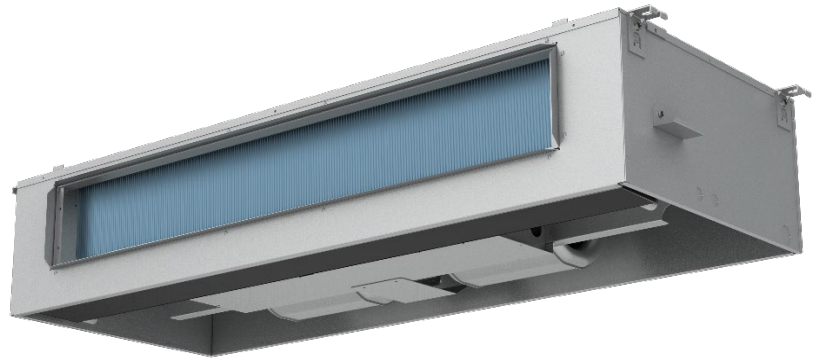




# HSHP-HH

**Hyper Heat**

**Horizontal Soffit Mount System**



**High Efficiency, with Full Heating Capacity down to 5° F**

1.50 Ton - 3.00 Ton, with Efficiencies up to 19.00 SEER2 and 12.4 EER2



The HSHP is a highly efficient split system, with a horizontal ceiling mount soffit mount fan coil and an outdoor side discharge heat pump unit. The indoor fan coil can be installed in various locations, and is designed for standard bottom return air. This system supplies comfortable cooling and heating performance at low sound levels.

**Typical installations for the HSHP include:**

- Apartments
- Condominiums
- Independent Care Facilities
- Pre Manufactured Homes
- Single Family Home Additions
- Modular Buildings
- Student Housing
- Offices
- Stores



**Features**

**Highly Efficient / High Performance**

- Highly Efficient Inverter Compressor, with Efficiencies up to 19.00 SEER2
- Air Handler EC Blower Motor, with Available ESP up to 0.80" WC
- Low Amp Draw DC motor in Outdoor HP
- Energy Star on all models

**Quiet Operation, Inside and Outside**

- Low Sone EC motor in HSHP Fan Coil
- Quiet Inverter Compressor in Outdoor Heat Pump, with low Sound Levels

**Heating at Low Ambient Conditions**

- Standard Base Pan Heaters
- Hyper Heat, with full heating capacity down to 5° F

**Fresh Air**

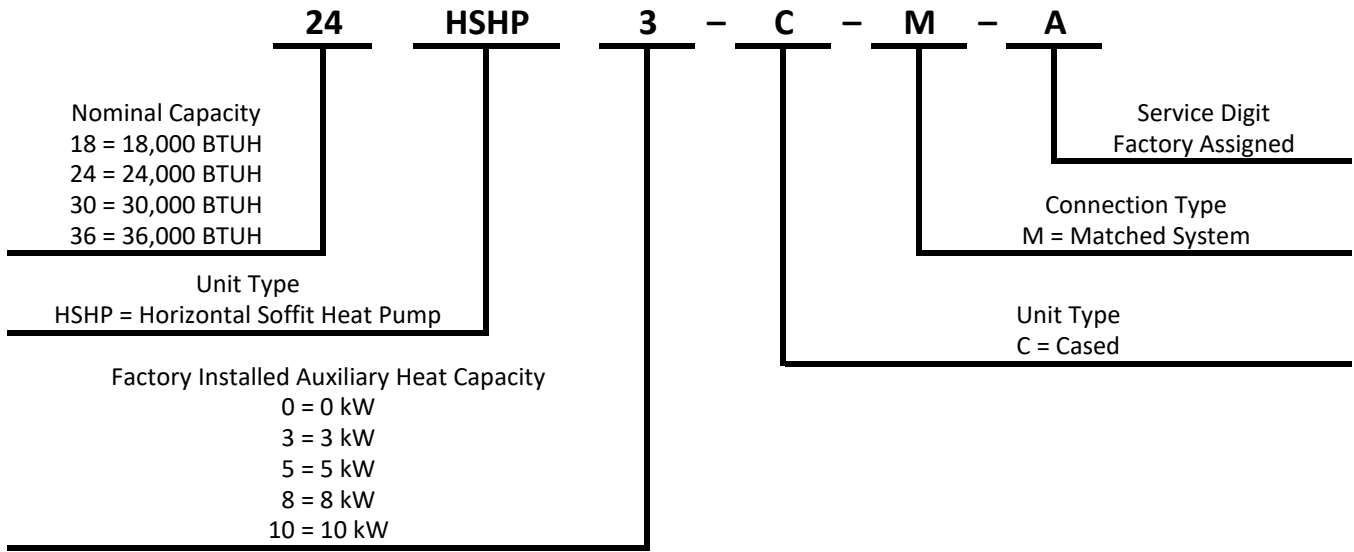
- Optional Field Install OSA Fan-Assisted Fresh Air Package is available

**Design**

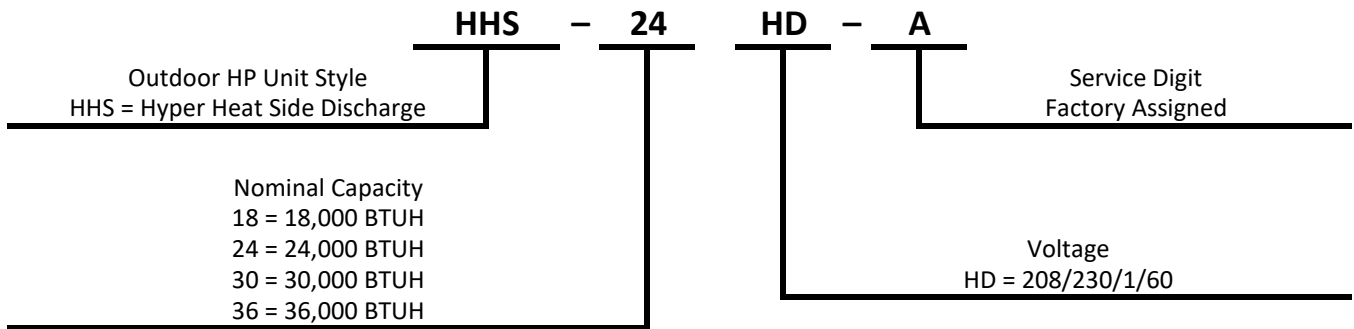
- Standard Bottom Return Air or Ducted Return Air Available
- Automatic Restart Function
- 24V Control Board with High, Medium and Low Motor Speed Taps
- Suction Line Service Port
- Pre-Coated Fins on Evaporator and Condenser Coils
- Crankcase Heater
- Compressor Time Delay
- Compressor Overload and Over Current Protection

# Nomenclature

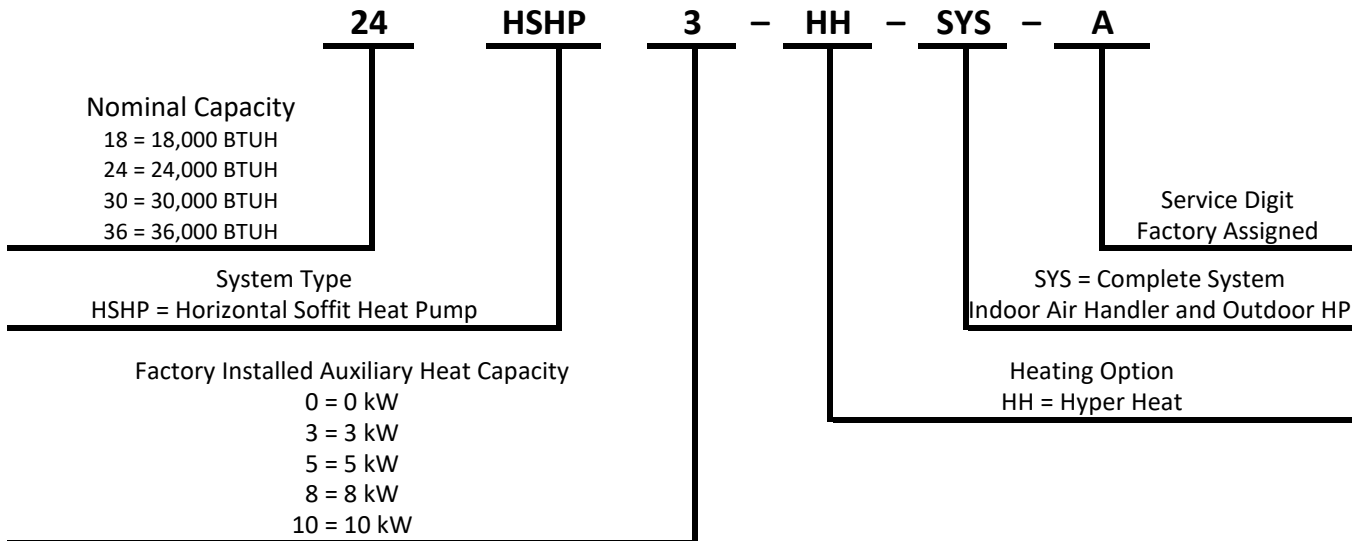
## Indoor Unit



## Outdoor Unit



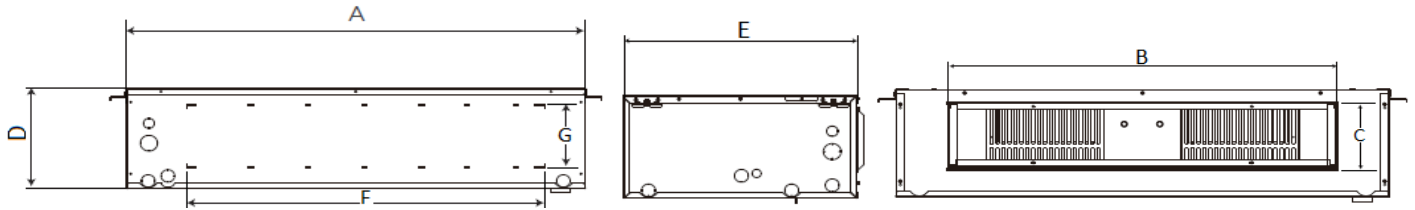
## System



# HSHP

## 1.50 ton - 3.00 ton Heat Pump Fan Coils

### Dimensional and Electrical Data



Model Number	Height	Width	Depth	Supply Opening		Return Air Knockout		Weight
	D	A	E	Height (C)	Width (B)	Height (G)	Width (F)	
18HSHP*-C-M-A	10.94	39.94	23.3	6.88	30.3	7.0	28.0	110
24HSHP*-C-M-A	10.94	45.88	23.3	6.88	36.2	7.0	33.9	115
30HSHP*-C-M-A	10.94	51.94	23.3	6.88	42.3	7.0	40.0	125
36HSHP*-C-M-A	10.94	58.88	23.3	6.88	49.2	7.0	46.9	145

All Condensate Drain Connections are 3/4" MPT

Model Number	Electric Heat		Total Amps		Min. Cir. Ampacity		Max Fuse Size	
	kW	BTUH	208V	240V	208V	240V	208V	240V
18HSHP*-C-M-A	0	0	0.6	0.6	0.8	0.8	Fan Coil Powered Solely by Outdoor HP	
	3	10200	10.9	12.0	15.0	16.0	20	20
	5	20400	18.1	19.7	22.0	24.0	25	30
	8	27300	28.3	30.9	32.0	35.0	40	45
	10	34100	36.7	42.0	45.9	52.9	45	50
24HSHP*-C-M-A	0	0	1.2	1.2	1.5	1.5	Fan Coil Powered Solely by Outdoor HP	
	3	10200	10.9	12.0	15.0	16.0	20	20
	5	20400	18.1	19.7	22.0	24.0	25	30
	8	27300	28.3	30.9	32.0	35.0	40	45
	10	34100	36.7	42.0	45.9	52.9	45	50
30HSHP*-C-M-A	0	0	1.6	1.6	2.0	2.0	Fan Coil Powered Solely by Outdoor HP	
	3	10200	10.9	12.0	15.0	16.0	20	20
	5	20400	18.1	19.7	22.0	24.0	25	30
	8	27300	28.3	30.9	32.0	35.0	40	45
	10	34100	36.7	42.0	45.9	52.9	45	50
36HSHP*-C-M-A	0	0	2.1	2.1	2.6	2.6	Fan Coil Powered Solely by Outdoor HP	
	3	10200	10.9	12.0	15.0	16.0	20	20
	5	20400	18.1	19.7	22.0	24.0	25	30
	8	27300	28.3	30.9	32.0	35.0	40	45
	10	34100	36.7	42.0	45.9	52.9	45	50

Note: A Separate 208/230/1 Power Source is Required for Fan Coils with Auxiliary Electric Strip Heat.

# HHS

## 1.50 ton - 2.50 ton Heat Pump Outdoor Units

### Dimensional Data

Figure 1

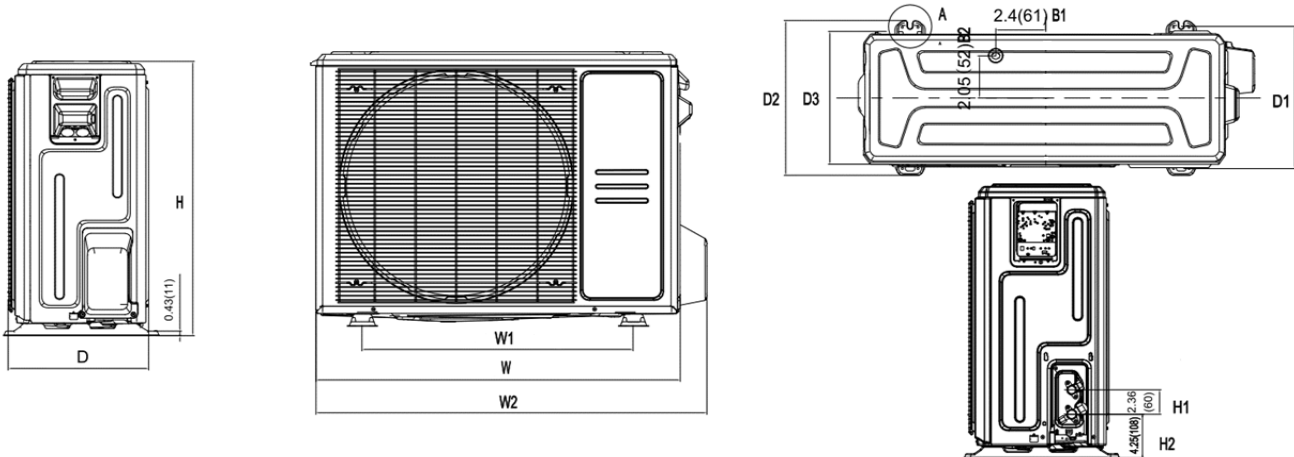
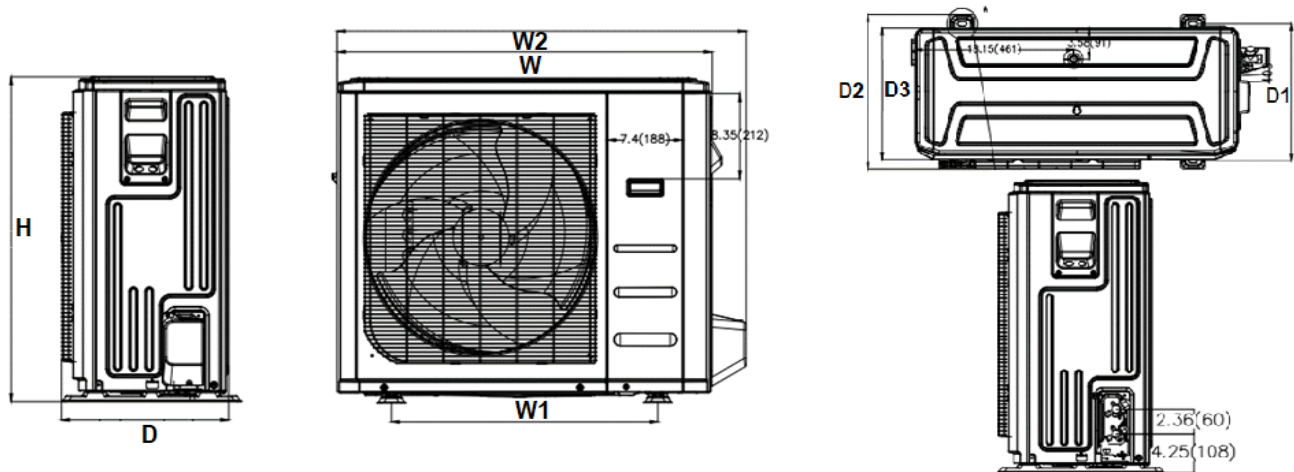


