



EMERGE X
AIR SOURCE HEAT PUMP WATER HEATER SIZING CHART

Model	Entering Air Condition	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (BTU/hr)	Heating COP	Air Cooling Capacity (BTU/hr)	Cooling COP	CFM
SHPA060	25°F 60% RH	35	50	36,030	3.96	29,952	3.29	5,087
		40	55	35,511	3.90	29,260	3.21	
		50	65	34,944	3.67	28,367	2.98	
		60	75	34,792	3.32	27,374	2.61	
		70	85	34,591	3.00	26,286	2.28	
		80	95	34,406	2.68	24,982	1.94	
		90	105	34,239	2.39	23,424	1.64	
		100	115	34,013	2.16	22,026	1.40	
		110	125	34,061	1.91	20,290	1.14	
		120	135	34,141	1.72	18,593	0.94	
	35°F 60% RH	130	145	34,340	1.55	16,791	0.76	4,253
		140	155	33,454	1.45	15,075	0.65	
		35	50	41,965	4.78	35,703	4.07	
		40	55	41,321	4.71	35,056	3.99	
		50	65	40,405	4.34	33,695	3.62	
		60	75	40,045	3.90	32,522	3.17	
		70	85	39,813	3.55	31,482	2.80	
		80	95	39,496	3.16	30,042	2.40	
		90	105	39,241	2.83	28,545	2.06	
		100	115	38,964	2.52	26,873	1.74	
	45°F 60% RH	110	125	38,777	2.24	25,072	1.45	3,784
		120	135	38,707	2.00	23,262	1.20	
		130	145	38,813	1.79	21,190	0.98	
		140	155	38,328	1.64	19,273	0.83	
		35	50	47,773	5.57	41,478	4.83	
		40	55	47,045	5.48	40,760	4.75	
		50	65	45,970	4.97	39,274	4.25	
		60	75	45,070	4.42	37,454	3.67	
		70	85	44,625	4.00	36,190	3.24	
		80	95	44,154	3.61	34,846	2.85	
	55°F 60% RH	90	105	43,405	3.18	32,812	2.40	3,399
		100	115	42,918	2.85	31,312	2.08	
		110	125	42,313	2.52	28,838	1.72	
		120	135	41,678	2.23	26,513	1.42	
		130	145	41,341	1.95	24,136	1.14	
		140	155	40,819	1.75	21,643	0.93	
		35	50	55,489	6.61	49,329	5.87	
		40	55	54,521	6.49	48,416	5.76	
		50	65	53,342	5.75	46,497	5.02	
		60	75	52,148	5.10	44,566	4.36	
	70	85	51,213	4.57	42,683	3.81		
	80	95	50,066	4.09	40,722	3.32		
	90	105	49,584	3.70	39,140	2.92		
	100	115	48,826	3.23	36,750	2.43		
	110	125	48,405	2.90	34,948	2.09		
	120	135	47,924	2.59	32,886	1.78		
	130	145	47,303	2.28	30,292	1.46		
	140	155	46,742	2.01	27,430	1.18		

