



TSA - 6 to 20 Ton
EXPANDED RATING TABLES - 60HZ

PRODUCT SPECIFICATIONS

August 2012
Supersedes January 2011
Bulletin No. 210524R



072-090 Models



120-150 Models



180-240 Models

NOTE - Due to Lennox' ongoing commitment to quality, Ratings are subject to change without notice and without incurring liability. Improper installation, adjustment, alteration, service or maintenance can cause property damage or personal injury. Installation and service must be performed by a qualified installer and servicing agency.

TSA072S4SN + TAA072S4S (1 COMPRESSOR RUNNING)

Entering Wet Bulb Temper- ature	Outdoor Air Temperature Entering Outdoor Coil																				
	Total Air Volume	85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
				75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F
cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	
63°F	1920	70.3	4.86	0.68	0.83	0.99	67	5.39	0.69	0.86	1	63.5	5.99	0.71	0.89	1	59.6	6.67	0.73	0.93	1
	2400	73.8	4.88	0.73	0.92	1	70.4	5.42	0.75	0.95	1	66.7	6.02	0.77	0.99	1	62.5	6.7	0.81	1	1
	2880	76.5	4.9	0.78	1	1	73	5.43	0.81	1	1	69.4	6.03	0.84	1	1	65.6	6.73	0.88	1	1
67°F	1920	74.4	4.89	0.54	0.66	0.79	70.9	5.42	0.55	0.67	0.82	67.2	6.02	0.55	0.69	0.85	63	6.7	0.57	0.71	0.88
	2400	77.7	4.9	0.57	0.7	0.88	74.1	5.44	0.58	0.72	0.91	70.1	6.04	0.59	0.75	0.95	65.7	6.73	0.6	0.78	0.99
	2880	80.4	4.92	0.59	0.76	0.96	76.4	5.45	0.6	0.78	0.99	72.3	6.06	0.62	0.81	1	67.7	6.74	0.64	0.85	1
71°F	1920	78.6	4.91	0.41	0.52	0.64	75	5.45	0.41	0.53	0.65	71.1	6.05	0.42	0.54	0.66	66.9	6.74	0.42	0.55	0.68
	2400	82.1	4.93	0.42	0.55	0.68	78.4	5.47	0.42	0.56	0.7	74.3	6.08	0.43	0.58	0.72	69.6	6.76	0.43	0.59	0.75
	2880	85	4.95	0.43	0.58	0.73	80.9	5.49	0.43	0.59	0.75	76.5	6.1	0.44	0.61	0.78	71.5	6.78	0.45	0.63	0.82

TS120S4SN + TAA120S4D (1 COMPRESSOR RUNNING)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		85°F						95°F						105°F						115°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	3200	113.2	7.09	0.71	0.85	0.99	108.2	7.89	0.73	0.87	1	102.8	8.8	0.74	0.9	1	97.2	9.85	0.76	0.93	1				
	4000	118.5	7.18	0.76	0.93	1	112.9	7.98	0.78	0.96	1	107.3	8.89	0.8	0.98	1	101.2	9.93	0.82	1	1				
	4800	122.7	7.25	0.82	0.99	1	117	8.05	0.84	1	1	111.9	8.98	0.86	1	1	106.1	10.02	0.9	1	1				
67°F	3200	119.9	7.21	0.56	0.69	0.82	114.6	8.01	0.57	0.7	0.84	108.8	8.92	0.58	0.72	0.87	102.7	9.96	0.59	0.74	0.89				
	4000	125.3	7.3	0.59	0.74	0.9	119.5	8.1	0.6	0.76	0.92	113.1	9	0.62	0.78	0.95	106.3	10.03	0.63	0.8	0.98				
	4800	128.9	7.38	0.63	0.8	0.97	122.5	8.16	0.64	0.82	0.99	116.5	9.06	0.65	0.84	1	109.6	10.09	0.67	0.87	1				
71°F	3200	126.4	7.32	0.43	0.55	0.66	120.9	8.12	0.43	0.56	0.68	114.7	9.03	0.43	0.57	0.7	108.1	10.06	0.44	0.58	0.72				
	4000	131.7	7.43	0.44	0.58	0.71	125.8	8.23	0.45	0.59	0.74	119.6	9.13	0.45	0.61	0.76	112.3	10.14	0.45	0.62	0.78				
	4800	136.1	7.51	0.45	0.62	0.77	129.3	8.29	0.46	0.63	0.8	122.5	9.19	0.46	0.64	0.82	114.8	10.19	0.47	0.66	0.85				

