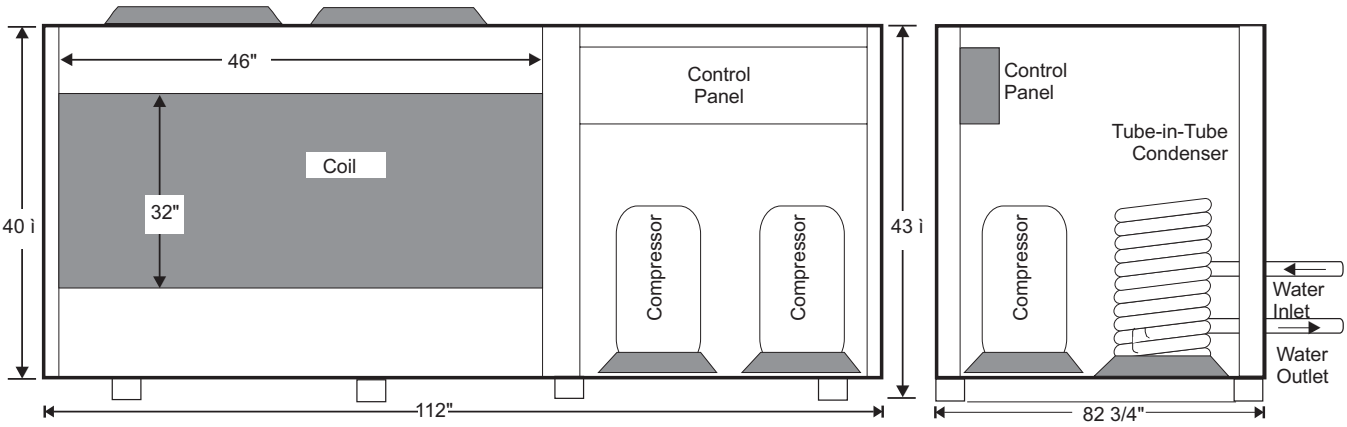

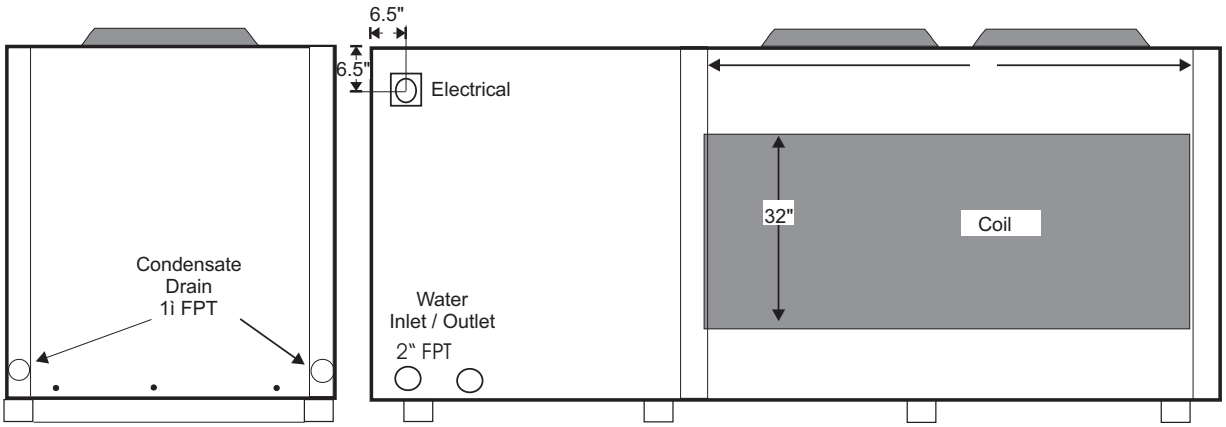

MODEL HPAS 2 DS 357

Heating Capacity	357,000 BTUH
Condenser Water Flow	80 GPM
Pressure Drop (cond.)	5.2 PSI
Entering Water Temp.	100 °F
Leaving Water Temp.	108.93 °F
COP	552
Compressors	(2) SM 115 Scroll
Voltage	460/60/3Ø
RLA/LRA	13.8/120 ea.
Control Voltage	24 Volts
Minimum Circuit Amp.	30 compressor ea.