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COMMERCIAL

HEAT PUMP WATER HEATERS

Model	Entering Air Condition	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (BTU/hr)	Heating COP	Air Cooling Capacity (BTU/hr)	Cooling COP	CFM
SHPA060	65°F 60% RH	35	50	63,780	7.77	57,821	7.04	2,989
		40	55	62,834	7.50	56,635	6.76	
		50	65	61,358	6.59	54,549	5.86	
		60	75	60,023	5.82	52,018	5.05	
		70	85	58,679	5.19	48,564	4.30	
		80	95	57,334	4.64	47,609	3.85	
		90	105	56,053	4.14	45,151	3.34	
		100	115	54,769	3.60	42,524	2.79	
		110	125	53,957	3.22	40,395	2.41	
		120	135	53,427	2.90	38,458	2.08	
	75°F 60% RH	130	145	52,939	2.60	36,196	1.78	2,553
		140	155	52,508	2.32	33,682	1.49	
		35	50	70,412	8.77	65,092	8.10	
		40	55	70,483	8.37	64,938	7.71	
		50	65	68,930	7.37	62,560	6.69	
		60	75	67,186	6.48	59,955	5.78	
		70	85	65,663	5.76	57,529	5.04	
		80	95	64,123	5.13	55,109	4.41	
		90	105	62,585	4.56	52,450	3.83	
		100	115	60,864	3.96	49,196	3.20	
	85°F 60% RH	110	125	59,311	3.52	46,217	2.74	2,071
		120	135	58,149	3.14	43,600	2.36	
		130	145	57,443	2.82	41,147	2.02	
		140	155	56,911	2.54	38,889	1.73	
		35	50	75,214	9.55	71,432	9.07	
		40	55	76,581	9.16	71,097	8.50	
		50	65	76,124	8.12	69,880	7.46	
		60	75	74,376	7.15	67,213	6.46	
		70	85	72,418	6.29	64,371	5.60	
		80	95	70,807	5.60	61,718	4.88	
	95°F 60% RH	90	105	69,251	5.00	58,976	4.26	1,544
		100	115	67,526	4.36	55,817	3.61	
		110	125	65,396	3.85	52,305	3.08	
		120	135	64,072	3.43	49,551	2.66	
		130	145	62,262	3.05	45,962	2.25	
		140	155	61,408	2.74	43,424	1.93	
		35	50	73,864	9.46	68,984	8.83	
		40	55	79,897	9.61	74,505	8.96	
		50	65	79,394	8.49	73,323	7.84	
		60	75	77,752	7.50	70,507	6.80	
	70	85	75,974	6.61	67,746	5.90		
	80	95	74,203	5.85	65,003	5.12		
90	105	72,803	5.23	62,759	4.51			
100	115	71,209	4.59	59,585	3.84			
110	125	69,477	4.08	56,251	3.30			
120	135	67,888	3.63	53,224	2.85			
130	145	66,329	3.23	50,039	2.44			
140	155	64,577	2.88	46,568	2.08			



COMMERCIAL

HEAT PUMP WATER HEATERS

Model	Entering Air Condition	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (BTU/hr)	Heating COP	Air Cooling Capacity (BTU/hr)	Cooling COP	CFM
SHPA140	25°F 60% RH	35	50	71,768	4.1	58,090	3.3	8,047
		40	55	70,724	4.1	57,147	3.3	
		50	65	69,510	3.8	55,313	3.0	
		60	75	69,317	3.5	53,274	2.7	
		70	85	69,113	3.1	51,249	2.3	
		80	95	69,295	2.8	48,981	2.0	
		90	105	69,544	2.5	46,220	1.6	
		100	115	70,229	2.2	43,186	1.3	
		110	125	71,676	1.9	39,671	1.1	
		120	135	72,977	1.7	36,557	0.9	
	35°F 60% RH	130	145	75,637	1.5	32,593	0.7	7,275
		140	155	75,994	1.4	29,457	0.6	
		35	50	82,141	4.7	68,289	3.9	
		40	55	80,828	4.6	67,232	3.8	
		50	65	79,414	4.3	64,724	3.5	
		60	75	78,887	3.9	62,451	3.1	
		70	85	78,546	3.5	60,402	2.7	
		80	95	78,461	3.1	57,992	2.3	
		90	105	78,437	2.8	55,268	2.0	
		100	115	78,895	2.5	52,311	1.7	
	45°F 60% RH	110	125	79,709	2.2	48,754	1.3	6,720
		120	135	80,918	1.9	45,231	1.1	
		130	145	82,810	1.7	40,991	0.9	
		140	155	84,198	1.6	37,308	0.7	
		35	50	94,838	5.3	80,746	4.5	
		40	55	93,230	5.2	79,060	4.4	
		50	65	91,329	4.8	76,489	4.0	
		60	75	89,582	4.3	73,052	3.5	
		70	85	88,896	3.9	70,324	3.1	
		80	95	88,306	3.5	67,492	2.7	
	55°F 60% RH	90	105	88,220	3.1	64,984	2.3	6,196
		100	115	88,155	2.8	61,792	2.0	
		110	125	88,835	2.5	58,877	1.7	
		120	135	89,483	2.2	55,385	1.4	
		130	145	90,785	2.0	50,621	1.1	
		140	155	91,614	1.7	45,556	0.9	
		35	50	111,697	6.1	97,214	5.3	
		40	55	110,047	5.9	95,728	5.2	
		50	65	107,445	5.4	91,612	4.6	
		60	75	104,973	4.8	87,524	4.0	
	70	85	102,717	4.3	83,831	3.5		
	80	95	101,256	3.9	80,123	3.1		
90	105	100,586	3.5	76,697	2.7			
100	115	99,966	3.1	73,270	2.3			
110	125	99,726	2.8	69,555	2.0			
120	135	100,112	2.5	65,810	1.7			
130	145	100,582	2.2	61,920	1.4			
140	155	101,590	2.0	56,864	1.1			



