air Temperature

PSI = Pounds per Square Inch

THA = Total Heat of Absorption

THR = Total Heat of Rejection

ARQ, ERQ – Size 024 (650 SCFM) – 1st Stage Low Fan (Continued)

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating				
		PSI	Ft of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP	
90	4.0	0.3	0.7	65/55	11700	10400	1.244	15900	9.4	21800	1.174	17800	5.44	
		0.3	0.7	70/59	13100	10000	1.257	17400	10.4	21700	1.234	17500	5.15	
		0.3	0.7	75/63	14500	10600	1.270	18800	11.4	21500	1.308	17000	4.81	
		0.3	0.7	80/67	15900	11300	1.282	20300	12.4	21300	1.382	16600	4.51	
	6.0	0.3	0.7	85/71	17300	11900	1.295	21700	13.4	Operation Not Recommended				
		0.7	1.5	65/55	11900	10500	1.166	15900	10.2					
		0.7	1.5	70/59	13300	10100	1.179	17300	11.3					
		0.7	1.5	75/63	14700	10700	1.191	18800	12.3					
	8.0	0.7	1.5	80/67	16200	11400	1.204	20300	13.5					
		0.7	1.5	85/71	17600	12000	1.217	21800	14.5					
		1.2	2.7	65/55	12100	10500	1.088	15800	11.1					
		1.2	2.7	70/59	13500	10200	1.100	17300	12.3					
	100	4.0	1.2	2.7	75/63	15000	10800	1.113	18800					13.5
			1.2	2.7	80/67	16400	11400	1.126	20200					14.6
			1.2	2.7	85/71	17800	12100	1.139	21700					15.6
			0.3	0.7	65/55	10500	10000	1.398	15300					7.5
6.0		0.3	0.7	70/59	11900	9700	1.410	16700	8.4					
		0.3	0.7	75/63	13300	10300	1.423	18200	9.3					
		0.3	0.7	80/67	14800	10900	1.436	19700	10.3					
		0.3	0.7	85/71	16200	11500	1.449	21100	11.2					
8.0		0.7	1.5	65/55	10700	10100	1.320	15200	8.1					
		0.7	1.5	70/59	12200	9700	1.332	16700	9.2					
		0.7	1.5	75/63	13600	10400	1.345	18200	10.1					
		0.7	1.5	80/67	15000	11000	1.358	19600	11.0					
110		4.0	0.7	1.5	85/71	16400	11600	1.371	21100	12.0				
			1.1	2.6	65/55	11000	10200	1.242	15200	8.9				
			1.1	2.6	70/59	12400	9800	1.254	16700	9.9				
			1.1	2.6	75/63	13800	10500	1.267	18100	10.9				
	6.0	1.1	2.6	80/67	15200	11100	1.280	19600	11.9					
		1.1	2.6	85/71	16700	11700	1.292	21100	12.9					
		0.3	0.7	65/55	9500	9700	1.546	14800	6.1					
		0.3	0.7	70/59	10900	9400	1.558	16200	7.0					
8.0	0.3	0.7	75/63	12300	10000	1.571	17700	7.8						
	0.3	0.7	80/67	13800	10600	1.584	19200	8.7						
	0.3	0.7	85/71	15200	11200	1.597	20700	9.5						
	0.6	1.5	65/55	9700	9800	1.468	14700	6.6						
	0.6	1.5	70/59	11200	9500	1.480	16300	7.6						
	0.6	1.5	75/63	12600	10100	1.493	17700	8.4						
	0.6	1.5	80/67	14000	10700	1.506	19100	9.3						
	0.6	1.5	85/71	15400	11300	1.519	20600	10.1						

Legend:

Btu/hr = British Thermal Units per Hour

CFM = Airflow Rate, Cubic Feet per Minute

COP = Coefficient of Performance

EAT = Entering Air Temperature

EER = Energy Efficiency Ratio

EWT = Entering Water Temperature

Ft of W.C. = Feet of Water Column

WPD = Waterside Pressure Drop

GPM = Gallons per Minute

kW = Kilowatts

LAT = Leaving Air Temperature

PSI = Pounds per Square Inch

THA = Total Heat of Absorption

THR = Total Heat of Rejection

ARQ, ERQ – Size 040 (1250 SCFM) – 2nd Stage High Fan

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating			
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP
50 ERQ Only	6.7	1.7	3.9	65/55	39400	29000	2.218	47000	17.8	36900	2.567	28100	92
		1.7	3.9	70/59	42000	30000	2.254	49700	18.6	36500	2.772	27000	97
		1.7	3.9	75/63	44600	31000	2.290	52400	19.5	36000	2.978	25800	102
		1.7	3.9	80/67	47200	32000	2.325	55100	20.3	35500	3.183	24600	106
	10.0	1.7	3.9	85/71	49700	32900	2.361	57800	21.1				
		3.7	8.5	65/55	40500	29400	1.857	46800	21.8	39900	2.784	30400	94
		3.7	8.5	70/59	43100	30400	1.892	49600	22.8	39500	2.990	29300	99
		3.7	8.5	75/63	45700	31400	1.928	52300	23.7	39000	3.195	28100	104
	13.3	3.7	8.5	80/67	48200	32400	1.964	54900	24.5	38500	3.401	26900	108
		3.7	8.5	85/71	50800	33400	2.000	57600	25.4				
		6.4	14.6	65/55	41600	29800	1.495	46700	27.8	42900	3.002	32700	97
		6.4	14.6	70/59	44200	30800	1.531	49400	28.9	42500	3.207	31600	101
60	6.7	6.4	14.6	75/63	46700	31800	1.567	52000	29.8	42000	3.413	30400	106
		6.4	14.6	80/67	49300	32800	1.603	54800	30.8	41500	3.618	29200	111
		6.4	14.6	85/71	51900	33800	1.638	57500	31.7				
		1.7	3.8	65/55	38500	27600	2.424	46800	15.9	40200	2.660	31100	95
	10.0	1.7	3.8	70/59	41100	28600	2.460	49500	16.7	39800	2.865	30000	99
		1.7	3.8	75/63	43700	29600	2.496	52200	17.5	39300	3.071	28800	104
		1.7	3.8	80/67	46300	30600	2.532	54900	18.3	38800	3.277	27600	109
		1.7	3.8	85/71	48900	31600	2.568	57700	19.0				
	13.3	3.6	8.3	65/55	39600	28000	2.063	46600	19.2	43200	2.877	33400	97
		3.6	8.3	70/59	42200	29000	2.099	49400	20.1	42700	3.083	32200	101
		3.6	8.3	75/63	44800	30000	2.135	52100	21.0	42300	3.289	31100	106
		3.6	8.3	80/67	47400	31000	2.170	54800	21.8	41800	3.494	29900	111
70	6.7	3.6	8.3	85/71	49900	32000	2.206	57400	22.6				
		6.2	14.2	65/55	40700	28400	1.702	46500	23.9	46200	3.095	35600	99
		6.2	14.2	70/59	43300	29400	1.738	49200	24.9	45700	3.301	34400	104
		6.2	14.2	75/63	45900	30400	1.773	52000	25.9	45300	3.506	33300	108
	10.0	6.2	14.2	80/67	48400	31400	1.809	54600	26.8	44800	3.712	32100	113
		6.2	14.2	85/71	51000	32400	1.845	57300	27.6				
		1.6	3.8	65/55	36900	26100	2.649	45900	13.9	43200	2.747	33800	97
		1.6	3.8	70/59	39400	27100	2.684	48600	14.7	42700	2.953	32600	101
	13.3	1.6	3.8	75/63	42000	28100	2.720	51300	15.4	42200	3.158	31400	106
		1.6	3.8	80/67	44600	29100	2.756	54000	16.2	41800	3.364	30300	111
		1.6	3.8	85/71	47200	30000	2.792	56700	16.9				
		3.5	8.1	65/55	38000	26500	2.287	45800	16.6	46200	2.965	36100	99
80	6.7	3.5	8.1	70/59	40500	27500	2.323	48400	17.4	45700	3.170	34900	104
		3.5	8.1	75/63	43100	28500	2.359	51200	18.3	45200	3.376	33700	108
		3.5	8.1	80/67	45700	29500	2.395	53900	19.1	44800	3.581	32600	113
		3.5	8.1	85/71	48300	30400	2.430	56600	19.9				
	10.0	6.1	13.9	65/55	39000	26900	1.926	45600	20.2	49200	3.182	38300	101
		6.1	13.9	70/59	41600	27900	1.962	48300	21.2	48700	3.388	37100	106
		6.1	13.9	75/63	44200	28900	1.998	51000	22.1	48200	3.593	35900	111
		6.1	13.9	80/67	46800	29900	2.033	53700	23.0	47800	3.799	34800	115
	13.3	6.1	13.9	85/71	49400	30800	2.069	56500	23.9				
		1.6	3.7	65/55	34600	24800	2.891	44500	12.0	46000	2.828	36300	99
		1.6	3.7	70/59	37200	25800	2.927	47200	12.7	45500	3.034	35100	104
		1.6	3.7	75/63	39800	26800	2.962	49900	13.4	45000	3.239	33900	108
80	6.7	1.6	3.7	80/67	42400	27800	2.998	52600	14.1	44600	3.445	32800	113
		1.6	3.7	85/71	44900	28700	3.034	55300	14.8				
		3.5	7.9	65/55	35700	25200	2.529	44300	14.1	49000	3.046	38600	101
		3.5	7.9	70/59	38300	26200	2.565	47100	14.9	48500	3.251	37400	106
	10.0	3.5	7.9	75/63	40900	27200	2.601	49800	15.7	48000	3.457	36200	110
		3.5	7.9	80/67	43400	28200	2.637	52400	16.5	47600	3.662	35100	115
		3.5	7.9	85/71	46000	29100	2.673	55100	17.2				
		6.0	13.7	65/55	36800	25600	2.168	44200	17.0	52000	3.263	40900	103
	13.3	6.0	13.7	70/59	39400	26600	2.204	46900	17.9	51500	3.469	39700	108
		6.0	13.7	75/63	41900	27600	2.240	49500	18.7	51000	3.674	38500	113
		6.0	13.7	80/67	44500	28600	2.275	52300	19.6	50600	3.880	37400	117
		6.0	13.7	85/71	47100	29500	2.311	55000	20.4				