Cooling Capacity	300000 BTUH
Evaporator Construction	Copper/Aluminum
Cabinet Construction	Galvanized Steel
Entering Wet Bulb Temp.	72.0°F
Water Pump—2 - ¾ HP	460/3/60 - 1.5Amp ea.
Cooling EER	15.63
Condensers	Double Wall Vented
Construction (Cond.)	Tube-in-Tube
Fan 2 - ¾ HP	460/3/60 -1.6Amp ea.
Refrigerant Type	R-22
Minimum Unit Amperage.	75 Amp.

STANDARD FEATURES

- Liquid Receiver
- Compressors Service Valves
- Liquid Line Sight Glass
- Insulated Compressor Compartment
- Compressors Adjustable Time Delay Relay
- Single Phase/Voltage Protection
- Five Year Compressor Warranty
- Liquid Line Dryer
- Thermostatic Expansion Valves
- Hinged Control Panel
- Pre- Wired Mechanical Controls
- Insulated Suction Lines
- High Side Pressure Control
- Low Side Pressure Control

Options

- Micro-Processor Based Control System
- Painted Galvanize
- 304 or 316 Stainless Steel
- Refrigerant Pump Down Solenoid Valves
- Blower
- TechniCoat 10-1 Evaporator 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 2 DS 357								
WB TE,P					ENTERING WATER TEMP. F @ 80 GPM								
72 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130
CMBTUH	344,000	337,200	330,400	322,800	315,200	307,600	300,000	291,800	283,600	274,800	266,000	256,600	247,200
HMBTUH	385,775	381,228	376,680	371,606	366,532	361,833	357,134	352,210	347,287	342,275	337,263	332,061	326,859
WATTS	14,440	15,100	15,760	16,500	17,240	18,090	18,940	19,900	20,860	21,970	23,080	24,310	25,540
EER	23.82	22.33	20.96	19.56	18.28	17	15.84	14.66	13.6	12.51	11.53	10.56	9.68
COP	7.83	7.4	7	6.6	6.23	5.86	5.52	5.19	4.88	4.56	4.28	4	3.75
LV. WTR	79.65	84.53	89.42	94.29	99.17	104.05	108.93	113.81	118.69	123.56	128.43	133.3	138.17
WB TE,P					ENTERING WATER TEMP. F @ 80 GPM								
67 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130
CMBTUH	317,000	310,600	304,200	297,300	290,400	283,100	275,800	268,100	260,400	252,200	244,000	235,300	226,600
HMBTUH	358,639	354,491	350,344	346,004	341,663	337,298	332,934	328,544	324,155	319,743	315,332	310,864	306,396
WATTS	14,400	15,060	15,720	16,470	17,220	18,080	18,940	19,910	20,880	21,990	23,100	24,340	25,580
EER	22.01	20.62	19.35	18.05	16.86	15.66	14.56	13.47	12.47	11.47	10.56	9.67	8.86
COP	7.3	6.9	6.53	6.16	5.81	5.47	5.15	4.83	4.55	4.26	4	3.74	3.51
LV. WTR	78.97	83.87	88.76	93.65	98.54	103.44	108.33	113.22	118.11	123	127.89	132.77	137.66
WB TE,P					ENTERING WATER TEMP. F @ 80 GPM								
62 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130
CMBTUH	290,000	284,000	278,000	271,800	265,600	258,600	251,600	244,400	237,200	229,600	222,000	214,000	206,000
HMBTUH	331,502	327,755	324,007	320,401	316,795	312,764	308,734	304,878	301,023	297,212	293,400	289,666	285,932
WATTS	14,360	15,020	15,680	16,440	17,200	18,070	18,940	19,920	20,900	22,010	23,120	24,370	25,620
EER	20.19	18.91	17.73	16.53	15.44	14.31	13.28	12.27	11.35	10.43	9.6	8.78	8.04
