

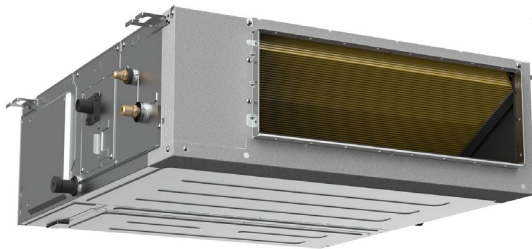


HHHP-HH

Hyper Heat

Horizontal Soffit Mount System

R454b Model



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

3/4 Ton - 5 Ton, with Efficiencies up to 20.50 SEER2 and 14.0 EER2



R454b

The HHHP 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 can be configured for bottom return air or ducted return air. This system supplies comfortable cooling and heating performance at low sound levels.

Typical installations for the HHHP include:

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



Features

Highly Efficient / High Performance

- Highly Efficient Inverter Compressor, with Efficiencies up to 20.50 SEER2
- Air Handler EC Blower Motor, with Available ESP up to 0.80" WC
- Low Amp Draw DC motor in Outdoor HP

Quiet Operation, Inside and Outside

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

Heating at Low Ambient Conditions

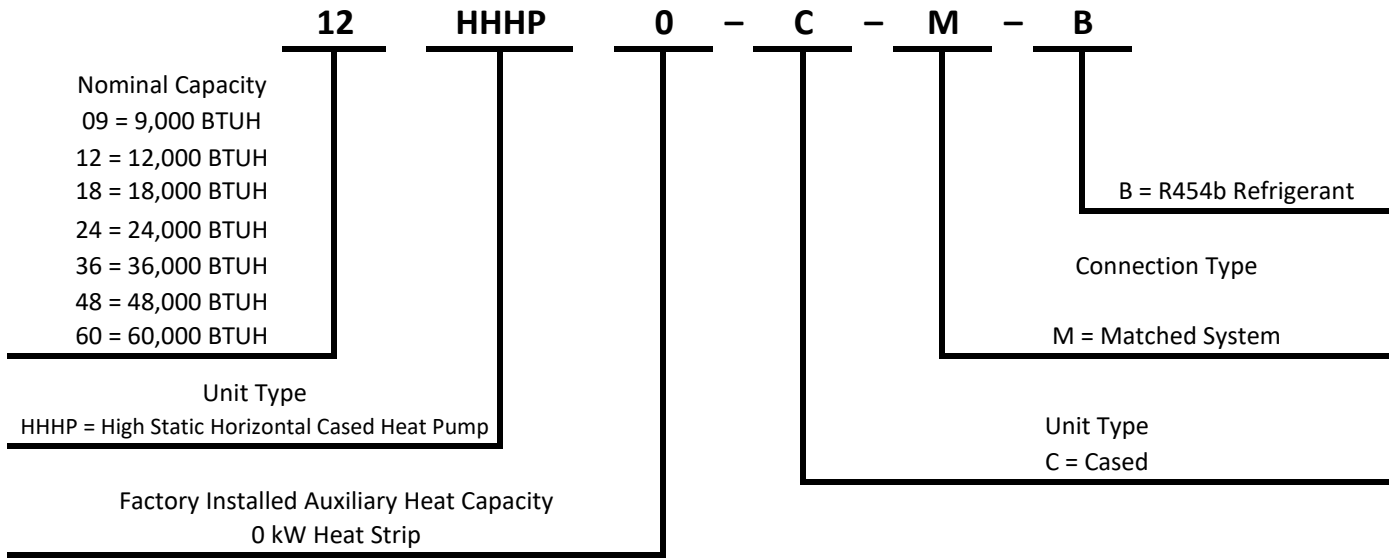
- Standard Base Pan Heaters
- Hyper Heat, with full heating capacity down to 5° F
- Crankcase Heater

Design

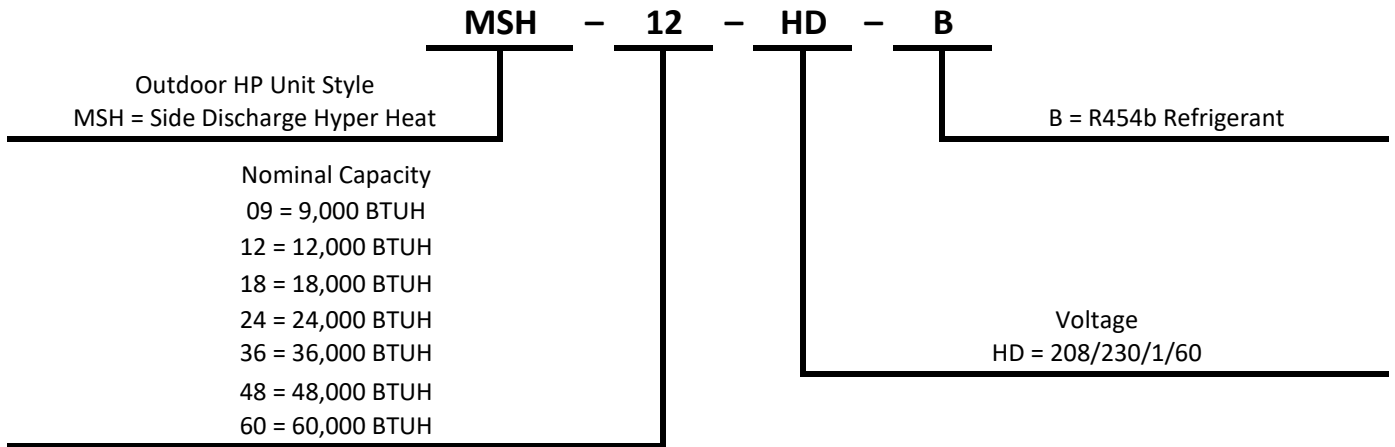
- Standard Rear Return Air or Optional Bottom Return Air
- Installed Indoor Fan Coil Freeze Protector
- Automatic Restart Function
- Available Optional 24V Control Interface for use with 3rd Party Thermostats
- Liquid Line Service Port
- External Condensate Pump (9 - 18) or Installed Condensate Pump (24 - 60)
- Cleanable Filters in Fan Coil
- Gold Pre-Coated Fins on Evaporator and Condenser Coils
- Compressor Time Delay
- Compressor Overload and Over Current Protection
- Environmentally Friendly R454b Refrigerant
- Factory Installed R454b Refrigerant Leak Sensor