Figure 2

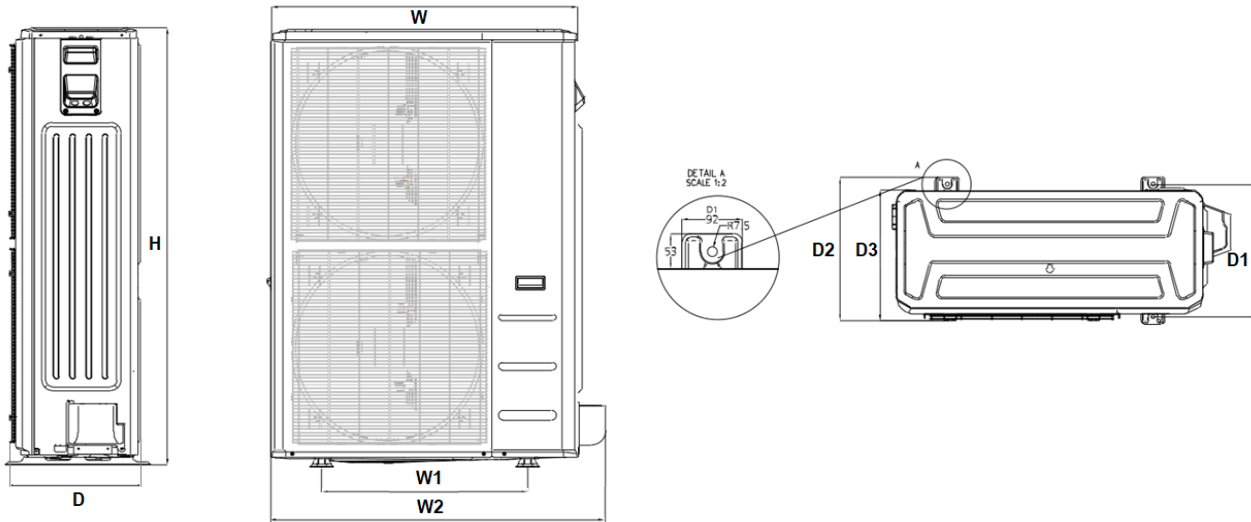


Unit	Figure	Unit Width (W)	Unit Width w/Elec (W2)	Unit Height (H)	Unit Depth (D)	Bracket Width (W1)	Bracket Depth (D2)	Weight (lbs)
HHS-18HD-A	1	35.05	37.60	26.50	13.45	26.10	14.95	103
HHS-24HD-A	2	37.25	40.55	31.90	16.15	26.50	17.90	137
HHS-30HD-A	2	37.25	40.55	31.90	16.15	26.50	15.90	160

Dimensions shown are in Inches

### Dimensional Data

Figure 3



Unit	Figure	Unit Width (W)	Unit Width w/Elec (W2)	Unit Height (H)	Unit Depth (D)	Bracket Width (W1)	Bracket Depth (D2)	Weight (lbs)
HHS-36HD-A	3	37.50	41.15	52.50	16.34	25.00	18.00	221

Dimensions shown are in Inches

# HSHP-HH-SYS

1.50 ton - 3.00 ton Hyper Heat Systems

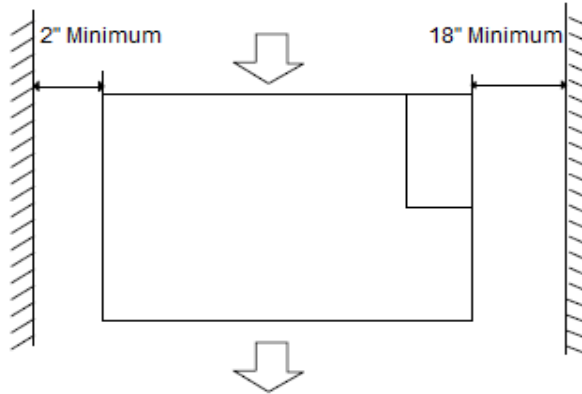
## System Specifications

System Model		18HSHP*-HH-SYS	24HSHP*-HH-SYS	30HSHP*-HH-SYS	36HSHP*-HH-SYS	
Indoor Model		18HSHP*-C-M-A	24HSHP*-C-M-A	30HSHP*-C-M-A	36HSHP*-C-M-A	
Outdoor Model		HHS-18HD-A	HHS-24HD-A	HHS-30HD-A	HHS-36HD-A	
Energy Star (Cold Climate Split HP)		Yes	Yes	Yes	Yes	
Rated Cooling Capacity	BTU/H	18,000	24,000	28,000	36,000	
Cooling Capacity Range (Minimum - Maximum)	BTU/H	6950~21000	6430~27050	10320~33600	12000~44250	
SEER2		17.00	19.00	18.20	17.00	
EER2		12.4	12.0	11.7	10	
Rated Heating Capacity at 47°F	BTU/H	19,000	27,400	30,000	36,000	
Rated Heating Capacity at 17°F	BTU/H	18,400	18,600	28,600	36,000	
Rated Heating Capacity at 5°F	BTU/H	18,000	24,000	26,000	36,000	
Heating Capacity Range (Minimum - Maximum)	BTU/H	2880~21000	10020~31000	12000~36200	9900~48800	
HSPF2		9.5	9.3	8.8	9.9	
COP at 47°F	W/W	3.5	3.5	3.5	3.5	
COP at 17°F	W/W	2.0	2.6	2.1	1.9	
COP at 5°F	W/W	2.0	1.9	1.8	1.9	
Room Temperature	Cooling	°F	60~90	60~90	60~90	60~90
	Heating	°F	32~86	32~86	32~86	32~86
Operation Temperature	Cooling	°F	5~122	5~122	5~122	5~122
	Heating	°F	-22~75	-22~75	-22~75	-22~75

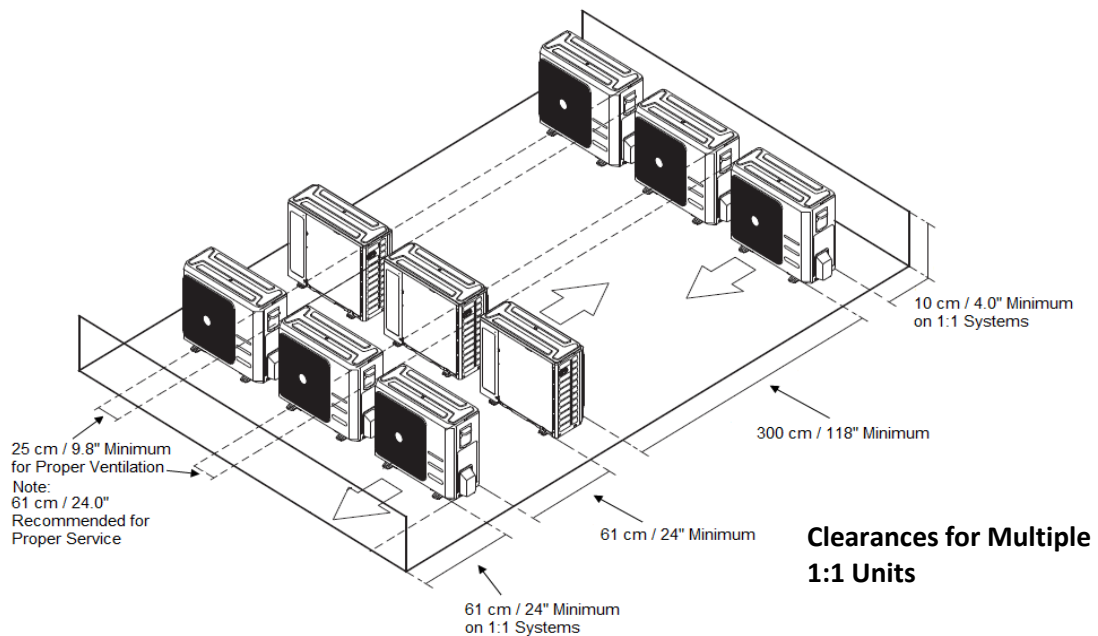
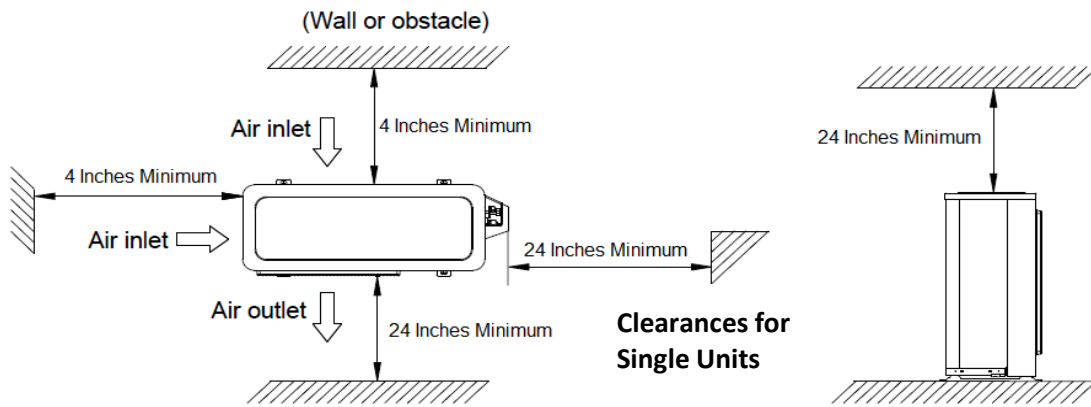
\* in the System Model and Indoor Model refers to the electric strip heat

# Clearances

## HSHP Indoor Units



## HHS Outdoor Units







## 1.50 ton - 3.00 ton Hyper Heat Heat Pump Outdoor Unit

### Electrical and Piping Data

Model		HHS-18HD-A	HHS-24HD-A	HHS-30HD-A	HHS-36HD-A
Power Supply	V/Hz/Ph	208/230/60/1			
Compressor	Type	Inverter			
Packaging	H x W x D	29.1 x 39.2 x 15.7	34.8 x 42.9 x 19.7	34.8 x 42.9 x 19.7	58.3 x 43.1 x 19.5
Packaged Weight	Lbs	110	150	170	249
Noise Level	dB(A)	58	64	61.5	64
Liquid - Suction	Inch	3/8 - 3/4	3/8 - 3/4	3/8 - 3/4	3/8 - 3/4
Max Lineset Length	Feet	98	164	164	213
Max Lineset Vertical Lift	Feet	66	82	82	98
Refrigerant		R410a	R410a	R410a	R410a
Refrigerant Precharge	Feet	25	25	25	25
Additional Charge Per Foot	Oz	0.69	0.69	0.69	0.69
Design Pressure	Psi	550	550	550	550
Indoor Operating Range	Cooling DB Min / Max	60°F / 90°F	60°F / 90°F	60°F / 90°F	60°F / 90°F
	Heating DB Min / Max	32°F / 86°F	32°F / 86°F	32°F / 86°F	32°F / 86°F
Outdoor Operating Range	Cooling DB Min / Max	5°F / 122°F	5°F / 122°F	5°F / 122°F	5°F / 122°F
	Heating DB Min / Max	-22°F / 75°F	-22°F / 75°F	-22°F / 75°F	-22°F / 75°F

### Systems with Indoor Fan Coil Powered by Outdoor Heat Pump

Unit	V / PH	Oper Volts		Compressor	Fan	MCA	Max Fuse
		Max	Min	Input (W)	Input (W)		
HHS-18HD-A	208/230/1	253	187	1945	88	16	20
HHS-24HD-A		253	187	1945	150	20	35
HHS-30HD-A		253	187	2600	150	23	35
HHS-36HD-A		253	187	3565	252	41	50

MCA - Minimum Circuit Ampacity

### Systems with Outdoor Heat Pump and Indoor Fan Coil with Individual Power Supply

Outdoor Heat Pump				Indoor Fan Coil		
Model	V / PH	MCA	Max Fuse	Model	MCA	Max Fuse
HHS-18HD-A	208/230/1	14.1	20.0	18HSHP*-C-M-A	0.8	15.0
HHS-24HD-A		17.3	25.0	24HSHP*-C-M-A	1.5	15.0
HHS-30HD-A		20.5	30.0	30HSHP*-C-M-A	2.0	15.0
HHS-36HD-A		33.1	40.0	36HSHP*-C-M-A	2.6	15.0

MCA - Minimum Circuit Ampacity

# HSHP

## Fan Coil Blower Performance

### Fan Coil Blower Performance

Model Number	Motor HP	Speed	CFM @ Inches of WC External Static Pressure								
			0.00	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80
18HSHP*-C-M-A	1/3	Special	602	594	603	600	594	594	609	610	604
		Special Setting	-8	-3	-2	0	3	5	7	8	11
		Turbo	754	690	633	600	554	494	467	450	383
		Watts	126	127	135	147	151	152	155	163	163
		High	715	651	593	559	513	454	426	409	341
		Watts	113	115	122	134	137	137	141	149	148
		Med-High	603	538	480	441	394	343	308	288	222
		Watts	80	83	89	99	102	100	106	112	106
		Low	491	426	368	324	276	236	192	165	104
Watts	51	57	62	68	72	73	77	83	70		
24HSHP*-C-M-A	1/3	Special	808	790	805	795	790	796	778	820	819
		Special Setting	-8	-3	-2	0	3	5	7	8	11
		Turbo	940	890	839	795	735	687	654	599	520
		Watts	171	179	187	194	203	216	228	229	219
		High	866	815	751	706	646	602	563	517	454
		Watts	139	146	154	161	169	179	190	196	197
		Med-Low	767	716	633	589	530	487	433	398	358
		Watts	100	106	114	119	127	129	136	147	164
		Low	596	546	427	383	331	287	190	170	172
Watts	39	44	51	55	61	45	38	56	103		
30HSHP*-C-M-A	1/2	Special	997	981	986	989	996	995	992	986	910
		Special Setting	-8	-3	-2	0	3	5	7	8	11
		Turbo	1117	1084	1045	989	956	875	825	789	758
		Watts	221	241	254	276	296	268	279	291	301
		High	1036	998	953	895	861	782	734	705	676
		Watts	195	214	227	248	268	239	252	267	279
		Med-Low	962	917	868	806	770	696	647	620	590
		Watts	155	173	184	203	221	195	209	226	239
		Low	746	679	612	541	492	438	380	342	295
Watts	84	94	99	109	116	114	122	131	138		
36HSHP*-C-M-A	1/2	Special	1184	1192	1201	1189	1180	1188	1201	1042	912
		Special Setting	-8	-3	-2	0	3	5	7	8	11
		Turbo	1312	1281	1261	1189	1157	1114	1061	991	899
		Watts	312	334	361	372	374	402	405	430	388
		High	1147	1067	1036	1001	912	856	795	778	715
		Watts	207	223	233	247	249	259	274	286	295
		Med-Low	978	883	836	795	700	644	591	521	445
		Watts	142	154	158	170	173	179	199	207	211
		Low	823	730	666	618	523	472	433	271	166
Watts	100	108	112	121	125	132	155	162	140		

# HSHP-HH-SYS

## System Performance

Hyper Heat System	Indoor Fan Coil	Outdoor HP	SEER2	EER2	COP	HSPF2	BTU Cooling	BTU Heating	AHRI Reference Number
18HSHP*-HH-SYS	18HSHP*-C-M-A	HHS-18HD-A	17.00	12.4	3.5	9.5	18,000	19,000	213386552
24HSHP*-HH-SYS	24HSHP*-C-M-A	HHS-24HD-A	19.00	12.0	3.5	9.3	24,000	27,400	213386553
30HSHP*-HH-SYS	30HSHP*-C-M-A	HHS-30HD-A	18.20	11.7	3.5	8.8	28,000	30,000	213386554
36HSHP*-HH-SYS	36HSHP*-C-M-A	HHS-36HD-A	17.00	10.0	3.5	9.9	36,000	36,000	213386555

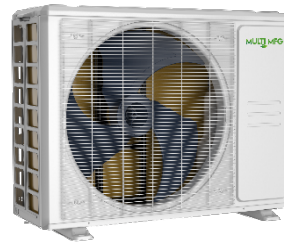
### Fan Coil Noise Level (dBA)

Air Handler	dBA High
18HSHP*-C-M-A	39
24HSHP*-C-M-A	43
30HSHP*-C-M-A	47
36HSHP*-C-M-A	49