COMMERCIAL

HEAT PUMP WATER HEATERS

Model	Entering Air Condition	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (BTU/hr)	Heating COP	Air Cooling Capacity (BTU/hr)	Cooling COP	CFM
SHPA140	65°F 60% RH	35	50	129,533	6.8	114,819	6.0	5,701
		40	55	127,979	6.5	112,575	5.8	
		50	65	124,500	6.0	108,288	5.2	
		60	75	121,582	5.4	103,536	4.6	
		70	85	118,716	4.8	99,107	4.0	
		80	95	116,118	4.3	94,463	3.5	
		90	105	113,227	3.9	89,253	3.0	
		100	115	112,219	3.5	84,859	2.6	
		110	125	111,392	3.1	80,918	2.2	
		120	135	110,762	2.8	76,758	1.9	
	130	145	110,800	2.5	72,466	1.6		
	140	155	111,042	2.2	67,645	1.4		
	75°F 60% RH	35	50	148,644	7.4	133,973	6.7	5,278
		40	55	147,262	7.1	131,595	6.4	
		50	65	143,230	6.5	126,761	5.8	
		60	75	139,497	5.9	121,754	5.2	
		70	85	136,050	5.3	116,474	4.6	
		80	95	132,242	4.8	110,737	4.0	
		90	105	129,119	4.3	105,061	3.5	
		100	115	125,848	3.8	99,128	3.0	
		110	125	123,456	3.4	93,741	2.6	
		120	135	122,026	3.0	88,548	2.2	
	130	145	121,095	2.7	83,461	1.9		
	140	155	120,554	2.4	78,593	1.6		
	85°F 60% RH	35	50	163,362	7.8	147,987	7.1	4,791
		40	55	167,725	7.7	151,650	7.0	
		50	65	164,640	7.1	146,883	6.4	
		60	75	160,419	6.5	141,526	5.7	
		70	85	155,303	5.9	135,092	5.1	
		80	95	151,422	5.3	129,197	4.5	
		90	105	147,151	4.7	121,973	3.9	
		100	115	143,125	4.2	115,979	3.4	
		110	125	139,798	3.7	108,884	2.9	
		120	135	136,106	3.3	101,851	2.5	
	130	145	132,426	2.9	94,799	2.1		
	140	155	129,106	2.6	87,359	1.8		
	95°F 60% RH	35	50	172,426	8.1	156,507	7.4	4,170
		40	55	182,773	8.1	165,617	7.4	
		50	65	186,522	7.7	167,965	7.0	
		60	75	181,048	7.1	161,519	6.3	
		70	85	176,004	6.4	154,828	5.6	
		80	95	170,820	5.8	147,755	5.0	
90		105	166,008	5.2	140,525	4.4		
100		115	162,077	4.6	134,426	3.8		
110		125	157,205	4.1	126,225	3.3		
120		135	152,512	3.7	118,303	2.8		
130	145	147,767	3.2	110,281	2.4			
140	155	143,044	2.9	101,491	2.0			



