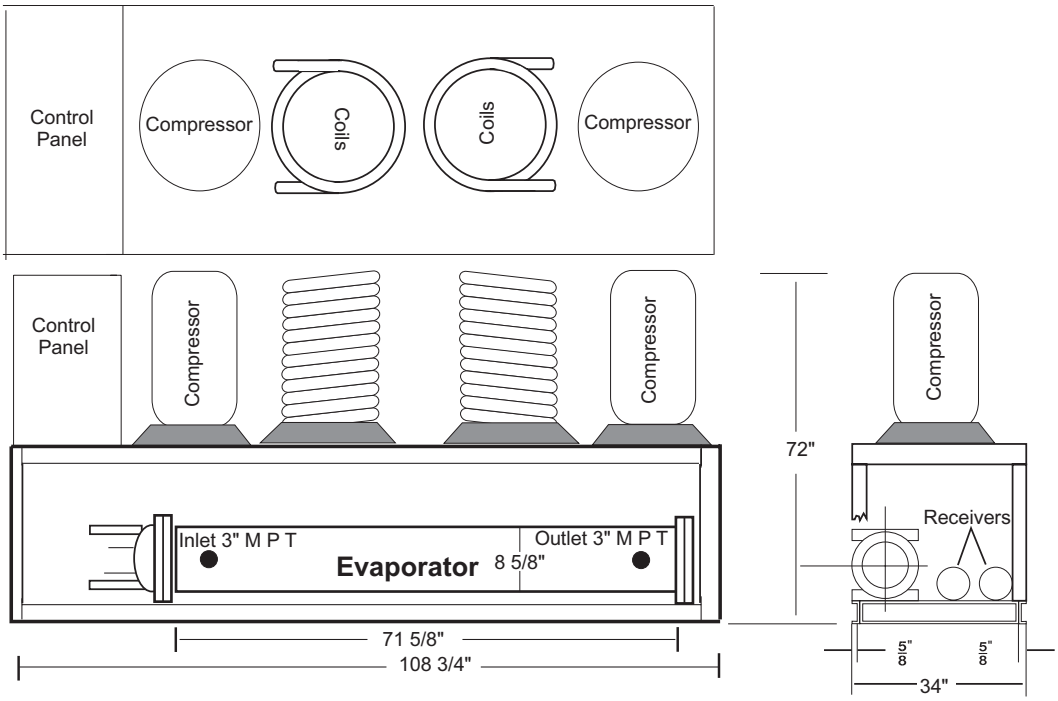
HPWS 5 DS 520



MODEL—HPWS 5 DS 520

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

Heating Capacity	520,300 BTUH
Condenser Water Flow	100 GPM
Pressure Drop (cond.)	5.2 PSI
Entering Water Temp.	100 °F
Leaving Water Temp.	110.41 °F
COP	8.7
Compressors	(2) SZ-160 Maneurop Scroll
Voltage	208/230/60/3Ø
RLA/LRA	34.6/420 ea.
Control Voltage	24 Volts
Minimum Circuit Amp.	40 each compressor

Cooling Capacity	460,600 BTUH
Evaporator Water Flow	50 GPM
Pressure Drop (Evap.)	2.89 PSI
Entering Water Temp.	95.0°F
Leaving Water Temp.	76.57°F
Cooling EER	26.29
Condensers	Double Wall Vented
Cpnd. Construction	Tube-in-Tube
Evaporator	Tube-n-Shell
Refrigerant Type	R-134A
Minimum Unit Amperage.	100.0 Amp.

STANDARD FEATURES

Liquid Receiver
Compressors Service Valves
Liquid Line Sight Glass
Compressor Adjustable Time Delay Relay
Single Phase/Voltage Protection
Condenser Flow Switch Relay
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 for Parts & Labor Year 2 - 5
Micro-Processor Based Control System
Crankcase Heaters
Refrigerant Pump Down Solenoid Valves
Condenser Water Circulating Pump for each Refrigerant Circuit