TS120S4SN (2) + TAA240S4D (1 COMPRESSOR RUNNING)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	6400	120.3	5.69	0.7	0.82	0.95	115.9	6.34	0.71	0.84	0.97	111.4	7.06	0.72	0.86	0.99	106.5	7.87	0.73	0.87	1				
	8000	125.9	5.79	0.74	0.89	1	121.3	6.43	0.75	0.91	1	116.5	7.14	0.77	0.93	1	111.2	7.95	0.78	0.96	1				
	9600	130.3	5.87	0.78	0.96	1	125.1	6.5	0.8	0.98	1	119.9	7.21	0.82	0.99	1	114.4	8.01	0.84	1	1				
67°F	6400	127.2	5.81	0.56	0.67	0.79	122.6	6.45	0.56	0.68	0.8	117.9	7.17	0.57	0.69	0.82	112.6	7.97	0.58	0.71	0.84				
	8000	133.2	5.92	0.58	0.72	0.86	128.2	6.55	0.59	0.73	0.87	123.1	7.27	0.6	0.75	0.9	117.2	8.06	0.61	0.76	0.92				
	9600	137.6	6	0.61	0.77	0.92	132.2	6.63	0.62	0.78	0.95	126.5	7.33	0.63	0.8	0.97	120.6	8.13	0.64	0.82	0.99				
71°F	6400	134.2	5.93	0.43	0.54	0.65	129.4	6.58	0.43	0.55	0.66	124.1	7.28	0.43	0.55	0.67	118.5	8.09	0.44	0.56	0.68				
	8000	140.3	6.04	0.44	0.57	0.69	134.8	6.68	0.44	0.57	0.71	129.5	7.38	0.44	0.58	0.72	123.4	8.18	0.45	0.6	0.74				
	9600	144.9	6.13	0.45	0.6	0.74	139	6.76	0.45	0.61	0.76	133.2	7.46	0.46	0.62	0.77	127.1	8.25	0.47	0.64	0.8				

TS120S4SN (2) + TAA240S4D (2 COMPRESSORS RUNNING)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		85°F						95°F						105°F						115°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	6400	222.2	14.12	0.72	0.86	0.99	212.4	15.74	0.73	0.87	1	202	17.55	0.75	0.9	1	190.7	19.67	0.77	0.93	1				
	8000	232.4	14.29	0.77	0.93	1	221.8	15.9	0.78	0.96	1	210.8	17.72	0.81	0.98	1	198	19.79	0.83	1	1				
	9600	239.1	14.41	0.82	0.99	1	228.2	16.01	0.84	1	1	217.7	17.86	0.86	1	1	206.9	19.95	0.89	1	1				
67°F	6400	235.2	14.34	0.57	0.69	0.82	224.6	15.94	0.58	0.71	0.84	214	17.78	0.58	0.72	0.86	202.2	19.86	0.6	0.74	0.89				
	8000	245.5	14.54	0.6	0.75	0.9	233.8	16.12	0.61	0.76	0.92	222.5	17.94	0.63	0.78	0.95	209.1	20	0.64	0.81	0.98				
	9600	252.3	14.67	0.63	0.8	0.97	240.5	16.25	0.64	0.82	0.99	228.2	18.04	0.66	0.84	1	214.3	20.09	0.67	0.87	1				
71°F	6400	247.5	14.57	0.43	0.55	0.67	236.5	16.17	0.44	0.56	0.68	225.3	18	0.44	0.57	0.7	213	20.06	0.45	0.59	0.72				
	8000	258.3	14.77	0.44	0.58	0.72	246.1	16.36	0.45	0.6	0.74	233.5	18.16	0.45	0.61	0.76	220.1	20.2	0.46	0.62	0.79				
	9600	265.8	14.93	0.46	0.62	0.77	253.5	16.51	0.47	0.64	0.8	240.6	18.3	0.46	0.65	0.82	225.7	20.32	0.47	0.66	0.85				