Nomenclature

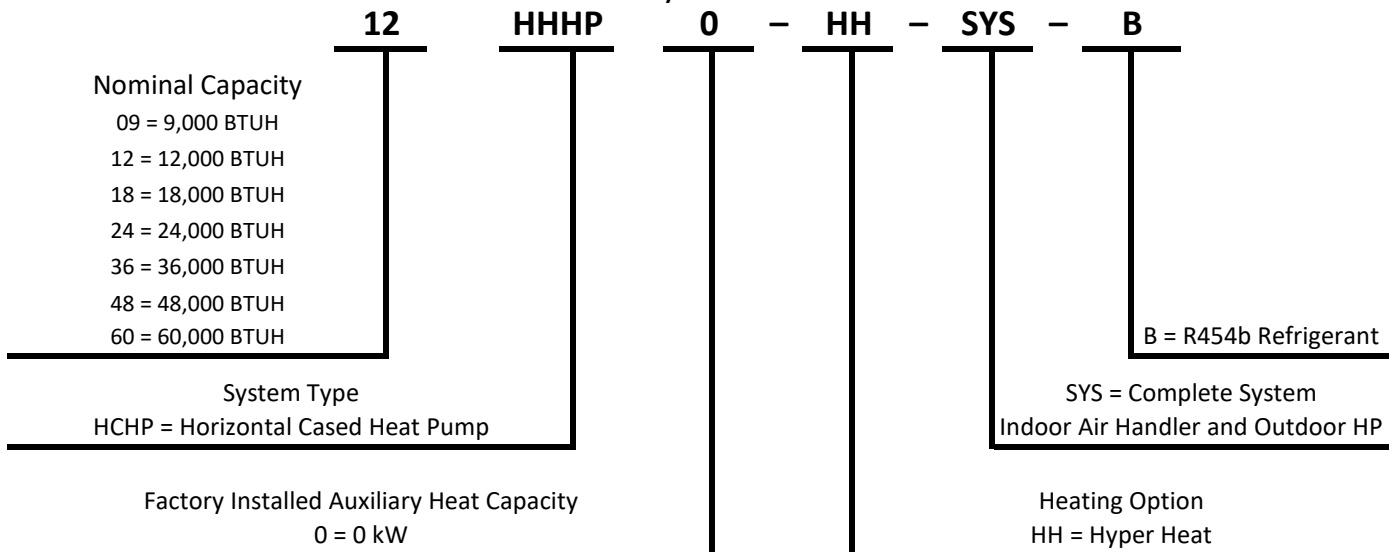
Indoor Unit



Outdoor Unit



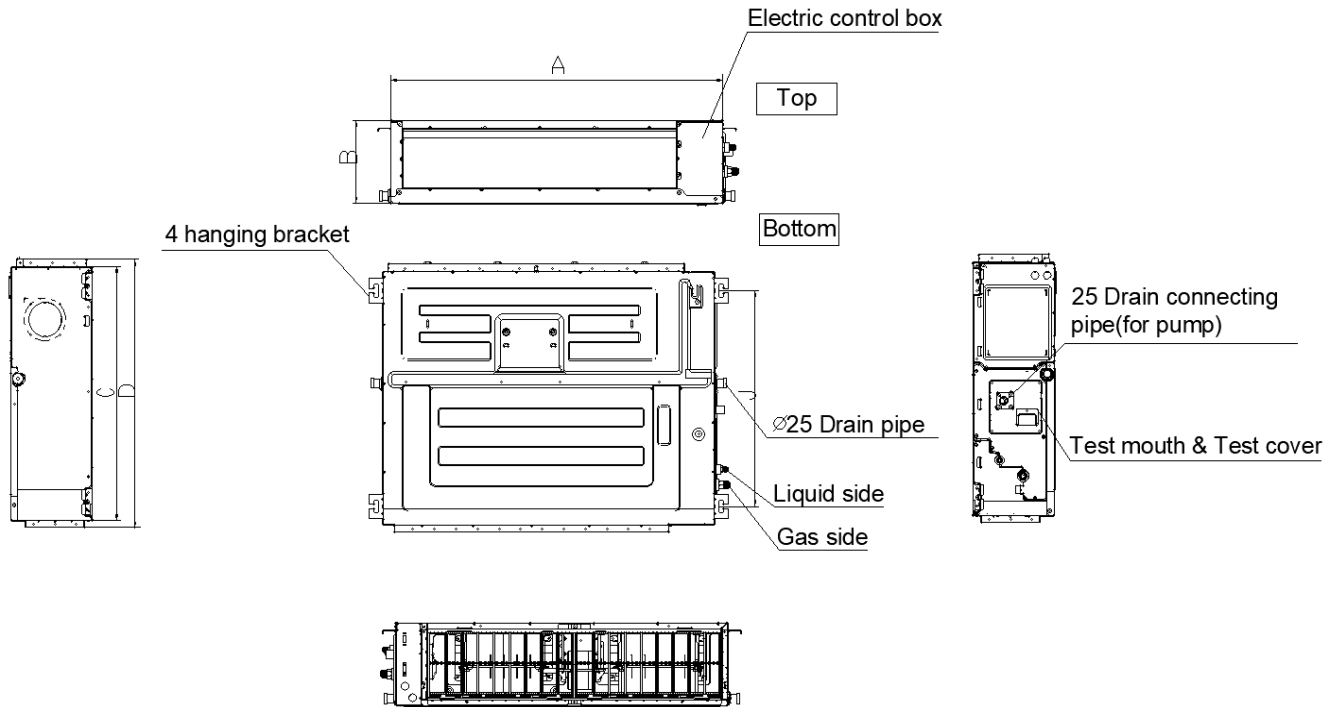
System



HHHP

0.75 ton - 5.00 ton Heat Pump Fan Coil

Dimensional Data

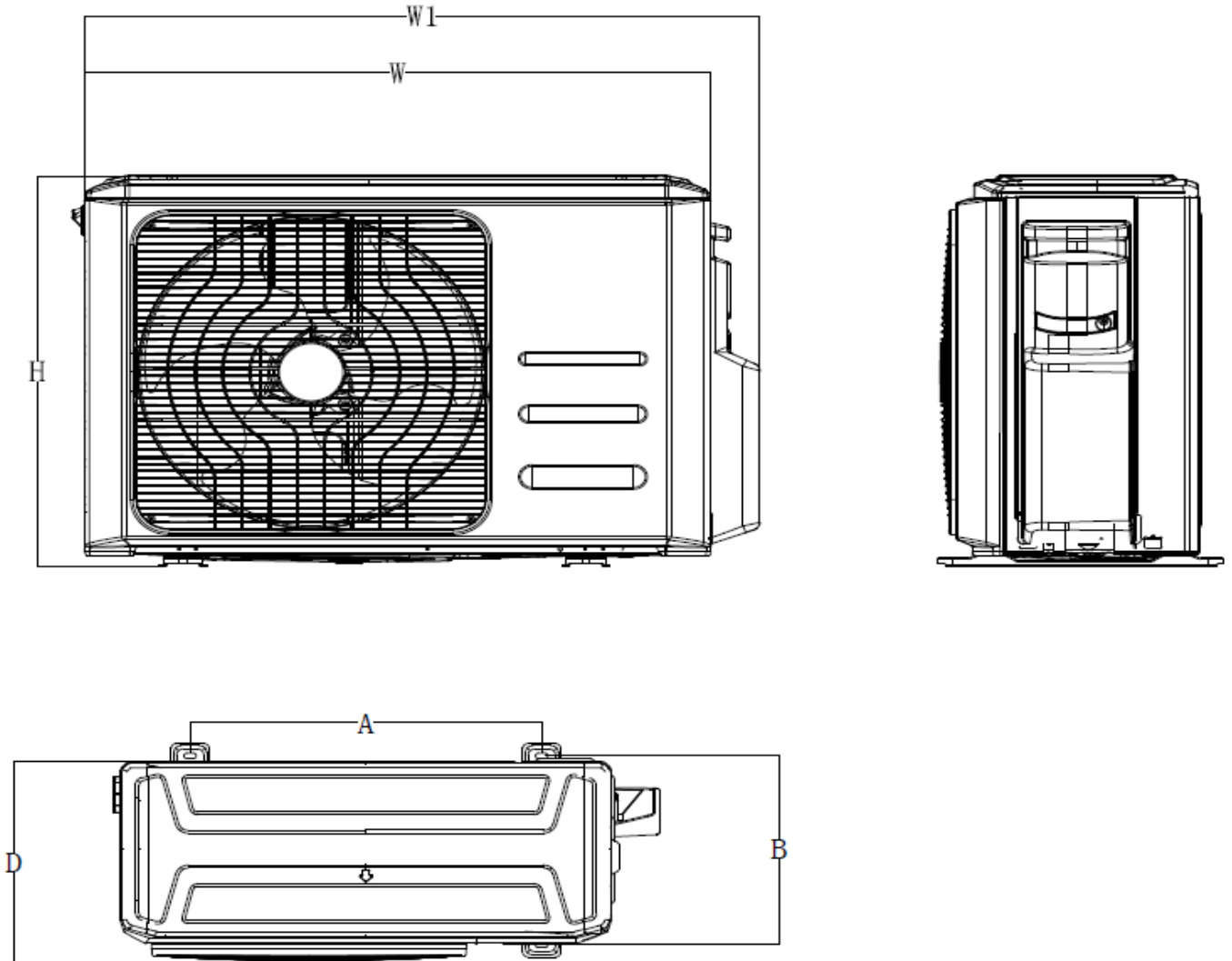


Unit	A	B	C	D
9HHHP0-C-M-B	27.500	9.650	29.500	31.250
12HHHP0-C-M-B	27.500	9.650	29.500	31.250
18HHHP0-C-M-B	39.375	9.650	29.500	31.250
24HHHP0-C-M-B	39.375	9.650	29.500	31.250
36HHHP0-C-M-B	47.250	11.810	29.500	31.250
48HHHP0-C-M-B	47.250	11.810	29.500	31.250
60HHHP0-C-M-B	55.120	14.960	31.500	33.250

Dimensions shown are in Inches

Condensate Connections on all units are 1"