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

					MODEL HPWS 5 DS 520										
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 100 GPM,										
95 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	526,200	516,200	506,200	495,100	484,000	472,300	460,600	448,400	436,200	422,200	408,200	394,500	380,800	367,100	353,400
HMBTUH	569,136	561,525	553,914	545,783	537,652	529,024	520,396	512,121	503,846	493,736	483,627	474,706	465,784	456,862	447,940
WATTS	12,580	13,280	13,980	14,850	15,720	16,620	17,520	18,670	19,820	20,960	22,100	23,500	24,900	26,300	27,700
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	81.39	86.23	91.08	95.92	100.76	105.58	110.41	115.25	120.08	124.88	129.68	134.5	139.32	144.14	148.96
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 100 GPM,										
90 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	494,400	484,900	475,400	434,700	424,800	414,300	432,200	420,600	409,000	395,800	382,600	369,600	356,600	343,600	330,600
HMBTUH	537,267	530,156	523,045	485,281	478,316	470,888	491,859	484,116	476,373	467,063	457,754	449,464	441,174	432,884	424,594
WATTS	12,560	13,260	13,960	14,820	15,680	16,580	17,480	18,610	19,740	20,880	22,020	23,400	24,780	26,160	27,540
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	80.75	85.61	90.47	94.71	99.57	104.42	109.84	114.69	119.53	124.35	129.16	133.99	138.83	143.66	148.5
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 100 GPM,										
85 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	462,600	453,600	444,600	434,700	424,800	414,300	403,800	392,800	381,800	369,400	357,000	344,700	332,400	320,100	307,800
HMBTUH	505,467	498,856	492,245	485,281	478,316	470,888	463,459	456,316	449,173	440,663	432,154	424,564	416,974	409,384	401,794
WATTS	12,560	13,260	13,960	14,820	15,680	16,580	17,480	18,610	19,740	20,880	22,020	23,400	24,780	26,160	27,540
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	80.11	84.98	89.85	94.71	99.57	104.42	109.27	114.13	118.99	123.82	128.65	133.49	138.34	143.19	148.04
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 100 GPM,										
80 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	430,800	422,300	413,800	404,500	395,200	385,300	375,400	365,000	354,600	343,000	331,400	319,800	308,200	296,600	285,000
HMBTUH	473,599	467,488	461,377	454,978	448,579	441,751	434,923	428,311	421,700	413,990	406,281	399,323	392,365	385,406	378,448
WATTS	12,540	13,240	13,940	14,790	15,640	16,540	17,440	18,550	19,660	20,800	21,940	23,300	24,660	26,020	27,380
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	79.48	84.35	89.23	94.1	98.98	103.84	108.7	113.57	118.44	123.28	128.13	132.99	137.85	142.71	147.57
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 100 GPM,										
75 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	399,000	391,000	383,000	374,300	365,600	356,300	347,000	337,200	327,400	316,600	305,800	294,900	284,000	273,100	262,200
HMBTUH	441,731	436,120	430,509	424,676	418,843	412,615	406,386	400,306	394,227	387,317	380,408	374,082	367,755	361,428	355,102
WATTS	12,520	13,220	13,920	14,760	15,600	16,500	17,400	18,490	19,580	20,720	21,860	23,200	24,540	25,880	27,220
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	78.84	83.73	88.61	93.5	98.38	103.26	108.13	113.01	117.89	122.75	127.61	132.48	137.36	142.23	147.1
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 100 GPM,										
70 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	367,200	359,700	352,200	344,100	336,000	327,300	318,600	309,400	300,200	290,200	280,200	270,000	259,800	249,600	239,400
HMBTUH	409,863	404,752	399,641	394,373	389,106	383,478	377,850	372,302	366,754	360,644	354,535	348,840	343,145	337,451	331,756
WATTS	12,500	13,200	13,900	14,730	15,560	16,460	17,360	18,430	19,500	20,640	21,780	23,100	24,420	25,740	27,060
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	78.2	83.1	88	92.89	97.79	102.67	107.56	112.45	117.34	122.22	127.09	131.98	136.87	141.75	146.64
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 80 GPM,										
65 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	335,400	328,400	321,400	313,900	306,400	298,300	290,200	281,600	273,000	263,800	254,600	245,100	235,600	226,100	216,600
HMBTUH	377,926	373,315	368,704	363,969	359,233	354,205	349,177	344,092	339,007	333,698	328,389	323,258	318,126	312,995	307,864
WATTS	12,460	13,160	13,860	14,670	15,480	16,380	17,280	18,310	19,340	20,480	21,620	22,900	24,180	25,460	26,740
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	79.45	84.34	89.22	94.1	98.98	103.86	108.73	113.61	118.48	123.35	128.21	133.08	137.96	142.83	147.7
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 80 GPM,										
60 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	303,600	297,100	290,600	283,700	276,800	269,300	261,800	253,800	245,800	237,400	229,000	220,200	211,400	202,600	193,800
HMBTUH	346,058	341,947	337,836	333,666	329,497	325,068	320,640	316,087	311,534	307,025	302,516	298,016	293,517	289,017	284,518
WATTS	12,440	13,140	13,840	14,640	15,440	16,340	17,240	18,250	19,260	20,400	21,540	22,800	24,060	25,320	26,580
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	78.65	83.55	88.45	93.34	98.24	103.13	108.02	112.91	117.79	122.68	127.57	132.45	137.34	142.23	147.12
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 80 GPM,										
55 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	274,000	268,100	262,200	255,700	249,200	242,300	235,400	228,100	220,800	213,000	205,200	197,100	189,000	180,900	172,800
HMBTUH	316,389	312,844	309,299	305,496	301,692	297,830	293,967	290,114	286,261	282,284	278,306	274,507	270,707	266,908	263,108
WATTS	12,420	13,110	13,800	14,590	15,380	16,270	17,160	18,170	19,180	20,300	21,420	22,680	23,940	25,200	26,460
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	77.91	82.82	87.74	92.64	97.55	102.45	107.35	112.26	117.16	122.06	126.96	131.87	136.77	141.68	146.58
SOURCE															
EWTEMP					ENTER WATER TEMP. F @ 80 GPM,										
50 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	246,600	241,100	235,600	229,700	223,800	217,400	211,000	204,300	197,600	190,500	183,400	175,900	168,400	160,900	153,400
HMBTUH	288,853	285,674	282,495	279,291	276,087	272,691	269,294	266,007	262,720	259,443	256,165	252,931	249,698	246,464	243,230
WATTS	12,380	13,060	13,740	14,530	15,320	16,200	17,080	18,080	19,080	20,200	21,320	22,570	23,820	25,070	26,320
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	77.22	82.14	87.07	91.99	96.9	101.82	106.74	111.65	116.57	121.49	126.41	131.33	136.24	141.16	146.08