

Enthalpy for heat absorbed:

(What CFM X .075) X 60 minutes in the hour = weight of the air
 (1500 X .075) X 60 minutes in the hour = 6,750

Return wet bulb = 63
 Supply wet bulb = 54.7

Enthalpy Table (Imperial Units) — ¹ Btu of Moist Air at Saturation Per Pound of Dry Air (hs)

Wet Bulb (°F)	Tenths of Degrees (°F)									
	0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
45	17.65	17.70	17.75	17.80	17.85	17.91	17.96	18.01	18.06	18.11
46	18.16	18.21	18.26	18.32	18.37	18.42	18.47	18.52	18.58	18.63
47	18.68	18.73	18.79	18.84	18.89	18.95	19.00	19.05	19.10	19.16
48	19.21	19.26	19.32	19.37	19.43	19.48	19.53	19.59	19.64	19.70
49	19.75	19.81	19.86	19.92	19.97	20.03	20.08	20.14	20.19	20.25
50	20.30	20.36	20.41	20.47	20.52	20.58	20.64	20.69	20.75	20.80
51	20.86	20.92	20.97	21.03	21.09	21.15	21.20	21.26	21.32	21.38
52	21.44	21.49	21.55	21.61	21.67	21.73	21.78	21.84	21.90	21.96
53	22.02	22.08	22.14	22.20	22.26	22.32	22.38	22.44	22.50	22.56
54	22.62	22.68	22.74	22.80	22.86	22.92	22.98	23.04	23.10	23.16
55	23.22	23.28	23.34	23.41	23.47	23.53	23.59	23.65	23.72	23.78
56	23.84	23.90	23.94	24.03	24.10	24.16	24.22	24.29	24.36	24.42
57	24.48	24.54	24.61	24.67	24.74	24.80	24.86	24.93	24.99	25.06
58	25.12	25.19	25.25	25.32	25.39	25.45	25.52	25.58	25.65	25.71
59	25.78	25.85	25.92	25.98	36.05	26.12	26.19	26.26	26.32	26.39
60	26.46	26.53	26.60	26.67	26.74	26.81	26.87	26.94	27.01	27.08
61	27.15	27.22	27.29	27.36	27.41	27.50	27.57	27.64	27.70	27.78
62	27.85	27.92	27.99	28.07	28.14	28.21	28.28	28.35	28.43	28.50
63	28.57	28.64	28.72	28.79	28.87	28.94	29.01	29.09	29.16	29.24
64	29.31	29.39	29.46	29.54	29.61	29.69	29.76	29.84	29.91	29.99
65	30.06	30.14	30.21	30.29	30.37	30.45	30.52	30.60	30.68	30.75
66	30.83	30.91	30.99	31.07	31.15	31.23	31.30	31.38	31.46	31.54
67	31.62	31.70	31.78	31.86	31.94	32.02	32.10	32.18	32.26	32.34
68	32.42	32.50	32.59	32.67	32.75	32.84	32.92	33.00	33.08	33.17
69	33.25	33.33	33.42	33.50	33.59	33.67	33.75	33.84	33.92	34.01
70	34.09	34.18	34.26	34.35	34.43	34.52	34.61	34.69	34.78	34.88
71	34.95	35.04	35.13	35.21	35.30	35.39	35.48	35.57	35.65	35.74
72	35.83	35.92	36.01	36.10	36.19	36.29	36.38	36.47	36.56	36.65
73	36.74	36.83	36.92	37.02	37.11	37.20	37.29	37.38	37.48	37.57
74	37.66	37.76	37.85	37.95	38.04	38.14	38.23	38.33	38.42	38.52
75	38.61	38.71	38.80	38.90	38.99	39.09	39.19	39.28	39.38	39.47
76	39.57	39.67	39.77	39.87	39.97	40.07	40.17	40.27	40.37	40.47
77	40.57	40.67	40.88	40.87	40.97	41.08	41.18	41.28	41.38	41.48
78	41.58	41.68	41.79	41.89	42.00	42.10	42.20	42.31	42.41	42.52
79	42.62	42.73	42.83	42.94	43.05	43.16	43.26	43.37	43.48	43.58

¹ Specify enthalpy of dry air assigned a value of zero at 0°F.

From table return enthalpy valve= 28.57
 From table supply enthalpy valve= 23.04
 These two have a difference off = 5.53 (always a positive number)

weight of the air X wet bulb change converted from the enthalpy table = BTU
 6,750 X 5.53 = 37,327.5btu

Heat of Rejection: (Single Phase)

Outdoor unit CFM X 1.08 X Temperature Rise across the condenser coil (average) = Gross BTUs/Hour
 4025 X 1.08 X 10.2 = 44,339

Volts X Amps X Power Factor = Watts
 240 X 9.6 X .96 = 2,212

Watts X 3.413 = Mechanical Heat
 2,212 X 3.413 = 7,549.6 BTUHs

Sensible Heat rejected from the condenser - Mechanical Heat = System BTU
 44,339 - 7550 = 36,789