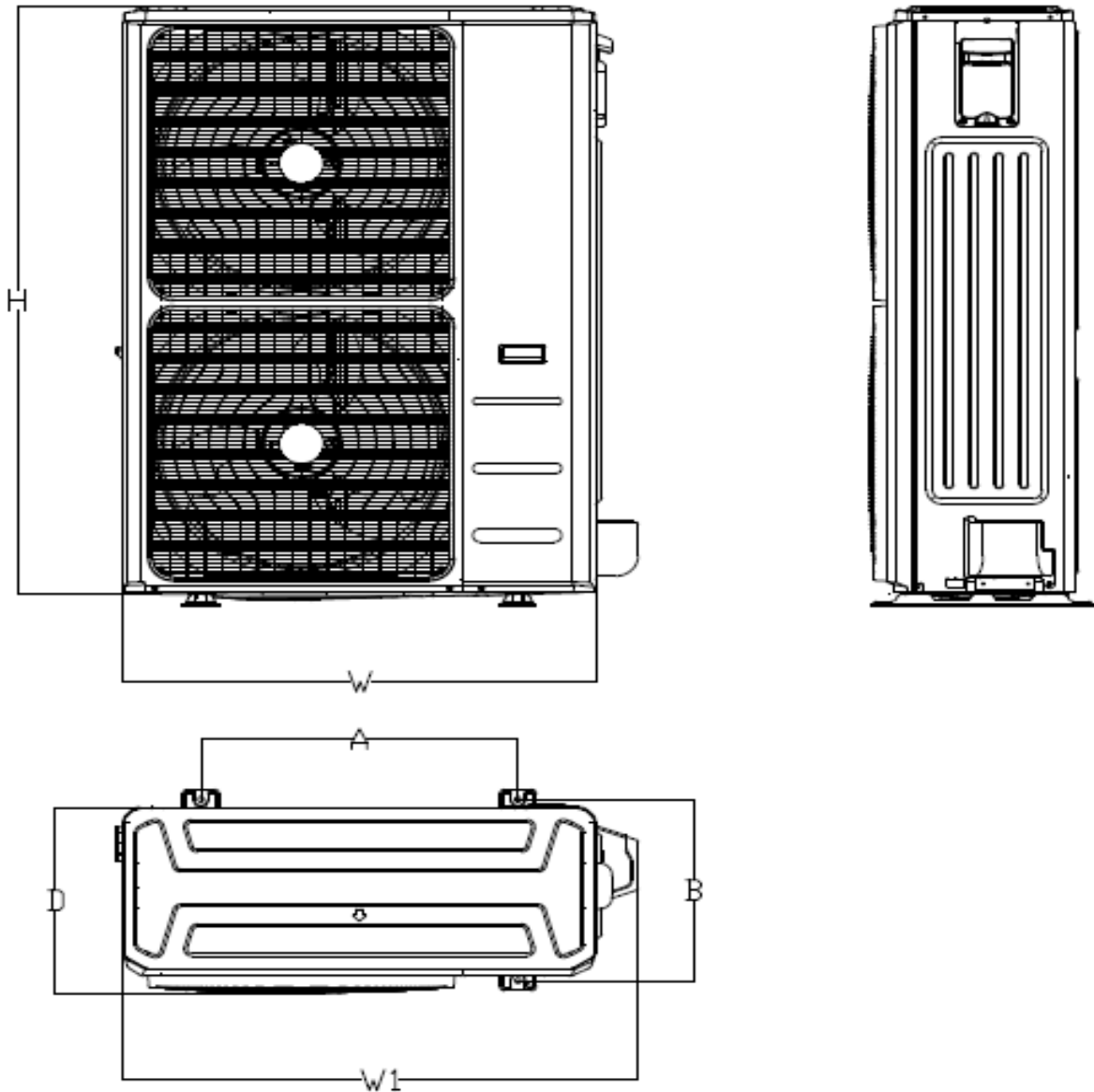
Dimensional Data



Unit	Unit Width (W)	Unit Depth (D)	Unit Height (H)	W1	Bracket Width (A)	Bracket Depth (B)
MSH-09HD-B	31.69	12.13	21.81	34.38	20.13	12.50
MSH-12HD-B	31.69	12.13	21.81	34.38	20.13	12.50
MSH-18HD-B	35.04	13.46	26.50	37.63	26.10	13.70
MSH-24HD-A	37.24	16.14	31.89	40.50	26.50	15.87
MSH-36HD-B	38.58	16.34	38.39	41.83	27.50	16.87

Dimensions shown are in Inches

Dimensional Data



Unit	Unit Width (W)	Unit Depth (D)	Unit Height (H)	W1	Bracket Width (A)	Bracket Depth (B)
MSH-48HD-B	37.48	16.34	52.48	41.14	24.96	15.91
MSH-60HD-B	37.48	16.34	52.48	41.14	24.96	15.91

Dimensions shown are in Inches

HHHP

0.75 ton - 2.00 ton Fan Coils

Fan Coil Specifications

System Model			9HHHP0-HH-SYS-B	12HHHP0-HH-SYS-B	18HHHP0-HH-SYS-B	24HHHP0-HH-SYS-B
Indoor Model			9HHHP0-C-M-B	12HHHP0-C-M-B	18HHHP0-C-M-B	24HHHP0-C-M-B
Outdoor Model			MSH-09HD-B	MSH-12HD-B	MSH-18HD-B	MSH-24HD-B
Power supply		V,Hz,P _h	208-230~1-60	208-230~1-60	208-230~1-60	208-230~1-60
Cooling	Capacity	Btu/h	9000	12000	17500	24000
	Input	W	642.0	1000.0	1455.0	2000.0
	Rated current	A	4.90	5.50	9.00	8.80
	EER2	Btu/W	14.0	12.0	12.0	12.0
	SEER2		20.50	20.00	18.40	19.00
Heating at 47°F	Capacity	Btu/h	9900	12000	19500	26000
	Input	W	750.0	970.0	1590.0	2000.0
	Rated current	A	5.40	4.70	9.80	1.80
	HSPF2		13.8	10.6	11.1	11.7
Fan Coil Power Supply			Fan Coil Powered from Outdoor Heat Pump			
Indoor fan motor	Model		ZKFN-165-10-1L	ZKFN-165-10-1L	ZKFN-165-10-1L	ZKFN-165-10-1L
	Qty		1	1	1	1
	Input	W	165	165	165	165
	RLA	A	1.5	1.5	1.8	2.2
Indoor air flow (Turbo/Hi/Med/Lo/Si) (No duct)		CFM	344/288/231/201/122	419/350/256/216/135	706/618/530/441/255	854/706/618/500/310
ESP	Range	In. wg.	0--0.80	0--0.80	0--0.80	0--0.80
Indoor noise level (Turbo/Hi/Med/Lo/Si)		dB(A)	33.0/29.5/28.5/27.5/26.0	34.0/32.5/30.5/28.5/26.0	37.0/36.0/34.0/32.0/28.0	41.0/40.0/37.0/35.0/29.5
Indoor unit	Dimension (WxDxH)	inch	27.50x29.50x9.65	27.50x29.50x9.65	39.375x29.5x9.65	39.375x29.5x9.65
	Packing(WxDxH)	inch	36.4x33.5x11.7	36.4x33.5x11.7	48.2x33.9x12.0	48.2x33.9x12.0
	Net/Gross weight	lbs.	64.2 / 73.9	64.2 / 73.9	79.8 / 91.3	80.5 / 91.9
Design pressure		PSIG	550 / 340	550 / 340	550 / 340	550 / 340
Drainage water pipe diameter		inch	ODΦ1	ODΦ1	ODΦ1	ODΦ1
Refrigerant piping	Liquid side/ Gas side	inch	Φ1/4 / Φ 3/8	Φ1/4 / Φ 3/8	Φ1/4 / Φ 1/2	Φ3/8 / Φ 5/8
Controller			Wired control	Wired control	Wired control	Wired control
Indoor	Cooling	°F	60~90	60~90	60~90	60~90
	Heating	°F	32~86	32~86	32~86	32~86
Outdoor	Cooling	°F	-22~122	-22~122	-22~122	-22~122
	Heating	°F	-22~75	-22~75	-22~75	-22~75