TSA150S4DN + TAA180S4D (1 COMPRESSOR RUNNING)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		65°F					75°F					85°F					95°F				
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F
63°F	4000	75.5	3.65	0.68	0.82	0.97	72.9	4.06	0.69	0.83	0.98	69.9	4.51	0.7	0.85	1	66.7	5.01	0.71	0.88	1
	5000	79.1	3.66	0.72	0.9	1	76.3	4.07	0.73	0.92	1	73.1	4.52	0.75	0.94	1	69.9	5.01	0.77	0.97	1
	6000	81.9	3.67	0.77	0.97	1	79.2	4.08	0.79	0.98	1	75.9	4.52	0.81	1	1	72.5	5.02	0.83	1	1
67°F	4000	79.7	3.66	0.54	0.65	0.78	77	4.07	0.54	0.66	0.79	74	4.52	0.55	0.67	0.81	70.8	5.02	0.56	0.69	0.83
	5000	83.7	3.68	0.56	0.7	0.86	80.8	4.08	0.57	0.71	0.87	77.4	4.53	0.58	0.72	0.9	73.8	5.02	0.59	0.74	0.93
	6000	86.4	3.69	0.59	0.74	0.93	83.2	4.09	0.6	0.76	0.95	80	4.54	0.61	0.78	0.97	76.2	5.03	0.62	0.81	1
71°F	4000	84	3.68	0.41	0.53	0.63	81.1	4.09	0.42	0.53	0.64	78	4.53	0.42	0.54	0.65	74.5	5.03	0.42	0.54	0.66
	5000	88	3.7	0.42	0.55	0.67	85	4.1	0.42	0.56	0.69	81.7	4.54	0.43	0.57	0.7	77.9	5.04	0.42	0.58	0.72
	6000	91.1	3.71	0.43	0.58	0.72	87.8	4.11	0.43	0.59	0.73	84.1	4.55	0.44	0.6	0.75	80.2	5.05	0.43	0.61	0.78

TSA150S4DN + TAA180S4D (2 COMPRESSORS RUNNING)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																			
		85°F					95°F					105°F					115°F				
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)		
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb		
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F
63°F	4000	139.5	9.01	0.7	0.85	1	133.3	10.02	0.71	0.88	1	126.7	11.14	0.73	0.9	1	119.2	12.4	0.75	0.94	1
	5000	146.4	9.04	0.75	0.94	1	140	10.04	0.77	0.97	1	133	11.15	0.8	0.99	1	125.3	12.41	0.83	1	1
	6000	152.1	9.06	0.81	1	1	145.2	10.04	0.84	1	1	139	11.17	0.87	1	1	131.5	12.44	0.9	1	1
67°F	4000	148.5	9.04	0.55	0.67	0.81	142	10.04	0.56	0.69	0.83	134.7	11.16	0.57	0.7	0.86	126.4	12.43	0.58	0.73	0.9
	5000	155.1	9.06	0.58	0.73	0.9	147.5	10.06	0.59	0.74	0.93	140.1	11.18	0.61	0.77	0.96	131.6	12.44	0.61	0.8	0.99
	6000	159.7	9.08	0.61	0.78	0.98	152.3	10.07	0.62	0.81	1	144	11.19	0.64	0.84	1	135.4	12.45	0.65	0.87	1
71°F	4000	157.4	9.07	0.42	0.53	0.65	150.6	10.07	0.41	0.54	0.66	143.1	11.18	0.42	0.56	0.68	134.7	12.44	0.43	0.57	0.7
	5000	164.4	9.1	0.43	0.57	0.7	157	10.09	0.43	0.58	0.72	149.1	11.21	0.43	0.59	0.74	140	12.48	0.44	0.61	0.77
	6000	169.3	9.11	0.44	0.6	0.76	161.6	10.11	0.44	0.61	0.78	152.9	11.22	0.45	0.62	0.81	143.3	12.47	0.46	0.64	0.84