COMMERCIAL

HEAT PUMP WATER HEATERS

Model	Entering Air Condition	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (BTU/hr)	Heating COP	Air Cooling Capacity (BTU/hr)	Cooling COP	CFM
SHPA200	25°F 60% RH	35	50	107,798	4.0	88,042	3.3	13,133
		40	55	106,235	4.0	86,407	3.2	
		50	65	106,712	3.7	86,457	3.0	
		60	75	105,516	3.4	84,521	2.6	
		70	85	106,359	3.1	84,376	2.3	
		80	95	105,130	2.7	82,129	2.0	
		90	105	106,007	2.4	81,514	1.6	
		100	115	104,737	2.2	79,173	1.4	
		110	125	105,829	1.9	78,380	1.1	
		120	135	104,865	1.7	75,740	0.9	
	130	145	106,108	1.5	74,881	0.7		
	140	155	104,178	1.4	72,222	0.6		
	35°F 60% RH	35	50	113,733	4.7	93,793	4.0	11,528
		40	55	112,045	4.7	92,203	3.9	
		50	65	112,173	4.3	91,785	3.6	
		60	75	110,769	3.9	89,669	3.1	
		70	85	111,581	3.5	89,572	2.7	
		80	95	110,220	3.2	87,189	2.4	
		90	105	111,009	2.8	86,635	2.0	
		100	115	109,688	2.5	84,020	1.7	
		110	125	110,545	2.2	83,162	1.4	
		120	135	109,431	2.0	80,409	1.1	
	130	145	110,581	1.8	79,280	0.9		
	140	155	109,052	1.6	76,420	0.8		
	45°F 60% RH	35	50	119,541	5.4	99,568	4.7	10,504
		40	55	117,769	5.3	97,907	4.6	
		50	65	117,738	4.9	97,364	4.1	
		60	75	115,794	4.4	94,601	3.6	
		70	85	116,393	3.9	94,280	3.2	
		80	95	114,878	3.6	91,993	2.8	
		90	105	115,173	3.2	90,902	2.4	
		100	115	113,642	2.8	88,459	2.0	
		110	125	114,081	2.5	86,928	1.7	
		120	135	112,402	2.2	83,660	1.4	
	130	145	113,109	2.0	82,226	1.1		
	140	155	111,543	1.7	78,790	0.9		
	55°F 60% RH	35	50	127,257	6.3	107,419	5.6	9,595
		40	55	125,245	6.2	105,563	5.5	
		50	65	125,110	5.6	104,587	4.8	
		60	75	122,872	5.0	101,713	4.2	
		70	85	122,981	4.5	100,773	3.7	
		80	95	120,790	4.0	97,869	3.2	
90		105	121,352	3.6	97,230	2.8		
100		115	119,550	3.2	93,897	2.4		
110		125	120,173	2.9	93,038	2.0		
120		135	118,648	2.6	90,033	1.7		
130	145	119,071	2.3	88,382	1.4			
140	155	117,466	2.0	84,577	1.1			



COMMERCIAL

HEAT PUMP WATER HEATERS

Model	Entering Air Condition	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (BTU/hr)	Heating COP	Air Cooling Capacity (BTU/hr)	Cooling COP	CFM
SHPA200	65°F 60% RH	35	50	135,548	7.3	115,911	6.5	8,690
		40	55	133,558	7.0	113,782	6.3	
		50	65	133,126	6.3	112,639	5.5	
		60	75	130,747	5.6	109,165	4.8	
		70	85	130,447	5.0	106,654	4.2	
		80	95	128,058	4.5	104,756	3.7	
		90	105	127,821	4.0	103,241	3.2	
		100	115	125,493	3.5	99,671	2.7	
		110	125	125,725	3.2	98,485	2.3	
		120	135	124,151	2.8	95,605	2.0	
	130	145	124,707	2.5	94,286	1.7		
	140	155	123,232	2.3	90,829	1.4		
	75°F 60% RH	35	50	142,180	8.1	123,182	7.4	7,831
		40	55	141,207	7.8	122,085	7.0	
		50	65	140,698	6.9	120,650	6.2	
		60	75	137,910	6.2	117,102	5.5	
		70	85	137,431	5.5	115,619	4.8	
		80	95	134,847	5.0	112,256	4.2	
		90	105	134,353	4.4	110,540	3.6	
		100	115	131,588	3.9	106,343	3.1	
		110	125	131,079	3.4	104,307	2.7	
		120	135	128,873	3.1	100,747	2.3	
	130	145	129,211	2.8	99,237	1.9		
	140	155	127,635	2.5	96,036	1.7		
	85°F 60% RH	35	50	146,982	8.7	129,522	8.1	6,863
		40	55	147,305	8.4	128,244	7.7	
		50	65	147,892	7.6	127,970	6.9	
		60	75	145,100	6.8	124,360	6.1	
		70	85	144,186	6.1	122,461	5.3	
		80	95	141,531	5.4	118,865	4.7	
		90	105	141,019	4.9	117,066	4.1	
		100	115	138,250	4.3	112,964	3.5	
		110	125	137,164	3.8	110,395	3.0	
		120	135	134,796	3.4	106,698	2.6	
	130	145	134,030	3.0	104,052	2.2		
	140	155	132,132	2.7	100,571	1.9		
	95°F 60% RH	35	50	145,632	8.8	127,074	8.1	5,714
		40	55	150,621	8.9	131,652	8.2	
		50	65	151,162	8.1	131,413	7.4	
		60	75	148,476	7.3	127,654	6.5	
		70	85	147,742	6.5	125,836	5.8	
		80	95	144,927	5.8	122,150	5.1	
90		105	144,571	5.2	120,849	4.4		
100		115	141,933	4.6	116,732	3.8		
110		125	141,245	4.1	114,341	3.3		
120		135	138,612	3.6	110,371	2.8		
130	145	138,097	3.2	108,129	2.4			
140	155	135,301	2.9	103,715	2.1			