Outdoor Heat Pump Specifications

System Model			9HHHP0-HH-SYS-B	12HHHP0-HH-SYS-B	18HHHP0-HH-SYS-B	24HHHP0-HH-SYS-B
Indoor Model			9HHHP0-C-M-B	12HHHP0-C-M-B	18HHHP0-C-M-B	24HHHP0-C-M-B
Outdoor Model			MSH-09HD-B	MSH-12HD-B	MSH-18HD-B	MSH-24HD-B
Power supply		V/Hz/Ph	208/230/60/1	208/230/60/1	208/230/60/1	208/230/60/1
Max. fuse		A	15.0	15.0	20.0	25.0
Minimum circuit ampacity		A	15.0	15.0	19.0	24.9
Compressor	Model		KTN110D42UFZ	KTN110D42UFZ	KTN110D42UFZ	KTM240D46UKT2
	Type		ROTARY	ROTARY	ROTARY	ROTARY
	Brand		GMCC	GMCC	GMCC	GMCC
	Capacity	W	3465	3465	4780 / 7600	4780 / 7600
	Input	W	885	885	805 / 2045	805 / 2045
	Rated current (RLA)	A	6.0	6.0	4.15 / 9.30	4.15 / 9.30
	Refrigerant oil	ml	VG74/350	VG74/350	VG74/620	VG74/620
Outdoor fan motor	Model		ZKFN-34-10-1-3	ZKFN-34-10-1-3	ZKFN-80-8-3	ZKFN-120-8-2
	Qty		1	1	1	1
	Input	W	34	34	80	120
	RLA	A	0.40	0.40	0.80	0.50
	Speed	r/min	850/680/450	780/680/580	780/700/550	950/800/500
Outdoor air flow (Max.)		CFM	1324	1324	1765	2235
Outdoor noise level		dB(A)	54.0	54.0	57.5	61.0
Throttle type			EXV	EXV	EXV+Throttle Valve	EXV+Throttle Valve
Outdoor unit	Dimension (W×D×H)	inch	31.69x12.99x21.81	31.69x12.99x21.81	35.04x13.46x26.50	37.24x16.14x31.89
	Packing (W×D×H)	inch	36.2x14.6x24.2	36.2x14.6x24.2	39.2x15.7x29.1	42.9 x 19.7 x 34.9
	Net/ Gross weight	lbs.	72.8 / 78.7	72.8 / 78.7	99.9 / 107.8	130.3 / 141.3
Refrigerant	Type/Precharge	Oz	R454B / 35.27	R454B / 35.27	R454B / 55.38	R454B / 63.49
Refrigerant precharge		ft	25	25	25	25
Additional charge for each ft		oz	0.16	0.16	0.16	0.32
Design pressure		PSIG	550 / 340	550 / 340	550 / 340	550 / 340
Refrigerant piping	Liquid / Suction	inch	1/4" / 3/8"	1/4" / 1/2"	1/4" / 1/2"	3/8" / 5/8"
	Max. pipe length	ft	82	82	98	164
	Max. vertical lift	ft	49.2	49.2	65.6	82.0
Ambient Range	Cooling	°F	-22~122	-22~122	-22~122	-22~122
	Heating	°F	-22~75	-22~75	-22~75	-22~75

HHHP

3.00 ton - 5.00 ton Fan Coils

Fan Coil Specifications

System Model			36HHHP0-HH-SYS-B	48HHHP0-HH-SYS-B	60HHHP0-HH-SYS-B
Indoor Model			36HHHP0-C-M-B	48HHHP0-C-M-B	60HHHP0-C-M-B
Outdoor Model			MSH-36HD-B	MSH-48HD-B	MSH-60HD-B
Power supply		V/Hz/Ph	208/230/60/1	208/230/60/1	208/230/60/1
Cooling	Capacity	Btu/h	36000	48000	55000
	Input	W	3000.0	4610.0	5400.0
	Rated current	A	13.5	19.9	23.5
	EER2	Btu/W	12.0	10.4	10.2
	SEER2		17.70	16.70	15.80
Heating at 47°F	Capacity	Btu/h	42000	52000	60000
	Input	W	3240.0	4230.0	4700.0
	Rated current	A	14.1	19.0	20.9
	HSPF2		11.1	10.8	10.4
Fan Coil Power Supply			Fan Coil Powered from Outdoor Heat Pump		
Indoor fan motor	Model		ZKFN-400-8-1	ZKFN-560-8-4	ZKFN-560-8-4
	Qty		1	1	1
	Input	W	400	560	560
	FLA	A	1.6	2.5	2.5
	Speed	r/min	790 / 730 / 670	1000 / 950 / 880	850 / 780 / 700
Indoor air flow (Turbo/Hi/Med/Lo) (No duct)		CFM	1236/1060/942/765	1648/1472/1295/1060	2001/1707/1413/1118
ESP	Range	ln. wg.	0-0.80	0-0.80	0-0.80
Indoor noise level (Hi/Med/Lo)		dB(A)	45.0 / 40.0 / 34.1	51.0 / 46.0 / 42.0	52.0 / 48.0 / 42.0
Indoor unit	Dimension (WxDxH)	inch	47.25x29.50x11.81	47.25x29.50x11.81	55.12x31.50x14.96
	Packing(WxDxH)	inch	56.10x33.86x14.13	56.10x33.86x14.13	62.99x36.02x17.52
	Net/Gross weight	lbs.	106.3 / 120.4	111.3 / 124.8	161.4 / 178.1
Design pressure		PSIG	550 / 340	550 / 340	550 / 340
Drainage water pipe diameter		inch	ODΦ1	ODΦ1	ODΦ1
Refrigerant piping	Liquid side/ Gas side	inch	Φ3/8 / Φ 3/4	Φ3/8 / Φ 3/4	Φ3/8 / Φ 3/4
Controller			Wired Control	Wired control	Wired control
Indoor	Cooling	°F	60~90	60~90	60~90
	Heating	°F	32~86	32~86	32~86
Outdoor	Cooling	°F	-22~122	-22~122	-22~122
	Heating	°F	-22~75	-22~75	-22~75