ARQ, ERQ – Size 040 (1250 SCFM) – 2nd Stage High Fan (Continued)

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating				
		PSI	Ft of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP	
90	6.7	1.6	3.6	65/55	32000	23800	3.151	42800	10.2	48900	2.903	39000	101	
		1.6	3.6	70/59	34600	24800	3.186	45500	10.9	48400	3.109	37800	106	
		1.6	3.6	75/63	37200	25800	3.222	48200	11.5	48000	3.314	36700	110	
		1.6	3.6	80/67	39700	26800	3.258	50800	12.2	47500	3.520	35500	115	
	10.0	1.6	3.6	85/71	42300	27800	3.294	53500	12.8	Operation Not Recommended				
		3.4	7.8	65/55	33100	24200	2.789	42600	11.9					
		3.4	7.8	70/59	35700	25200	2.825	45300	12.6					
		3.4	7.8	75/63	38300	26200	2.861	48100	13.4					
		3.4	7.8	80/67	40800	27200	2.897	50700	14.1					
		3.4	7.8	85/71	43400	28200	2.932	53400	14.8					
		13.3	5.9	13.4	65/55	34200	24600	2.428	42500					14.1
			5.9	13.4	70/59	36800	25600	2.464	45200					14.9
	5.9		13.4	75/63	39300	26600	2.499	47800	15.7					
	5.9		13.4	80/67	41900	27600	2.535	50600	16.5					
	100	6.7	1.6	3.6	65/55	29300	23000	3.428	41000	8.5				
			1.6	3.6	70/59	31800	24000	3.464	43600	9.2				
1.6			3.6	75/63	34400	24900	3.500	46300	9.8					
1.6			3.6	80/67	37000	25900	3.536	49100	10.5					
10.0		1.6	3.6	85/71	39600	26900	3.571	51800	11.1					
		3.4	7.7	65/55	30300	23400	3.067	40800	9.9					
		3.4	7.7	70/59	32900	24400	3.103	43500	10.6					
		3.4	7.7	75/63	35500	25300	3.138	46200	11.3					
13.3		3.4	7.7	80/67	38100	26300	3.174	48900	12.0					
		3.4	7.7	85/71	40700	27300	3.210	51700	12.7					
		5.8	13.3	65/55	31400	23800	2.706	40600	11.6					
		5.8	13.3	70/59	34000	24800	2.741	43400	12.4					
		5.8	13.3	75/63	36600	25700	2.777	46100	13.2					
		5.8	13.3	80/67	39200	26700	2.813	48800	13.9					
		5.8	13.3	85/71	41700	27700	2.849	51400	14.6					
		110	6.7	1.5	3.5	65/55	26600	21800	3.724	39300	7.1			
1.5	3.5			70/59	29200	22800	3.759	42000	7.8					
1.5	3.5			75/63	31700	23800	3.795	44700	8.4					
1.5	3.5			80/67	34300	24800	3.831	47400	9.0					
10.0	1.5		3.5	85/71	36900	25700	3.867	50100	9.5					
	3.3		7.6	65/55	27700	22200	3.362	39200	8.2					
	3.3		7.6	70/59	30200	23200	3.398	41800	8.9					
	3.3		7.6	75/63	32800	24200	3.434	44500	9.6					
13.3	3.3		7.6	80/67	35400	25200	3.470	47200	10.2					
	3.3		7.6	85/71	38000	26100	3.505	50000	10.8					
	5.7		13.1	65/55	28800	22600	3.001	39000	9.6					
	5.7		13.1	70/59	31300	23600	3.037	41700	10.3					
	5.7		13.1	75/63	33900	24600	3.073	44400	11.0					
	5.7		13.1	80/67	36500	25600	3.108	47100	11.7					
	5.7		13.1	85/71	39100	26600	3.144	49800	12.4					

Legend:

Btu/hr = British Thermal Units per Hour

CFM = Airflow Rate, Cubic Feet per Minute

COP = Coefficient of Performance

EAT = Entering Air Temperature

EER = Energy Efficiency Ratio

EWT = Entering Water Temperature

Ft of W.C. = Feet of Water Column

WPD = Waterside Pressure Drop

GPM = Gallons per Minute

kW = Kilowatts

LAT = Leaving Air Temperature

PSI = Pounds per Square Inch

THA = Total Heat of Absorption

THR = Total Heat of Rejection

ARQ, ERQ – Size 040 (1000 SCFM) – 1st Stage Medium Fan

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating			
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP
50 ERQ Only	6.7	1.7	3.9	65/55	26300	20100	1.391	31000	18.9	25600	1.782	19500	89
		1.7	3.9	70/59	28900	21100	1.426	33800	20.3	25100	1.988	18300	93
		1.7	3.9	75/63	31500	22100	1.462	36500	21.5	24700	2.193	17200	98
		1.7	3.9	80/67	34000	23000	1.498	39100	22.7	24200	2.399	16000	102
	10.0	1.7	3.9	85/71	36600	24000	1.534	41800	23.9				
		3.7	8.5	65/55	27400	20500	1.029	30900	26.6	28600	2.000	21800	91
		3.7	8.5	70/59	30000	21500	1.065	33600	28.2	28100	2.205	20600	96
		3.7	8.5	75/63	32600	22500	1.101	36400	29.6	27700	2.411	19500	101
	13.3	3.7	8.5	80/67	35100	23400	1.137	39000	30.9	27200	2.617	18300	105
		3.7	8.5	85/71	37700	24400	1.172	41700	32.2				
		6.4	14.6	65/55	28500	20900	0.668	30800	42.7	31600	2.217	24000	94
		6.4	14.6	70/59	31100	21900	0.704	33500	44.2	31100	2.423	22800	99
60	6.7	6.4	14.6	75/63	33600	22900	0.739	36100	45.5	30700	2.629	21700	103
		6.4	14.6	80/67	36200	23900	0.775	38800	46.7	30200	2.834	20500	108
		6.4	14.6	85/71	38800	24800	0.811	41600	47.8				
		1.7	3.8	65/55	25500	19200	1.565	30800	16.3	28800	1.816	22600	92
	10.0	1.7	3.8	70/59	28000	20100	1.601	33500	17.5	28300	2.022	21400	96
		1.7	3.8	75/63	30600	21100	1.637	36200	18.7	27800	2.227	20200	101
		1.7	3.8	80/67	33200	22100	1.673	38900	19.8	27400	2.433	19100	105
		1.7	3.8	85/71	35800	23100	1.708	41600	21.0				
	13.3	3.6	8.3	65/55	26600	19600	1.204	30700	22.1	31800	2.034	24900	94
		3.6	8.3	70/59	29100	20500	1.240	33300	23.5	31300	2.239	23700	99
		3.6	8.3	75/63	31700	21500	1.275	36100	24.9	30800	2.445	22500	103
		3.6	8.3	80/67	34300	22500	1.311	38800	26.2	30400	2.650	21400	108
70	6.7	3.6	8.3	85/71	36900	23500	1.347	41500	27.4				
		6.2	14.2	65/55	27600	20000	0.843	30500	32.7	34800	2.251	27100	97
		6.2	14.2	70/59	30200	20900	0.878	33200	34.4	34300	2.457	25900	102
		6.2	14.2	75/63	32800	21900	0.914	35900	35.9	33800	2.662	24700	106
	10.0	6.2	14.2	80/67	35400	22900	0.950	38600	37.3	33400	2.868	23600	111
		6.2	14.2	85/71	38000	23900	0.986	41400	38.5				
		1.6	3.8	65/55	24400	18400	1.782	30500	13.7	31300	1.845	25000	94
		1.6	3.8	70/59	27000	19400	1.817	33200	14.9	30800	2.051	23800	98
	13.3	1.6	3.8	75/63	29500	20400	1.853	35800	15.9	30300	2.256	22600	103
		1.6	3.8	80/67	32100	21300	1.889	38500	17.0	29900	2.462	21500	108
		1.6	3.8	85/71	34700	22300	1.925	41300	18.0				
		3.5	8.1	65/55	25500	18800	1.420	30300	18.0	34300	2.063	27300	97
80	6.7	3.5	8.1	70/59	28000	19800	1.456	33000	19.2	33800	2.268	26100	101
		3.5	8.1	75/63	30600	20800	1.492	35700	20.5	33300	2.474	24900	106
		3.5	8.1	80/67	33200	21700	1.528	38400	21.7	32900	2.679	23800	110
		3.5	8.1	85/71	35800	22700	1.563	41100	22.9				
	10.0	6.1	13.9	65/55	26600	19200	1.059	30200	25.1	37300	2.280	29500	99
		6.1	13.9	70/59	29100	20200	1.095	32800	26.6	36800	2.486	28300	104
		6.1	13.9	75/63	31700	21200	1.131	35600	28.0	36300	2.691	27100	108
		6.1	13.9	80/67	34300	22100	1.166	38300	29.4	35900	2.897	26000	113
	13.3	6.1	13.9	85/71	36900	23100	1.202	41000	30.7				
		1.6	3.7	65/55	23100	17700	2.023	30000	11.4	34000	1.869	27600	96
		1.6	3.7	70/59	25700	18700	2.059	32700	12.5	33500	2.075	26400	101
		1.6	3.7	75/63	28300	19700	2.095	35500	13.5	33100	2.281	25300	105
80	6.7	1.6	3.7	80/67	30900	20700	2.130	38200	14.5	32600	2.486	24100	110
		1.6	3.7	85/71	33400	21700	2.166	40800	15.4				
		3.5	7.9	65/55	24200	18100	1.662	29900	14.6	37000	2.087	29900	99
		3.5	7.9	70/59	26800	19100	1.698	32600	15.8	36500	2.293	28700	104
	10.0	3.5	7.9	75/63	29400	20100	1.733	35300	17.0	36100	2.498	27600	108
		3.5	7.9	80/67	32000	21100	1.769	38000	18.1	35600	2.704	26400	113
		3.5	7.9	85/71	34500	22100	1.805	40700	19.1				
		6.0	13.7	65/55	25300	18500	1.300	29700	19.5	40000	2.305	32100	102
	13.3	6.0	13.7	70/59	27900	19500	1.336	32500	20.9	39500	2.510	30900	106
		6.0	13.7	75/63	30500	20500	1.372	35200	22.2	39000	2.716	29700	111
		6.0	13.7	80/67	33000	21500	1.408	37800	23.4	38600	2.921	28600	116
		6.0	13.7	85/71	35600	22500	1.444	40500	24.7				

ARQ, ERQ – Size 040 (1000 SCFM) – 1st Stage Medium Fan (Continued)

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating			
		PSI	Ft of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP
90	6.7	1.6	3.6	65/55	21800	17100	2.273	29600	9.6	37500	1.889	31100	100
		1.6	3.6	70/59	24400	18100	2.308	32300	10.6	37100	2.095	29900	104
		1.6	3.6	75/63	26900	19100	2.344	34900	11.5	36600	2.300	28800	109
		1.6	3.6	80/67	29500	20100	2.380	37600	12.4	36100	2.506	27500	113
		1.6	3.6	85/71	32100	21100	2.416	40300	13.3				
	10.0	3.4	7.8	65/55	22900	17500	1.911	29400	12.0	40500	2.107	33300	102
		3.4	7.8	70/59	25400	18500	1.947	32000	13.0	40100	2.312	32200	107
		3.4	7.8	75/63	28000	19500	1.983	34800	14.1	39600	2.518	31000	111
		3.4	7.8	80/67	30600	20500	2.019	37500	15.2	39100	2.723	29800	116
		3.4	7.8	85/71	33200	21500	2.054	40200	16.2				
	13.3	5.9	13.4	65/55	23900	17900	1.550	29200	15.4	43500	2.324	35600	105
		5.9	13.4	70/59	26500	18900	1.586	31900	16.7	43100	2.530	34500	110
		5.9	13.4	75/63	29100	19900	1.622	34600	17.9	42600	2.735	33300	114
		5.9	13.4	80/67	31700	20900	1.657	37400	19.1	42100	2.941	32100	119
		5.9	13.4	85/71	34300	21900	1.693	40100	20.3				
	100	6.7	1.6	3.6	65/55	20400	16500	2.514	29000	8.1			
1.6			3.6	70/59	23000	17500	2.549	31700	9.0				
1.6			3.6	75/63	25600	18500	2.585	34400	9.9				
1.6			3.6	80/67	28100	19500	2.621	37000	10.7				
1.6			3.6	85/71	30700	20400	2.657	39800	11.6				
10.0		3.4	7.7	65/55	21500	16900	2.152	28800	10.0				
		3.4	7.7	70/59	24100	17900	2.188	31600	11.0				
		3.4	7.7	75/63	26600	18900	2.224	34200	12.0				
		3.4	7.7	80/67	29200	19900	2.260	36900	12.9				
		3.4	7.7	85/71	31800	20800	2.295	39600	13.9				
13.3		5.8	13.3	65/55	22600	17300	1.791	28700	12.6				
		5.8	13.3	70/59	25100	18300	1.827	31300	13.7				
		5.8	13.3	75/63	27700	19300	1.862	34100	14.9				
		5.8	13.3	80/67	30300	20300	1.898	36800	16.0				
		5.8	13.3	85/71	32900	21200	1.934	39500	17.0				
110		6.7	1.5	3.5	65/55	19100	15800	2.729	28400	7.0			
	1.5		3.5	70/59	21600	16800	2.765	31000	7.8				
	1.5		3.5	75/63	24200	17800	2.801	33800	8.6				
	1.5		3.5	80/67	26800	18700	2.836	36500	9.4				
	1.5		3.5	85/71	29400	19700	2.872	39200	10.2				
	10.0	3.3	7.6	65/55	20200	16200	2.368	28300	8.5				
		3.3	7.6	70/59	22700	17200	2.404	30900	9.4				
		3.3	7.6	75/63	25300	18200	2.439	33600	10.4				
		3.3	7.6	80/67	27900	19100	2.475	36300	11.3				
		3.3	7.6	85/71	30500	20100	2.511	39100	12.1				
	13.3	5.7	13.1	65/55	21200	16600	2.006	28000	10.6				
		5.7	13.1	70/59	23800	17600	2.042	30800	11.7				
		5.7	13.1	75/63	26400	18600	2.078	33500	12.7				
		5.7	13.1	80/67	29000	19500	2.114	36200	13.7				
		5.7	13.1	85/71	31600	20500	2.150	38900	14.7				