TSA180S4DN + (2) TAA090S4D (1 COMPRESSOR RUNNING)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																						
		65°F						75°F						85°F						95°F				
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)					
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb					
				75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F	75°F	80°F	85°F
63°F	2400	99.3	4.72	0.7	0.82	0.93	96.1	5.22	0.71	0.83	0.95	92.3	5.78	0.71	0.84	0.96	88.4	6.41	0.73	0.86	0.98			
	3000	104.3	4.79	0.74	0.88	1	100.6	5.29	0.75	0.89	1	96.8	5.85	0.77	0.91	1	92.6	6.48	0.78	0.93	1			
	3600	108	4.85	0.79	0.94	1	104.2	5.35	0.8	0.95	1	100	5.9	0.81	0.97	1	95.2	6.52	0.83	0.99	1			
67°F	2400	105.2	4.8	0.56	0.68	0.78	101.5	5.3	0.56	0.69	0.8	97.6	5.86	0.57	0.69	0.81	93.6	6.49	0.57	0.7	0.82			
	3000	110.1	4.88	0.58	0.72	0.85	106.3	5.38	0.59	0.73	0.86	102.1	5.93	0.6	0.75	0.88	97.6	6.56	0.61	0.76	0.9			
	3600	113.6	4.94	0.62	0.76	0.91	109.5	5.43	0.62	0.78	0.93	105	5.98	0.63	0.79	0.94	100.3	6.61	0.63	0.81	0.96			
71°F	2400	110.4	4.89	0.44	0.54	0.65	106.7	5.39	0.43	0.55	0.66	102.8	5.95	0.44	0.55	0.67	98.5	6.58	0.44	0.56	0.68			
	3000	115.6	4.97	0.44	0.57	0.7	111.8	5.47	0.42	0.58	0.71	107.4	6.02	0.46	0.58	0.72	102.8	6.65	0.45	0.6	0.73			
	3600	119.3	5.03	0.46	0.59	0.74	115.2	5.52	0.46	0.61	0.76	110.7	6.07	0.46	0.62	0.77	105.4	6.69	0.46	0.62	0.78			

TSA180S4DN + (2) TAA090S4D (2 COMPRESSORS RUNNING)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																						
		85°F						95°F						105°F						115°F				
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)					
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb					
				75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F			75°F	80°F	85°F	75°F	80°F	85°F
63°F	4800	184.5	11.55	0.71	0.84	0.96	176.8	12.82	0.73	0.86	0.98	168.2	14.26	0.75	0.88	1	159.2	15.94	0.76	0.91	1			
	6000	193.6	11.7	0.77	0.91	1	185.1	12.96	0.78	0.93	1	176.2	14.4	0.8	0.96	1	166.1	16.06	0.82	0.98	1			
	7200	200	11.8	0.81	0.97	1	190.5	13.05	0.83	0.99	1	181.5	14.48	0.85	1	1	173.1	16.18	0.87	1	1			
67°F	4800	195.2	11.73	0.57	0.69	0.81	187.1	12.98	0.57	0.7	0.82	178.4	14.43	0.59	0.72	0.85	168.3	16.1	0.6	0.74	0.87			
	6000	204.1	11.87	0.6	0.75	0.88	195.2	13.12	0.61	0.76	0.9	185.5	14.55	0.62	0.78	0.93	174.8	16.21	0.63	0.8	0.95			
	7200	210.1	11.96	0.63	0.79	0.94	200.6	13.21	0.63	0.81	0.96	191	14.64	0.65	0.83	0.99	180.2	16.28	0.67	0.85	1			
71°F	4800	205.5	11.89	0.44	0.55	0.67	196.9	13.15	0.44	0.56	0.68	188	14.6	0.44	0.57	0.7	177.6	16.25	0.45	0.58	0.71			
	6000	214.8	12.04	0.46	0.58	0.72	205.6	13.3	0.45	0.6	0.73	195.3	14.71	0.46	0.61	0.76	183.9	16.35	0.46	0.61	0.77			
	7200	221.3	12.15	0.46	0.62	0.77	210.8	13.38	0.46	0.62	0.78	201	14.83	0.47	0.65	0.81	189.3	16.46	0.47	0.66	0.83			

TSA090S4SN (2) + TAA180S4D (1 COMPRESSOR RUNNING) MSAV® (Multi-Stage Air Volume)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	3500	84	4.52	0.62	0.73	0.84	81.4	5.02	0.63	0.74	0.85	78.4	5.58	0.64	0.75	0.87	75.1	6.21	0.64	0.77	0.89				
	4000	87.2	4.57	0.64	0.76	0.88	84.2	5.07	0.65	0.77	0.89	81.1	5.63	0.66	0.78	0.91	77.6	6.26	0.67	0.8	0.93				
	4500	89.6	4.62	0.66	0.79	0.91	86.7	5.11	0.66	0.8	0.93	83.3	5.67	0.68	0.81	0.95	79.6	6.29	0.69	0.83	0.97				
67°F	3500	88.5	4.59	0.51	0.6	0.69	85.5	5.1	0.51	0.61	0.7	82.4	5.65	0.52	0.61	0.72	79	6.28	0.52	0.62	0.73				
	4000	91.6	4.65	0.52	0.62	0.72	88.6	5.15	0.52	0.62	0.73	85.3	5.7	0.53	0.63	0.75	81.6	6.33	0.53	0.64	0.76				
	4500	94.3	4.7	0.53	0.63	0.75	91.1	5.19	0.53	0.64	0.76	87.6	5.75	0.54	0.65	0.78	83.9	6.37	0.54	0.66	0.8				
71°F	3500	92.6	4.67	0.4	0.49	0.58	89.6	5.16	0.41	0.5	0.58	86.3	5.72	0.41	0.5	0.59	83	6.36	0.41	0.51	0.6				
	4000	96	4.72	0.41	0.5	0.59	92.8	5.22	0.41	0.5	0.6	89.3	5.78	0.41	0.51	0.61	85.6	6.41	0.41	0.52	0.62				
	4500	98.7	4.77	0.41	0.51	0.61	95.4	5.27	0.41	0.52	0.62	91.9	5.83	0.41	0.52	0.63	87.8	6.45	0.42	0.53	0.64				