### Outdoor Heat Pump Noise Level

Heat Pump	dBA
HHS-18HD-A	58
HHS-24HD-A	64
HHS-30HD-A	62
HHS-36HD-A	64



# 18HSHP-HH-SYS Expanded Cooling @ 488 CFM

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
488	50°F	TC	19182	19208	19229	19230	19256	21554	21582	21606	21610	21634	22852	22877	22902	22906	22934
		S/T	0.45	0.53	0.60	0.60	0.69	0.51	0.60	0.68	0.68	0.77	0.54	0.63	0.72	0.72	0.82
		PI	1.04	1.04	1.04	1.04	1.04	1.17	1.17	1.17	1.17	1.17	1.24	1.24	1.24	1.24	1.24
	59°F	TC	19594	19620	19642	19642	19669	22016	22045	22069	22073	22098	23343	23368	23393	23397	23426
		S/T	0.45	0.53	0.61	0.61	0.69	0.51	0.60	0.68	0.68	0.78	0.54	0.63	0.72	0.72	0.82
		PI	1.07	1.07	1.07	1.07	1.07	1.20	1.20	1.20	1.20	1.21	1.27	1.28	1.28	1.28	1.28
	68°F	TC	20006	20033	20054	20055	20082	22479	22508	22533	22537	22562	23833	23859	23885	23889	23918
		S/T	0.47	0.55	0.62	0.62	0.71	0.52	0.61	0.70	0.70	0.80	0.56	0.65	0.74	0.74	0.84
		PI	1.10	1.10	1.10	1.10	1.10	1.24	1.24	1.24	1.24	1.24	1.31	1.31	1.31	1.31	1.31
	77°F	TC	20417	20445	20467	20468	20495	22941	22971	22997	23001	23027	24324	24350	24376	24380	24411
		S/T	0.47	0.55	0.63	0.63	0.72	0.53	0.62	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86
		PI	1.13	1.13	1.13	1.13	1.13	1.27	1.27	1.27	1.27	1.28	1.35	1.35	1.35	1.35	1.35
	80°F	TC	20557	20585	20607	20608	20636	23099	23129	23154	23159	23184	24490	24517	24544	24547	24578
		S/T	0.48	0.56	0.64	0.64	0.73	0.54	0.63	0.72	0.72	0.82	0.57	0.67	0.76	0.76	0.87
		PI	1.14	1.14	1.14	1.14	1.15	1.28	1.28	1.29	1.29	1.29	1.36	1.36	1.36	1.36	1.36
	86°F	TC	19382	19408	19429	19430	19456	21778	21806	21831	21835	21859	23090	23115	23141	23144	23173
		S/T	0.48	0.57	0.65	0.65	0.74	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88
		PI	1.36	1.36	1.36	1.36	1.36	1.53	1.53	1.53	1.53	1.53	1.62	1.62	1.62	1.62	1.63
	95°F	TC	17602	17625	17644	17645	17669	19778	19803	19825	19829	19851	20969	20992	21015	21018	21044
		S/T	0.48	0.57	0.65	0.65	0.74	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88
		PI	1.69	1.69	1.69	1.69	1.70	1.90	1.90	1.90	1.90	1.91	2.01	2.02	2.02	2.02	2.02
	104°F	TC	15217	15237	15254	15254	15275	17098	17120	17139	17142	17161	18128	18147	18167	18170	18193
		S/T	0.50	0.58	0.66	0.66	0.76	0.56	0.65	0.74	0.74	0.85	0.59	0.69	0.79	0.79	0.90
		PI	1.60	1.60	1.60	1.60	1.61	1.80	1.80	1.80	1.80	1.80	1.91	1.91	1.91	1.91	1.91
110°F	TC	13786	13804	13819	13820	13838	15490	15510	15527	15530	15547	16423	16441	16459	16461	16482	
	S/T	0.51	0.60	0.69	0.69	0.78	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93	
	PI	1.55	1.55	1.55	1.55	1.55	1.74	1.74	1.74	1.74	1.74	1.84	1.84	1.85	1.85	1.85	
115°F	TC	11710	11726	11738	11739	11755	13158	13175	13189	13192	13207	13950	13966	13981	13983	14000	
	S/T	0.52	0.61	0.69	0.69	0.79	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94	
	PI	1.46	1.46	1.47	1.47	1.47	1.64	1.65	1.65	1.65	1.65	1.74	1.74	1.75	1.75	1.75	
122°F	TC	8943	8955	8964	8965	8977	10048	10061	10072	10074	10086	10654	10665	10677	10678	10692	
	S/T	0.53	0.63	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.63	0.75	0.85	0.85	0.97	
	PI	1.35	1.35	1.36	1.36	1.36	1.52	1.52	1.52	1.52	1.53	1.61	1.61	1.62	1.62	1.62	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**18HSHP-HH-SYS Expanded Cooling @ 529 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
529	50°F	TC	19812	19839	19861	19861	19888	22262	22290	22315	22319	22344	23603	23628	23654	23658	23687
		S/T	0.47	0.55	0.62	0.62	0.71	0.52	0.62	0.70	0.70	0.80	0.56	0.65	0.74	0.74	0.85
		PI	1.07	1.07	1.08	1.08	1.08	1.21	1.21	1.21	1.21	1.21	1.28	1.28	1.28	1.28	1.28
	59°F	TC	20238	20265	20287	20288	20315	22739	22769	22794	22798	22824	24109	24136	24162	24166	24196
		S/T	0.47	0.55	0.63	0.63	0.71	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85
		PI	1.10	1.11	1.11	1.11	1.11	1.24	1.24	1.24	1.24	1.25	1.32	1.32	1.32	1.32	1.32
	68°F	TC	20663	20691	20713	20714	20742	23217	23247	23273	23277	23303	24616	24643	24669	24673	24704
		S/T	0.48	0.57	0.64	0.64	0.73	0.54	0.64	0.72	0.72	0.82	0.57	0.67	0.77	0.77	0.87
		PI	1.14	1.14	1.14	1.14	1.14	1.28	1.28	1.28	1.28	1.28	1.35	1.35	1.36	1.36	1.36
	77°F	TC	21088	21116	21139	21140	21169	23695	23726	23752	23756	23783	25122	25150	25177	25181	25212
		S/T	0.49	0.57	0.65	0.65	0.74	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.78	0.78	0.88
		PI	1.17	1.17	1.17	1.17	1.17	1.31	1.31	1.32	1.32	1.32	1.39	1.39	1.39	1.39	1.40
	80°F	TC	21233	21261	21284	21285	21314	23857	23888	23915	23919	23946	25295	25322	25350	25354	25385
		S/T	0.49	0.58	0.66	0.66	0.75	0.56	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.79	0.89
		PI	1.18	1.18	1.18	1.18	1.18	1.32	1.33	1.33	1.33	1.33	1.40	1.41	1.41	1.41	1.41
	86°F	TC	20019	20046	20067	20068	20095	22493	22523	22548	22552	22577	23849	23875	23901	23904	23934
		S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.85	0.60	0.70	0.79	0.80	0.91
		PI	1.40	1.41	1.41	1.41	1.41	1.58	1.58	1.58	1.58	1.58	1.67	1.67	1.68	1.68	1.68
	95°F	TC	18180	18204	18224	18225	18249	20427	20454	20476	20480	20503	21658	21681	21705	21708	21735
		S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.85	0.60	0.70	0.79	0.80	0.91
		PI	1.75	1.75	1.75	1.75	1.75	1.96	1.96	1.97	1.97	1.97	2.08	2.08	2.08	2.08	2.09
	104°F	TC	15716	15738	15755	15755	15776	17659	17682	17702	17705	17725	18723	18744	18764	18767	18790
		S/T	0.51	0.60	0.68	0.68	0.78	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.81	0.81	0.93
		PI	1.65	1.65	1.66	1.66	1.66	1.86	1.86	1.86	1.86	1.86	1.97	1.97	1.97	1.97	1.98
	110°F	TC	14238	14258	14273	14274	14293	15998	16019	16037	16040	16058	16962	16981	16999	17002	17023
		S/T	0.53	0.62	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.63	0.74	0.84	0.84	0.96
		PI	1.60	1.60	1.60	1.60	1.60	1.79	1.80	1.80	1.80	1.80	1.90	1.90	1.91	1.91	1.91
	115°F	TC	12095	12111	12124	12125	12141	13590	13607	13623	13625	13640	14409	14424	14440	14442	14460
		S/T	0.54	0.63	0.72	0.72	0.82	0.60	0.71	0.81	0.81	0.92	0.64	0.75	0.85	0.85	0.97
		PI	1.51	1.51	1.51	1.51	1.52	1.70	1.70	1.70	1.70	1.70	1.80	1.80	1.80	1.80	1.81
122°F	TC	9236	9249	9259	9259	9272	10378	10392	10403	10405	10417	11004	11015	11027	11029	11043	
	S/T	0.55	0.65	0.73	0.73	0.84	0.62	0.73	0.82	0.83	0.94	0.66	0.77	0.87	0.87	1.00	
	PI	1.40	1.40	1.40	1.40	1.40	1.57	1.57	1.57	1.57	1.58	1.66	1.67	1.67	1.67	1.67	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**18HSHP-HH-SYS Expanded Cooling @ 564 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
564	50°F	TC	20463	20491	20513	20514	20541	22993	23023	23048	23052	23078	24378	24405	24431	24435	24465
		S/T	0.48	0.57	0.64	0.64	0.73	0.54	0.64	0.72	0.72	0.82	0.57	0.67	0.77	0.77	0.87
		PI	1.11	1.11	1.11	1.11	1.11	1.24	1.25	1.25	1.25	1.25	1.32	1.32	1.32	1.32	1.32
	59°F	TC	20902	20930	20953	20954	20982	23486	23517	23543	23547	23573	24901	24928	24955	24959	24990
		S/T	0.48	0.57	0.65	0.65	0.74	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88
		PI	1.14	1.14	1.14	1.14	1.14	1.28	1.28	1.28	1.28	1.29	1.36	1.36	1.36	1.36	1.36
	68°F	TC	21342	21370	21393	21394	21423	23980	24011	24037	24042	24069	25424	25452	25480	25484	25515
		S/T	0.50	0.58	0.66	0.66	0.76	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	1.17	1.17	1.18	1.18	1.18	1.32	1.32	1.32	1.32	1.32	1.40	1.40	1.40	1.40	1.40
	77°F	TC	21781	21810	21833	21834	21864	24473	24505	24532	24537	24564	25948	25976	26004	26008	26040
		S/T	0.50	0.59	0.67	0.67	0.77	0.57	0.66	0.76	0.76	0.86	0.60	0.70	0.80	0.80	0.91
		PI	1.21	1.21	1.21	1.21	1.21	1.36	1.36	1.36	1.36	1.36	1.44	1.44	1.44	1.44	1.44
	80°F	TC	21930	21959	21983	21984	22014	24641	24673	24700	24705	24732	26125	26154	26182	26186	26219
		S/T	0.51	0.60	0.68	0.68	0.78	0.57	0.67	0.76	0.76	0.87	0.61	0.71	0.81	0.81	0.92
		PI	1.22	1.22	1.22	1.22	1.22	1.37	1.37	1.37	1.37	1.37	1.45	1.45	1.45	1.45	1.46
	86°F	TC	20676	20704	20727	20727	20755	23232	23262	23288	23293	23319	24632	24659	24686	24689	24720
		S/T	0.52	0.61	0.69	0.69	0.79	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.94
		PI	1.45	1.45	1.45	1.45	1.46	1.63	1.63	1.63	1.63	1.64	1.73	1.73	1.73	1.73	1.73
	95°F	TC	18777	18802	18823	18823	18849	21098	21125	21149	21153	21177	22369	22394	22418	22421	22449
		S/T	0.52	0.61	0.69	0.69	0.79	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.94
		PI	1.80	1.81	1.81	1.81	1.81	2.03	2.03	2.03	2.03	2.03	2.15	2.15	2.15	2.15	2.16
	104°F	TC	16233	16254	16272	16273	16295	18239	18263	18283	18287	18307	19338	19359	19380	19383	19407
		S/T	0.53	0.62	0.71	0.71	0.81	0.60	0.70	0.79	0.79	0.91	0.63	0.74	0.84	0.84	0.96
		PI	1.71	1.71	1.71	1.71	1.71	1.92	1.92	1.92	1.92	1.92	2.03	2.04	2.04	2.04	2.04
	110°F	TC	14706	14726	14742	14742	14762	16524	16545	16564	16567	16585	17519	17538	17558	17560	17582
		S/T	0.55	0.64	0.73	0.73	0.83	0.62	0.72	0.82	0.82	0.94	0.65	0.77	0.87	0.87	0.99
		PI	1.65	1.65	1.65	1.65	1.66	1.85	1.85	1.86	1.86	1.86	1.96	1.97	1.97	1.97	1.97
	115°F	TC	12492	12509	12522	12523	12540	14036	14054	14070	14073	14088	14882	14898	14914	14916	14935
		S/T	0.56	0.65	0.74	0.74	0.84	0.62	0.73	0.83	0.83	0.95	0.66	0.78	0.88	0.88	1.00
		PI	1.56	1.56	1.56	1.56	1.57	1.75	1.76	1.76	1.76	1.76	1.86	1.86	1.86	1.86	1.87
122°F	TC	9540	9553	9563	9563	9576	10719	10733	10745	10747	10759	11365	11377	11390	11391	11406	
	S/T	0.57	0.67	0.76	0.76	0.86	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00	
	PI	1.44	1.45	1.45	1.45	1.45	1.62	1.62	1.63	1.63	1.63	1.72	1.72	1.72	1.72	1.73	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**18HSHP-HH-SYS Expanded Cooling @ 600 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
600	50°F	TC	21135	21164	21187	21188	21216	23748	23779	23805	23810	23836	25179	25206	25234	25237	25269
		S/T	0.50	0.58	0.66	0.66	0.76	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	1.14	1.15	1.15	1.15	1.15	1.29	1.29	1.29	1.29	1.29	1.36	1.36	1.37	1.37	1.37
	59°F	TC	21589	21618	21641	21642	21671	24258	24289	24316	24321	24348	25719	25747	25775	25779	25811
		S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	1.18	1.18	1.18	1.18	1.18	1.32	1.33	1.33	1.33	1.33	1.40	1.40	1.41	1.41	1.41
	68°F	TC	22042	22072	22096	22097	22127	24767	24799	24827	24832	24859	26259	26288	26317	26321	26353
		S/T	0.51	0.60	0.69	0.69	0.78	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	1.21	1.21	1.21	1.21	1.22	1.36	1.36	1.36	1.37	1.37	1.44	1.45	1.45	1.45	1.45
	77°F	TC	22496	22526	22551	22552	22582	25277	25310	25338	25343	25371	26800	26829	26858	26862	26896
		S/T	0.52	0.61	0.69	0.69	0.79	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	1.25	1.25	1.25	1.25	1.25	1.40	1.40	1.40	1.40	1.40	1.48	1.49	1.49	1.49	1.49
	80°F	TC	22650	22681	22705	22706	22737	25450	25483	25512	25516	25545	26983	27013	27042	27046	27080
		S/T	0.53	0.62	0.70	0.70	0.80	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	1.26	1.26	1.26	1.26	1.26	1.41	1.41	1.42	1.42	1.42	1.50	1.50	1.50	1.50	1.50
	86°F	TC	21356	21384	21407	21408	21437	23995	24026	24053	24058	24085	25441	25469	25496	25500	25532
		S/T	0.53	0.63	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	1.50	1.50	1.50	1.50	1.50	1.68	1.68	1.69	1.69	1.69	1.78	1.79	1.79	1.79	1.79
	95°F	TC	19394	19420	19441	19442	19468	21791	21819	21844	21848	21872	23104	23129	23154	23158	23187
		S/T	0.53	0.63	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	1.86	1.86	1.87	1.87	1.87	2.09	2.09	2.10	2.10	2.10	2.22	2.22	2.22	2.22	2.23
	104°F	TC	16766	16788	16806	16807	16830	18838	18863	18884	18887	18908	19973	19995	20017	20020	20045
		S/T	0.55	0.64	0.73	0.73	0.83	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	1.76	1.76	1.77	1.77	1.77	1.98	1.98	1.99	1.99	1.99	2.10	2.10	2.10	2.10	2.11
	110°F	TC	15189	15209	15226	15227	15247	17067	17089	17108	17111	17130	18095	18115	18134	18137	18160
		S/T	0.57	0.67	0.76	0.76	0.86	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	1.70	1.71	1.71	1.71	1.71	1.91	1.92	1.92	1.92	1.92	2.03	2.03	2.03	2.03	2.04
115°F	TC	12902	12920	12934	12934	12952	14497	14516	14532	14535	14551	15371	15387	15404	15406	15426	
	S/T	0.57	0.67	0.77	0.77	0.87	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00	
	PI	1.61	1.61	1.62	1.62	1.62	1.81	1.81	1.82	1.82	1.82	1.92	1.92	1.92	1.92	1.93	
122°F	TC	9853	9866	9877	9878	9891	11071	11086	11098	11100	11112	11738	11751	11764	11766	11780	
	S/T	0.59	0.69	0.78	0.78	0.89	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00	
	PI	1.49	1.49	1.49	1.49	1.50	1.67	1.68	1.68	1.68	1.68	1.78	1.78	1.78	1.78	1.78	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**18HSHP-HH-SYS Expanded Heating @ 488 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	ODDB	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
488	-22°F	8593	8421	8379	8641	8564	1.87	1.89	1.89	1.90	1.90
	-13°F	11909	11671	11613	11516	11412	2.00	2.02	2.02	2.03	2.04
	-4°F	15225	14920	14846	14722	14589	2.30	2.32	2.32	2.33	2.34
	0°F	15943	15624	15546	15416	15278	2.35	2.37	2.37	2.38	2.39
	5°F	16841	16505	16422	16285	16138	2.41	2.43	2.43	2.44	2.45
	14°F	17027	16687	16603	16464	16316	2.22	2.24	2.25	2.25	2.26
	17°F	17089	16747	16664	16524	16376	2.16	2.18	2.18	2.19	2.20
	22°F	17261	16916	16831	16691	16540	2.11	2.13	2.13	2.14	2.15
	27°F	17433	17084	16999	16857	16705	2.06	2.08	2.08	2.09	2.10
	32°F	17605	17253	17167	17023	16870	2.01	2.03	2.03	2.04	2.05
	35°F	17708	17354	17267	17123	16969	1.98	2.00	2.00	2.01	2.01
	37°F	18363	17996	17906	17756	17596	1.97	1.98	1.99	1.99	2.00
	42°F	20000	19600	19502	19339	19165	1.93	1.94	1.94	1.95	1.96
	44.6°F	20655	20242	20140	19972	19792	1.91	1.92	1.93	1.93	1.94
	47°F	21637	21204	21098	20922	20734	1.88	1.90	1.90	1.91	1.92
	52°F	20046	19645	19547	19383	19209	1.83	1.84	1.85	1.85	1.86
	57°F	18455	18086	17995	17845	17684	1.77	1.79	1.79	1.80	1.80
59°F	17819	17462	17375	17230	17075	1.75	1.77	1.77	1.77	1.78	
62°F	16864	16527	16444	16307	16160	1.72	1.73	1.74	1.74	1.75	
64.4°F	16228	15903	15824	15691	15550	1.70	1.71	1.71	1.72	1.72	