Operation Not Recommended

Legend:

Btu/hr = British Thermal Units per Hour

GPM = Gallons per Minute

CFM = Airflow Rate, Cubic Feet per Minute

kW = Kilowatts

COP = Coefficient of Performance

LAT = Leaving Air Temperature

EAT = Entering Air Temperature

PSI = Pounds per Square Inch

EER = Energy Efficiency Ratio

THA = Total Heat of Absorption

EWT = Entering Water Temperature

THR = Total Heat of Rejection

Ft of W.C. = Feet of Water Column

WPD = Waterside Pressure Drop

ARQ, ERQ – Size 040 (800 SCFM) – 1st Stage Low Fan

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating			
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP
50 ERQ Only	6.7	1.7	3.9	65/55	25400	17400	1.391	30100	18.3	24400	1.903	17900	93
		1.7	3.9	70/59	28000	18400	1.427	32900	19.6	23900	2.108	16700	98
		1.7	3.9	75/63	30500	19400	1.463	35500	20.8	23500	2.314	15600	102
		1.7	3.9	80/67	33100	20300	1.498	38200	22.1	23000	2.519	14400	106
		1.7	3.9	85/71	35700	21300	1.534	40900	23.3				
	10.0	3.7	8.5	65/55	26500	17800	1.030	30000	25.7	27400	2.120	20200	97
		3.7	8.5	70/59	29000	18800	1.066	32600	27.2	26900	2.326	19000	101
		3.7	8.5	75/63	31600	19800	1.101	35400	28.7	26500	2.531	17900	106
		3.7	8.5	80/67	34200	20700	1.137	38100	30.1	26000	2.737	16700	110
		3.7	8.5	85/71	36800	21700	1.173	40800	31.4				
	13.3	6.4	14.6	65/55	27500	18200	0.668	29800	41.2	30400	2.338	22400	100
		6.4	14.6	70/59	30100	19200	0.704	32500	42.8	29900	2.543	21200	104
6.4		14.6	75/63	32700	20200	0.740	35200	44.2	29500	2.749	20100	109	
6.4		14.6	80/67	35300	21200	0.776	37900	45.5	29000	2.954	18900	113	
		6.4	14.6	85/71	37900	22100	0.812	40700	46.7				
60	6.7	1.7	3.8	65/55	24900	16900	1.557	30200	16.0	27700	1.967	21000	97
		1.7	3.8	70/59	27400	17900	1.593	32800	17.2	27300	2.173	19900	101
		1.7	3.8	75/63	30000	18900	1.629	35600	18.4	26800	2.378	18700	106
		1.7	3.8	80/67	32600	19800	1.665	38300	19.6	26300	2.584	17500	110
		1.7	3.8	85/71	35200	20800	1.700	41000	20.7				
	10.0	3.6	8.3	65/55	25900	17300	1.196	30000	21.7	30700	2.185	23200	100
		3.6	8.3	70/59	28500	18300	1.232	32700	23.1	30300	2.390	22100	105
		3.6	8.3	75/63	31100	19300	1.267	35400	24.5	29800	2.596	20900	109
		3.6	8.3	80/67	33700	20200	1.303	38100	25.9	29300	2.802	19700	114
		3.6	8.3	85/71	36300	21200	1.339	40900	27.1				
	13.3	6.2	14.2	65/55	27000	17700	0.835	29800	32.3	33700	2.402	25500	104
		6.2	14.2	70/59	29600	18700	0.870	32600	34.0	33300	2.608	24400	108
6.2		14.2	75/63	32200	19700	0.906	35300	35.5	32800	2.814	23200	113	
6.2		14.2	80/67	34800	20700	0.942	38000	36.9	32300	3.019	22000	117	
6.2		14.2	85/71	37300	21600	0.978	40600	38.1					
70	6.7	1.6	3.8	65/55	23500	15700	1.756	29500	13.4	30900	2.026	24000	101
		1.6	3.8	70/59	26100	16700	1.791	32200	14.6	30400	2.231	22800	105
		1.6	3.8	75/63	28600	17700	1.827	34800	15.7	30000	2.437	21700	110
		1.6	3.8	80/67	31200	18700	1.863	37600	16.7	29500	2.642	20500	114
		1.6	3.8	85/71	33800	19700	1.899	40300	17.8				
	10.0	3.5	8.1	65/55	24600	16100	1.394	29400	17.6	33900	2.243	26200	104
		3.5	8.1	70/59	27100	17100	1.430	32000	19.0	33400	2.449	25000	108
		3.5	8.1	75/63	29700	18100	1.466	34700	20.3	33000	2.654	23900	113
		3.5	8.1	80/67	32300	19100	1.502	37400	21.5	32500	2.860	22700	117
		3.5	8.1	85/71	34900	20100	1.537	40100	22.7				
	13.3	6.1	13.9	65/55	25600	16500	1.033	29100	24.8	36900	2.461	28500	107
		6.1	13.9	70/59	28200	17500	1.069	31800	26.4	36400	2.666	27300	112
6.1		13.9	75/63	30800	18500	1.105	34600	27.9	36000	2.872	26200	116	
6.1		13.9	80/67	33400	19500	1.140	37300	29.3	35500	3.077	25000	121	
		6.1	13.9	85/71	36000	20500	1.176	40000	30.6				
80	6.7	1.6	3.7	65/55	21500	14100	1.975	28200	10.9	33900	2.078	26800	104
		1.6	3.7	70/59	24100	15100	2.010	31000	12.0	33400	2.283	25600	108
		1.6	3.7	75/63	26700	16100	2.046	33700	13.0	33000	2.489	24500	113
		1.6	3.7	80/67	29200	17100	2.082	36300	14.0	32500	2.694	23300	117
		1.6	3.7	85/71	31800	18000	2.118	39000	15.0				
	10.0	3.5	7.9	65/55	22600	14500	1.613	28100	14.0	36900	2.295	29100	107
		3.5	7.9	70/59	25200	15500	1.649	30800	15.3	36400	2.501	27900	112
		3.5	7.9	75/63	27800	16500	1.685	33600	16.5	36000	2.706	26800	116
		3.5	7.9	80/67	30300	17500	1.721	36200	17.6	35500	2.912	25600	121
		3.5	7.9	85/71	32900	18400	1.756	38900	18.7				
	13.3	6.0	13.7	65/55	23700	14900	1.252	28000	18.9	39900	2.513	31300	111
		6.0	13.7	70/59	26300	15900	1.288	30700	20.4	39400	2.718	30100	115
6.0		13.7	75/63	28800	16900	1.323	33300	21.8	39000	2.924	29000	120	
6.0		13.7	80/67	31400	17900	1.359	36000	23.1	38500	3.129	27800	124	
		6.0	13.7	85/71	34000	18900	1.395	38800	24.4				

ARQ, ERQ – Size 040 (800 SCFM) – 1st Stage Low Fan (Continued)

