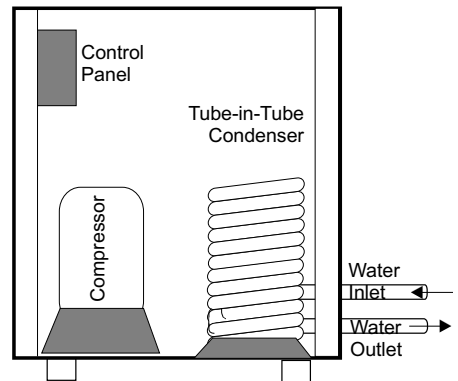
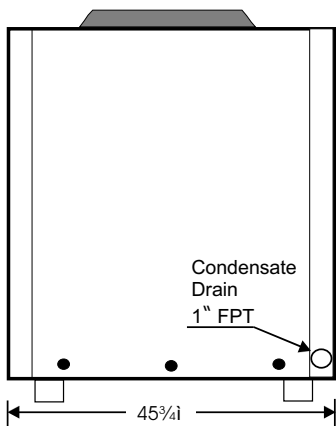


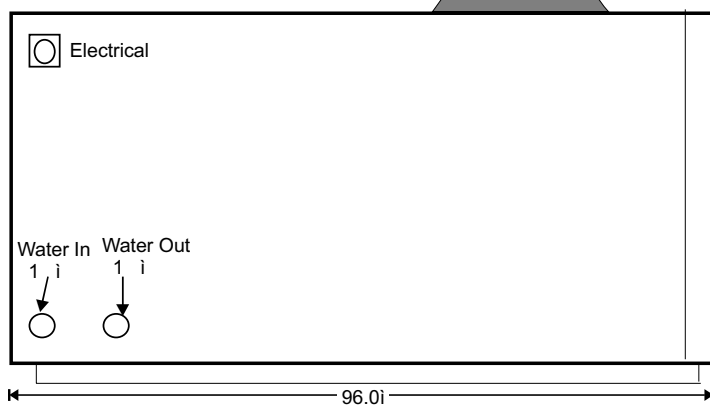
Front View



Right Side



Left Side



Back View

MODEL HPAS 5 SS 189

Heating Capacity	188,800 BTUH
Condenser Water Flow	40 GPM
Pressure Drop (cond.)	5.2 PSI
Entering Water Temp.	100 °F
Leaving Water Temp.	109.45 °F
COP	5.58
Compressors	(1) SZ 160 Maneurop Scroll
Voltage	460/60/3Ø
RLA/LRA	19.0/170
Control Voltage	24 Volts
Min. Comp. Circuit Amp.	30

Cooling Capacity	159,300 BTUH
Evaporator Construction	Copper/Aluminum Fin
Cabinet Construction	Galvanize Steel
Entering Wet Bulb Temp.	72.0°F
Water Pump—1.0/ HP	460/3/60 -1.7 Amp
Cooling EER	16.07
Condensers	Double Wall Vented
Construction (Cond.)	Tube-in-Tube
Fan 1 HP	460/3/60 - 1.8 Amp
Refrigerant Type	R-134A
Minimum Unit Amperage.	40 Amp.