Outdoor Heat Pump Specifications

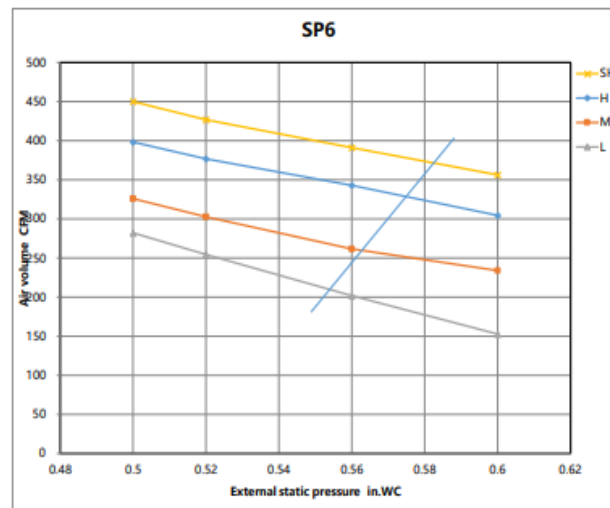
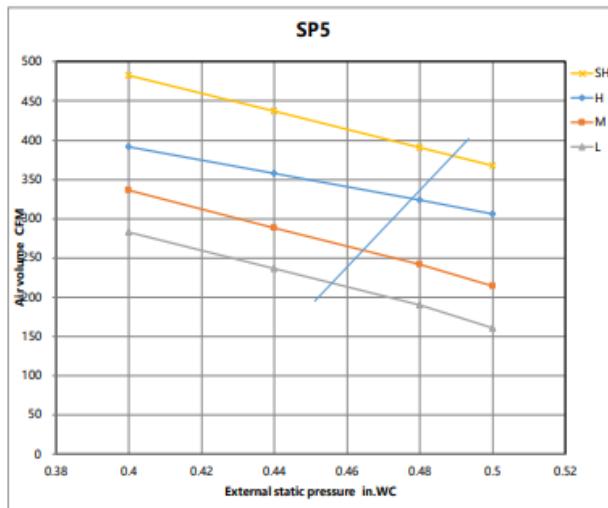
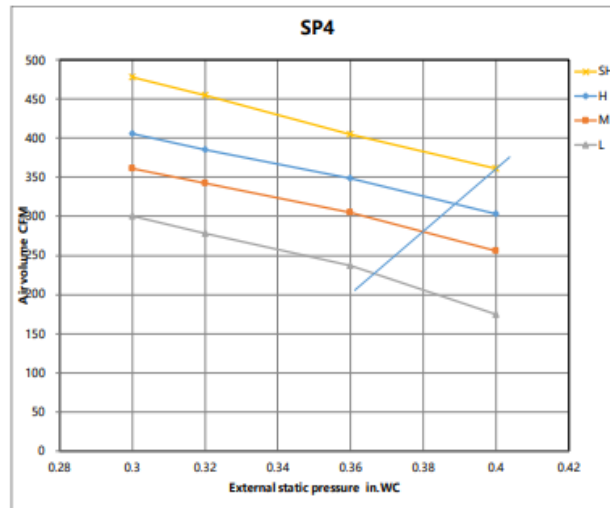
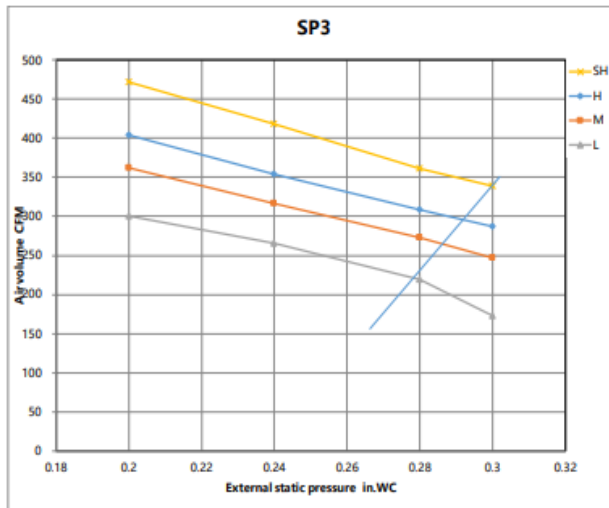
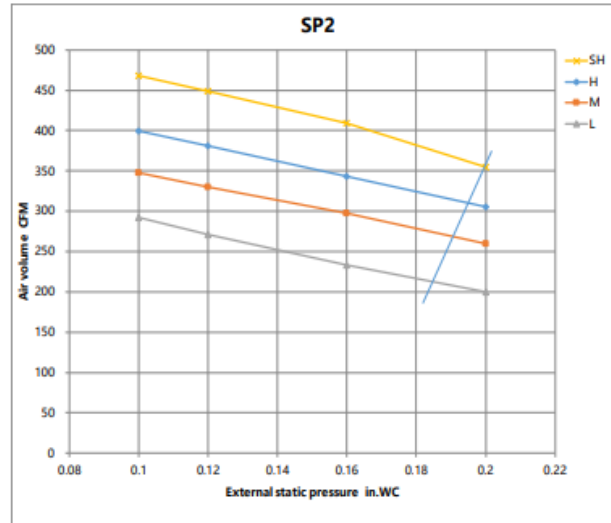
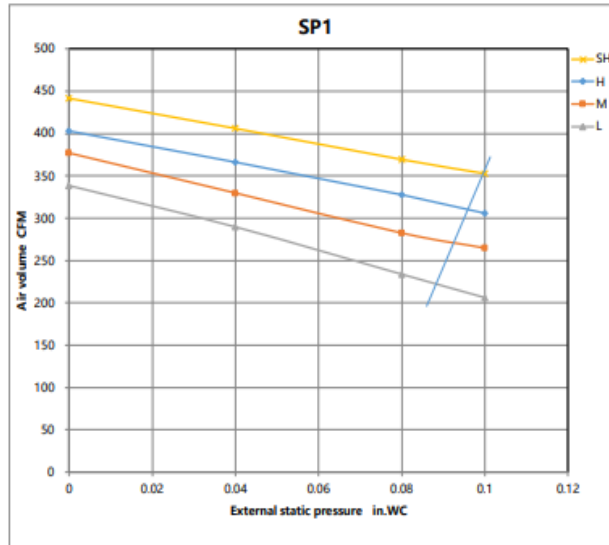
System Model			36HHHP0-HH-SYS-B	48HHHP0-HH-SYS-B	60HHHP0-HH-SYS-B
Indoor Model			36HHHP0-C-M-B	48HHHP0-C-M-B	60HHHP0-C-M-B
Outdoor Model			MSH-36HD-B	MSH-48HD-B	MSH-60HD-B
Power supply	V/Hz/Ph		208/230/60/1	208/230/60/1	208/230/60/1
Max. fuse	A		40	45	45
Minimum circuit ampacity	A		38	44	44
Compressor	Model		EAPQ420D1UMUA	EAPQ420D1UMUA	EKPQ440D1UMUB
	Type		ROTARY	ROTARY	ROTARY
	Brand		GMCC	GMCC	GMCC
	Input	W	3265	3265	3430
	Rated current (RLA)	A	6.6	6.6	7.3
	Refrigerant oil	ml	VG75 / 1460	VG75 / 1460	VG75 / 1300
Outdoor fan motor	Model		ZKFN-250-10-1	ZKFN-85-10-1L	ZKFN-85-8-22-5
	Qty		1	2	2
	Input	W	400	560	560
	RLA	A	1.2	1.2	1.5
	Speed	r/min	750/650/550	850/750/650	850/750/650
Outdoor air flow (Max.)	CFM		3002	4238	4238
Outdoor noise level		dB(A)	65.0	65.0	63.0
Throttle type			EXV+Throttle Valve	EXV+Throttle Valve	EXV+Throttle Valve
Outdoor unit	Dimension (W×D×H)	inch	38.58x16.34x38.39	37.48x16.34x52.48	37.48x16.34x52.48
	Packing (W×D×H)	inch	45.08 x 19.68 x 42.52	43.1 x 19.5 x 58.3	43.1 x 19.5 x 58.3
	Net/ Gross weight	lbs.	206.6 / 237.4	208.8 / 239.9	230.4 / 261.7
Refrigerant	Type/Precharge	Oz	R454B / 126.99	R454B / 126.99	R454B / 151.68
Refrigerant precharge		ft	25	25	25
Additional charge for each ft		oz	0.32	0.32	0.32
Design pressure		PSIG	550 / 340	550 / 340	550 / 340
Refrigerant piping	Liquid / Suction	inch	3/8" / 5/8"	3/8" / 5/8"	3/8" / 7/8"
	Max. pipe length	ft	246	246	246
	Max. vertical lift	ft	98	98	98
Ambient Range	Cooling	°F	- 22~122	- 22~122	- 22~122
	Heating	°F	- 22~75	- 22~75	- 22~75

