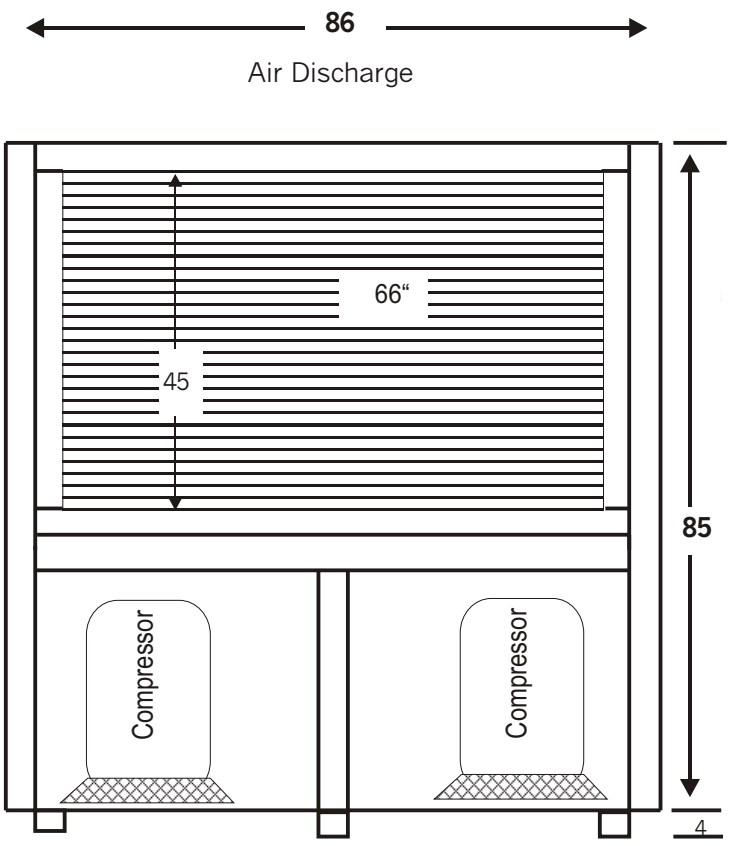
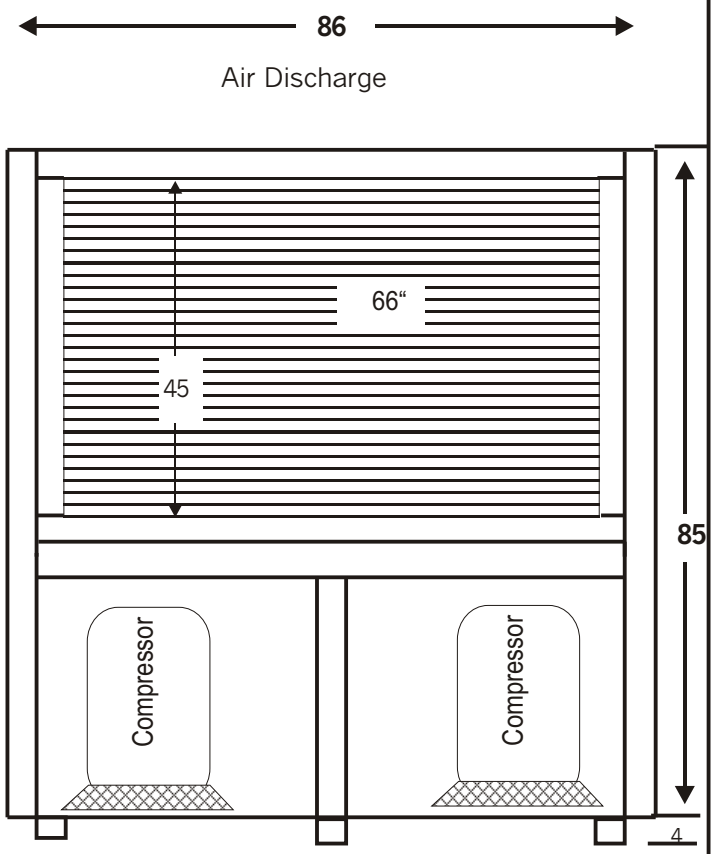
HPAS 5 MS 80 HP - 60-4



Front & Rear View

HPAS 5 MS 80 HP - 60-4



Left & Right Side View

Heating Capacity	1,151.6 MBTUH
Condenser Water Flow	200 GPM
Pressure Drop (cond.)	4.5 PSI
Entering Water Temp.	100
Leaving Water Temp.	111
COP	52
Compressors	5.82
Voltage	(4) SZ240 Maneurop Scroll
RLA/LRA	460/3/60
Control Voltage	35.7/215
Minimum Circuit Amp.	24 Volts
	50 compressor - ea.