COP	6.76	6.39	6.05	5.71	5.4	5.07	4.78	4.48	4.22	3.96	3.72	3.48	3.27
LV. WTR	78.29	83.2	88.1	93.01	97.92	102.82	107.72	112.63	117.53	122.43	127.34	132.24	137.15
WB TE,P					ENTERING WATER TEMP. F @ 80 GPM								
57 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130
CMBTUH	264,400	258,900	253,400	247,500	241,600	235,300	229,000	222,300	215,600	208,600	201,600	194,200	186,800
HMBTUH	305,766	302,552	299,339	296,033	292,727	289,430	286,134	282,812	279,491	276,314	273,136	270,003	266,869
WATTS	14,320	14,990	15,660	16,420	17,180	18,060	18,940	19,930	20,920	22,040	23,160	24,410	25,660
EER	18.46	17.27	16.18	15.07	14.06	13.03	12.09	11.15	10.31	9.46	8.7	7.96	7.28
COP	6.26	5.91	5.6	5.28	4.99	4.7	4.43	4.16	3.91	3.67	3.46	3.24	3.05
LV. WTR	77.65	82.57	87.49	92.4	97.32	102.24	107.16	112.07	116.99	121.91	126.83	131.75	136.67
WB TE,P					ENTERING WATER TEMP. F @ 80 GPM								
52 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130
CMBTUH	240,600	235,500	230,400	224,900	219,400	213,500	207,600	201,500	195,400	188,900	182,400	175,500	168,600
HMBTUH	281,829	279,016	276,202	273,330	270,458	267,562	264,665	261,978	259,291	256,648	254,005	251,405	248,806
WATTS	14,280	14,950	15,620	16,390	17,160	18,040	18,920	19,920	20,920	22,050	23,180	24,440	25,700
EER	16.85	15.75	14.75	13.72	12.79	11.83	10.97	10.12	9.34	8.57	7.87	7.18	6.56
COP	5.78	5.47	5.18	4.89	4.62	4.35	4.1	3.85	3.63	3.41	3.21	3.01	2.84
LV. WTR	77.05	81.98	86.91	91.84	96.76	101.69	106.62	111.55	116.48	121.42	126.35	131.29	136.22
WB TE,P					ENTERING WATER TEMP. F @ 80 GPM								
47 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130
CMBTUH	218,200	213,500	208,800	203,700	198,600	193,200	187,800	182,100	176,400	170,400	164,400	158,100	151,800
HMBTUH	259,293	256,913	254,534	252,062	249,590	247,228	244,865	242,578	240,291	238,148	236,005	234,039	232,074
WATTS	14,240	14,920	15,600	16,370	17,140	18,030	18,920	19,920	20,920	22,050	23,180	24,450	25,720
EER	15.32	14.31	13.38	12.44	11.59	10.72	9.93	9.14	8.43	7.73	7.09	6.47	5.9
COP	5.34	5.05	4.78	4.51	4.27	4.02	3.79	3.57	3.37	3.16	2.98	2.8	2.64
LV. WTR	76.48	81.43	86.37	91.3	96.24	101.18	106.12	111.07	116.01	120.96	125.9	130.85	135.8
WB TE,P					ENTERING WATER TEMP. F @ 80 GPM								
42 DEG	70	75	80	85	90	95	100	105	110	115	120	125	130
CMBTUH	197,400	193,000	188,600	183,900	179,200	174,200	169,200	164,000	158,800	153,300	147,800	141,400	135,000
HMBTUH	238,356	236,959	235,563	232,842	230,122	228,160	226,197	224,444	222,691	221,082	219,473	217,408	215,342
WATTS	14,200	15,080	15,960	16,540	17,120	18,010	18,900	19,910	20,920	22,060	23,200	24,470	25,740
EER	13.9	12.8	11.82	11.12	10.47	9.67	8.95	8.24	7.59	6.95	6.37	5.78	5.24
COP	4.92	4.6	4.32	4.12	3.94	3.71	3.51	3.3	3.12	2.94	2.77	2.6	2.45
LV. WTR	75.96	80.93	85.89	90.82	95.76	100.71	105.66	110.61	115.57	120.53	125.49	130.44	135.39