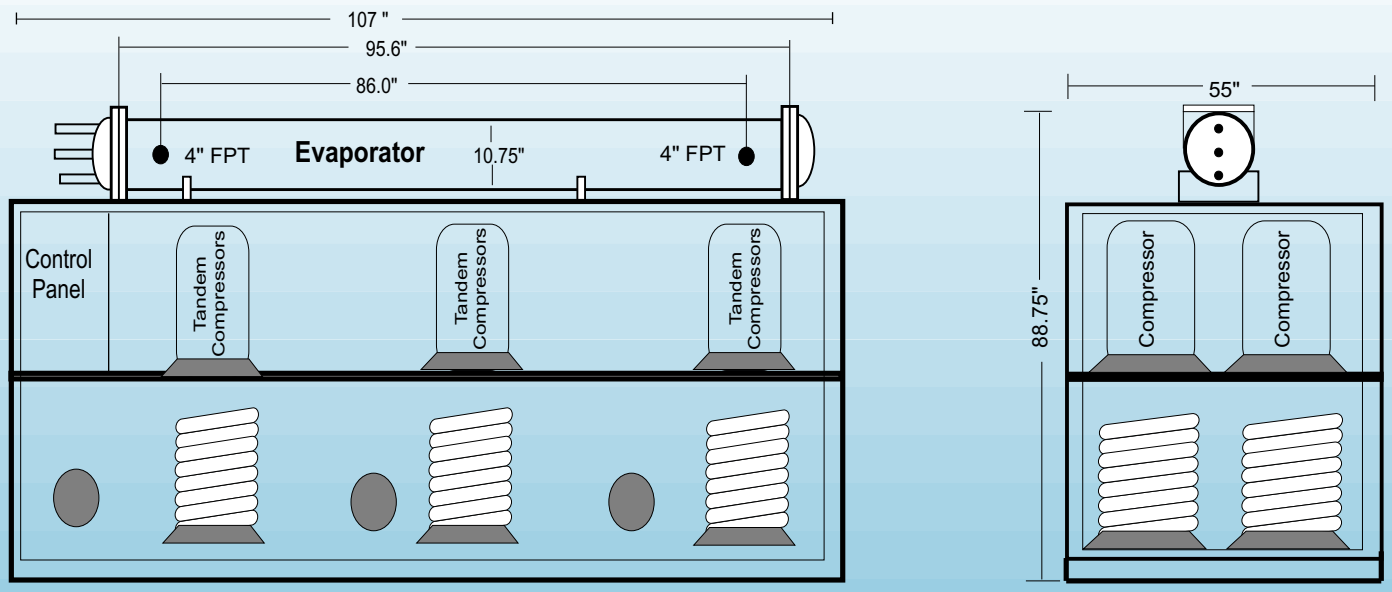
MODEL HPWS 5 MS 1561



MODEL HPWS 5 MS 1561

Heating Capacity	1,561,100 BTUH
Condenser Water Flow	280GPM
Pressure Drop (cond.)	5.2 PSI
Entering Water Temp.	100 °F
Leaving Water Temp.	111.16° F
COP	8.70
Compressors	(6) SZ-160 Maneurop Scroll
Voltage	208/230/60/3Ø
RLA/LRA	39.0/420 ea.
Control Voltage	24 Volts
Minimum Circuit Amp.	50 each compressor

Cooling Capacity	1,381,800 BTUH
Evaporator Water Flow	220 GPM
Pressure Drop (Evap.)	7.1 PSI
Entering Water Temp.	95.0°F
Leaving Water Temp.	82.43°F
Cooling EER	26.29
Condensers	Double Wall Vented
Cpnd. Construction	Tube-in-Tube
Evaporator	Tube-in-Shell
Refrigerant Type	R-134A
Minimum Unit Amperage.	300 Amp.