TSA120S4SN (2) + TAA240S4D (1 COMPRESSOR RUNNING) MSAV® (Multi-Stage Air Volume)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	4500	109.9	5.53	0.65	0.75	0.85	106.2	6.19	0.66	0.76	0.87	102.4	6.91	0.66	0.77	0.88	98.2	7.73	0.67	0.78	0.9				
	5500	116.1	5.63	0.68	0.79	0.91	111.9	6.28	0.68	0.8	0.92	107.6	7	0.69	0.82	0.94	103	7.8	0.7	0.83	0.96				
	6500	120.7	5.7	0.7	0.83	0.96	116.3	6.35	0.71	0.84	0.97	111.7	7.07	0.72	0.87	0.99	106.8	7.87	0.74	0.88	1				
67°F	4500	116.4	5.64	0.53	0.63	0.72	112.6	6.29	0.54	0.63	0.73	108.3	7.01	0.54	0.64	0.74	104.1	7.83	0.54	0.65	0.75				
	5500	123	5.74	0.54	0.65	0.76	118.6	6.38	0.55	0.66	0.77	114	7.11	0.56	0.67	0.78	109.1	7.92	0.56	0.68	0.8				
	6500	127.7	5.82	0.56	0.68	0.8	123.1	6.46	0.56	0.69	0.81	118.2	7.18	0.57	0.7	0.83	112.9	7.98	0.58	0.71	0.85				
71°F	4500	123	5.74	0.42	0.51	0.6	118.8	6.39	0.42	0.52	0.6	114.3	7.11	0.42	0.52	0.61	109.6	7.92	0.42	0.52	0.62				
	5500	129.5	5.85	0.42	0.53	0.63	125	6.5	0.43	0.53	0.63	120.3	7.21	0.43	0.54	0.64	115.2	8.02	0.43	0.55	0.65				
	6500	134.5	5.94	0.43	0.54	0.65	129.6	6.58	0.43	0.55	0.66	124.4	7.29	0.43	0.55	0.67	118.9	8.09	0.44	0.56	0.69				

TSA120S4DN + TAA120S4D (1 COMPRESSOR RUNNING) MSAV® (Multi-Stage Air Volume)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	2240	56.2	2.69	0.6	0.7	0.82	54.3	3.04	0.6	0.72	0.84	52.2	3.44	0.61	0.73	0.86	49.8	3.88	0.62	0.74	0.88				
	2800	59.8	2.72	0.62	0.75	0.89	57.7	3.08	0.63	0.77	0.92	55.2	3.47	0.64	0.79	0.94	52.7	3.92	0.66	0.81	0.96				
	3360	62.4	2.75	0.66	0.81	0.97	60	3.11	0.67	0.83	0.99	57.4	3.5	0.69	0.85	1	54.8	3.95	0.7	0.88	1				
67°F	2240	59.6	2.72	0.49	0.57	0.67	57.6	3.08	0.49	0.58	0.68	55.4	3.48	0.49	0.59	0.69	52.9	3.93	0.5	0.59	0.7				
	2800	63.4	2.77	0.5	0.6	0.71	61	3.12	0.51	0.61	0.73	58.5	3.52	0.51	0.62	0.75	55.8	3.97	0.52	0.63	0.77				
	3360	66.1	2.8	0.52	0.63	0.77	63.5	3.16	0.52	0.64	0.79	60.9	3.55	0.53	0.66	0.81	58	4	0.54	0.67	0.84				
71°F	2240	63.1	2.76	0.39	0.47	0.55	60.8	3.12	0.39	0.47	0.56	58.4	3.52	0.39	0.48	0.56	55.9	3.97	0.39	0.48	0.57				
	2800	66.9	2.81	0.39	0.49	0.58	64.4	3.17	0.39	0.49	0.58	61.7	3.57	0.39	0.5	0.59	58.9	4.01	0.4	0.5	0.61				
	3360	69.7	2.85	0.4	0.5	0.61	67	3.2	0.4	0.51	0.62	64.2	3.6	0.4	0.52	0.63	61	4.05	0.4	0.52	0.65				