COMMERCIAL

HEAT PUMP WATER HEATERS

Model	Entering Air Condition	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (BTU/hr)	Heating COP	Air Cooling Capacity (BTU/hr)	Cooling COP	CFM
SHPA280	25°F 60% RH	35	50	143,536	4.1	116,180	3.3	16,093
		40	55	141,448	4.1	114,294	3.3	
		50	65	139,020	3.8	110,626	3.0	
		60	75	138,634	3.5	106,548	2.7	
		70	85	138,226	3.1	102,498	2.3	
		80	95	138,590	2.8	97,962	2.0	
		90	105	139,088	2.5	92,440	1.6	
		100	115	140,458	2.2	86,372	1.3	
		110	125	143,352	1.9	79,342	1.1	
		120	135	145,954	1.7	73,114	0.9	
	35°F 60% RH	130	145	151,274	1.5	65,186	0.7	14,550
		140	155	151,988	1.4	58,914	0.6	
		35	50	164,282	4.7	136,578	3.9	
		40	55	161,656	4.6	134,464	3.8	
		50	65	158,828	4.3	129,448	3.5	
		60	75	157,774	3.9	124,902	3.1	
		70	85	157,092	3.5	120,804	2.7	
		80	95	156,922	3.1	115,984	2.3	
		90	105	156,874	2.8	110,536	2.0	
		100	115	157,790	2.5	104,622	1.7	
	45°F 60% RH	110	125	159,418	2.2	97,508	1.3	13,440
		120	135	161,836	1.9	90,462	1.1	
		130	145	165,620	1.7	81,982	0.9	
		140	155	168,396	1.6	74,616	0.7	
		35	50	189,676	5.3	161,492	4.5	
		40	55	186,460	5.2	158,120	4.4	
		50	65	182,658	4.8	152,978	4.0	
		60	75	179,164	4.3	146,104	3.5	
		70	85	177,792	3.9	140,648	3.1	
		80	95	176,612	3.5	134,984	2.7	
	55°F 60% RH	90	105	176,440	3.1	129,968	2.3	12,391
		100	115	176,310	2.8	123,584	2.0	
		110	125	177,670	2.5	117,754	1.7	
		120	135	178,966	2.2	110,770	1.4	
		130	145	181,570	2.0	101,242	1.1	
		140	155	183,228	1.7	91,112	0.9	
		35	50	223,394	6.1	194,428	5.3	
		40	55	220,094	5.9	191,456	5.2	
		50	65	214,890	5.4	183,224	4.6	
		60	75	209,946	4.8	175,048	4.0	
	70	85	205,434	4.3	167,662	3.5		
	80	95	202,512	3.9	160,246	3.1		
90	105	201,172	3.5	153,394	2.7			
100	115	199,932	3.1	146,540	2.3			
110	125	199,452	2.8	139,110	2.0			
120	135	200,224	2.5	131,620	1.7			
130	145	201,164	2.2	123,840	1.4			
140	155	203,180	2.0	113,728	1.1			