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating					
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP		
90	6.7	1.6	3.6	65/55	19300	12300	2.202	26800	8.8	36700	2.123	29500	107	Operation Not Recommended	
		1.6	3.6	70/59	21800	13300	2.238	29400	9.7	36300	2.329	28400	112		
		1.6	3.6	75/63	24400	14300	2.273	32200	10.7	35800	2.534	27200	116		
		1.6	3.6	80/67	27000	15200	2.309	34900	11.7	35300	2.740	25900	121		
	10.0	1.6	3.6	85/71	29600	16200	2.345	37600	12.6						
		3.4	7.8	65/55	20300	12700	1.840	26600	11.0	39700	2.341	31700	111		
		3.4	7.8	70/59	22900	13700	1.876	29300	12.2	39300	2.546	30600	115		
		3.4	7.8	75/63	25500	14700	1.912	32000	13.3	38800	2.752	29400	120		
	13.3	3.4	7.8	80/67	28100	15600	1.948	34700	14.4	38300	2.957	28200	124		
		3.4	7.8	85/71	30700	16600	1.984	37500	15.5						
		5.9	13.4	65/55	21400	13100	1.479	26400	14.5	42700	2.558	34000	114		
		5.9	13.4	70/59	24000	14100	1.515	29200	15.8	42300	2.764	32900	119		
	100	6.7	5.9	13.4	75/63	26600	15100	1.551	31900	17.2	41800	2.969	31700		123
			5.9	13.4	80/67	29200	16000	1.586	34600	18.4	41300	3.175	30500		128
			5.9	13.4	85/71	31700	17000	1.622	37200	19.5					
			1.6	3.6	65/55	17000	10500	2.425	25300	7.0					
10.0		1.6	3.6	70/59	19600	11500	2.461	28000	8.0						
		1.6	3.6	75/63	22200	12400	2.497	30700	8.9						
		1.6	3.6	80/67	24800	13400	2.533	33400	9.8						
		1.6	3.6	85/71	27300	14400	2.569	36100	10.6						
110	6.7	3.4	7.7	65/55	18100	10900	2.064	25100	8.8						
		3.4	7.7	70/59	20700	11900	2.100	27900	9.9						
		3.4	7.7	75/63	23300	12800	2.136	30600	10.9						
		3.4	7.7	80/67	25800	13800	2.171	33200	11.9						
	13.3	3.4	7.7	85/71	28400	14800	2.207	35900	12.9						
		5.8	13.3	65/55	19200	11300	1.703	25000	11.3						
		5.8	13.3	70/59	21800	12300	1.739	27700	12.5						
		5.8	13.3	75/63	24300	13200	1.774	30400	13.7						
110	6.7	5.8	13.3	80/67	26900	14200	1.810	33100	14.9						
		5.8	13.3	85/71	29500	15200	1.846	35800	16.0						
		1.5	3.5	65/55	15100	8900	2.633	24100	5.7						
		1.5	3.5	70/59	17700	9900	2.669	26800	6.6						
	10.0	1.5	3.5	75/63	20200	10900	2.705	29400	7.5						
		1.5	3.5	80/67	22800	11800	2.741	32200	8.3						
		1.5	3.5	85/71	25400	12800	2.777	34900	9.1						
		3.3	7.6	65/55	16200	9300	2.272	24000	7.1						
	13.3	3.3	7.6	70/59	18700	10300	2.308	26600	8.1						
		3.3	7.6	75/63	21300	11300	2.344	29300	9.1						
		3.3	7.6	80/67	23900	12200	2.379	32000	10.0						
		3.3	7.6	85/71	26500	13200	2.415	34700	11.0						
110	13.3	5.7	13.1	65/55	17200	9700	1.911	23700	9.0						
		5.7	13.1	70/59	19800	10700	1.947	26400	10.2						
		5.7	13.1	75/63	22400	11700	1.982	29200	11.3						
		5.7	13.1	80/67	25000	12600	2.018	31900	12.4						
		5.7	13.1	85/71	27600	13600	2.054	34600	13.4						

Legend:

Btu/hr = British Thermal Units per Hour

CFM = Airflow Rate, Cubic Feet per Minute

COP = Coefficient of Performance

EAT = Entering Air Temperature

EER = Energy Efficiency Ratio

EWT = Entering Water Temperature

Ft of W.C. = Feet of Water Column

WPD = Waterside Pressure Drop

GPM = Gallons per Minute

kW = Kilowatts

LAT = Leaving Air Temperature

PSI = Pounds per Square Inch

THA = Total Heat of Absorption

THR = Total Heat of Rejection

ARQ, ERQ – Size 048 (1500 SCFM) – 2nd Stage High Fan

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating			
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP
50 ERQ Only	8.0	3.3	7.4	65/55	45000	32500	2.302	52900	19.5	44800	3.132	34100	4.19
		3.3	7.4	70/59	48900	33900	2.321	56800	21.1	44500	3.280	33300	3.97
		3.3	7.4	75/63	52800	35300	2.340	60800	22.6	44200	3.428	32500	3.78
		3.3	7.4	80/67	56700	36600	2.359	64800	24.0	43800	3.576	31600	3.59
	12.0	3.3	7.4	85/71	60600	38000	2.379	68700	25.5				
		7.0	16.0	65/55	45300	32600	2.239	52900	20.2	47400	3.320	36100	4.18
		7.0	16.0	70/59	49200	34000	2.259	56900	21.8	47100	3.468	35300	3.98
		7.0	16.0	75/63	53100	35400	2.278	60900	23.3	46800	3.616	34500	3.79
	16.0	7.0	16.0	80/67	57000	36700	2.297	64800	24.8	46400	3.764	33600	3.61
		7.0	16.0	85/71	60800	38100	2.317	68700	26.2				
		12.1	27.7	65/55	45600	32700	2.177	53000	20.9	50000	3.508	38000	4.17
		12.1	27.7	70/59	49500	34100	2.197	57000	22.5	49700	3.656	37200	3.98
60	8.0	12.1	27.7	75/63	53300	35500	2.216	60900	24.1	49400	3.804	36400	3.80
		12.1	27.7	80/67	57200	36800	2.235	64800	25.6	49000	3.952	35500	3.63
		12.1	27.7	85/71	61100	38200	2.255	68800	27.1				
		3.2	7.2	65/55	43000	31700	2.524	51600	17.0	50000	3.281	38800	4.46
	12.0	3.2	7.2	70/59	46900	33100	2.543	55600	18.4	49600	3.429	37900	4.24
		3.2	7.2	75/63	50800	34400	2.562	59500	19.8	49300	3.577	37100	4.04
		3.2	7.2	80/67	54700	35800	2.582	63500	21.2	49000	3.725	36300	3.85
		3.2	7.2	85/71	58600	37200	2.601	67500	22.5				
	16.0	6.9	15.6	65/55	43300	31800	2.462	51700	17.6	52600	3.469	40800	4.44
		6.9	15.6	70/59	47200	33200	2.481	55700	19.0	52200	3.617	39900	4.23
		6.9	15.6	75/63	51100	34500	2.500	59600	20.4	51900	3.765	39100	4.04
		6.9	15.6	80/67	55000	35900	2.519	63600	21.8	51600	3.913	38200	3.86
16.0	6.9	15.6	85/71	58800	37300	2.539	67500	23.2					
	11.8	27.0	65/55	43600	31900	2.399	51800	18.2	55200	3.657	42700	4.42	
	11.8	27.0	70/59	47400	33300	2.419	55700	19.6	54800	3.805	41800	4.22	
	11.8	27.0	75/63	51300	34600	2.438	59600	21.0	54500	3.953	41000	4.04	
70	8.0	11.8	27.0	80/67	55200	36000	2.457	63600	22.5	54200	4.101	40200	3.87
		11.8	27.0	85/71	59100	37400	2.477	67600	23.9				
		3.1	7.1	65/55	41000	30900	2.816	50600	14.6	55100	3.430	43400	4.70
		3.1	7.1	70/59	44900	32200	2.835	54600	15.8	54800	3.578	42600	4.48
	12.0	3.1	7.1	75/63	48700	33600	2.854	58400	17.1	54500	3.726	41800	4.28
		3.1	7.1	80/67	52600	35000	2.874	62400	18.3	54100	3.874	40900	4.09
		3.1	7.1	85/71	56500	36300	2.893	66400	19.5				
		6.7	15.3	65/55	41200	31000	2.754	50600	15.0	57700	3.618	45400	4.67
	16.0	6.7	15.3	70/59	45100	32300	2.773	54600	16.3	57400	3.766	44500	4.46
		6.7	15.3	75/63	49000	33700	2.792	58500	17.6	57000	3.914	43600	4.26
		6.7	15.3	80/67	52900	35100	2.811	62500	18.8	56700	4.062	42800	4.09
		6.7	15.3	85/71	56800	36400	2.831	66500	20.1				
80	8.0	11.6	26.5	65/55	41500	31100	2.691	50700	15.4	60300	3.806	47300	4.64
		11.6	26.5	70/59	45400	32400	2.711	54700	16.7	60000	3.954	46500	4.44
		11.6	26.5	75/63	49300	33800	2.730	58600	18.1	59600	4.102	45600	4.25
		11.6	26.5	80/67	53200	35200	2.749	62600	19.4	59300	4.250	44800	4.09
	12.0	11.6	26.5	85/71	57000	36500	2.769	66500	20.6				
		3.0	7.0	65/55	38900	30000	3.178	49700	12.2	60300	3.579	48100	4.93
		3.0	7.0	70/59	42700	31400	3.197	53600	13.4	59900	3.727	47200	4.71
		3.0	7.0	75/63	46600	32800	3.216	57600	14.5	59600	3.875	46400	4.50
	16.0	3.0	7.0	80/67	50500	34100	3.236	61500	15.6	59300	4.023	45600	4.32
		3.0	7.0	85/71	54400	35500	3.255	65500	16.7				
		6.6	15.0	65/55	39100	30100	3.115	49700	12.6	62900	3.767	50000	4.89
		6.6	15.0	70/59	43000	31500	3.135	53700	13.7	62500	3.915	49100	4.67
16.0	6.6	15.0	75/63	46900	32900	3.154	57700	14.9	62200	4.063	48300	4.48	
	6.6	15.0	80/67	50800	34200	3.173	61600	16.0	61900	4.211	47500	4.30	
	6.6	15.0	85/71	54700	35600	3.193	65600	17.1					
	11.4	26.0	65/55	39400	30200	3.053	49800	12.9	65500	3.955	52000	4.85	
16.0	11.4	26.0	70/59	43300	31600	3.073	53800	14.1	65100	4.103	51100	4.65	
	11.4	26.0	75/63	47200	33000	3.092	57800	15.3	64800	4.251	50300	4.46	
	11.4	26.0	80/67	51000	34300	3.111	61600	16.4	64400	4.399	49400	4.29	
	11.4	26.0	85/71	54900	35700	3.131	65600	17.5					