**18HSHP-HH-SYS Expanded Heating @ 529 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	ODDB	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
529	-22°F	9051	8870	8826	8945	8864	1.89	1.91	1.91	1.92	1.92
	-13°F	12300	12054	11994	11920	11813	2.02	2.04	2.04	2.05	2.06
	-4°F	15725	15410	15333	15239	15101	2.32	2.34	2.35	2.35	2.36
	0°F	16467	16138	16057	15958	15814	2.37	2.39	2.40	2.40	2.41
	5°F	17394	17047	16961	16857	16705	2.43	2.45	2.46	2.46	2.47
	14°F	17586	17235	17148	17043	16889	2.25	2.26	2.27	2.27	2.28
	17°F	17650	17297	17211	17104	16951	2.18	2.20	2.21	2.21	2.22
	22°F	17828	17471	17384	17277	17121	2.13	2.15	2.15	2.16	2.17
	27°F	18006	17646	17557	17449	17292	2.08	2.10	2.10	2.11	2.12
	32°F	18183	17820	17731	17621	17462	2.03	2.05	2.05	2.06	2.07
	35°F	18290	17924	17835	17724	17565	2.00	2.02	2.02	2.03	2.04
	37°F	18966	18587	18494	18380	18214	1.99	2.00	2.01	2.01	2.02
	42°F	20657	20244	20142	20018	19838	1.94	1.96	1.96	1.97	1.98
	44.6°F	21333	20906	20802	20673	20487	1.93	1.94	1.95	1.95	1.96
	47°F	22347	21901	21791	21656	21461	1.90	1.92	1.92	1.93	1.93
	52°F	20704	20290	20189	20064	19883	1.85	1.86	1.87	1.87	1.88
	57°F	19061	18680	18586	18472	18305	1.79	1.81	1.81	1.81	1.82
59°F	18404	18036	17946	17835	17674	1.77	1.78	1.79	1.79	1.80	
62°F	17418	17070	16984	16879	16727	1.74	1.75	1.75	1.76	1.76	
64.4°F	16761	16425	16343	16242	16096	1.71	1.73	1.73	1.73	1.74	

**18HSHP-HH-SYS Expanded Heating @ 564 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	ODDB	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
564	-22°F	9533	9343	9296	9259	9176	1.91	1.93	1.93	1.93	1.94
	-13°F	12704	12450	12388	12339	12228	2.04	2.06	2.07	2.07	2.08
	-4°F	16241	15917	15837	15774	15632	2.35	2.37	2.37	2.38	2.39
	0°F	17008	16668	16584	16518	16369	2.40	2.42	2.42	2.43	2.43
	5°F	17966	17606	17518	17448	17291	2.46	2.48	2.48	2.49	2.50
	14°F	18164	17801	17712	17641	17482	2.27	2.29	2.29	2.30	2.30
	17°F	18230	17865	17776	17705	17546	2.21	2.22	2.23	2.23	2.24
	22°F	18414	18045	17955	17883	17722	2.15	2.17	2.18	2.18	2.19
	27°F	18597	18225	18134	18061	17899	2.10	2.12	2.13	2.13	2.14
	32°F	18781	18405	18313	18240	18076	2.05	2.07	2.07	2.08	2.09
	35°F	18891	18513	18420	18347	18182	2.02	2.04	2.04	2.05	2.06
	37°F	19589	19197	19101	19025	18854	2.01	2.02	2.03	2.03	2.04
	42°F	21335	20909	20804	20721	20534	1.96	1.98	1.98	1.99	2.00
	44.6°F	22034	21593	21485	21399	21207	1.95	1.96	1.97	1.97	1.98
	47°F	23081	22620	22507	22417	22215	1.92	1.94	1.94	1.95	1.95
	52°F	21384	20957	20852	20768	20582	1.87	1.88	1.89	1.89	1.90
	57°F	19687	19293	19197	19120	18948	1.81	1.82	1.83	1.83	1.84
	59°F	19008	18628	18535	18461	18295	1.79	1.80	1.81	1.81	1.82
62°F	17990	17630	17542	17472	17315	1.75	1.77	1.77	1.77	1.78	
64.4°F	17311	16965	16880	16813	16661	1.73	1.74	1.75	1.75	1.76	

**18HSHP-HH-SYS Expanded Heating @ 600 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	ODDB	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
600	-22°F	9847	9650	9601	9563	9477	1.93	1.95	1.95	1.95	1.96
	-13°F	13122	12859	12795	12744	12629	2.07	2.08	2.09	2.09	2.10
	-4°F	16775	16439	16357	16292	16145	2.37	2.39	2.40	2.40	2.41
	0°F	17566	17215	17129	17060	16907	2.42	2.44	2.44	2.45	2.46
	5°F	18556	18185	18094	18021	17859	2.48	2.50	2.51	2.51	2.52
	14°F	18761	18385	18293	18220	18056	2.29	2.31	2.31	2.32	2.33
	17°F	18829	18452	18360	18287	18122	2.23	2.25	2.25	2.25	2.26
	22°F	19018	18638	18545	18471	18304	2.18	2.19	2.20	2.20	2.21
	27°F	19208	18824	18730	18655	18487	2.13	2.14	2.15	2.15	2.16
	32°F	19397	19009	18914	18839	18669	2.07	2.09	2.10	2.10	2.11
	35°F	19511	19121	19025	18949	18779	2.04	2.06	2.06	2.07	2.08
	37°F	20233	19828	19729	19650	19473	2.03	2.04	2.05	2.05	2.06
	42°F	22036	21595	21487	21401	21209	1.98	2.00	2.00	2.01	2.02
	44.6°F	22757	22302	22191	22102	21903	1.97	1.98	1.99	1.99	2.00
	47°F	23840	23363	23246	23153	22945	1.94	1.96	1.96	1.97	1.97
	52°F	22087	21645	21537	21451	21257	1.89	1.90	1.90	1.91	1.92
	57°F	20334	19927	19827	19748	19570	1.83	1.84	1.85	1.85	1.86
59°F	19633	19240	19144	19067	18896	1.81	1.82	1.82	1.83	1.83	
62°F	18581	18209	18118	18046	17883	1.77	1.79	1.79	1.79	1.80	
64.4°F	17880	17522	17434	17365	17208	1.75	1.76	1.77	1.77	1.78	

**24HSHP-HH-SYS Expanded Cooling @ 629 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
629	50°F	TC	23416	23448	23473	23474	23506	26311	26345	26374	26379	26409	27896	27927	27957	27961	27996
		S/T	0.43	0.50	0.57	0.57	0.65	0.48	0.56	0.64	0.64	0.73	0.51	0.60	0.68	0.68	0.77
		PI	1.37	1.38	1.38	1.38	1.38	1.54	1.55	1.55	1.55	1.55	1.64	1.64	1.64	1.64	1.64
	59°F	TC	24188	24220	24246	24247	24280	27178	27213	27243	27248	27279	28815	28846	28878	28882	28918
		S/T	0.43	0.50	0.57	0.57	0.65	0.48	0.56	0.64	0.64	0.73	0.51	0.60	0.68	0.68	0.77
		PI	1.42	1.43	1.43	1.43	1.43	1.60	1.60	1.60	1.60	1.61	1.70	1.70	1.70	1.70	1.70
	68°F	TC	24959	24992	25019	25021	25054	28044	28081	28112	28117	28148	29734	29766	29799	29803	29840
		S/T	0.44	0.52	0.59	0.59	0.67	0.49	0.58	0.66	0.66	0.75	0.52	0.61	0.70	0.70	0.80
		PI	1.47	1.48	1.48	1.48	1.48	1.66	1.66	1.66	1.66	1.66	1.76	1.76	1.76	1.76	1.76
	77°F	TC	25730	25765	25793	25794	25828	28911	28948	28981	28986	29018	30653	30686	30719	30724	30762
		S/T	0.45	0.52	0.59	0.59	0.68	0.50	0.59	0.67	0.67	0.76	0.53	0.62	0.71	0.71	0.81
		PI	1.52	1.52	1.53	1.53	1.53	1.71	1.71	1.71	1.72	1.72	1.81	1.82	1.82	1.82	1.82
	80°F	TC	25992	26027	26055	26057	26092	29205	29243	29276	29281	29314	30965	30999	31032	31037	31076
		S/T	0.45	0.53	0.60	0.60	0.69	0.51	0.59	0.68	0.68	0.77	0.54	0.63	0.72	0.72	0.82
		PI	1.54	1.54	1.54	1.54	1.55	1.73	1.73	1.73	1.73	1.74	1.83	1.84	1.84	1.84	1.84
	86°F	TC	24348	24381	24407	24408	24441	27358	27393	27424	27429	27460	29006	29038	29069	29074	29110
		S/T	0.46	0.54	0.61	0.61	0.69	0.51	0.60	0.68	0.68	0.78	0.54	0.64	0.72	0.72	0.83
		PI	1.72	1.72	1.72	1.72	1.73	1.93	1.94	1.94	1.94	1.94	2.05	2.05	2.05	2.05	2.06
	95°F	TC	21857	21886	21910	21911	21940	24558	24590	24618	24622	24650	26038	26066	26095	26099	26131
		S/T	0.46	0.54	0.61	0.61	0.69	0.51	0.60	0.68	0.68	0.78	0.54	0.64	0.72	0.72	0.83
		PI	1.99	2.00	2.00	2.00	2.00	2.24	2.24	2.25	2.25	2.25	2.38	2.38	2.38	2.38	2.38
	104°F	TC	19414	19440	19461	19462	19489	21814	21842	21867	21871	21895	23129	23154	23179	23182	23211
		S/T	0.47	0.55	0.62	0.62	0.71	0.53	0.62	0.70	0.70	0.80	0.56	0.65	0.74	0.74	0.85
		PI	1.97	1.98	1.98	1.98	1.98	2.22	2.22	2.22	2.22	2.22	2.35	2.35	2.36	2.36	2.36
	110°F	TC	17949	17973	17992	17993	18018	20168	20194	20216	20220	20243	21383	21406	21429	21433	21459
		S/T	0.49	0.57	0.65	0.65	0.74	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88
		PI	1.96	1.96	1.96	1.96	1.97	2.20	2.20	2.21	2.21	2.21	2.33	2.34	2.34	2.34	2.34
	115°F	TC	15145	15165	15182	15182	15203	17017	17039	17058	17061	17080	18042	18062	18082	18084	18107
		S/T	0.49	0.58	0.65	0.65	0.75	0.55	0.65	0.74	0.74	0.84	0.58	0.69	0.78	0.78	0.89
		PI	1.83	1.84	1.84	1.84	1.84	2.06	2.06	2.07	2.07	2.07	2.19	2.19	2.19	2.19	2.19
122°F	TC	11406	11422	11434	11435	11450	12816	12833	12847	12850	12864	13589	13603	13618	13620	13637	
	S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	
	PI	1.67	1.67	1.67	1.67	1.67	1.87	1.88	1.88	1.88	1.88	1.99	1.99	1.99	1.99	1.99	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**24HSHP-HE-SYS Expanded Cooling @ 694 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
694	50°F	TC	24673	24706	24733	24734	24767	27723	27759	27790	27795	27826	29393	29425	29457	29462	29498
		S/T	0.45	0.53	0.60	0.60	0.68	0.50	0.59	0.67	0.67	0.77	0.53	0.63	0.71	0.71	0.81
		PI	1.45	1.45	1.45	1.45	1.45	1.63	1.63	1.63	1.63	1.63	1.73	1.73	1.73	1.73	1.73
	59°F	TC	25486	25520	25547	25549	25583	28636	28673	28705	28710	28742	30361	30394	30427	30432	30470
		S/T	0.45	0.53	0.60	0.60	0.69	0.51	0.59	0.68	0.68	0.77	0.54	0.63	0.72	0.72	0.82
		PI	1.50	1.50	1.50	1.50	1.51	1.69	1.69	1.69	1.69	1.69	1.79	1.79	1.79	1.79	1.79
	68°F	TC	26298	26334	26362	26363	26399	29549	29587	29620	29626	29659	31329	31363	31398	31402	31442
		S/T	0.46	0.54	0.62	0.62	0.70	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84
		PI	1.55	1.55	1.56	1.56	1.56	1.74	1.75	1.75	1.75	1.75	1.85	1.85	1.85	1.85	1.86
	77°F	TC	27111	27147	27177	27178	27214	30462	30502	30536	30541	30575	32297	32333	32368	32373	32413
		S/T	0.47	0.55	0.63	0.63	0.71	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.74	0.74	0.85
		PI	1.60	1.61	1.61	1.61	1.61	1.80	1.80	1.81	1.81	1.81	1.91	1.91	1.92	1.92	1.92
	80°F	TC	27387	27424	27454	27455	27492	30773	30813	30847	30853	30887	32627	32662	32698	32703	32743
		S/T	0.47	0.56	0.63	0.63	0.72	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86
		PI	1.62	1.62	1.63	1.63	1.63	1.82	1.82	1.83	1.83	1.83	1.93	1.93	1.94	1.94	1.94
	86°F	TC	25655	25689	25717	25718	25753	28826	28863	28895	28901	28933	30563	30596	30629	30634	30672
		S/T	0.48	0.56	0.64	0.64	0.73	0.54	0.63	0.72	0.72	0.82	0.57	0.67	0.76	0.76	0.87
		PI	1.81	1.82	1.82	1.82	1.82	2.04	2.04	2.04	2.04	2.04	2.16	2.16	2.16	2.16	2.17
	95°F	TC	23030	23061	23085	23086	23118	25876	25910	25939	25944	25973	27435	27465	27495	27499	27534
		S/T	0.48	0.56	0.64	0.64	0.73	0.54	0.63	0.72	0.72	0.82	0.57	0.67	0.76	0.76	0.87
		PI	2.10	2.10	2.11	2.11	2.11	2.36	2.36	2.37	2.37	2.37	2.50	2.51	2.51	2.51	2.51
	104°F	TC	20456	20484	20506	20507	20534	22985	23015	23040	23045	23070	24370	24396	24423	24426	24457
		S/T	0.49	0.58	0.66	0.66	0.75	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89
		PI	2.08	2.08	2.08	2.08	2.09	2.34	2.34	2.34	2.34	2.34	2.48	2.48	2.48	2.48	2.49
	110°F	TC	18912	18938	18958	18959	18984	21250	21277	21301	21305	21329	22530	22555	22579	22583	22611
		S/T	0.51	0.60	0.68	0.68	0.78	0.57	0.67	0.77	0.77	0.87	0.61	0.71	0.81	0.81	0.93
		PI	2.06	2.07	2.07	2.07	2.07	2.32	2.32	2.33	2.33	2.33	2.46	2.46	2.47	2.47	2.47
	115°F	TC	15958	15979	15996	15997	16019	17930	17954	17974	17977	17997	19011	19031	19052	19055	19079
		S/T	0.52	0.61	0.69	0.69	0.79	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.94
		PI	1.93	1.94	1.94	1.94	1.94	2.17	2.17	2.18	2.18	2.18	2.30	2.31	2.31	2.31	2.31
122°F	TC	12019	12035	12048	12048	12064	13504	13522	13537	13539	13554	14318	14333	14349	14351	14369	
	S/T	0.53	0.62	0.71	0.71	0.80	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.96	
	PI	1.76	1.76	1.76	1.76	1.76	1.97	1.98	1.98	1.98	1.98	2.09	2.10	2.10	2.10	2.10	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**24HSHP-HH-SYS Expanded Cooling @ 759 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
759	50°F	TC	25997	26032	26060	26061	26096	29210	29248	29281	29286	29319	30970	31004	31038	31043	31081
		S/T	0.47	0.55	0.63	0.63	0.72	0.53	0.62	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86
		PI	1.53	1.53	1.53	1.53	1.53	1.72	1.72	1.72	1.72	1.72	1.82	1.82	1.82	1.82	1.83
	59°F	TC	26853	26889	26918	26920	26956	30173	30212	30245	30251	30285	31990	32025	32060	32065	32105
		S/T	0.48	0.56	0.63	0.63	0.72	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86
		PI	1.58	1.58	1.58	1.59	1.59	1.78	1.78	1.78	1.78	1.78	1.88	1.89	1.89	1.89	1.89
	68°F	TC	27709	27747	27777	27778	27815	31135	31175	31210	31216	31250	33011	33046	33082	33088	33129
		S/T	0.49	0.57	0.65	0.65	0.74	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88
		PI	1.64	1.64	1.64	1.64	1.64	1.84	1.84	1.84	1.84	1.84	1.95	1.95	1.95	1.95	1.96
	77°F	TC	28566	28604	28635	28636	28675	32097	32138	32174	32180	32216	34031	34068	34105	34110	34152
		S/T	0.49	0.58	0.66	0.66	0.75	0.56	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89
		PI	1.69	1.69	1.69	1.69	1.70	1.90	1.90	1.90	1.90	1.91	2.01	2.02	2.02	2.02	2.02
	80°F	TC	28857	28896	28927	28928	28967	32424	32466	32502	32508	32544	34377	34415	34452	34458	34501
		S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.85	0.60	0.70	0.79	0.79	0.91
		PI	1.71	1.71	1.71	1.71	1.72	1.92	1.92	1.92	1.93	1.93	2.04	2.04	2.04	2.04	2.04
	86°F	TC	27031	27068	27097	27098	27135	30373	30412	30446	30452	30486	32203	32238	32273	32278	32318
		S/T	0.51	0.59	0.68	0.68	0.77	0.57	0.67	0.76	0.76	0.87	0.60	0.71	0.80	0.80	0.92
		PI	1.91	1.91	1.91	1.91	1.92	2.15	2.15	2.15	2.15	2.15	2.28	2.28	2.28	2.28	2.28
	95°F	TC	24265	24298	24324	24325	24358	27265	27300	27331	27336	27366	28908	28939	28971	28975	29011
		S/T	0.51	0.59	0.68	0.68	0.77	0.57	0.67	0.76	0.76	0.87	0.60	0.71	0.80	0.80	0.92
		PI	2.21	2.22	2.22	2.22	2.22	2.49	2.49	2.49	2.49	2.50	2.64	2.64	2.64	2.64	2.65
	104°F	TC	21554	21583	21606	21607	21636	24218	24250	24277	24281	24308	25677	25705	25733	25737	25769
		S/T	0.52	0.61	0.69	0.69	0.79	0.58	0.68	0.78	0.78	0.89	0.62	0.73	0.82	0.83	0.94
		PI	2.19	2.19	2.20	2.20	2.20	2.46	2.46	2.47	2.47	2.47	2.61	2.61	2.61	2.62	2.62
	110°F	TC	19927	19954	19975	19976	20003	22390	22419	22444	22448	22473	23739	23765	23791	23795	23824
		S/T	0.54	0.63	0.72	0.72	0.82	0.61	0.71	0.81	0.81	0.92	0.64	0.75	0.86	0.86	0.97
		PI	2.18	2.18	2.18	2.18	2.18	2.44	2.45	2.45	2.45	2.45	2.59	2.59	2.60	2.60	2.60
115°F	TC	16814	16837	16855	16856	16878	18892	18917	18938	18942	18963	20031	20052	20074	20077	20102	
	S/T	0.54	0.64	0.73	0.73	0.83	0.61	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99	
	PI	2.04	2.04	2.04	2.04	2.04	2.29	2.29	2.29	2.29	2.30	2.43	2.43	2.43	2.43	2.44	
122°F	TC	12663	12680	12694	12695	12712	14229	14247	14263	14266	14282	15086	15102	15119	15121	15140	
	S/T	0.56	0.65	0.74	0.74	0.85	0.63	0.73	0.84	0.84	0.95	0.66	0.78	0.89	0.89	1.00	
	PI	1.85	1.85	1.86	1.86	1.86	2.08	2.08	2.09	2.09	2.09	2.21	2.21	2.21	2.21	2.21	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