COMMERCIAL

HEAT PUMP WATER HEATERS

Model	Entering Air Condition	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (BTU/hr)	Heating COP	Air Cooling Capacity (BTU/hr)	Cooling COP	CFM
SHPA280	65°F 60% RH	35	50	259,066	6.8	229,638	6.0	11,402
		40	55	255,958	6.5	225,150	5.8	
		50	65	249,000	6.0	216,576	5.2	
		60	75	243,164	5.4	207,072	4.6	
		70	85	237,432	4.8	198,214	4.0	
		80	95	232,236	4.3	188,926	3.5	
		90	105	226,454	3.9	178,506	3.0	
		100	115	224,438	3.5	169,718	2.6	
		110	125	222,784	3.1	161,836	2.2	
		120	135	221,524	2.8	153,516	1.9	
	75°F 60% RH	130	145	221,600	2.5	144,932	1.6	10,556
		140	155	222,084	2.2	135,290	1.4	
		35	50	297,288	7.4	267,946	6.7	
		40	55	294,524	7.1	263,190	6.4	
		50	65	286,460	6.5	253,522	5.8	
		60	75	278,994	5.9	243,508	5.2	
		70	85	272,100	5.3	232,948	4.6	
		80	95	264,484	4.8	221,474	4.0	
		90	105	258,238	4.3	210,122	3.5	
		100	115	251,696	3.8	198,256	3.0	
	85°F 60% RH	110	125	246,912	3.4	187,482	2.6	9,583
		120	135	244,052	3.0	177,096	2.2	
		130	145	242,190	2.7	166,922	1.9	
		140	155	241,108	2.4	157,186	1.6	
		35	50	326,724	7.8	295,974	7.1	
		40	55	335,450	7.7	303,300	7.0	
		50	65	329,280	7.1	293,766	6.4	
		60	75	320,838	6.5	283,052	5.7	
		70	85	310,606	5.9	270,184	5.1	
		80	95	302,844	5.3	258,394	4.5	
	95°F 60% RH	90	105	294,302	4.7	243,946	3.9	8,339
		100	115	286,250	4.2	231,958	3.4	
		110	125	279,596	3.7	217,768	2.9	
		120	135	272,212	3.3	203,702	2.5	
		130	145	264,852	2.9	189,598	2.1	
		140	155	258,212	2.6	174,718	1.8	
		35	50	344,852	8.1	313,014	7.4	
		40	55	365,546	8.1	331,234	7.4	
		50	65	373,044	7.7	335,930	7.0	
		60	75	362,096	7.1	323,038	6.3	
	70	85	352,008	6.4	309,656	5.6		
	80	95	341,640	5.8	295,510	5.0		
90	105	332,016	5.2	281,050	4.4			
100	115	324,154	4.6	268,852	3.8			
110	125	314,410	4.1	252,450	3.3			
120	135	305,024	3.7	236,606	2.8			
130	145	295,534	3.2	220,562	2.4			
140	155	286,088	2.9	202,982	2.0			



COMMERCIAL

HEAT PUMP WATER HEATERS

Model	Entering Air Condition	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (BTU/hr)	Heating COP	Air Cooling Capacity (BTU/hr)	Cooling COP	CFM
SHPA350	25°F 60% RH	35	50	179,566	4.1	146,132	3.3	21,180
		40	55	176,959	4.0	143,554	3.3	
		50	65	173,964	3.8	138,993	3.0	
		60	75	173,426	3.4	133,922	2.6	
		70	85	172,817	3.1	128,784	2.3	
		80	95	172,996	2.8	122,944	2.0	
		90	105	173,327	2.4	115,864	1.6	
		100	115	174,471	2.2	108,398	1.4	
		110	125	177,413	1.9	99,632	1.1	
		120	135	180,095	1.7	91,707	0.9	
	35°F 60% RH	130	145	185,614	1.5	81,977	0.7	18,803
		140	155	185,442	1.4	73,989	0.6	
		35	50	206,247	4.7	172,281	3.9	
		40	55	202,977	4.6	169,520	3.9	
		50	65	199,233	4.3	163,143	3.5	
		60	75	197,819	3.9	157,424	3.1	
		70	85	196,905	3.5	152,286	2.7	
		80	95	196,418	3.1	146,026	2.3	
		90	105	196,115	2.8	139,081	2.0	
		100	115	196,754	2.5	131,495	1.7	
	45°F 60% RH	110	125	198,195	2.2	122,580	1.4	17,224
		120	135	200,543	2.0	113,724	1.1	
		130	145	204,433	1.7	103,172	0.9	
		140	155	206,724	1.6	93,889	0.7	
		35	50	237,449	5.4	202,970	4.6	
		40	55	233,505	5.3	198,880	4.5	
		50	65	228,628	4.8	192,252	4.1	
		60	75	224,234	4.3	183,558	3.6	
		70	85	222,417	3.9	176,838	3.1	
		80	95	220,766	3.5	169,830	2.7	
	55°F 60% RH	90	105	219,845	3.2	162,780	2.3	15,791
		100	115	219,228	2.8	154,896	2.0	
		110	125	219,983	2.5	146,592	1.7	
		120	135	220,644	2.2	137,283	1.4	
		130	145	222,911	2.0	125,378	1.1	
		140	155	224,047	1.7	112,755	0.9	
		35	50	278,883	6.2	243,757	5.5	
		40	55	274,615	6.1	239,872	5.4	
		50	65	268,232	5.5	229,721	4.7	
		60	75	262,094	4.9	219,614	4.1	
	70	85	256,647	4.4	210,345	3.6		
	80	95	252,578	4.0	200,968	3.2		
90	105	250,756	3.6	192,534	2.8			
100	115	248,758	3.2	183,290	2.3			
110	125	247,857	2.8	174,058	2.0			
120	135	248,148	2.5	164,506	1.7			
130	145	248,467	2.3	154,132	1.4			
140	155	249,922	2.0	141,158	1.1			