Cooling Capacity	880.9MBTUH
Evaporator Construction	Copper/Aluminum
Cabinet Construction	G-0- Galvanized
Entering Wet Bulb Temp.	72 F
Water Pump 2 - 2.0 HP ea.	460/3/60-
Cooling EER	15.43
Condensers	Double Wall Vented
Construction (Cond.)	Tube-in-Tube460/1
Fans (4) 1.5 HP	R-134a
Refrigerant Type	162 Amp.
Minimum Unit Amperage.	

STANDARD FEATURES

Liquid Receiver
Compressors Service Valves
Liquid Line Sight Glass
Comp Time Delay
Phase/Current Protection
One Year Warranty on all Parts
Liquid Line Dryer
Thermostatic Expansion Valves
Insulated Suction Lines
High Side Pressure Control
Low Side Pressure Control
Hinged Control Panel

Options

Micro-Processor Based Control System
Painted Galvanize
Blower
Refrigerant Pump Down Solenoid Valves
TechniCoat 10-1 Evaporator Coil Coating
Warranty on all Parts & Labor Year 2-5

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

Heat Harvester Energy Efficient Products
Manufactured by
H H Systems, Inc.

					MODEL HPAS 5 MS 80 HP 60 - 4										
WB TE,P					ENTERING WATER TEMP. F @ 200 GPM										
72 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	1,100,879	1,078,062	1,055,246	1,031,235	1,007,224	982,199	957,173	880,888	804,603	827,825	851,047	823,374	795,701	768,027	740,354
HMBTUH	1,251,723	1,235,121	1,218,521	1,201,742	1,184,963	1,168,283	1,151,605	1,084,900	1,018,195	1,052,318	1,086,445	1,071,110	1,055,775	1,040,439	1,025,104
WATTS	45,447	47,268	49,089	51,208	53,327	55,772	58,218	61,025	63,832	67,026	70,221	73,836	77,451	81,066	84,681
EER	24	23	22	20	19	18	16	14	13	12	12	11	10	9	9
COP	8.07	7.66	7.27	6.88	6.51	6.14	5.8	5.21	4.67	4.6	4.53	4.25	3.99	3.76	3.55
LV. WTR	82.52	87.36	92.19	97.02	101.85	106.69	111.52	115.85	120.19	125.53	130.87	135.72	140.56	145.41	150.26
WB TE,P					ENTERING WATER TEMP. F @ 200 GPM										
67 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	1,013,320	992,093	970,866	948,510	926,155	902,782	879,409	830,848	780,697	780,697	780,697	754,940	729,183	703,426	677,669
HMBTUH	1,160,758	1,145,873	1,130,987	1,115,959	1,100,931	1,085,978	1,071,028	1,032,089	991,559	1,002,481	1,013,402	999,980	986,554	973,131	959,706
WATTS	44,449	46,307	48,165	50,312	52,459	54,926	57,394	60,213	63,032	66,232	69,432	73,046	76,659	80,273	83,886
EER	23	21	20	19	18	16	15	14	12	12	11	10	10	9	8
COP	7.65	7.25	6.88	6.5	6.15	5.79	5.47	5.02	4.61	4.43	4.28	4.01	3.77	3.55	3.35
LV. WTR	81.61	86.46	91.31	96.16	101.01	105.86	110.71	115.33	119.92	125.03	130.14	135	139.87	144.74	149.6
WB TE,P					ENTERING WATER TEMP. F @ 200 GPM										
62 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	925,760	906,123	886,486	865,786	845,085	823,364	801,644	779,217	756,791	733,569	710,347	686,506	662,665	638,825	614,984
HMBTUH	1,069,792	1,056,619	1,043,450	1,030,177	1,016,902	1,003,676	990,448	977,686	964,923	952,643	940,359	928,849	917,336	905,824	894,311
WATTS	43,451	45,345	47,240	49,416	51,592	54,081	56,569	59,401	62,232	65,438	68,643	72,256	75,868	79,480	83,092
EER	21	20	19	18	16	15	14	13	12	11	10	10	9	8	7