TSA150S4DN + TAA120S4D (1 COMPRESSOR RUNNING) MSAV® (Multi-Stage Air Volume)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	2800	66.7	3.61	0.58	0.69	0.83	64.5	4.03	0.59	0.71	0.85	62.1	4.48	0.59	0.72	0.87	59.2	4.98	0.6	0.74	0.89				
	3500	70.7	3.63	0.61	0.75	0.91	68.4	4.04	0.61	0.77	0.93	65.5	4.49	0.63	0.79	0.96	62.5	4.99	0.64	0.81	0.98				
	4200	73.7	3.64	0.64	0.82	0.99	71.1	4.05	0.66	0.84	1	68.3	4.5	0.67	0.86	1	65.1	5	0.69	0.89	1				
67°F	2800	70.7	3.63	0.47	0.56	0.65	68.4	4.04	0.47	0.56	0.66	65.8	4.49	0.48	0.57	0.68	63.1	4.99	0.48	0.58	0.7				
	3500	75	3.65	0.49	0.58	0.71	72.4	4.06	0.49	0.59	0.73	69.6	4.51	0.5	0.6	0.75	66.5	5	0.5	0.61	0.77				
	4200	78.2	3.66	0.5	0.62	0.77	75.4	4.07	0.51	0.63	0.79	72.5	4.52	0.51	0.64	0.82	69.2	5.01	0.52	0.66	0.84				
71°F	2800	74.8	3.65	0.37	0.45	0.53	72.3	4.06	0.37	0.46	0.54	69.8	4.51	0.37	0.46	0.55	66.7	5	0.37	0.47	0.55				
	3500	79.1	3.67	0.38	0.47	0.56	76.6	4.07	0.38	0.48	0.57	73.6	4.52	0.38	0.48	0.58	70.4	5.01	0.38	0.49	0.59				
	4200	82.6	3.68	0.38	0.49	0.59	79.7	4.08	0.38	0.49	0.6	76.6	4.53	0.38	0.5	0.61	73.1	5.02	0.39	0.51	0.63				

TSA150S4DN + TAA150S4D (1 COMPRESSOR RUNNING) MSAV® (Multi-Stage Air Volume)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	2800	69	3.62	0.63	0.74	0.85	66.8	4.04	0.64	0.75	0.87	64.4	4.5	0.64	0.76	0.88	61.5	5	0.65	0.78	0.9				
	3500	73.1	3.64	0.66	0.79	0.92	70.8	4.05	0.67	0.8	0.94	68.1	4.51	0.68	0.82	0.96	65.1	5.01	0.69	0.84	0.98				
	4200	76.3	3.65	0.69	0.84	0.98	73.8	4.06	0.7	0.86	1	70.8	4.52	0.72	0.88	1	67.7	5.01	0.73	0.9	1				
67°F	2800	73.5	3.64	0.51	0.6	0.7	71.3	4.05	0.52	0.61	0.71	68.5	4.51	0.52	0.62	0.72	65.8	5.01	0.52	0.63	0.74				
	3500	77.9	3.66	0.53	0.63	0.75	75.4	4.07	0.53	0.64	0.76	72.5	4.52	0.54	0.65	0.78	69.3	5.02	0.54	0.66	0.8				
	4200	81.3	3.67	0.54	0.66	0.8	78.4	4.08	0.55	0.68	0.82	75.4	4.53	0.55	0.69	0.84	72.1	5.03	0.57	0.71	0.86				
71°F	2800	77.9	3.66	0.4	0.49	0.58	75.6	4.07	0.4	0.5	0.59	72.9	4.52	0.4	0.5	0.59	69.7	5.02	0.41	0.5	0.6				
	3500	82.7	3.68	0.41	0.51	0.61	80	4.09	0.41	0.52	0.62	77.2	4.53	0.41	0.52	0.63	73.7	5.03	0.41	0.53	0.64				
	4200	86.3	3.69	0.41	0.53	0.64	83.3	4.1	0.42	0.54	0.65	79.9	4.54	0.42	0.54	0.66	76.6	5.04	0.42	0.55	0.68				