ARQ, ERQ – Size 048 (1500 SCFM) – 2nd Stage High Fan (Continued)

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating															
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP												
90	8.0	3.0	6.8	65/55	36700	29200	3.609	49000	10.2	65400	3.728	52700	5.14												
		3.0	6.8	70/59	40600	30600	3.629	53000	11.2	65100	3.876	51900	4.92												
		3.0	6.8	75/63	44500	31900	3.648	57000	12.2	64700	4.024	51000	4.71												
		3.0	6.8	80/67	48400	33300	3.667	60900	13.2	64400	4.172	50200	4.52												
		3.0	6.8	85/71	52200	34700	3.687	64800	14.2	Operation Not Recommended															
	12.0	6.5	14.8	65/55	37000	29300	3.547	49100	10.4					68000	3.916	54600	5.08								
		6.5	14.8	70/59	40800	30700	3.567	53000	11.4					67700	4.064	53800	4.88								
		6.5	14.8	75/63	44700	32000	3.586	56900	12.5					67300	4.212	52900	4.68								
		6.5	14.8	80/67	48600	33400	3.605	60900	13.5					67000	4.360	52100	4.50								
		6.5	14.8	85/71	52500	34800	3.625	64900	14.5					Operation Not Recommended											
	16.0	11.2	25.5	65/55	37200	29400	3.485	49100	10.7									70600	4.104	56600	5.04				
		11.2	25.5	70/59	41100	30800	3.505	53100	11.7									70300	4.252	55800	4.84				
		11.2	25.5	75/63	45000	32100	3.524	57000	12.8									69900	4.400	54900	4.65				
		11.2	25.5	80/67	48900	33500	3.543	61000	13.8									69600	4.548	54100	4.48				
		11.2	25.5	85/71	52800	34900	3.563	65000	14.8									Operation Not Recommended							
	100	8.0	3.0	6.7	65/55	34500	28300	4.111	48500													8.4	Operation Not Recommended		
3.0			6.7	70/59	38400	29700	4.131	52500	9.3																
3.0			6.7	75/63	42300	31100	4.150	56500	10.2																
3.0			6.7	80/67	46100	32500	4.169	60300	11.1																
3.0			6.7	85/71	50000	33800	4.189	64300	11.9																
12.0		6.4	14.6	65/55	34700	28500	4.049	48500	8.6	Operation Not Recommended															
		6.4	14.6	70/59	38600	29800	4.069	52500	9.5																
		6.4	14.6	75/63	42500	31200	4.088	56500	10.4																
		6.4	14.6	80/67	46400	32600	4.107	60400	11.3																
		6.4	14.6	85/71	50300	33900	4.127	64400	12.2																
16.0		11.0	25.2	65/55	35000	28600	3.987	48600	8.8					Operation Not Recommended											
		11.0	25.2	70/59	38900	29900	4.006	52600	9.7																
		11.0	25.2	75/63	42800	31300	4.026	56500	10.6																
		11.0	25.2	80/67	46700	32700	4.045	60500	11.5																
		11.0	25.2	85/71	50600	34000	4.064	64500	12.5																
110		8.0	2.9	6.7	65/55	32200	27500	4.683	48200									6.9	Operation Not Recommended						
	2.9		6.7	70/59	36100	28900	4.702	52100	7.7																
	2.9		6.7	75/63	40000	30200	4.722	56100	8.5																
	2.9		6.7	80/67	43900	31600	4.741	60100	9.3																
	2.9		6.7	85/71	47800	33000	4.760	64000	10.0																
	12.0	6.3	14.4	65/55	32500	27600	4.621	48300	7.0									Operation Not Recommended							
		6.3	14.4	70/59	36400	29000	4.640	52200	7.8																
		6.3	14.4	75/63	40300	30400	4.660	56200	8.6																
		6.3	14.4	80/67	44100	31700	4.679	60100	9.4																
		6.3	14.4	85/71	48000	33100	4.698	64000	10.2																
	16.0	10.9	24.9	65/55	32700	27700	4.559	48300	7.2	Operation Not Recommended															
		10.9	24.9	70/59	36600	29100	4.578	52200	8.0																
		10.9	24.9	75/63	40500	30500	4.598	56200	8.8																
		10.9	24.9	80/67	44400	31800	4.617	60200	9.6																
		10.9	24.9	85/71	48300	33200	4.636	64100	10.4																

Legend:

Btu/hr = British Thermal Units per Hour

GPM = Gallons per Minute

CFM = Airflow Rate, Cubic Feet per Minute

kW = Kilowatts

COP = Coefficient of Performance

LAT = Leaving Air Temperature

EAT = Entering Air Temperature

PSI = Pounds per Square Inch

EER = Energy Efficiency Ratio

THA = Total Heat of Absorption

EWT = Entering Water Temperature

THR = Total Heat of Rejection

Ft of W.C. = Feet of Water Column

WPD = Waterside Pressure Drop

ARQ, ERQ – Size 048 (1050 SCFM) – 1st Stage Medium Fan (Continued)