COMMERCIAL

HEAT PUMP WATER HEATERS

Model	Entering Air Condition	Entering Water Temp (°F)	Leaving Water Temp (°F)	Supply Heating Capacity (BTU/hr)	Heating COP	Air Cooling Capacity (BTU/hr)	Cooling COP	CFM
SHPA350	65°F 60% RH	35	50	322,846	7.1	287,459	6.4	14,391
		40	55	318,792	6.9	281,785	6.1	
		50	65	310,358	6.2	271,125	5.4	
		60	75	303,187	5.5	259,090	4.7	
		70	85	296,111	5.0	246,778	4.1	
		80	95	289,570	4.4	236,535	3.6	
		90	105	282,507	4.0	223,657	3.1	
		100	115	279,207	3.5	212,242	2.7	
		110	125	276,741	3.1	202,231	2.3	
		120	135	274,951	2.8	191,974	2.0	
	75°F 60% RH	130	145	274,539	2.5	181,128	1.7	13,109
		140	155	274,592	2.3	168,972	1.4	
		35	50	367,700	7.9	333,038	7.2	
		40	55	365,007	7.5	328,128	6.8	
		50	65	355,390	6.8	316,082	6.1	
		60	75	346,180	6.1	303,463	5.4	
		70	85	337,763	5.5	290,477	4.7	
		80	95	328,607	4.9	276,583	4.1	
		90	105	320,823	4.4	262,572	3.6	
		100	115	312,560	3.8	247,452	3.1	
	85°F 60% RH	110	125	306,223	3.4	233,699	2.6	11,654
		120	135	302,201	3.1	220,696	2.2	
		130	145	299,633	2.7	208,069	1.9	
		140	155	298,019	2.5	196,075	1.6	
		35	50	401,938	8.4	367,406	7.8	
		40	55	412,031	8.2	374,397	7.5	
		50	65	405,404	7.5	363,646	6.7	
		60	75	395,214	6.7	350,265	6.0	
		70	85	383,024	6.0	334,555	5.3	
		80	95	373,651	5.4	320,112	4.6	
	95°F 60% RH	90	105	363,553	4.8	302,922	4.0	9,883
		100	115	353,776	4.2	287,775	3.5	
		110	125	344,992	3.8	270,073	3.0	
		120	135	336,284	3.4	253,253	2.5	
		130	145	327,114	3.0	235,560	2.2	
		140	155	319,620	2.7	218,142	1.8	
		35	50	418,716	8.6	381,998	7.9	
		40	55	445,443	8.6	405,739	7.9	
		50	65	452,438	8.0	409,253	7.2	
		60	75	439,848	7.2	393,545	6.5	
	70	85	427,982	6.5	377,402	5.7		
	80	95	415,843	5.8	360,513	5.0		
90	105	404,819	5.2	343,809	4.4			
100	115	395,363	4.6	328,437	3.8			
110	125	383,887	4.1	308,701	3.3			
120	135	372,912	3.6	289,830	2.8			
130	145	361,863	3.2	270,601	2.4			
140	155	350,665	2.9	249,550	2.0			