## 24HSHP-HH-SYS Expanded Cooling @ 824 CFM

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
824	50°F	TC	27392	27429	27458	27460	27497	30778	30818	30852	30858	30892	32632	32668	32703	32708	32749
		S/T	0.50	0.58	0.66	0.66	0.76	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	1.61	1.61	1.61	1.61	1.61	1.81	1.81	1.81	1.81	1.81	1.92	1.92	1.92	1.92	1.92
	59°F	TC	28294	28332	28363	28364	28402	31792	31833	31868	31874	31910	33707	33744	33781	33786	33828
		S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	1.67	1.67	1.67	1.67	1.67	1.87	1.87	1.88	1.88	1.88	1.98	1.99	1.99	1.99	1.99
	68°F	TC	29196	29236	29267	29268	29308	32805	32848	32885	32891	32927	34782	34820	34858	34863	34906
		S/T	0.51	0.60	0.69	0.69	0.78	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	1.72	1.73	1.73	1.73	1.73	1.94	1.94	1.94	1.94	1.94	2.05	2.06	2.06	2.06	2.06
	77°F	TC	30099	30139	30172	30173	30214	33819	33863	33901	33907	33945	35857	35896	35935	35940	35985
		S/T	0.52	0.61	0.69	0.69	0.79	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	1.78	1.78	1.79	1.79	1.79	2.00	2.00	2.01	2.01	2.01	2.12	2.12	2.13	2.13	2.13
	80°F	TC	30405	30446	30479	30480	30522	34164	34208	34246	34253	34291	36222	36262	36301	36307	36352
		S/T	0.53	0.62	0.70	0.70	0.80	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	1.80	1.80	1.80	1.80	1.81	2.02	2.03	2.03	2.03	2.03	2.15	2.15	2.15	2.15	2.15
	86°F	TC	28482	28520	28551	28552	28591	32003	32044	32080	32086	32122	33931	33968	34005	34010	34052
		S/T	0.53	0.63	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	2.01	2.02	2.02	2.02	2.02	2.26	2.26	2.27	2.27	2.27	2.40	2.40	2.40	2.40	2.41
	95°F	TC	25568	25602	25629	25631	25665	28728	28765	28797	28803	28835	30459	30492	30525	30530	30568
		S/T	0.53	0.63	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	2.33	2.34	2.34	2.34	2.34	2.62	2.63	2.63	2.63	2.63	2.78	2.78	2.79	2.79	2.79
	104°F	TC	22710	22741	22766	22767	22797	25518	25551	25579	25584	25613	27055	27085	27114	27118	27152
		S/T	0.55	0.64	0.73	0.73	0.83	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	2.31	2.31	2.31	2.31	2.32	2.59	2.60	2.60	2.60	2.60	2.75	2.75	2.76	2.76	2.76
110°F	TC	20996	21024	21047	21048	21076	23592	23622	23649	23653	23679	25013	25040	25067	25071	25103	
	S/T	0.57	0.67	0.76	0.76	0.86	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00	
	PI	2.29	2.30	2.30	2.30	2.30	2.58	2.58	2.58	2.58	2.59	2.73	2.73	2.74	2.74	2.74	
115°F	TC	17716	17740	17759	17760	17784	19906	19932	19954	19958	19980	21106	21129	21152	21155	21181	
	S/T	0.57	0.67	0.77	0.77	0.87	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00	
	PI	2.15	2.15	2.15	2.15	2.15	2.41	2.41	2.42	2.42	2.42	2.56	2.56	2.56	2.56	2.57	
122°F	TC	13343	13361	13375	13376	13394	14992	15012	15028	15031	15048	15896	15913	15930	15933	15953	
	S/T	0.59	0.69	0.78	0.78	0.89	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00	
	PI	1.95	1.95	1.96	1.96	1.96	2.19	2.20	2.20	2.20	2.20	2.32	2.33	2.33	2.33	2.33	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**24HSHP-HH-SYS Expanded Heating @ 629 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
629	-22°F	12405	12157	12096	12348	12237	2.76	2.78	2.79	2.79	2.81
	-13°F	16252	15927	15847	15555	15415	3.26	3.29	3.30	3.30	3.32
	-4°F	15486	15176	15100	14822	14689	2.58	2.60	2.60	2.61	2.62
	0°F	18254	17889	17799	17471	17314	3.03	3.05	3.06	3.06	3.08
	5°F	21714	21279	21173	20783	20596	3.59	3.62	3.63	3.64	3.65
	14°F	22398	21950	21840	21438	21245	3.20	3.23	3.24	3.24	3.26
	17°F	22626	22173	22063	21656	21461	3.07	3.10	3.11	3.11	3.12
	22°F	24088	23606	23488	23055	22847	3.14	3.17	3.17	3.18	3.19
	27°F	25549	25038	24913	24454	24234	3.21	3.23	3.24	3.25	3.26
	32°F	27011	26471	26338	25853	25620	3.28	3.30	3.31	3.32	3.33
	35°F	27888	27330	27193	26692	26452	3.32	3.34	3.35	3.36	3.37
	37°F	28266	27701	27562	27054	26811	3.26	3.29	3.29	3.30	3.31
	42°F	29212	28628	28485	27960	27708	3.13	3.15	3.16	3.17	3.18
	44.6°F	29590	28999	28854	28322	28067	3.07	3.10	3.10	3.11	3.12
	47°F	30158	29555	29407	28865	28605	2.99	3.02	3.02	3.03	3.04
	52°F	27941	27382	27245	26743	26502	2.90	2.93	2.93	2.94	2.95
	57°F	25723	25209	25083	24620	24399	2.82	2.84	2.84	2.85	2.86
59°F	24836	24339	24218	23771	23557	2.78	2.80	2.81	2.81	2.83	
62°F	23506	23035	22920	22498	22295	2.73	2.75	2.76	2.76	2.77	
64.4°F	22619	22166	22055	21649	21454	2.69	2.71	2.72	2.73	2.74	



**24HSHP-HH-SYS Expanded Heating @ 694 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
694	-22°F	13330	13063	12998	13106	12988	2.79	2.81	2.82	2.82	2.83
	-13°F	17124	16781	16697	16510	16361	3.30	3.32	3.33	3.34	3.35
	-4°F	16317	15990	15911	15732	15590	2.60	2.62	2.63	2.63	2.64
	0°F	19233	18849	18754	18544	18377	3.06	3.08	3.09	3.10	3.11
	5°F	22879	22421	22309	22058	21860	3.63	3.66	3.67	3.67	3.69
	14°F	23600	23128	23012	22753	22549	3.24	3.26	3.27	3.28	3.29
	17°F	23840	23363	23247	22985	22778	3.11	3.13	3.14	3.14	3.16
	22°F	25380	24873	24748	24470	24250	3.17	3.20	3.21	3.21	3.22
	27°F	26920	26382	26250	25955	25721	3.24	3.27	3.27	3.28	3.29
	32°F	28460	27891	27752	27440	27193	3.31	3.34	3.34	3.35	3.36
	35°F	29384	28796	28652	28330	28075	3.35	3.38	3.38	3.39	3.40
	37°F	29783	29187	29041	28715	28456	3.29	3.32	3.33	3.33	3.35
	42°F	30780	30164	30013	29676	29409	3.16	3.18	3.19	3.20	3.21
	44.6°F	31178	30555	30402	30060	29790	3.10	3.13	3.14	3.14	3.15
	47°F	31776	31141	30985	30637	30361	3.02	3.05	3.05	3.06	3.07
	52°F	29440	28851	28707	28384	28129	2.93	2.96	2.96	2.97	2.98
	57°F	27103	26561	26429	26131	25896	2.84	2.87	2.87	2.88	2.89
59°F	26169	25645	25517	25230	25003	2.81	2.83	2.84	2.84	2.85	
62°F	24767	24272	24150	23879	23664	2.76	2.78	2.78	2.79	2.80	
64.4°F	23832	23356	23239	22978	22771	2.72	2.74	2.75	2.75	2.76	

## 24HSHP-HH-SYS Expanded Heating @ 759 CFM

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
759	-22°F	14323	14037	13966	13911	13785	2.82	2.84	2.85	2.85	2.86
	-13°F	18043	17682	17593	17523	17365	3.33	3.36	3.36	3.37	3.38
	-4°F	17192	16849	16764	16697	16547	2.63	2.65	2.65	2.66	2.67
	0°F	20265	19860	19761	19682	19505	3.09	3.11	3.12	3.13	3.14
	5°F	24107	23624	23506	23412	23202	3.67	3.70	3.70	3.71	3.72
	14°F	24866	24369	24247	24150	23933	3.27	3.30	3.30	3.31	3.32
	17°F	25119	24617	24494	24396	24176	3.14	3.16	3.17	3.18	3.19
	22°F	26742	26207	26076	25972	25738	3.21	3.23	3.24	3.24	3.26
	27°F	28365	27797	27658	27548	27300	3.27	3.30	3.31	3.31	3.33
	32°F	29987	29388	29241	29124	28862	3.34	3.37	3.38	3.38	3.40
	35°F	30961	30342	30190	30069	29799	3.38	3.41	3.42	3.42	3.44
	37°F	31381	30753	30600	30477	30203	3.33	3.36	3.36	3.37	3.38
	42°F	32431	31783	31624	31497	31214	3.19	3.22	3.22	3.23	3.24
	44.6°F	32851	32194	32033	31905	31618	3.14	3.16	3.17	3.17	3.19
	47°F	33482	32812	32648	32517	32225	3.05	3.08	3.08	3.09	3.10
	52°F	31020	30399	30247	30126	29855	2.96	2.99	2.99	3.00	3.01
	57°F	28558	27987	27847	27735	27486	2.87	2.90	2.90	2.91	2.92
59°F	27573	27022	26886	26779	26538	2.84	2.86	2.87	2.87	2.88	
62°F	26096	25574	25446	25344	25116	2.78	2.81	2.81	2.82	2.83	
64.4°F	25111	24609	24486	24388	24168	2.75	2.77	2.78	2.78	2.79	

**24HSHP-HH-SYS Expanded Heating @ 824 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
824	-22°F	15092	14790	14716	14657	14525	2.85	2.87	2.87	2.88	2.89
	-13°F	19011	18631	18537	18463	18297	3.36	3.39	3.40	3.40	3.42
	-4°F	18115	17753	17664	17593	17435	2.65	2.68	2.68	2.69	2.70
	0°F	21353	20926	20821	20738	20551	3.12	3.15	3.15	3.16	3.17
	5°F	25400	24892	24768	24669	24447	3.70	3.73	3.74	3.75	3.76
	14°F	26201	25677	25548	25446	25217	3.30	3.33	3.34	3.34	3.36
	17°F	26467	25938	25808	25705	25474	3.17	3.19	3.20	3.21	3.22
	22°F	28177	27614	27476	27366	27119	3.24	3.26	3.27	3.28	3.29
	27°F	29887	29289	29143	29026	28765	3.31	3.33	3.34	3.35	3.36
	32°F	31597	30965	30810	30687	30410	3.38	3.40	3.41	3.42	3.43
	35°F	32622	31970	31810	31683	31398	3.42	3.45	3.45	3.46	3.47
	37°F	33065	32404	32242	32113	31824	3.36	3.39	3.40	3.40	3.42
	42°F	34172	33488	33321	33187	32889	3.22	3.25	3.26	3.26	3.28
	44.6°F	34614	33922	33752	33617	33315	3.17	3.19	3.20	3.21	3.22
	47°F	35278	34573	34400	34262	33954	3.08	3.11	3.12	3.12	3.13
	52°F	32684	32031	31870	31743	31457	2.99	3.02	3.02	3.03	3.04
	57°F	30090	29488	29341	29224	28961	2.90	2.93	2.93	2.94	2.95
	59°F	29053	28472	28329	28216	27962	2.87	2.89	2.90	2.90	2.91
62°F	27496	26946	26812	26704	26464	2.81	2.83	2.84	2.85	2.86	
64.4°F	26459	25929	25800	25697	25465	2.78	2.80	2.80	2.81	2.82	