STANDARD FEATURES

Liquid Receiver
Compressors Service Valves
Liquid Line Sight Glass
Compressor Adjustable Time Delay
Single Phase/Voltage Protection
Condenser Flow Switch Time Delay
Evaporator Flow Switch Relay
Liquid Line Dryer
Thermostatic Expansion Valves
Hinged Control Panel
Compressor Rotation Control
High Side Pressure Control (Mechanical)
Low Side Pressure Control (Mechanical)
Fused Protection on each Compressor

Options

Four Year Extended Compressor Warranty
Warranty on all Parts & Labor Year 2 - 5
Micro-Processor Based Control System
Crank case Heaters
Refrigerant Pump Down Solenoid Valves
Condenser Water Circulating Pump for each Refrigerant Circuit

Note: In View of Continuous Product Improvements, design and specification are subject to change without Notice

Heat Harvester Energy Efficient Products
Manufactured by
Environmentally Engineered Equipment, Inc.

					MODEL HPWS 5 MS 1561											
SOURCE																
EWTEMP					ENTER WATER TEMP. F @ 120 GPM,											
95 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
CMBTUH	1,578,600	1,548,600	1,518,600	1,485,300	1,452,000	1,416,900	1,381,800	1,345,200	1,308,600	1,266,600	1,224,600	1,183,500	1,142,400	1,101,300	1,060,200	
HMBTUH	1,707,407	1,684,574	1,661,741	1,637,349	1,612,957	1,587,072	1,561,187	1,536,362	1,511,537	1,481,209	1,450,882	1,424,117	1,397,351	1,370,586	1,343,820	
WATTS	37,740	39,840	41,940	44,550	47,160	49,860	52,560	56,010	59,460	62,880	66,300	70,500	74,700	78,900	83,100	
EER	41.83	38.87	36.21	33.34	30.79	28.42	26.29	24.02	22.01	20.14	18.47	16.79	15.29	13.96	12.76	
COP	13.26	12.39	11.61	10.77	10.02	9.33	8.7	8.04	7.45	6.9	6.41	5.92	5.48	5.09	4.74	
LV. WTR	95.62	103.09	107.71	112.3	116.89	121.46	126.03	130.62	135.2	139.7	144.19	148.74	153.3	157.85	162.41	
SOURCE																
EWTEMP					ENTER WATER TEMP. F @ 120 GPM,											
90 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
CMBTUH	1,483,200	1,454,700	1,426,200	1,304,100	1,274,400	1,242,900	1,296,600	1,261,800	1,227,000	1,187,400	1,147,800	1,108,800	1,069,800	1,030,800	991,800	
HMBTUH	1,611,802	1,590,469	1,569,136	1,455,842	1,434,948	1,412,663	1,475,578	1,452,348	1,429,118	1,401,190	1,373,263	1,348,393	1,323,522	1,298,652	1,273,782	
WATTS	37,680	39,780	41,880	44,460	47,040	49,740	52,440	55,830	59,220	62,640	66,060	70,200	74,340	78,480	82,620	
EER	70	36.57	34.05	29.33	27.09	24.99	24.73	22.6	20.72	18.96	17.38	15.79	14.39	13.13	12	
COP	12.53	11.71	10.98	9.59	8.94	8.32	8.24	7.62	7.07	6.55	6.09	5.63	5.22	4.85	4.52	
LV. WTR	96.87	101.52	106.16	109.27	113.93	118.55	124.6	129.22	133.83	138.36	142.9	147.48	152.07	156.65	161.24	
SOURCE																
EWTEMP					ENTER WATER TEMP. F @ 120 GPM,											
85 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
CMBTUH	1,387,800	1,360,800	1,333,800	1,304,100	1,274,400	1,242,900	1,211,400	1,178,400	1,145,400	1,108,200	1,071,000	1,034,100	997,200	960,300	923,400	
HMBTUH	1,516,402	1,496,569	1,476,736	1,455,842	1,434,948	1,412,663	1,390,378	1,368,948	1,347,518	1,321,990	1,296,463	1,273,693	1,250,922	1,228,152	1,205,382	
WATTS	37,680	39,780	41,880	44,460	47,040	49,740	52,440	55,830	59,220	62,640	66,060	70,200	74,340	78,480	82,620	
EER	36.83	34.21	31.85	29.33	27.09	24.99	23.1	21.11	19.34	17.69	16.21	14.73	13.41	12.24	11.18	
COP	11.79	11.02	10.33	9.59	8.94	8.32	7.77	7.18	6.67	6.18	5.75	5.32	4.93	4.59	4.27	
LV. WTR	95.28	99.95	104.62	109.27	113.93	118.55	123.18	127.82	132.47	137.04	141.62	146.24	150.86	155.48	160.1	
SOURCE																
EWTEMP					ENTER WATER TEMP. F @ 120 GPM,											
80 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
CMBTUH	1,292,400	1,266,900	1,241,400	1,213,500	1,185,600	1,155,900	1,126,200	1,095,000	1,063,800	1,029,000	994,200	959,400	924,600	889,800	855,000	
HMBTUH	1,420,797	1,402,464	1,384,132	1,364,935	1,345,738	1,325,253	1,304,768	1,284,933	1,265,099	1,241,971	1,218,844	1,197,969	1,177,094	1,156,219	1,135,344	