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating			
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP
90	8.0	3.0	6.8	65/55	25100	18400	2.397	33300	10.5	44000	2.441	35700	5.28
		3.0	6.8	70/59	28200	19400	2.416	36400	11.7	43600	2.589	34800	4.93
		3.0	6.8	75/63	31400	20400	2.436	39700	12.9	43300	2.737	34000	4.63
		3.0	6.8	80/67	34500	21500	2.455	42900	14.1	43000	2.885	33200	4.36
	12.0	6.5	14.8	65/55	25300	18500	2.335	33300	10.8	46300	2.486	37800	5.45
		6.5	14.8	70/59	28500	19500	2.354	36500	12.1	45900	2.634	36900	5.10
		6.5	14.8	75/63	31600	20500	2.374	39700	13.3	45600	2.782	36100	4.80
		6.5	14.8	80/67	34800	21600	2.393	43000	14.5	45300	2.930	35300	4.53
	16.0	6.5	14.8	85/71	38000	22600	2.412	46200	15.8				
		11.2	25.5	65/55	25600	18600	2.273	33400	11.3	48600	2.531	40000	5.62
		11.2	25.5	70/59	28800	19600	2.292	36600	12.6	48200	2.679	39100	5.27
		11.2	25.5	75/63	31900	20600	2.312	39800	13.8	47900	2.827	38300	4.96
100	8.0	11.2	25.5	80/67	35100	21700	2.331	43100	15.1	47600	2.975	37400	4.68
		11.2	25.5	85/71	38200	22700	2.350	46200	16.3				
		3.0	6.7	65/55	23400	18400	2.827	33000	8.3				
		3.0	6.7	70/59	26500	19400	2.847	36200	9.3				
	12.0	3.0	6.7	75/63	29700	20400	2.866	39500	10.4				
		3.0	6.7	80/67	32800	21500	2.885	42600	11.4				
		3.0	6.7	85/71	36000	22500	2.904	45900	12.4				
		6.4	14.6	65/55	23700	18500	2.765	33100	8.6				
	16.0	6.4	14.6	70/59	26800	19500	2.784	36300	9.6				
		6.4	14.6	75/63	30000	20500	2.804	39600	10.7				
		6.4	14.6	80/67	33100	21600	2.823	42700	11.7				
		6.4	14.6	85/71	36300	22600	2.842	46000	12.8				
110	8.0	11.0	25.2	65/55	23900	18600	2.703	33100	8.8				
		11.0	25.2	70/59	27100	19600	2.722	36400	10.0				
		11.0	25.2	75/63	30200	20600	2.742	39600	11.0				
		11.0	25.2	80/67	33400	21700	2.761	42800	12.1				
110	12.0	11.0	25.2	85/71	36500	22700	2.780	46000	13.1				
		2.9	6.7	65/55	21700	18700	3.370	33200	6.4				
		2.9	6.7	70/59	24900	19700	3.389	36500	7.3				
		2.9	6.7	75/63	28100	20800	3.409	39700	8.2				
	16.0	2.9	6.7	80/67	31200	21800	3.428	42900	9.1				
		2.9	6.7	85/71	34400	22800	3.447	46200	10.0				
		6.3	14.4	65/55	22000	18800	3.308	33300	6.7				
		6.3	14.4	70/59	25200	19800	3.327	36600	7.6				
	16.0	6.3	14.4	75/63	28300	20900	3.347	39700	8.5				
		6.3	14.4	80/67	31500	21900	3.366	43000	9.4				
		6.3	14.4	85/71	34600	22900	3.385	46200	10.2				
		10.9	24.9	65/55	22300	18900	3.246	33400	6.9				
16.0	10.9	24.9	70/59	25400	19900	3.265	36500	7.8					
	10.9	24.9	75/63	28600	21000	3.285	39800	8.7					
	10.9	24.9	80/67	31700	22000	3.304	43000	9.6					
	10.9	24.9	85/71	34900	23000	3.323	46200	10.5					

Operation Not Recommended

Legend:

Btu/hr = British Thermal Units per Hour

GPM = Gallons per Minute

CFM = Airflow Rate, Cubic Feet per Minute

kW = Kilowatts

COP = Coefficient of Performance

LAT = Leaving Air Temperature

EAT = Entering Air Temperature

PSI = Pounds per Square Inch

EER = Energy Efficiency Ratio

THA = Total Heat of Absorption

EWT = Entering Water Temperature

THR = Total Heat of Rejection

Ft of W.C. = Feet of Water Column

WPD = Waterside Pressure Drop

ARQ, ERQ – Size 048 (850 SCFM) – 1st Stage Low Fan

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating			
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP
50 ERQ Only	8.0	3.3	7.4	65/55	29900	20700	1.457	34900	20.5	26300	2.337	18300	3.30
		3.3	7.4	70/59	33000	21700	1.476	38000	22.4	25900	2.485	17400	3.05
		3.3	7.4	75/63	36200	22800	1.495	41300	24.2	25600	2.633	16600	2.85
		3.3	7.4	80/67	39300	23800	1.515	44500	25.9	25300	2.781	15800	2.66
	12.0	3.3	7.4	85/71	42500	24800	1.534	47700	27.7				
		7.0	16.0	65/55	30100	20800	1.395	34900	21.6	28600	2.382	20500	3.52
		7.0	16.0	70/59	33300	21800	1.414	38100	23.6	28200	2.530	19600	3.26
		7.0	16.0	75/63	36400	22900	1.433	41300	25.4	27900	2.678	18800	3.05
	16.0	7.0	16.0	80/67	39600	23900	1.453	44600	27.3	27600	2.826	18000	2.86
		7.0	16.0	85/71	42700	24900	1.472	47700	29.0				
		12.1	27.7	65/55	30400	20900	1.333	34900	22.8	30900	2.427	22600	3.73
		12.1	27.7	70/59	33500	21900	1.352	38100	24.8	30500	2.575	21700	3.47
60	8.0	12.1	27.7	75/63	36700	23000	1.371	41400	26.8	30200	2.723	20900	3.25
		12.1	27.7	80/67	39900	24000	1.391	44600	28.7	29900	2.871	20100	3.05
		12.1	27.7	85/71	43000	25000	1.410	47800	30.5				
		3.2	7.2	65/55	28300	20100	1.571	33700	18.0	30400	2.403	22200	3.70
	12.0	3.2	7.2	70/59	31400	21100	1.590	36800	19.7	30000	2.551	21300	3.44
		3.2	7.2	75/63	34600	22100	1.610	40100	21.5	29700	2.699	20500	3.22
		3.2	7.2	80/67	37700	23200	1.629	43300	23.1	29300	2.847	19600	3.01
		3.2	7.2	85/71	40900	24200	1.648	46500	24.8				
	16.0	6.9	15.6	65/55	28500	20200	1.509	33700	18.9	32700	2.447	24300	3.91
		6.9	15.6	70/59	31700	21200	1.528	36900	20.7	32300	2.595	23400	3.64
		6.9	15.6	75/63	34800	22300	1.547	40100	22.5	32000	2.743	22600	3.42
		6.9	15.6	80/67	38000	23300	1.567	43300	24.3	31600	2.891	21700	3.20
70	8.0	6.9	15.6	85/71	41200	24300	1.586	46600	26.0				
		11.8	27.0	65/55	28800	20300	1.447	33700	19.9	34900	2.492	26400	4.10
		11.8	27.0	70/59	32000	21300	1.466	37000	21.8	34600	2.640	25600	3.84
		11.8	27.0	75/63	35100	22400	1.485	40200	23.6	34300	2.788	24800	3.60
	12.0	11.8	27.0	80/67	38300	23400	1.505	43400	25.4	33900	2.936	23900	3.38
		11.8	27.0	85/71	41400	24400	1.524	46600	27.2				
		3.1	7.1	65/55	26700	19500	1.766	32700	15.1	34400	2.468	26000	4.08
		3.1	7.1	70/59	29800	20500	1.785	35900	16.7	34100	2.616	25200	3.82
	16.0	3.1	7.1	75/63	33000	21500	1.804	39200	18.3	33800	2.764	24400	3.58
		3.1	7.1	80/67	36200	22600	1.824	42400	19.8	33400	2.912	23500	3.36
		3.1	7.1	85/71	39300	23600	1.843	45600	21.3				
		6.7	15.3	65/55	27000	19600	1.704	32800	15.8	36700	2.513	28100	4.28
8.0	6.7	15.3	70/59	30100	20600	1.723	36000	17.5	36400	2.661	27300	4.01	
	6.7	15.3	75/63	33300	21600	1.742	39200	19.1	36100	2.809	26500	3.76	
	6.7	15.3	80/67	36400	22700	1.761	42400	20.7	35700	2.957	25600	3.54	
	6.7	15.3	85/71	39600	23700	1.781	45700	22.2					
12.0	11.6	26.5	65/55	27200	19700	1.641	32800	16.6	39000	2.558	30300	4.46	
	11.6	26.5	70/59	30400	20700	1.661	36100	18.3	38700	2.706	29500	4.19	
	11.6	26.5	75/63	33500	21700	1.680	39200	19.9	38300	2.854	28600	3.93	
	11.6	26.5	80/67	36700	22800	1.699	42500	21.6	38000	3.002	27800	3.71	
80	8.0	11.6	26.5	85/71	39800	23800	1.719	45700	23.2				
		3.0	7.0	65/55	25100	18800	2.041	32100	12.3	38500	2.534	29900	4.45
		3.0	7.0	70/59	28300	19900	2.060	35300	13.7	38200	2.682	29000	4.17
		3.0	7.0	75/63	31400	20900	2.080	38500	15.1	37800	2.830	28100	3.91
	12.0	3.0	7.0	80/67	34600	21900	2.099	41800	16.5	37500	2.978	27300	3.69
		3.0	7.0	85/71	37700	23000	2.118	44900	17.8				
		6.6	15.0	65/55	25400	18900	1.979	32200	12.8	40800	2.578	32000	4.63
		6.6	15.0	70/59	28500	20000	1.998	35300	14.3	40500	2.726	31200	4.35
	16.0	6.6	15.0	75/63	31700	21000	2.017	38600	15.7	40100	2.874	30300	4.09
		6.6	15.0	80/67	34800	22000	2.037	41800	17.1	39800	3.022	29500	3.86
		6.6	15.0	85/71	38000	23100	2.056	45000	18.5				
		11.4	26.0	65/55	25600	19000	1.917	32100	13.4	43100	2.623	34100	4.81
8.0	11.4	26.0	70/59	28800	20100	1.936	35400	14.9	42800	2.771	33300	4.52	
	11.4	26.0	75/63	31900	21100	1.955	38600	16.3	42400	2.919	32400	4.25	
	11.4	26.0	80/67	35100	22100	1.975	41800	17.8	42100	3.067	31600	4.02	
	11.4	26.0	85/71	38300	23200	1.994	45100	19.2					