STANDARD FEATURES

Options

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

- Micro-Processor Based Control System
- Painted Galvanize
- 304 or 316 Stainless Steel
- TechniCoat 10-1 Evaporator Coated Coil
- Refrigerant Pump Down Solenoid Valves
- Blower
- 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 SS 189															
WB TEMP.															
ENTER WATER TEMP. F @ 40 GPM,															
72 DEG .	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	183,600	179,850	176,100	172,050	168,000	163,650	159,300	154,700	150,100	145,100	140,100	135,000	129,900	124,800	119,700
HMBTUH	204,897	202,342	199,786	197,136	194,485	191,671	188,857	186,048	183,240	180,186	177,131	174,250	171,368	168,486	165,605
WATTS	7,490	7,840	8,190	8,600	9,010	9,460	9,910	10,435	10,960	11,530	12,100	12,750	13,400	14,050	14,700
EER	24.51	22.94	21.5	20.01	18.65	17.3	16.07	14.83	13.7	12.58	11.58	10.59	9.69	8.88	8.14
COP	8.02	7.56	7.15	6.72	6.32	5.94	5.58	5.22	4.9	4.58	4.29	4	3.75	3.51	3.3
LV. WTR	80.25	85.12	89.99	94.86	99.73	104.59	109.45	114.31	119.17	124.01	128.86	133.72	138.57	143.43	148.28
WB TEMP.															
ENTER WATER TEMP. F @ 40 GPM,															
67 DEG .	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	167,700	164,200	160,700	156,950	153,200	149,150	145,100	140,800	136,500	131,900	127,300	122,550	117,800	113,050	108,300
HMBTUH	188,963	186,658	184,352	181,984	179,617	177,102	174,588	172,064	169,504	166,849	164,195	161,629	159,063	156,497	153,932
WATTS	7,480	7,830	8,180	8,585	8,990	9,440	9,890	10,405	10,920	11,490	12,060	12,700	13,340	13,980	14,620
EER	22.42	20.97	19.65	18.28	17.04	15.8	14.67	13.53	12.5	11.48	10.56	9.65	8.83	8.09	7.41
COP	7.4	6.98	6.6	6.21	5.85	5.5	5.17	4.84	4.55	4.25	3.99	3.73	3.49	3.28	3.08
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
WB TEMP.															
ENTER WATER TEMP. F @ 40 GPM,															
62 DEG .	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	151,800	148,550	145,300	141,850	138,400	134,650	130,900	126,900	122,900	118,700	114,500	110,100	105,700	101,300	96,900
HMBTUH	173,029	170,973	168,918	166,833	164,748	162,534	160,320	158,044	155,767	153,513	151,258	149,008	146,758	144,509	142,259
WATTS	7,470	7,820	8,170	8,570	8,970	9,420	9,870	10,375	10,880	11,450	12,020	12,650	13,280	13,910	14,540
EER	20.32	19	17.78	16.55	15.43	14.29	13.26	12.23	11.3	10.37	9.53	8.7	7.96	7.28	6.66
COP	6.79	6.41	6.06	5.7	5.38	5.06	4.76	4.46	4.19	3.93	3.69	3.45	3.24	3.04	2.87
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
WB TEMP.															
ENTER WATER TEMP. F @ 30 GPM,															
57 DEG .	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	137,000	134,050	131,100	127,850	124,600	121,150	117,700	114,050	110,400	106,500	102,600	98,550	94,500	90,450	86,400
HMBTUH	158,195	156,422	154,650	152,748	150,846	148,915	146,984	145,057	143,131	141,142	139,153	137,253	135,354	133,454	131,554
WATTS	7,460	7,805	8,150	8,545	8,940	9,385	9,830	10,335	10,840	11,400	11,960	12,590	13,220	13,850	14,480
EER	18.36	17.17	16.09	14.96	13.94	12.91	11.97	11.04	10.18	9.34	8.58	7.83	7.15	6.53	5.97
COP	6.21	5.87	5.56	5.24	4.94	4.65	4.38	4.11	3.87	3.63	3.41	3.19	3	2.82	2.66
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
WB TEMP.															
ENTER WATER TEMP. F @ 40 GPM,															
52 DEG .	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	123,300	120,550	117,800	114,850	111,900	108,700	105,500	102,150	98,800	95,250	91,700	87,950	84,200	80,450	76,700
HMBTUH	144,426	142,837	141,247	139,645	138,044	136,345	134,647	133,004	131,360	129,721	128,083	126,466	124,849	123,232	121,615
WATTS	7,440	7,780	8,120	8,515	8,910	9,350	9,790	10,290	10,790	11,350	11,910	12,535	13,160	13,785	14,410
EER	16.57	15.49	14.51	13.49	12.56	11.63	10.78	9.93	9.16	8.39	7.7	7.02	6.4	5.84	5.32
COP	5.69	5.38	5.1	4.81	4.54	4.27	4.03	3.79	3.57	3.35	3.15	2.96	2.78	2.62	2.47
LV. WTR	77.22	84.53	89.42	94.31	99.21	104.09	108.98	113.87	118.76	123.65	128.54	133.43	138.33	143.22	148.11
WB TEMP.															
ENTER WATER TEMP. F @ 40 GPM,															
47 DEG .	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	110,700	108,250	105,800	102,950	100,100	97,200	94,300	91,200	88,100	84,850	81,600	78,200	74,800	71,400	68,000
HMBTUH	131,724	130,435	129,145	127,626	126,107	124,709	123,311	121,900	120,489	119,134	117,778	116,494	115,210	113,926	112,642
WATTS	7,410	7,750	8,090	8,480	8,870	9,310	9,750	10,245	10,740	11,295	11,850	12,470	13,090	13,710	14,330
EER	14.94	13.97	13.08	12.14	11.29	10.44	9.67	8.9	8.2	7.51	6.89	6.27	5.71	5.21	4.75
COP	5.21	4.93	4.68	4.41	4.17	3.92	3.71	3.49	3.29	3.09	2.91	2.74	2.58	2.43	2.3
LV. WTR	76.59	81.52	86.46	91.38	96.31	101.24	106.17	111.1	116.03	120.96	125.89	130.83	135.76	140.7	145.63
WB TEMP.															
ENTER WATER TEMP. F @ 40 GPM,															
42 DEG .	70	75	80	85	90	95	100	105	110	115	120	125	130	135	140
CMBTUH	99,000	96,650	94,300	91,800	89,300	86,600	83,900	81,100	78,300	75,300	72,300	69,200	66,100	63,000	59,900
HMBTUH	119,922	118,732	117,543	116,357	115,171	113,955	112,740	111,485	110,485	109,379	108,273	107,272	106,271	105,270	104,269
WATTS	7,380	7,720	8,060	8,445	8,830	9,265	9,700	10,180	10,680	11,235	11,790	12,405	13,020	13,635	14,250
EER	13.41	12.52	11.7	10.87	10.11	9.35	8.65	8.03	7.43	6.87	6.33	5.83	5.38	4.92	4.47
COP	4.76	4.51	4.27	4.04	3.82	3.6	3.41	3.21	3.03	2.85	2.69	2.53	2.39	2.26	2.14
LV. WTR	76	80.94	85.88	90.82	95.76	100.7	105.64	111.78	115.53	120.47	125.42	130.37	135.32	140.27	145.22