WATTS	37,620	39,720	41,820	44,370	46,920	49,620	52,320	55,650	58,980	62,400	65,820	69,900	73,980	78,060	82,140	
EER	34.35	31.9	29.68	27.35	25.27	23.3	21.53	19.68	18.04	16.49	15.1	13.73	12.5	11.4	10.41	
COP	11.07	10.35	9.7	9.01	8.4	7.83	7.31	6.77	6.28	5.83	5.43	5.02	4.66	4.34	4.05	
LV. WTR	93.69	98.38	103.08	107.76	112.44	117.1	121.75	126.42	131.09	135.71	140.32	144.97	149.63	154.28	158.93	
SOURCE																
EWTEMP					ENTER WATER TEMP. F @ 120 GPM,											
75 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
CMBTUH	1,197,000	1,173,000	1,149,000	1,122,900	1,096,800	1,068,900	1,041,000	1,011,600	982,200	949,800	917,400	884,700	852,000	819,300	786,600	
HMBTUH	1,325,192	1,308,360	1,291,527	1,274,028	1,256,528	1,237,844	1,219,159	1,200,919	1,182,680	1,161,952	1,141,225	1,122,245	1,103,265	1,084,285	1,065,306	
WATTS	37,560	39,660	41,760	44,280	46,800	49,500	52,200	55,470	58,740	62,160	65,580	69,600	73,620	77,640	81,660	
EER	31.87	29.58	27.51	25.36	23.44	21.59	19.94	18.24	16.72	15.28	13.99	12.71	11.57	10.55	9.63	
COP	10.34	9.67	9.06	8.43	7.87	7.33	6.84	6.34	5.9	5.48	5.1	4.72	4.39	4.09	3.82	
LV. WTR	92.1	96.81	101.53	106.24	110.95	115.64	120.33	125.02	129.72	134.37	139.03	143.71	148.4	153.08	157.76	
SOURCE																
EWTEMP					ENTER WATER TEMP. F @ 120 GPM,											
70 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
CMBTUH	1,101,600	1,079,100	1,056,600	1,032,300	1,008,000	981,900	955,800	928,200	900,600	870,600	840,600	810,000	779,400	748,800	718,200	
HMBTUH	1,229,588	1,214,255	1,198,922	1,183,120	1,167,319	1,150,434	1,133,549	1,116,905	1,100,261	1,081,933	1,063,605	1,046,521	1,029,436	1,012,352	995,267	
WATTS	37,500	39,600	41,700	44,190	46,680	49,380	52,080	55,290	58,500	61,920	65,340	69,300	73,260	77,220	81,180	
EER	29.38	27.25	25.34	23.36	21.59	19.88	18.35	16.79	15.39	14.06	12.87	11.69	10.64	9.7	8.85	
COP	9.61	8.98	8.42	7.84	7.33	6.83	6.38	5.92	5.51	5.12	4.77	4.42	4.12	3.84	3.59	
LV. WTR	90.5	95.25	99.99	104.73	109.46	114.18	118.9	123.62	128.35	133.04	137.73	142.45	147.16	151.88	156.59	
SOURCE																
EWTEMP					ENTER WATER TEMP. F @ 60 GPM,											
65 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
CMBTUH	1,006,200	985,200	964,200	941,700	919,200	894,900	870,600	844,800	819,000	791,400	763,800	735,300	706,800	678,300	649,800	
HMBTUH	1,133,778	1,119,945	1,106,113	1,091,906	1,077,700	1,062,615	1,047,530	1,032,276	1,017,022	1,001,095	985,167	969,773	954,379	938,985	923,591	
WATTS	37,380	39,480	41,580	44,010	46,440	49,140	51,840	54,930	58,020	61,440	64,860	68,700	72,540	76,380	80,220	
EER	26.92	24.95	23.19	21.4	19.79	18.21	16.79	15.38	14.12	12.88	11.78	10.7	9.74	8.88	8.1	
COP	8.89	8.31	7.79	7.27	6.8	6.34	5.92	5.51	5.14	4.77	4.45	4.14	3.85	3.6	3.37	
LV. WTR	107.81	112.35	116.89	121.41	125.94	130.43	134.93	139.42	143.91	148.38	152.85	157.34	161.83	166.31	170.8	
SOURCE																
EWTEMP					ENTER WATER TEMP. F @ 60 GPM,											
60 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	
CMBTUH	910,800	891,300	871,800	851,100	830,400	807,900	785,400	761,400	737,400	712,200	687,000	660,600	634,200	607,800	581,400	
HMBTUH	1,038,173	1,025,840	1,013,508	1,000,999	988,490	975,205	961,920	948,262	934,603	921,076	907,548	894,049	880,550	867,051	853,553	
WATTS	37,320	39,420	41,520	43,920	46,320	49,020	51,720	54,750	57,780	61,200	64,620	68,400	72,180	75,960	79,740	
EER	24.41	22.61	21	19.38	17.93	16.48	15.19	13.91	12.76	11.64	10.63	9.66	8.79	8	7.29	
COP	8.15	7.62	7.15	6.68	6.25	5.83	5.45	5.07	4.74	4.41	4.11	3.83	3.57	3.34	3.14	
LV. WTR	104.62	109.21	113.8	118.38	122.96	127.52	132.08	136.62	141.17	145.71	150.26	154.81	159.36	163.91	168.46	
SOURCE																
EWTEMP					ENTER WATER TEMP. F @ 60 GPM,											
55 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140	