**30HSHP-HH-SYS Expanded Cooling @ 712 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
712	50°F	TC	23341	23372	23398	23399	23430	26226	26260	26289	26294	26324	27806	27837	27867	27871	27906
		S/T	0.40	0.47	0.54	0.54	0.61	0.45	0.53	0.60	0.60	0.69	0.48	0.56	0.64	0.64	0.73
		PI	1.14	1.14	1.14	1.14	1.15	1.28	1.28	1.28	1.28	1.29	1.36	1.36	1.36	1.36	1.36
	59°F	TC	23712	23744	23769	23771	23803	26643	26678	26707	26712	26742	28248	28279	28310	28314	28350
		S/T	0.41	0.48	0.54	0.54	0.62	0.46	0.53	0.61	0.61	0.69	0.48	0.57	0.64	0.64	0.73
		PI	1.25	1.25	1.25	1.25	1.25	1.40	1.40	1.40	1.41	1.41	1.49	1.49	1.49	1.49	1.49
	68°F	TC	24083	24115	24141	24143	24175	27060	27095	27125	27130	27161	28690	28722	28753	28757	28793
		S/T	0.42	0.49	0.55	0.55	0.63	0.47	0.55	0.62	0.62	0.71	0.50	0.58	0.66	0.66	0.75
		PI	1.35	1.36	1.36	1.36	1.36	1.52	1.52	1.52	1.53	1.53	1.61	1.61	1.62	1.62	1.62
	77°F	TC	24454	24487	24513	24515	24548	27477	27513	27543	27548	27579	29133	29164	29196	29200	29237
		S/T	0.42	0.49	0.56	0.56	0.64	0.47	0.56	0.63	0.63	0.72	0.50	0.59	0.67	0.67	0.76
		PI	1.46	1.46	1.46	1.46	1.47	1.64	1.64	1.64	1.65	1.65	1.74	1.74	1.74	1.74	1.75
	80°F	TC	24580	24613	24640	24641	24674	27619	27655	27685	27691	27721	29283	29315	29347	29351	29388
		S/T	0.43	0.50	0.57	0.57	0.65	0.48	0.56	0.64	0.64	0.73	0.51	0.60	0.68	0.68	0.77
		PI	1.50	1.50	1.50	1.50	1.50	1.68	1.68	1.69	1.69	1.69	1.78	1.78	1.79	1.79	1.79
	86°F	TC	24600	24633	24659	24661	24694	27641	27677	27707	27713	27743	29306	29338	29370	29374	29411
		S/T	0.43	0.51	0.58	0.58	0.66	0.49	0.57	0.65	0.65	0.74	0.51	0.60	0.69	0.69	0.78
		PI	1.90	1.91	1.91	1.91	1.91	2.14	2.14	2.14	2.14	2.15	2.27	2.27	2.27	2.27	2.27
	95°F	TC	24629	24663	24689	24690	24723	27674	27710	27741	27746	27777	29341	29373	29405	29410	29446
		S/T	0.43	0.51	0.58	0.58	0.66	0.49	0.57	0.65	0.65	0.74	0.51	0.60	0.69	0.69	0.78
		PI	2.52	2.52	2.52	2.52	2.53	2.83	2.83	2.84	2.84	2.84	3.00	3.00	3.01	3.01	3.01
	104°F	TC	22224	22254	22278	22279	22309	24971	25004	25031	25036	25064	26476	26504	26533	26537	26570
		S/T	0.44	0.52	0.59	0.59	0.67	0.50	0.58	0.66	0.66	0.76	0.53	0.62	0.70	0.70	0.80
		PI	2.50	2.50	2.51	2.51	2.51	2.81	2.81	2.82	2.82	2.82	2.98	2.98	2.98	2.98	2.99
	110°F	TC	20781	20809	20831	20832	20860	23349	23380	23406	23410	23436	24756	24783	24810	24814	24845
		S/T	0.46	0.54	0.61	0.61	0.70	0.52	0.61	0.69	0.69	0.78	0.55	0.64	0.73	0.73	0.83
		PI	2.49	2.49	2.50	2.50	2.50	2.80	2.80	2.80	2.80	2.81	2.97	2.97	2.97	2.97	2.98
115°F	TC	17813	17837	17857	17857	17881	20015	20041	20064	20067	20090	21221	21244	21267	21271	21297	
	S/T	0.46	0.55	0.62	0.62	0.71	0.52	0.61	0.70	0.70	0.79	0.55	0.65	0.74	0.74	0.84	
	PI	2.40	2.40	2.40	2.40	2.41	2.69	2.70	2.70	2.70	2.70	2.86	2.86	2.86	2.86	2.87	
122°F	TC	13857	13875	13890	13891	13910	15570	15590	15607	15610	15628	16508	16526	16544	16546	16567	
	S/T	0.48	0.56	0.63	0.63	0.72	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	
	PI	2.28	2.28	2.28	2.28	2.29	2.56	2.56	2.56	2.57	2.57	2.71	2.72	2.72	2.72	2.72	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**30HSHP-HH-SYS Expanded Cooling @ 806 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
806	50°F	TC	25046	25080	25107	25108	25142	28142	28179	28210	28216	28247	29838	29871	29903	29908	29945
		S/T	0.43	0.51	0.58	0.58	0.66	0.49	0.57	0.65	0.65	0.74	0.52	0.60	0.69	0.69	0.78
		PI	1.22	1.23	1.23	1.23	1.23	1.38	1.38	1.38	1.38	1.38	1.46	1.46	1.46	1.46	1.46
	59°F	TC	25445	25479	25506	25507	25542	28590	28627	28659	28664	28696	30312	30345	30378	30383	30421
		S/T	0.43	0.51	0.58	0.58	0.66	0.49	0.57	0.65	0.65	0.74	0.52	0.61	0.69	0.69	0.79
		PI	1.34	1.34	1.34	1.34	1.34	1.50	1.51	1.51	1.51	1.51	1.59	1.60	1.60	1.60	1.60
	68°F	TC	25843	25878	25906	25907	25942	29037	29075	29107	29113	29145	30787	30820	30854	30859	30897
		S/T	0.45	0.52	0.60	0.60	0.68	0.50	0.59	0.67	0.67	0.76	0.53	0.62	0.71	0.71	0.81
		PI	1.45	1.45	1.46	1.46	1.46	1.63	1.63	1.64	1.64	1.64	1.73	1.73	1.73	1.73	1.74
	77°F	TC	26241	26276	26305	26306	26341	29485	29523	29556	29561	29594	31261	31295	31329	31334	31373
		S/T	0.45	0.53	0.60	0.60	0.69	0.51	0.60	0.68	0.68	0.77	0.54	0.63	0.72	0.72	0.82
		PI	1.57	1.57	1.57	1.57	1.57	1.76	1.76	1.77	1.77	1.77	1.87	1.87	1.87	1.87	1.87
	80°F	TC	26376	26412	26440	26442	26477	29637	29675	29708	29714	29747	31423	31457	31491	31496	31535
		S/T	0.46	0.54	0.61	0.61	0.70	0.51	0.60	0.69	0.69	0.78	0.55	0.64	0.73	0.73	0.83
		PI	1.61	1.61	1.61	1.61	1.61	1.80	1.81	1.81	1.81	1.81	1.91	1.92	1.92	1.92	1.92
	86°F	TC	26397	26433	26461	26463	26498	29660	29699	29732	29738	29771	31447	31482	31516	31521	31560
		S/T	0.46	0.54	0.62	0.62	0.70	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84
		PI	2.04	2.04	2.05	2.05	2.05	2.29	2.30	2.30	2.30	2.30	2.43	2.43	2.44	2.44	2.44
	95°F	TC	26429	26465	26493	26494	26530	29696	29735	29768	29773	29806	31485	31519	31554	31559	31598
		S/T	0.46	0.54	0.62	0.62	0.70	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84
		PI	2.70	2.71	2.71	2.71	2.71	3.04	3.04	3.04	3.04	3.05	3.22	3.22	3.23	3.23	3.23
	104°F	TC	23848	23880	23906	23907	23939	26796	26831	26860	26865	26895	28410	28441	28472	28477	28512
		S/T	0.48	0.56	0.63	0.63	0.72	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86
		PI	2.68	2.69	2.69	2.69	2.69	3.01	3.02	3.02	3.02	3.03	3.20	3.20	3.20	3.20	3.21
	110°F	TC	22299	22329	22353	22354	22384	25056	25088	25116	25121	25149	26565	26594	26623	26627	26660
		S/T	0.49	0.58	0.66	0.66	0.75	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89
		PI	2.67	2.67	2.68	2.68	2.68	3.00	3.00	3.01	3.01	3.01	3.18	3.19	3.19	3.19	3.19
115°F	TC	19115	19141	19161	19162	19188	21478	21506	21530	21534	21558	22772	22797	22821	22825	22853	
	S/T	0.50	0.58	0.66	0.66	0.76	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	
	PI	2.57	2.58	2.58	2.58	2.58	2.89	2.90	2.90	2.90	2.90	3.07	3.07	3.07	3.07	3.08	
122°F	TC	14869	14889	14905	14906	14926	16707	16729	16748	16751	16769	17714	17733	17753	17755	17777	
	S/T	0.51	0.60	0.68	0.68	0.78	0.57	0.67	0.76	0.76	0.87	0.61	0.71	0.81	0.81	0.92	
	PI	2.44	2.45	2.45	2.45	2.45	2.75	2.75	2.75	2.75	2.76	2.91	2.91	2.92	2.92	2.92	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**30HSHP-HH-SYS Expanded Cooling @ 894 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
894	50°F	TC	26877	26913	26942	26943	26979	30199	30238	30272	30277	30311	32018	32053	32088	32093	32133
		S/T	0.46	0.54	0.62	0.62	0.71	0.52	0.61	0.70	0.70	0.79	0.55	0.65	0.74	0.74	0.84
		PI	1.31	1.32	1.32	1.32	1.32	1.48	1.48	1.48	1.48	1.48	1.56	1.57	1.57	1.57	1.57
	59°F	TC	27304	27341	27370	27371	27408	30679	30719	30753	30759	30793	32527	32563	32598	32603	32644
		S/T	0.47	0.55	0.62	0.62	0.71	0.52	0.62	0.70	0.70	0.80	0.56	0.65	0.74	0.74	0.84
		PI	1.44	1.44	1.44	1.44	1.44	1.61	1.62	1.62	1.62	1.62	1.71	1.71	1.71	1.71	1.72
	68°F	TC	27731	27769	27798	27800	27837	31159	31200	31234	31240	31275	33037	33072	33108	33114	33155
		S/T	0.48	0.56	0.64	0.64	0.73	0.54	0.63	0.72	0.72	0.82	0.57	0.67	0.76	0.76	0.87
		PI	1.56	1.56	1.56	1.56	1.56	1.75	1.75	1.76	1.76	1.76	1.86	1.86	1.86	1.86	1.86
	77°F	TC	28159	28196	28227	28228	28266	31639	31680	31716	31722	31757	33546	33582	33619	33624	33666
		S/T	0.49	0.57	0.65	0.65	0.74	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88
		PI	1.68	1.68	1.69	1.69	1.69	1.89	1.89	1.89	1.89	1.90	2.00	2.01	2.01	2.01	2.01
	80°F	TC	28304	28342	28372	28374	28412	31802	31844	31879	31885	31921	33719	33755	33792	33797	33839
		S/T	0.49	0.58	0.66	0.66	0.75	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89
		PI	1.72	1.73	1.73	1.73	1.73	1.94	1.94	1.94	1.94	1.94	2.05	2.06	2.06	2.06	2.06
	86°F	TC	28326	28364	28395	28396	28434	31828	31869	31905	31910	31946	33745	33782	33819	33824	33866
		S/T	0.50	0.58	0.66	0.66	0.76	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	2.19	2.19	2.20	2.20	2.20	2.46	2.46	2.47	2.47	2.47	2.61	2.61	2.62	2.62	2.62
	95°F	TC	28360	28398	28429	28430	28469	31866	31907	31943	31949	31984	33786	33823	33859	33865	33907
		S/T	0.50	0.58	0.66	0.66	0.76	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	2.90	2.90	2.91	2.91	2.91	3.26	3.26	3.27	3.27	3.27	3.45	3.46	3.46	3.46	3.47
	104°F	TC	25591	25625	25653	25654	25688	28754	28791	28823	28829	28861	30486	30519	30553	30557	30595
		S/T	0.51	0.60	0.68	0.68	0.78	0.57	0.67	0.76	0.76	0.87	0.61	0.71	0.81	0.81	0.92
		PI	2.88	2.88	2.89	2.89	2.89	3.23	3.24	3.24	3.24	3.25	3.43	3.43	3.44	3.44	3.44
	110°F	TC	23929	23961	23987	23988	24020	26886	26921	26951	26956	26987	28506	28537	28569	28573	28609
		S/T	0.53	0.62	0.70	0.71	0.80	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.96
		PI	2.87	2.87	2.87	2.87	2.88	3.22	3.22	3.23	3.23	3.23	3.41	3.42	3.42	3.42	3.43
115°F	TC	20512	20539	20561	20562	20590	23047	23077	23103	23107	23133	24436	24462	24489	24493	24523	
	S/T	0.53	0.63	0.71	0.71	0.81	0.60	0.71	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97	
	PI	2.76	2.77	2.77	2.77	2.77	3.10	3.11	3.11	3.11	3.11	3.29	3.29	3.30	3.30	3.30	
122°F	TC	15956	15977	15995	15995	16017	17928	17951	17971	17975	17995	19008	19029	19050	19053	19076	
	S/T	0.55	0.64	0.73	0.73	0.83	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99	
	PI	2.62	2.63	2.63	2.63	2.63	2.95	2.95	2.95	2.95	2.96	3.12	3.13	3.13	3.13	3.13	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**30HSHP-HH-SYS Expanded Cooling @ 988 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
988	50°F	TC	28841	28879	28910	28912	28951	32406	32448	32484	32490	32526	34358	34395	34433	34438	34481
		S/T	0.50	0.58	0.66	0.66	0.76	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	1.41	1.41	1.41	1.41	1.41	1.58	1.59	1.59	1.59	1.59	1.68	1.68	1.68	1.68	1.69
	59°F	TC	29299	29338	29370	29371	29411	32921	32963	33000	33006	33043	34904	34942	34980	34986	35029
		S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	1.54	1.54	1.54	1.54	1.55	1.73	1.73	1.74	1.74	1.74	1.84	1.84	1.84	1.84	1.84
	68°F	TC	29758	29798	29830	29831	29871	33436	33479	33517	33523	33560	35451	35489	35528	35533	35577
		S/T	0.51	0.60	0.69	0.69	0.78	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	1.67	1.68	1.68	1.68	1.68	1.88	1.88	1.88	1.88	1.89	1.99	2.00	2.00	2.00	2.00
	77°F	TC	30216	30257	30289	30291	30332	33951	33995	34033	34039	34077	35997	36036	36075	36081	36126
		S/T	0.52	0.61	0.69	0.69	0.79	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	1.80	1.81	1.81	1.81	1.81	2.03	2.03	2.03	2.03	2.04	2.15	2.15	2.15	2.15	2.16
	80°F	TC	30372	30413	30446	30447	30488	34126	34171	34209	34215	34253	36182	36222	36261	36267	36312
		S/T	0.53	0.62	0.70	0.70	0.80	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	1.85	1.85	1.85	1.85	1.86	2.08	2.08	2.08	2.08	2.09	2.20	2.21	2.21	2.21	2.21
	86°F	TC	30396	30437	30470	30471	30512	34153	34198	34236	34242	34280	36211	36251	36290	36296	36341
		S/T	0.53	0.63	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	2.35	2.35	2.36	2.36	2.36	2.64	2.65	2.65	2.65	2.65	2.80	2.80	2.81	2.81	2.81
	95°F	TC	30433	30474	30506	30508	30549	34194	34239	34277	34283	34322	36255	36294	36334	36339	36384
		S/T	0.53	0.63	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	3.11	3.12	3.12	3.12	3.12	3.50	3.50	3.50	3.50	3.51	3.71	3.71	3.71	3.71	3.72
	104°F	TC	27460	27497	27527	27528	27565	30855	30895	30929	30935	30970	32714	32749	32785	32790	32831
		S/T	0.55	0.64	0.73	0.73	0.83	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	3.09	3.09	3.10	3.10	3.10	3.47	3.48	3.48	3.48	3.48	3.68	3.68	3.69	3.69	3.69
	110°F	TC	25677	25712	25739	25741	25775	28851	28889	28921	28926	28958	30589	30623	30656	30661	30699
		S/T	0.57	0.67	0.76	0.76	0.86	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	3.08	3.08	3.08	3.08	3.09	3.46	3.46	3.46	3.46	3.47	3.66	3.67	3.67	3.67	3.68
115°F	TC	22011	22040	22064	22065	22095	24731	24763	24791	24796	24823	26221	26250	26278	26283	26315	
	S/T	0.57	0.67	0.77	0.77	0.87	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00	
	PI	2.96	2.97	2.97	2.97	2.97	3.33	3.33	3.34	3.34	3.34	3.53	3.53	3.54	3.54	3.54	
122°F	TC	17122	17145	17163	17164	17187	19238	19263	19285	19288	19310	20397	20419	20442	20445	20470	
	S/T	0.59	0.69	0.78	0.78	0.89	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00	
	PI	2.81	2.82	2.82	2.82	2.82	3.16	3.17	3.17	3.17	3.17	3.35	3.36	3.36	3.36	3.36	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

### 30HSHP-HH-SYS Expanded Heating @ 712 CFM

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
712	-22°F	13095	12833	12769	13126	13008	3.28	3.30	3.31	3.32	3.33
	-13°F	15876	15558	15480	15301	15163	3.51	3.53	3.54	3.55	3.56
	-4°F	17589	17237	17151	16952	16800	3.87	3.90	3.91	3.92	3.93
	0°F	19575	19183	19087	18867	18697	3.95	3.98	3.99	4.00	4.01
	5°F	22057	21616	21508	21259	21068	4.04	4.08	4.08	4.09	4.11
	14°F	22391	21943	21833	21581	21387	3.58	3.61	3.61	3.62	3.64
	17°F	22502	22052	21942	21688	21493	3.42	3.45	3.46	3.46	3.48
	22°F	24649	24156	24035	23757	23543	3.60	3.63	3.64	3.65	3.66
	27°F	26796	26260	26128	25826	25594	3.79	3.82	3.83	3.83	3.85
	32°F	28942	28363	28222	27895	27644	3.97	4.00	4.01	4.02	4.04
	35°F	30230	29626	29478	29136	28874	4.08	4.11	4.12	4.13	4.15
	37°F	30127	29525	29377	29037	28776	3.95	3.98	3.99	4.00	4.01
	42°F	29870	29273	29126	28789	28530	3.62	3.65	3.65	3.66	3.68
	44.6°F	29767	29172	29026	28690	28432	3.49	3.51	3.52	3.53	3.54
	47°F	29613	29021	28876	28541	28285	3.29	3.31	3.32	3.33	3.34
	52°F	27436	26887	26752	26443	26205	3.19	3.22	3.22	3.23	3.24
	57°F	25258	24753	24629	24344	24125	3.09	3.12	3.13	3.13	3.14
	59°F	24387	23899	23780	23505	23293	3.06	3.08	3.09	3.09	3.10
62°F	23081	22619	22506	22246	22045	3.00	3.02	3.03	3.03	3.05	
64.4°F	22210	21766	21657	21406	21213	2.96	2.98	2.99	2.99	3.01	



### 30HSHP-HH-SYS Expanded Heating @ 806 CFM

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
806	-22°F	14330	14043	13973	14139	14011	3.31	3.34	3.34	3.35	3.36
	-13°F	17036	16695	16611	16482	16334	3.54	3.57	3.58	3.58	3.60
	-4°F	18874	18497	18404	18261	18096	3.91	3.94	3.95	3.96	3.97
	0°F	21005	20585	20482	20323	20140	3.99	4.02	4.03	4.04	4.05
	5°F	23669	23196	23080	22900	22694	4.08	4.12	4.13	4.13	4.15
	14°F	24027	23547	23429	23246	23037	3.61	3.64	3.65	3.66	3.67
	17°F	24146	23663	23545	23362	23151	3.46	3.48	3.49	3.50	3.51
	22°F	26450	25921	25791	25590	25360	3.64	3.67	3.68	3.69	3.70
	27°F	28754	28178	28038	27819	27569	3.83	3.86	3.87	3.87	3.89
	32°F	31057	30436	30284	30048	29777	4.01	4.04	4.05	4.06	4.08
	35°F	32439	31790	31632	31385	31103	4.12	4.16	4.16	4.17	4.19
	37°F	32329	31682	31524	31278	30997	3.99	4.02	4.03	4.04	4.05
	42°F	32053	31412	31255	31011	30732	3.65	3.68	3.69	3.70	3.71
	44.6°F	31942	31304	31147	30904	30626	3.52	3.55	3.56	3.56	3.58
	47°F	31777	31141	30986	30744	30467	3.32	3.35	3.35	3.36	3.37
	52°F	29440	28851	28707	28483	28227	3.22	3.25	3.26	3.26	3.27
	57°F	27104	26562	26429	26223	25987	3.13	3.15	3.16	3.16	3.18
	59°F	26169	25646	25518	25319	25091	3.09	3.11	3.12	3.12	3.14
62°F	24767	24272	24151	23962	23747	3.03	3.05	3.06	3.06	3.08	
64.4°F	23833	23356	23239	23058	22851	2.99	3.01	3.02	3.02	3.04	