COP	7.21	6.83	6.47	6.11	5.78	5.44	5.13	4.82	4.54	4.27	4.01	3.77	3.54	3.34	3.15
LV. WTR	80.7	85.57	90.44	95.31	100.17	105.04	109.91	114.78	119.65	124.53	129.41	134.29	139.18	144.06	148.95
WB TE,P					ENTERING WATER TEMP. F @ 200 GPM										
57 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	843,953	825,751	807,549	788,418	769,287	749,269	729,251	708,458	687,665	666,208	644,752	622,744	600,736	578,729	556,721
HMBTUH	984,866	973,240	961,615	949,996	938,374	926,912	915,447	904,351	893,254	882,746	872,242	862,541	852,844	843,148	833,447
WATTS	42,537	44,464	46,391	48,592	50,792	53,299	55,805	58,646	61,487	64,695	67,904	71,510	75,117	78,724	82,330
EER	20	19	17	16	15	14	13	12	11	10	10	9	8	7	7
COP	6.78	6.41	6.07	5.73	5.41	5.1	4.81	4.52	4.26	4	3.76	3.53	3.33	3.14	2.97
LV. WTR	79.85	84.74	89.62	94.5	99.39	104.27	109.16	114.05	118.94	123.83	128.73	133.63	138.53	143.43	148.34
WB TE,P					ENTERING WATER TEMP. F @ 200 GPM										
52 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	767,268	750,553	733,837	716,188	698,540	680,071	661,602	642,425	623,247	603,471	583,696	563,434	543,173	522,912	502,651
HMBTUH	905,320	895,285	885,248	875,183	865,122	855,253	845,385	835,928	826,471	817,637	808,807	800,829	792,848	784,870	776,892
WATTS	41,699	43,656	45,613	47,835	50,058	52,578	55,098	57,946	60,794	64,000	67,207	70,806	74,404	78,003	81,602
EER	18	17	16	15	14	13	12	11	10	9	9	8	7	7	6
COP	6.36	6.01	5.69	5.36	5.06	4.77	4.5	4.23	3.98	3.74	3.53	3.31	3.12	2.95	2.79
LV. WTR	79.06	83.96	88.86	93.76	98.65	103.56	108.46	113.36	118.27	123.18	128.09	133.01	137.93	142.85	147.77
WB TE,P					ENTERING WATER TEMP. F @ 200 GPM										
47 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	695,896	680,511	665,127	648,876	632,626	615,620	598,615	580,966	563,317	545,137	526,956	508,356	489,755	471,154	452,554
HMBTUH	831,358	822,738	814,115	805,516	796,914	788,546	780,180	772,258	764,339	757,091	749,839	743,467	737,092	730,716	724,341
WATTS	40,940	42,922	44,903	47,145	49,386	51,917	54,448	57,298	60,149	63,352	66,554	70,137	73,719	77,301	80,883
EER	17	16	15	14	13	12	11	10	9	9	8	7	7	6	6
COP	5.95	5.62	5.31	5.01	4.73	4.45	4.2	3.95	3.72	3.5	3.3	3.11	2.93	2.77	2.62
LV. WTR	78.32	83.23	88.14	93.06	97.97	102.89	107.8	112.73	117.65	122.57	127.5	132.44	137.37	142.31	147.25
WB TE,P					ENTERING WATER TEMP. F @ 200 GPM										
42 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	629,476	615,337	601,199	586,261	571,322	555,693	540,064	523,860	507,655	490,983	474,311	305,334	0	0	0
HMBTUH	762,590	755,294	747,996	740,754	733,511	726,544	719,578	713,101	706,626	700,855	695,088	537,008	0	0	0
WATTS	40,252	42,257	44,261	46,516	48,771	51,309	53,847	56,697	59,548	62,742	65,937	69,130	1,250	1,250	1,250
EER	16	15	14	13	12	11	10	9	9	8	7	4	0	0	0
COP	5.55	5.24	4.95	4.67	4.41	4.15	3.92	3.69	3.48	3.27	3.09	2.28	0	0	0
LV. WTR	77.63	82.56	87.48	92.41	97.34	102.27	107.2	112.13	117.07	122.01	126.95	130.37	130	135	140
LV. WTR	74.8	79.75	84.7	89.66	94.61	99.56	104.51	110.43	114.42	119.38	124.33	129.29	134.25	139.21	144.17