ARQ, ERQ – Size 048 (850 SCFM) – 1st Stage Low Fan (Continued)

EWT (°F)	GPM	WPD		EAT (°F)	Cooling					Heating							
		PSI	FT of W.C.		Total (Btu/hr)	Sensible (Btu/hr)	Power Input (kW)	THR (Btu/hr)	EER	Total (Btu/hr)	Power Input (kW)	THA (Btu/hr)	COP				
90	8.0	3.0	6.8	65/55	23500	18200	2.397	31700	9.8	42600	2.599	33700	4.80				
		3.0	6.8	70/59	26700	19200	2.416	34900	11.1	42200	2.747	32800	4.50				
		3.0	6.8	75/63	29800	20300	2.435	38100	12.2	41900	2.895	32000	4.24				
		3.0	6.8	80/67	33000	21300	2.455	41400	13.4	41600	3.043	31200	4.00				
	12.0	3.0	6.8	85/71	36100	22300	2.474	44500	14.6	Operation Not Recommended							
		6.5	14.8	65/55	23800	18300	2.335	31800	10.2								
		6.5	14.8	70/59	26900	19300	2.354	34900	11.4								
		6.5	14.8	75/63	30100	20400	2.373	38200	12.7								
	16.0	6.5	14.8	80/67	33200	21400	2.393	41400	13.9								
		6.5	14.8	85/71	36400	22400	2.412	44600	15.1								
		11.2	25.5	65/55	24100	18400	2.273	31900	10.6								
		11.2	25.5	70/59	27200	19500	2.292	35000	11.9								
100	8.0	11.2	25.5	75/63	30400	20500	2.311	38300	13.2					46500	2.985	36300	4.56
		11.2	25.5	80/67	33500	21500	2.331	41500	14.4					46200	3.133	35500	4.32
		11.2	25.5	85/71	36700	22600	2.350	44700	15.6					Operation Not Recommended			
		3.0	6.7	65/55	21900	17600	2.833	31600	7.7								
	12.0	3.0	6.7	70/59	25100	18600	2.853	34800	8.8								
		3.0	6.7	75/63	28200	19700	2.872	38000	9.8								
		3.0	6.7	80/67	31400	20700	2.891	41300	10.9								
		3.0	6.7	85/71	34600	21700	2.910	44500	11.9								
	16.0	6.4	14.6	65/55	22200	17700	2.771	31700	8.0								
		6.4	14.6	70/59	25400	18700	2.790	34900	9.1								
		6.4	14.6	75/63	28500	19800	2.810	38100	10.1								
		6.4	14.6	80/67	31700	20800	2.829	41400	11.2								
11.0	6.4	14.6	85/71	34800	21800	2.848	44500	12.2									
	11.0	25.2	65/55	22500	17800	2.709	31700	8.3									
	11.0	25.2	70/59	25600	18800	2.728	34900	9.4									
	11.0	25.2	75/63	28800	19900	2.748	38200	10.5									
110	8.0	11.0	25.2	80/67	31900	20900	2.767	41300	11.5	Operation Not Recommended							
		11.0	25.2	85/71	35100	21900	2.786	44600	12.6								
		2.9	6.7	65/55	20400	17000	3.350	31800	6.1								
		2.9	6.7	70/59	23500	18000	3.370	35000	7.0								
	12.0	2.9	6.7	75/63	26700	19000	3.389	38300	7.9								
		2.9	6.7	80/67	29800	20100	3.408	41400	8.7								
		2.9	6.7	85/71	33000	21100	3.428	44700	9.6								
		6.3	14.4	65/55	20600	17100	3.288	31800	6.3								
	16.0	6.3	14.4	70/59	23800	18100	3.307	35100	7.2								
		6.3	14.4	75/63	26900	19100	3.327	38300	8.1								
		6.3	14.4	80/67	30100	20200	3.346	41500	9.0								
		6.3	14.4	85/71	33200	21200	3.365	44700	9.9								
10.9	10.9	24.9	65/55	20900	17200	3.226	31900	6.5									
	10.9	24.9	70/59	24000	18200	3.245	35100	7.4									
	10.9	24.9	75/63	27200	19200	3.265	38300	8.3									
	10.9	24.9	80/67	30300	20300	3.284	41500	9.2									
10.9	24.9	85/71	33500	21300	3.303	44800	10.1										

Legend:

Btu/hr = British Thermal Units per Hour

CFM = Airflow Rate, Cubic Feet per Minute

COP = Coefficient of Performance

EAT = Entering Air Temperature

EER = Energy Efficiency Ratio

EWT = Entering Water Temperature

Ft of W.C. = Feet of Water Column

WPD = Waterside Pressure Drop

GPM = Gallons per Minute

kW = Kilowatts

LAT = Leaving Air Temperature

PSI = Pounds per Square Inch

THA = Total Heat of Absorption

THR = Total Heat of Rejection



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