CMBTUH	822,000	804,300	786,600	767,100	747,600	726,900	706,200	684,300	662,400	639,000	615,600	591,300	567,000	542,700	518,400
HMBTUH	949,168	938,533	927,898	916,487	905,076	893,489	881,901	870,343	858,784	846,852	834,919	823,521	812,122	800,723	789,324
WATTS	37,260	39,330	41,400	43,770	46,140	48,810	51,480	54,510	57,540	60,900	64,260	68,040	71,820	75,600	79,380
EER	22.06	20.45	19	17.53	16.2	14.89	13.72	12.55	11.51	10.49	9.58	8.69	7.89	7.18	6.53
COP	7.46	6.99	6.57	6.13	5.75	5.36	5.02	4.68	4.37	4.07	3.81	3.55	3.31	3.1	2.91
LV. WTR	101.65	106.3	110.94	115.56	120.18	124.79	129.41	134.02	138.64	143.24	147.84	152.46	157.08	161.7	166.32
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 60 GPM,										
50 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	739,800	723,300	706,800	689,100	671,400	652,200	633,000	612,900	592,800	571,500	550,200	527,700	505,200	482,700	460,200
HMBTUH	866,559	857,021	847,484	837,873	828,261	818,072	807,882	798,021	788,160	778,328	768,495	758,794	749,093	739,392	729,690
WATTS	37,140	39,180	41,220	43,590	45,960	48,600	51,240	54,240	57,240	60,600	63,960	67,710	71,460	75,210	78,960
EER	19.92	18.46	17.15	15.81	14.61	13.42	12.35	11.3	10.36	9.43	8.6	7.79	7.07	6.42	5.83
COP	6.84	6.41	6.02	5.63	5.28	4.93	4.62	4.31	4.03	3.76	3.52	3.28	3.07	2.88	2.71
LV. WTR	98.9	103.58	108.26	112.94	117.62	122.28	126.94	131.61	136.28	140.95	145.63	150.3	154.98	159.66	164.33