TSA150S4DN + TAA180S4D (1 COMPRESSOR RUNNING) MSAV® (Multi-Stage Air Volume)

Entering Wet Bulb Temperature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	2800	68.7	3.61	0.63	0.74	0.85	66.4	4.03	0.64	0.75	0.87	64	4.49	0.64	0.76	0.89	61.2	4.99	0.65	0.78	0.91				
	3500	73	3.63	0.66	0.79	0.92	70.5	4.05	0.67	0.8	0.94	67.9	4.5	0.68	0.82	0.96	64.8	5	0.69	0.84	0.98				
	4200	76.3	3.65	0.69	0.84	0.98	73.6	4.06	0.7	0.86	1	70.7	4.51	0.71	0.88	1	67.3	5	0.73	0.9	1				
67°F	2800	72.5	3.63	0.51	0.6	0.7	70.2	4.05	0.51	0.61	0.71	67.6	4.5	0.52	0.62	0.72	64.8	5	0.52	0.63	0.74				
	3500	77.2	3.65	0.53	0.63	0.75	74.6	4.06	0.53	0.64	0.76	71.7	4.51	0.54	0.65	0.78	68.7	5.01	0.54	0.66	0.8				
	4200	80.6	3.66	0.54	0.66	0.8	77.8	4.08	0.55	0.68	0.82	74.8	4.52	0.56	0.69	0.84	71.5	5.02	0.57	0.71	0.86				
71°F	2800	76.3	3.65	0.4	0.49	0.58	73.8	4.06	0.4	0.5	0.59	71.3	4.51	0.41	0.5	0.59	68.2	5.01	0.41	0.51	0.6				
	3500	81.2	3.67	0.41	0.51	0.61	78.5	4.08	0.41	0.52	0.62	75.7	4.53	0.41	0.52	0.63	72.3	5.02	0.41	0.53	0.64				
	4200	84.9	3.68	0.42	0.53	0.64	82	4.09	0.42	0.54	0.65	78.8	4.53	0.41	0.54	0.66	75.3	5.03	0.42	0.55	0.68				

TSA180S4DN + TAA180S4D (1 COMPRESSOR RUNNING) MSAV® (Multi-Stage Air Volume)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	3500	86.4	4.53	0.66	0.76	0.86	83.6	5.04	0.67	0.77	0.87	80.7	5.6	0.67	0.78	0.88	77.4	6.26	0.68	0.79	0.9				
	4000	89.6	4.57	0.68	0.79	0.89	86.7	5.08	0.68	0.8	0.9	83.5	5.65	0.69	0.81	0.92	80.1	6.29	0.7	0.82	0.93				
	4500	92.3	4.61	0.69	0.81	0.92	89.2	5.12	0.7	0.82	0.93	85.9	5.68	0.71	0.83	0.95	82.3	6.32	0.72	0.85	0.97				
67°F	3500	90.8	4.59	0.54	0.64	0.73	88.1	5.1	0.55	0.64	0.74	85	5.67	0.55	0.65	0.75	81.5	6.31	0.55	0.66	0.76				
	4000	94.2	4.64	0.55	0.65	0.75	91.2	5.15	0.55	0.66	0.76	87.9	5.71	0.56	0.67	0.77	84.4	6.35	0.57	0.68	0.79				
	4500	97.1	4.68	0.56	0.67	0.78	93.9	5.19	0.56	0.68	0.79	90.5	5.75	0.57	0.69	0.8	86.8	6.39	0.58	0.7	0.82				
71°F	3500	95.2	4.66	0.43	0.52	0.61	92.3	5.16	0.43	0.53	0.62	89.1	5.73	0.43	0.53	0.62	85.5	6.37	0.43	0.53	0.63				
	4000	98.8	4.71	0.43	0.53	0.63	95.7	5.21	0.43	0.54	0.63	92.2	5.78	0.44	0.54	0.64	88.6	6.41	0.44	0.55	0.65				
	4500	101.7	4.75	0.44	0.54	0.64	98.4	5.26	0.44	0.55	0.65	94.9	5.82	0.44	0.55	0.66	91	6.46	0.44	0.56	0.67				