HHHP

Fan Performance

9HHHP0-C-M-A

Multiple Speeds at Various Settings

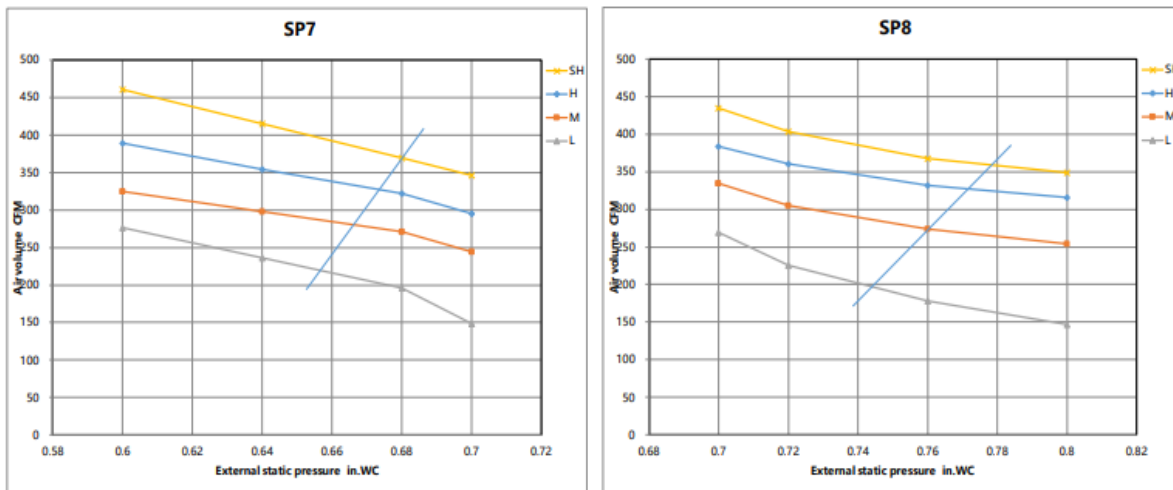


HHHP

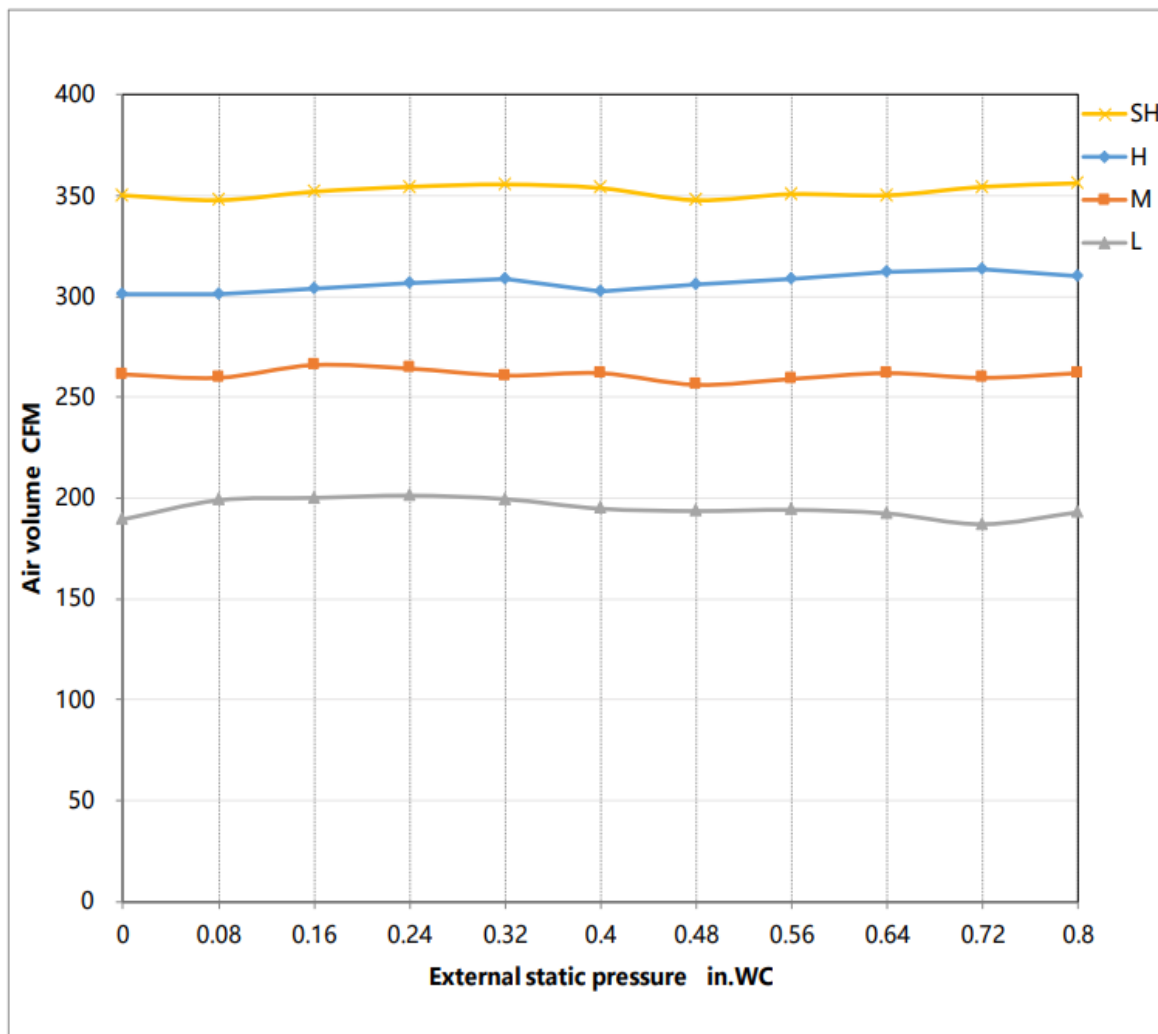
Fan Performance

9HHHP0-C-M-A

Multiple Speeds at Various Settings



Constant air volume

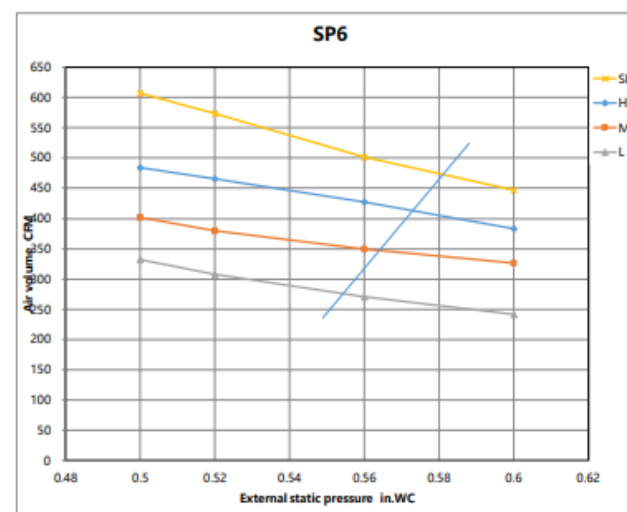