**30HSHP-HH-SYS Expanded Heating @ 894 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
806	-22°F	15681	15368	15291	15230	15093	3.34	3.37	3.38	3.38	3.40
	-13°F	18280	17915	17825	17754	17594	3.58	3.61	3.61	3.62	3.64
	-4°F	20253	19848	19749	19670	19493	3.95	3.98	3.99	4.00	4.01
	0°F	22540	22089	21979	21891	21694	4.03	4.06	4.07	4.08	4.09
	5°F	25399	24891	24766	24667	24445	4.13	4.16	4.17	4.18	4.19
	14°F	25783	25267	25141	25040	24815	3.65	3.68	3.69	3.69	3.71
	17°F	25911	25393	25266	25165	24938	3.49	3.52	3.53	3.53	3.55
	22°F	28383	27815	27676	27565	27317	3.68	3.71	3.72	3.72	3.74
	27°F	30855	30237	30086	29966	29696	3.87	3.90	3.90	3.91	3.93
	32°F	33326	32660	32497	32367	32075	4.05	4.08	4.09	4.10	4.12
	35°F	34810	34113	33943	33807	33503	4.16	4.20	4.21	4.21	4.23
	37°F	34691	33997	33827	33692	33389	4.03	4.06	4.07	4.08	4.09
	42°F	34395	33707	33539	33404	33104	3.69	3.72	3.73	3.74	3.75
	44.6°F	34276	33591	33423	33289	32990	3.56	3.59	3.59	3.60	3.61
	47°F	34099	33417	33250	33117	32819	3.35	3.38	3.39	3.39	3.41
	52°F	31591	30960	30805	30682	30406	3.26	3.28	3.29	3.29	3.31
	57°F	29084	28503	28360	28247	27992	3.16	3.18	3.19	3.19	3.21
	59°F	28081	27520	27382	27273	27027	3.12	3.14	3.15	3.15	3.17
62°F	26577	26045	25915	25812	25579	3.06	3.08	3.09	3.10	3.11	
64.4°F	25574	25063	24937	24838	24614	3.02	3.04	3.05	3.06	3.07	

### 30HSHP-HH-SYS Expanded Heating @ 988 CFM

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
988	-22°F	16827	16491	16408	16343	16196	3.38	3.40	3.41	3.42	3.43
	-13°F	19616	19224	19128	19051	18880	3.61	3.64	3.65	3.66	3.67
	-4°F	21733	21298	21192	21107	20917	3.99	4.02	4.03	4.04	4.05
	0°F	24187	23703	23585	23491	23279	4.07	4.10	4.11	4.12	4.13
	5°F	27255	26710	26576	26470	26232	4.17	4.20	4.21	4.22	4.24
	14°F	27667	27113	26978	26870	26628	3.69	3.72	3.72	3.73	3.75
	17°F	27804	27248	27112	27003	26760	3.53	3.55	3.56	3.57	3.58
	22°F	30457	29847	29698	29579	29313	3.72	3.75	3.75	3.76	3.78
	27°F	33109	32447	32285	32156	31866	3.90	3.94	3.94	3.95	3.97
	32°F	35762	35046	34871	34732	34419	4.09	4.13	4.13	4.14	4.16
	35°F	37353	36606	36423	36277	35951	4.21	4.24	4.25	4.26	4.27
	37°F	37226	36482	36299	36154	35829	4.07	4.10	4.11	4.12	4.14
	42°F	36908	36170	35989	35845	35523	3.73	3.76	3.77	3.77	3.79
	44.6°F	36781	36045	35865	35722	35400	3.59	3.62	3.63	3.64	3.65
	47°F	36590	35859	35679	35537	35217	3.39	3.42	3.42	3.43	3.44
	52°F	33900	33222	33056	32924	32627	3.29	3.31	3.32	3.33	3.34
	57°F	31209	30585	30432	30311	30038	3.19	3.21	3.22	3.23	3.24
59°F	30133	29531	29383	29265	29002	3.15	3.17	3.18	3.19	3.20	
62°F	28519	27949	27809	27698	27448	3.09	3.11	3.12	3.13	3.14	
64.4°F	27443	26894	26759	26652	26413	3.05	3.07	3.08	3.09	3.10	

**36HSHP-HH-SYS Expanded Cooling @ 865 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
865	50°F	TC	28736	28774	28805	28807	28845	32288	32330	32366	32372	32408	34233	34270	34308	34313	34356
		S/T	0.41	0.48	0.55	0.55	0.63	0.46	0.54	0.62	0.62	0.70	0.49	0.57	0.65	0.65	0.74
		PI	1.49	1.50	1.50	1.50	1.50	1.68	1.68	1.68	1.68	1.68	1.78	1.78	1.78	1.78	1.79
	59°F	TC	29546	29585	29617	29618	29658	33198	33241	33278	33284	33321	35198	35236	35274	35280	35324
		S/T	0.41	0.49	0.55	0.55	0.63	0.46	0.55	0.62	0.62	0.71	0.49	0.58	0.66	0.66	0.75
		PI	1.70	1.70	1.70	1.70	1.70	1.91	1.91	1.91	1.91	1.92	2.02	2.03	2.03	2.03	2.03
	68°F	TC	30355	30396	30429	30430	30471	34108	34152	34190	34196	34234	36163	36202	36241	36247	36292
		S/T	0.42	0.50	0.57	0.57	0.65	0.48	0.56	0.64	0.64	0.72	0.51	0.59	0.67	0.67	0.77
		PI	1.90	1.91	1.91	1.91	1.91	2.14	2.14	2.14	2.14	2.15	2.27	2.27	2.27	2.27	2.28
	77°F	TC	31165	31207	31241	31242	31284	35017	35063	35102	35109	35148	37127	37168	37208	37214	37260
		S/T	0.43	0.50	0.57	0.57	0.65	0.48	0.57	0.64	0.64	0.73	0.51	0.60	0.68	0.68	0.78
		PI	2.11	2.11	2.11	2.11	2.12	2.37	2.37	2.37	2.37	2.38	2.51	2.51	2.52	2.52	2.52
	80°F	TC	31440	31483	31517	31518	31561	35327	35373	35412	35419	35458	37455	37496	37537	37543	37589
		S/T	0.44	0.51	0.58	0.58	0.66	0.49	0.57	0.65	0.65	0.74	0.52	0.61	0.69	0.69	0.79
		PI	2.18	2.18	2.18	2.18	2.19	2.45	2.45	2.45	2.45	2.46	2.59	2.60	2.60	2.60	2.60
	86°F	TC	30271	30311	30344	30345	30386	34012	34057	34095	34101	34139	36062	36101	36140	36146	36191
		S/T	0.44	0.52	0.59	0.59	0.67	0.50	0.58	0.66	0.66	0.75	0.53	0.62	0.70	0.70	0.80
		PI	2.68	2.68	2.68	2.68	2.69	3.01	3.01	3.01	3.01	3.02	3.19	3.19	3.19	3.20	3.20
	95°F	TC	28498	28537	28567	28569	28607	32021	32063	32098	32104	32140	33950	33987	34024	34029	34072
		S/T	0.44	0.52	0.59	0.59	0.67	0.50	0.58	0.66	0.66	0.75	0.53	0.62	0.70	0.70	0.80
		PI	3.43	3.44	3.44	3.44	3.44	3.85	3.86	3.86	3.86	3.87	4.09	4.09	4.10	4.10	4.10
	104°F	TC	26263	26298	26326	26327	26363	29509	29547	29580	29586	29619	31287	31321	31355	31360	31399
		S/T	0.45	0.53	0.60	0.60	0.69	0.51	0.60	0.68	0.68	0.77	0.54	0.63	0.72	0.72	0.82
		PI	3.38	3.39	3.39	3.39	3.39	3.80	3.80	3.81	3.81	3.81	4.03	4.03	4.04	4.04	4.04
	110°F	TC	24921	24955	24982	24983	25016	28002	28038	28069	28075	28106	29689	29721	29753	29758	29795
		S/T	0.47	0.55	0.62	0.62	0.71	0.53	0.62	0.70	0.70	0.80	0.56	0.65	0.74	0.74	0.85
		PI	3.35	3.36	3.36	3.36	3.37	3.77	3.77	3.78	3.78	3.78	3.99	4.00	4.00	4.00	4.01
	115°F	TC	21503	21532	21555	21556	21585	24161	24193	24220	24224	24251	25617	25645	25673	25677	25709
		S/T	0.47	0.56	0.63	0.63	0.72	0.53	0.63	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86
		PI	3.15	3.16	3.16	3.16	3.17	3.54	3.55	3.55	3.55	3.56	3.76	3.76	3.77	3.77	3.77
122°F	TC	16946	16969	16987	16988	17011	19041	19065	19087	19090	19111	20188	20210	20232	20235	20260	
	S/T	0.49	0.57	0.65	0.65	0.74	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	
	PI	2.89	2.89	2.90	2.90	2.90	3.25	3.25	3.26	3.26	3.26	3.44	3.45	3.45	3.45	3.46	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**36HSHP-HH-SYS Expanded Cooling @ 971 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
971	50°F	TC	30628	30669	30702	30704	30745	34414	34459	34497	34503	34542	36487	36527	36567	36572	36618
		S/T	0.44	0.51	0.58	0.58	0.67	0.49	0.58	0.66	0.66	0.75	0.52	0.61	0.70	0.70	0.79
		PI	1.59	1.59	1.60	1.60	1.60	1.79	1.79	1.79	1.79	1.80	1.90	1.90	1.90	1.90	1.90
	59°F	TC	31491	31533	31567	31569	31611	35384	35430	35469	35476	35515	37516	37556	37597	37603	37650
		S/T	0.44	0.52	0.59	0.59	0.67	0.50	0.58	0.66	0.66	0.75	0.52	0.62	0.70	0.70	0.80
		PI	1.81	1.81	1.81	1.81	1.82	2.03	2.04	2.04	2.04	2.04	2.16	2.16	2.16	2.16	2.16
	68°F	TC	32354	32398	32433	32434	32478	36354	36401	36441	36448	36489	38544	38586	38628	38634	38682
		S/T	0.45	0.53	0.60	0.60	0.69	0.51	0.60	0.68	0.68	0.77	0.54	0.63	0.72	0.72	0.82
		PI	2.03	2.03	2.03	2.03	2.04	2.28	2.28	2.28	2.29	2.29	2.42	2.42	2.42	2.42	2.43
	77°F	TC	33217	33262	33298	33299	33344	37323	37372	37413	37420	37462	39572	39615	39658	39664	39714
		S/T	0.46	0.54	0.61	0.61	0.70	0.51	0.60	0.69	0.69	0.78	0.55	0.64	0.73	0.73	0.83
		PI	2.25	2.25	2.25	2.25	2.26	2.52	2.53	2.53	2.53	2.53	2.68	2.68	2.68	2.68	2.69
	80°F	TC	33511	33556	33592	33594	33639	37653	37702	37744	37751	37793	39922	39965	40009	40015	40065
		S/T	0.46	0.54	0.62	0.62	0.71	0.52	0.61	0.70	0.70	0.79	0.55	0.65	0.74	0.74	0.84
		PI	2.32	2.32	2.33	2.33	2.33	2.61	2.61	2.61	2.61	2.62	2.77	2.77	2.77	2.77	2.78
	86°F	TC	32264	32307	32342	32344	32387	36252	36299	36340	36346	36387	38436	38478	38520	38526	38574
		S/T	0.47	0.55	0.63	0.63	0.71	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85
		PI	2.85	2.86	2.86	2.86	2.86	3.20	3.21	3.21	3.21	3.22	3.40	3.40	3.41	3.41	3.41
	95°F	TC	30375	30416	30449	30450	30491	34130	34174	34212	34218	34257	36186	36225	36265	36270	36316
		S/T	0.47	0.55	0.63	0.63	0.71	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85
		PI	3.66	3.66	3.67	3.67	3.67	4.11	4.11	4.12	4.12	4.12	4.36	4.36	4.37	4.37	4.37
	104°F	TC	27992	28030	28060	28061	28099	31452	31493	31528	31534	31569	33347	33383	33420	33425	33467
		S/T	0.48	0.57	0.64	0.64	0.73	0.54	0.64	0.72	0.72	0.82	0.57	0.67	0.77	0.77	0.87
		PI	3.60	3.61	3.61	3.61	3.62	4.05	4.06	4.06	4.06	4.07	4.29	4.30	4.30	4.30	4.31
	110°F	TC	26562	26598	26627	26628	26664	29846	29884	29918	29923	29957	31644	31678	31713	31718	31757
		S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	3.57	3.58	3.58	3.58	3.59	4.01	4.02	4.02	4.03	4.03	4.26	4.26	4.27	4.27	4.27
115°F	TC	22919	22950	22975	22976	23007	25752	25786	25814	25819	25848	27304	27334	27363	27368	27402	
	S/T	0.51	0.59	0.67	0.67	0.77	0.57	0.67	0.76	0.76	0.86	0.60	0.71	0.80	0.80	0.91	
	PI	3.36	3.37	3.37	3.37	3.38	3.78	3.78	3.79	3.79	3.79	4.01	4.01	4.01	4.01	4.02	
122°F	TC	18062	18086	18106	18106	18131	20294	20321	20343	20347	20370	21517	21541	21564	21567	21594	
	S/T	0.52	0.61	0.69	0.69	0.79	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.94	
	PI	3.08	3.09	3.09	3.09	3.09	3.46	3.47	3.47	3.47	3.48	3.67	3.67	3.68	3.68	3.68	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**36HSHP-HH-SYS Expanded Cooling @ 1,082 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
		ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
1082	50°F	TC	32645	32689	32724	32725	32770	36680	36728	36769	36775	36817	38890	38932	38975	38981	39029
		S/T	0.47	0.55	0.62	0.62	0.71	0.53	0.62	0.70	0.70	0.80	0.56	0.65	0.74	0.74	0.85
		PI	1.70	1.70	1.70	1.70	1.70	1.91	1.91	1.91	1.91	1.91	2.02	2.02	2.03	2.03	2.03
	59°F	TC	33565	33610	33646	33648	33693	37714	37763	37805	37812	37854	39986	40030	40073	40079	40129
		S/T	0.47	0.55	0.63	0.63	0.71	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85
		PI	1.93	1.93	1.93	1.93	1.94	2.17	2.17	2.17	2.17	2.18	2.30	2.30	2.30	2.30	2.31
	68°F	TC	34485	34531	34568	34570	34617	38747	38798	38841	38848	38892	41082	41127	41171	41178	41229
		S/T	0.48	0.57	0.64	0.64	0.73	0.54	0.64	0.72	0.72	0.82	0.57	0.67	0.77	0.77	0.87
		PI	2.16	2.17	2.17	2.17	2.17	2.43	2.43	2.44	2.44	2.44	2.58	2.58	2.58	2.58	2.59
	77°F	TC	35405	35452	35491	35492	35540	39781	39833	39877	39885	39929	42178	42224	42270	42276	42329
		S/T	0.49	0.57	0.65	0.65	0.74	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.78	0.78	0.88
		PI	2.39	2.40	2.40	2.40	2.40	2.69	2.69	2.70	2.70	2.70	2.85	2.86	2.86	2.86	2.86
	80°F	TC	35718	35766	35804	35806	35854	40133	40185	40229	40237	40282	42551	42597	42643	42650	42703
		S/T	0.49	0.58	0.66	0.66	0.75	0.56	0.65	0.74	0.74	0.84	0.59	0.69	0.79	0.79	0.90
		PI	2.47	2.48	2.48	2.48	2.48	2.78	2.78	2.79	2.79	2.79	2.95	2.95	2.95	2.95	2.96
	86°F	TC	34389	34435	34472	34474	34520	38639	38690	38733	38740	38783	40967	41012	41057	41063	41114
		S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	3.04	3.04	3.05	3.05	3.05	3.42	3.42	3.42	3.42	3.43	3.62	3.63	3.63	3.63	3.63
	95°F	TC	32375	32419	32454	32455	32499	36377	36424	36465	36472	36512	38569	38611	38653	38659	38707
		S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	3.90	3.90	3.91	3.91	3.91	4.38	4.39	4.39	4.39	4.40	4.64	4.65	4.65	4.65	4.66
	104°F	TC	29835	29875	29908	29909	29949	33523	33567	33604	33610	33648	35543	35582	35620	35626	35670
		S/T	0.51	0.60	0.68	0.68	0.78	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	3.84	3.85	3.85	3.85	3.86	4.32	4.32	4.33	4.33	4.33	4.58	4.58	4.59	4.59	4.59
	110°F	TC	28311	28349	28380	28381	28420	31811	31852	31888	31894	31929	33728	33764	33801	33806	33848
		S/T	0.53	0.62	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.63	0.74	0.85	0.85	0.96
		PI	3.81	3.81	3.82	3.82	3.82	4.28	4.28	4.29	4.29	4.30	4.54	4.54	4.55	4.55	4.55
	115°F	TC	24428	24461	24488	24489	24522	27448	27484	27514	27519	27550	29102	29133	29165	29170	29206
		S/T	0.54	0.63	0.72	0.72	0.82	0.61	0.71	0.81	0.81	0.92	0.64	0.75	0.86	0.86	0.98
		PI	3.58	3.59	3.59	3.59	3.60	4.03	4.03	4.04	4.04	4.04	4.27	4.27	4.28	4.28	4.28
122°F	TC	19251	19277	19298	19299	19325	21631	21659	21683	21687	21711	22934	22959	22984	22988	23016	
	S/T	0.55	0.65	0.73	0.73	0.84	0.62	0.73	0.83	0.83	0.94	0.66	0.77	0.88	0.88	1.00	
	PI	3.28	3.29	3.29	3.29	3.30	3.69	3.70	3.70	3.70	3.70	3.91	3.92	3.92	3.92	3.93	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**36HSHP-HH-SYS Expanded Cooling @ 1,188 CFM**