TSA180S4DN + TAA240S4D (1 COMPRESSOR RUNNING) MSAV® (Multi-Stage Air Volume)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	3500	91.4	4.6	0.65	0.75	0.85	88.5	5.11	0.66	0.76	0.86	85.3	5.68	0.67	0.77	0.87	81.9	6.32	0.67	0.78	0.89				
	4000	94.9	4.65	0.67	0.78	0.88	91.8	5.16	0.68	0.78	0.89	88.3	5.72	0.68	0.79	0.91	84.5	6.35	0.69	0.81	0.93				
	4500	97.6	4.69	0.68	0.8	0.91	94.3	5.2	0.69	0.81	0.92	90.9	5.76	0.7	0.83	0.94	86.9	6.39	0.71	0.84	0.96				
67°F	3500	96.6	4.68	0.53	0.63	0.72	93.5	5.19	0.54	0.63	0.73	90.4	5.75	0.54	0.64	0.73	86.6	6.39	0.54	0.65	0.75				
	4000	100.2	4.73	0.54	0.64	0.74	97.1	5.24	0.55	0.65	0.75	93.4	5.8	0.55	0.65	0.76	89.4	6.43	0.55	0.66	0.77				
	4500	103.2	4.78	0.55	0.66	0.77	99.6	5.28	0.56	0.67	0.78	96.1	5.84	0.56	0.68	0.79	91.8	6.47	0.56	0.68	0.8				
71°F	3500	101.8	4.76	0.42	0.51	0.6	98.6	5.26	0.42	0.52	0.61	95.2	5.83	0.42	0.52	0.61	91.4	6.47	0.43	0.53	0.62				
	4000	105.5	4.82	0.42	0.52	0.62	102.1	5.32	0.43	0.53	0.63	98.5	5.88	0.43	0.53	0.63	94.4	6.51	0.43	0.54	0.64				
	4500	108.7	4.86	0.43	0.53	0.63	105.2	5.37	0.43	0.54	0.64	101.1	5.92	0.43	0.54	0.65	96.9	6.55	0.43	0.55	0.66				

TSA240S4DN + TAA240S4D (1 COMPRESSOR RUNNING) MSAV® (Multi-Stage Air Volume)

Entering Wet Bulb Temper- ature	Total Air Volume	Outdoor Air Temperature Entering Outdoor Coil																							
		65°F						75°F						85°F						95°F					
		Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)			Total Cool Cap.	Comp Motor Input	Sensible to Total Ratio (S/T)						
				Dry Bulb					Dry Bulb					Dry Bulb					Dry Bulb						
		cfm	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F	kBtuh	kW	75°F	80°F	85°F			
63°F	4500	114.6	5.79	0.68	0.77	0.87	110.9	6.48	0.68	0.78	0.88	107	7.23	0.69	0.79	0.89	102.5	8.09	0.7	0.81	0.91				
	5500	121.2	5.89	0.7	0.81	0.92	116.8	6.57	0.71	0.82	0.93	112.3	7.32	0.72	0.83	0.95	107.5	8.17	0.73	0.85	0.97				
	6500	126	5.97	0.73	0.85	0.96	121.4	6.64	0.74	0.86	0.98	116.6	7.39	0.75	0.88	0.99	111.4	8.24	0.76	0.89	1				
67°F	4500	121.5	5.9	0.55	0.65	0.74	117.5	6.58	0.56	0.66	0.75	113	7.33	0.56	0.66	0.76	108.6	8.19	0.56	0.67	0.77				
	5500	128.4	6.01	0.56	0.68	0.78	123.8	6.68	0.57	0.68	0.79	119	7.44	0.58	0.7	0.8	113.9	8.29	0.58	0.71	0.82				
	6500	133.3	6.09	0.58	0.7	0.81	128.4	6.76	0.59	0.71	0.83	123.4	7.51	0.59	0.73	0.84	117.8	8.35	0.6	0.74	0.86				
71°F	4500	128.4	6.01	0.44	0.53	0.62	124	6.68	0.44	0.54	0.63	119.3	7.44	0.44	0.54	0.63	114.4	8.29	0.44	0.54	0.65				
	5500	135.2	6.12	0.44	0.55	0.65	130.5	6.8	0.44	0.55	0.66	125.6	7.55	0.45	0.56	0.67	120.2	8.4	0.45	0.57	0.68				
	6500	140.4	6.22	0.45	0.56	0.68	135.3	6.89	0.45	0.57	0.69	129.8	7.63	0.45	0.57	0.7	124.1	8.47	0.45	0.58	0.71				