CFM	ODDB	ID WB(°F)	60.8°F					67.0°F					71.6°F				
			ID DB(°F)	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F	73.4°F	77.0°F	80.0°F	80.6°F
1188	50°F	TC	34795	34841	34879	34880	34927	39095	39146	39190	39197	39241	41451	41496	41541	41548	41599
		S/T	0.50	0.58	0.66	0.66	0.76	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	1.81	1.81	1.81	1.81	1.82	2.03	2.03	2.04	2.04	2.04	2.15	2.16	2.16	2.16	2.16
	59°F	TC	35775	35823	35862	35863	35912	40197	40249	40294	40302	40347	42619	42666	42712	42719	42772
		S/T	0.50	0.59	0.67	0.67	0.76	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	2.06	2.06	2.06	2.06	2.06	2.31	2.31	2.32	2.32	2.32	2.45	2.45	2.46	2.46	2.46
	68°F	TC	36756	36805	36845	36846	36896	41299	41353	41399	41406	41453	43787	43835	43883	43889	43944
		S/T	0.51	0.60	0.69	0.69	0.78	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	2.30	2.31	2.31	2.31	2.31	2.59	2.59	2.60	2.60	2.60	2.75	2.75	2.75	2.75	2.76
	77°F	TC	37736	37787	37828	37829	37880	42401	42456	42503	42511	42558	44955	45004	45053	45060	45116
		S/T	0.52	0.61	0.69	0.69	0.79	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	2.55	2.56	2.56	2.56	2.56	2.87	2.87	2.88	2.88	2.88	3.04	3.04	3.05	3.05	3.05
	80°F	TC	38070	38121	38162	38164	38215	42775	42831	42879	42887	42934	45353	45402	45451	45458	45515
		S/T	0.53	0.62	0.70	0.70	0.80	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	2.64	2.64	2.64	2.64	2.65	2.96	2.97	2.97	2.97	2.97	3.14	3.14	3.15	3.15	3.15
	86°F	TC	36653	36702	36742	36744	36793	41184	41237	41283	41291	41337	43665	43713	43760	43767	43822
		S/T	0.53	0.63	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	3.24	3.24	3.25	3.25	3.25	3.64	3.65	3.65	3.65	3.65	3.86	3.86	3.87	3.87	3.87
	95°F	TC	34507	34553	34591	34592	34639	38772	38823	38866	38873	38917	41109	41153	41198	41204	41256
		S/T	0.53	0.63	0.71	0.71	0.81	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	4.15	4.16	4.16	4.16	4.17	4.67	4.67	4.68	4.68	4.69	4.95	4.95	4.96	4.96	4.97
	104°F	TC	31800	31843	31877	31878	31921	35731	35777	35817	35824	35864	37884	37925	37966	37972	38019
		S/T	0.55	0.64	0.73	0.73	0.83	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	4.09	4.10	4.10	4.10	4.11	4.60	4.61	4.61	4.61	4.62	4.88	4.88	4.89	4.89	4.90
	110°F	TC	30176	30216	30249	30250	30291	33906	33950	33988	33994	34032	35949	35988	36027	36032	36077
		S/T	0.57	0.67	0.76	0.76	0.86	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	4.06	4.06	4.07	4.07	4.07	4.56	4.57	4.57	4.57	4.58	4.84	4.84	4.85	4.85	4.85
	115°F	TC	26037	26072	26100	26101	26137	29255	29293	29326	29332	29364	31018	31052	31086	31091	31129
		S/T	0.57	0.67	0.77	0.77	0.87	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00
		PI	3.82	3.82	3.83	3.83	3.83	4.29	4.30	4.30	4.30	4.31	4.55	4.56	4.56	4.56	4.57
122°F	TC	20519	20546	20569	20569	20597	23055	23085	23111	23115	23141	24444	24471	24497	24501	24532	
	S/T	0.59	0.69	0.78	0.78	0.89	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00	
	PI	3.50	3.51	3.51	3.51	3.51	3.93	3.94	3.94	3.94	3.95	4.17	4.17	4.18	4.18	4.19	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

**36HSHP-HH-SYS Expanded Heating @ 865 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
865	-22°F	18903	18525	18433	18505	18338	4.86	4.90	4.91	4.92	4.94
	-13°F	23734	23259	23143	22340	22139	5.15	5.19	5.20	5.21	5.23
	-4°F	26144	25621	25493	24608	24387	4.84	4.88	4.89	4.90	4.92
	0°F	28130	27567	27429	26477	26239	5.01	5.05	5.06	5.07	5.09
	5°F	30612	30000	29850	28814	28554	5.22	5.26	5.27	5.28	5.30
	14°F	35315	34609	34436	33241	32941	5.71	5.76	5.77	5.78	5.81
	17°F	36883	36145	35964	34716	34404	5.88	5.93	5.94	5.95	5.98
	22°F	38077	37316	37129	35840	35518	5.86	5.90	5.92	5.93	5.95
	27°F	39272	38486	38294	36965	36632	5.83	5.88	5.89	5.90	5.93
	32°F	40466	39657	39459	38089	37746	5.81	5.85	5.87	5.88	5.90
	35°F	41183	40359	40157	38764	38415	5.79	5.84	5.85	5.86	5.89
	37°F	41442	40613	40410	39007	38656	5.63	5.67	5.69	5.70	5.72
	42°F	42090	41248	41042	39617	39261	5.22	5.26	5.27	5.28	5.30
	44.6°F	42349	41502	41294	39861	39502	5.05	5.09	5.10	5.11	5.13
	47°F	42738	41883	41673	40227	39865	4.80	4.84	4.85	4.86	4.88
	52°F	39595	38803	38609	37269	36934	4.66	4.70	4.71	4.72	4.74
	57°F	36453	35724	35545	34311	34002	4.52	4.56	4.57	4.58	4.59
59°F	35196	34492	34319	33128	32830	4.46	4.50	4.51	4.52	4.54	
62°F	33310	32644	32481	31353	31071	4.38	4.41	4.42	4.43	4.45	
64.4°F	32053	31412	31255	30170	29899	4.32	4.36	4.37	4.38	4.39	



**36HSHP-HH-SYS Expanded Heating @ 971 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
971	-22°F	20547	20136	20036	20034	19854	4.91	4.95	4.96	4.97	4.99
	-13°F	25297	24791	24667	24187	23969	5.20	5.24	5.26	5.27	5.29
	-4°F	27866	27309	27172	26643	26403	4.89	4.93	4.94	4.95	4.97
	0°F	29982	29383	29236	28666	28408	5.06	5.10	5.11	5.12	5.14
	5°F	32628	31975	31815	31196	30915	5.27	5.31	5.32	5.33	5.36
	14°F	37641	36888	36703	35989	35665	5.77	5.82	5.83	5.84	5.87
	17°F	39312	38525	38333	37586	37248	5.94	5.99	6.00	6.01	6.04
	22°F	40585	39773	39574	38803	38454	5.92	5.96	5.98	5.99	6.01
	27°F	41858	41021	40816	40021	39660	5.89	5.94	5.95	5.96	5.99
	32°F	43131	42268	42057	41238	40867	5.87	5.91	5.93	5.94	5.96
	35°F	43895	43017	42802	41968	41591	5.85	5.90	5.91	5.92	5.95
	37°F	44171	43288	43071	42232	41852	5.69	5.73	5.74	5.75	5.78
	42°F	44861	43964	43744	42892	42506	5.27	5.31	5.32	5.33	5.35
	44.6°F	45138	44235	44014	43157	42768	5.10	5.14	5.15	5.16	5.18
	47°F	45552	44641	44418	43553	43161	4.85	4.89	4.90	4.91	4.93
	52°F	42202	41358	41152	40350	39987	4.71	4.75	4.76	4.77	4.79
	57°F	38853	38076	37886	37148	36813	4.57	4.60	4.61	4.62	4.64
59°F	37513	36763	36579	35867	35544	4.51	4.55	4.55	4.56	4.58	
62°F	35504	34794	34620	33945	33640	4.42	4.46	4.47	4.48	4.50	
64.4°F	34164	33481	33313	32664	32370	4.37	4.40	4.41	4.42	4.44	

**36HSHP-HH-SYS Expanded Heating @ 1,082 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
1082	-22°F	22334	21887	21778	21691	21495	4.96	5.00	5.01	5.02	5.04
	-13°F	26963	26424	26291	26186	25951	5.26	5.30	5.31	5.32	5.34
	-4°F	29701	29107	28961	28845	28586	4.94	4.98	4.99	5.00	5.02
	0°F	31957	31317	31161	31036	30757	5.11	5.15	5.16	5.17	5.19
	5°F	34776	34081	33910	33775	33471	5.32	5.37	5.38	5.39	5.41
	14°F	40119	39317	39120	38964	38613	5.83	5.88	5.89	5.90	5.93
	17°F	41900	41062	40857	40693	40327	6.00	6.05	6.06	6.07	6.10
	22°F	43257	42392	42180	42011	41633	5.98	6.02	6.04	6.05	6.07
	27°F	44614	43722	43503	43329	42939	5.95	6.00	6.01	6.02	6.05
	32°F	45971	45052	44826	44647	44245	5.93	5.97	5.99	6.00	6.02
	35°F	46785	45850	45620	45438	45029	5.91	5.96	5.97	5.98	6.01
	37°F	47080	46138	45907	45724	45312	5.74	5.79	5.80	5.81	5.84
	42°F	47816	46859	46625	46438	46020	5.32	5.36	5.38	5.39	5.41
	44.6°F	48110	47148	46912	46724	46304	5.15	5.19	5.21	5.22	5.24
	47°F	48551	47580	47343	47153	46729	4.90	4.94	4.95	4.96	4.98
	52°F	44982	44082	43861	43686	43293	4.76	4.79	4.80	4.81	4.83
	57°F	41412	40583	40380	40219	39857	4.61	4.65	4.66	4.67	4.69
	59°F	39984	39184	38988	38832	38483	4.55	4.59	4.60	4.61	4.63
62°F	37842	37085	36899	36752	36421	4.47	4.50	4.51	4.52	4.54	
64.4°F	36414	35685	35507	35365	35047	4.41	4.45	4.46	4.46	4.48	

**36HSHP-HH-SYS Expanded Heating @ 1,188 CFM**

CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC: Total Heating Capacity(BTU/hr)					PI: Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
1082	-22°F	23805	23328	23212	23119	22911	5.01	5.05	5.06	5.07	5.09
	-13°F	28738	28164	28023	27911	27659	5.31	5.35	5.36	5.37	5.39
	-4°F	31657	31023	30868	30745	30468	4.99	5.03	5.04	5.05	5.07
	0°F	34061	33380	33213	33080	32782	5.16	5.20	5.21	5.22	5.24
	5°F	37066	36325	36143	35999	35675	5.38	5.42	5.43	5.44	5.46
	14°F	42761	41906	41696	41530	41156	5.89	5.94	5.95	5.96	5.99
	17°F	44659	43766	43547	43373	42983	6.06	6.11	6.12	6.13	6.16
	22°F	46106	45184	44958	44778	44375	6.04	6.08	6.10	6.11	6.13
	27°F	47552	46601	46368	46182	45767	6.01	6.06	6.07	6.08	6.11
	32°F	48998	48018	47778	47587	47159	5.99	6.03	6.05	6.06	6.08
	35°F	49866	48869	48624	48430	47994	5.97	6.02	6.03	6.04	6.07
	37°F	50180	49176	48930	48735	48296	5.80	5.85	5.86	5.87	5.89
	42°F	50964	49945	49695	49496	49051	5.38	5.42	5.43	5.44	5.46
	44.6°F	51278	50252	50001	49801	49353	5.21	5.25	5.26	5.27	5.29
	47°F	51749	50714	50460	50258	49806	4.95	4.99	5.00	5.01	5.03
	52°F	47944	46985	46750	46563	46144	4.80	4.84	4.85	4.86	4.88
	57°F	44139	43256	43039	42867	42482	4.66	4.70	4.71	4.72	4.73
	59°F	42617	41764	41555	41389	41017	4.60	4.64	4.65	4.66	4.68
62°F	40333	39527	39329	39172	38819	4.51	4.55	4.56	4.57	4.59	
64.4°F	38811	38035	37845	37694	37354	4.46	4.49	4.50	4.51	4.53	

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

## Control Options

### Thermostats

Part Number	Description
MMT4522-001	24V 2H/1C Programmable Thermostat with Occupancy Sensor Input and Standard Display.
MMT8532-002	24V 2H/1C Programmable Thermostat with Occupancy Sensor Input and Deluxe Display.
MMT8532OCC-1	24V 2H/1C Programmable Thermostat with Built-In Occupancy Sensor and Deluxe Display.
MMW-1	24V 2H/1C Non-Programmable Wireless Thermostat.

The HSHP-SYS includes a factory installed 24V control board, in the outdoor heat pump, and can be used with most standard 24V thermostats.



**MMT4522-001**



**MMT8532-002**



**MMW-1**



### Wired Wall Controllers and IR Controller

Part Number	Description
SWC120LR	Standard wired wall controller with operation mode control, timer and fan speed functions.
DWC120X2	Deluxe wired wall controller with programmable weekly timer, auto-restart, child lock, and follow me functions. The DWC120X2 also functions as a receiver for the MWRC remote controller.
WIFI-DWC120X2	Deluxe wired wall controller with WFI and app, with programmable weekly timer, auto-restart, child lock, Turbo function, follow me function and more. The WIFI-DWC120X2 also functions as a receiver for the MWRC remote controller.
MWRC2	Wireless infrared remote controller with timer, sleep function, follow me and turbo function. Internal functions, such as setting airflow, can be made with this remote controller, as well.



**SWC120LR**  
Standard Wired  
Wall Controller



**WIFI-DWC120X2**  
WIFI Deluxe Wired  
Wall Controller



**MWRC2**  
Wireless Remote

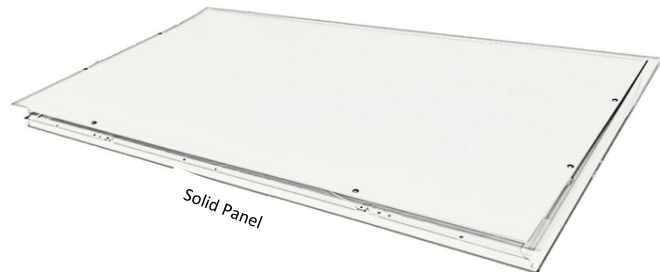
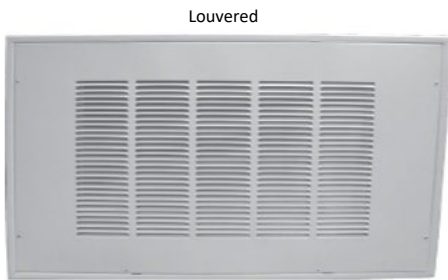
# Access Panels

Ceiling Access Panels / Filter Grilles								
Model Number	Panel Part Number	Style	Filter Rack	Filter Quantity	Inside Frame Dimensions		Outside Frame Dimensions	
18HSHP	965-LA	Louvered	20 X 30 X 1	1	24.5	40	27.5	43
	965-LB	Louvered	20 X 30 X 2	1	24.5	40	27.5	43
	965-S	Solid	N/A	N/A	24.5	40	27.5	43
24HSHP	966-LA	Louvered	20 X 20 X 1	2	24.5	46	27.5	49
	966-LB	Louvered	20 X 20 X 2	2	24.5	46	27.5	49
	966-S	Solid	N/A	N/A	24.5	46	27.5	49
30HSHP	967-LA	Louvered	20 X 20 X 1	2	24.5	52.5	27.5	55.5
	967-LB	Louvered	20 X 20 X 2	2	24.5	52.5	27.5	55.5
	967-S	Solid	N/A	N/A	24.5	52.5	27.5	55.5
36HSHP	967-6-LA	Louvered	20 X 25 X 1	2	24.5	60	27.5	63
	967-6-LB	Louvered	20 X 25 X 2	2	24.5	60	27.5	63
	967-6-S	Solid	N/A	N/A	24.5	60	27.5	63

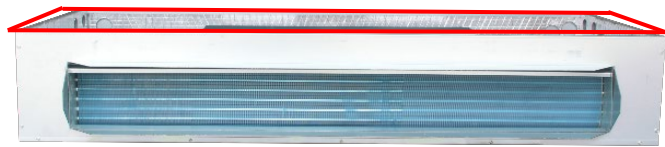
Access Panels are not included with the HSHP series units.

Filters are not included with the louvered access panels.

Please refer to the Multi Manufacturing Louvered Access Panel Performance brochure for Merv 8, Merv 11 and Merv 13 pressure drop information.



Bottom Cap	
Model Number	Bottom Cap Part Number
18HSHP	CAP-18
24HSHP	CAP-24
30HSHP	CAP-30
36HSHP	CAP-36



With Galvanized Steel Construction, with Foil-Face insulation lining, the Bottom Caps are designed for use in a suspended ceiling, ducted application. A Bottom Cap would be used in place of a ceiling access panel in such applications.

Bottom Caps have a 1/2" lip around the perimeter, and can be fastened to the cabinet with 1/4" zip screws.



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