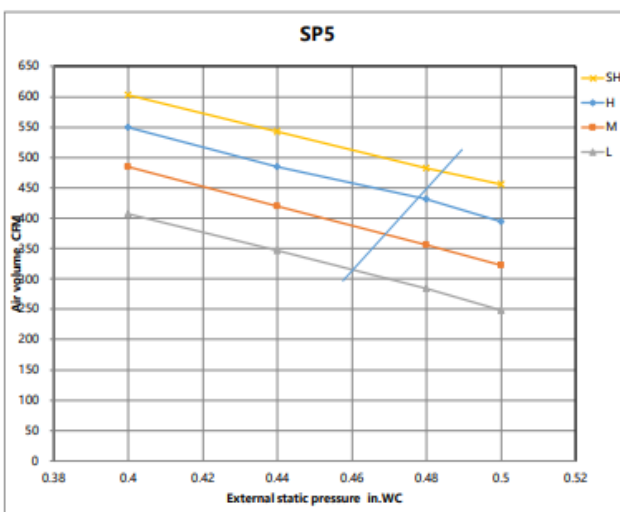
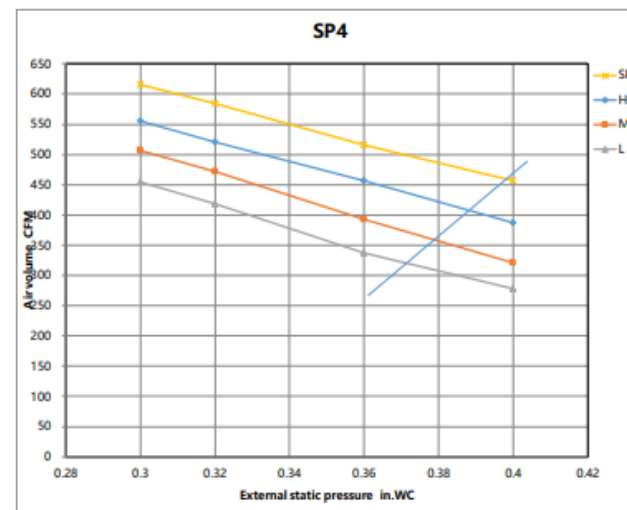
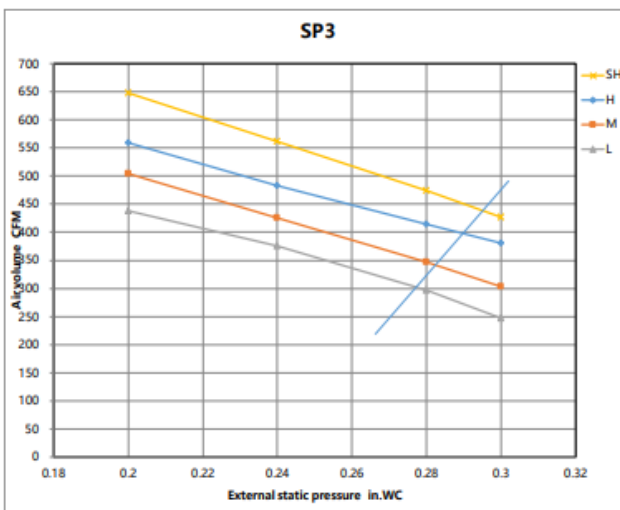
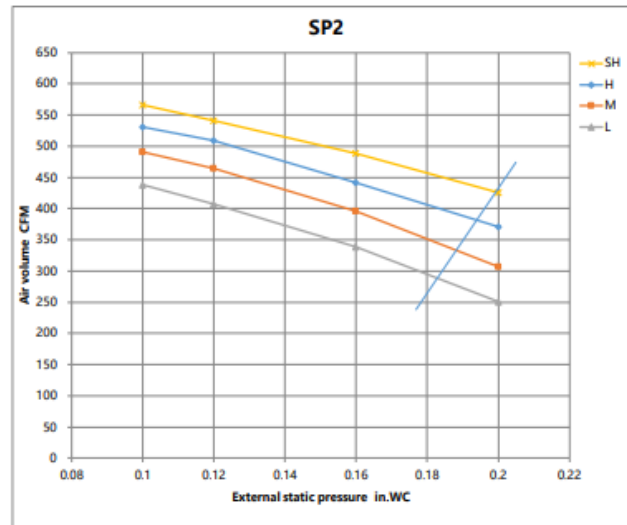
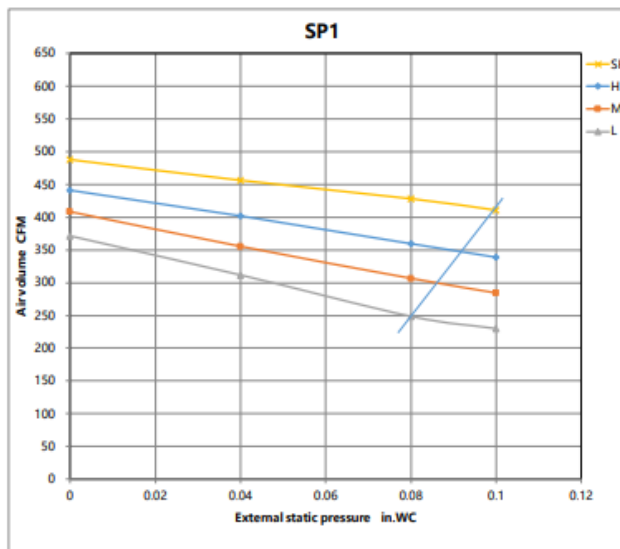


HHHP

Fan Performance

12HHHP0-C-M-A

Multiple Speeds at Various Settings

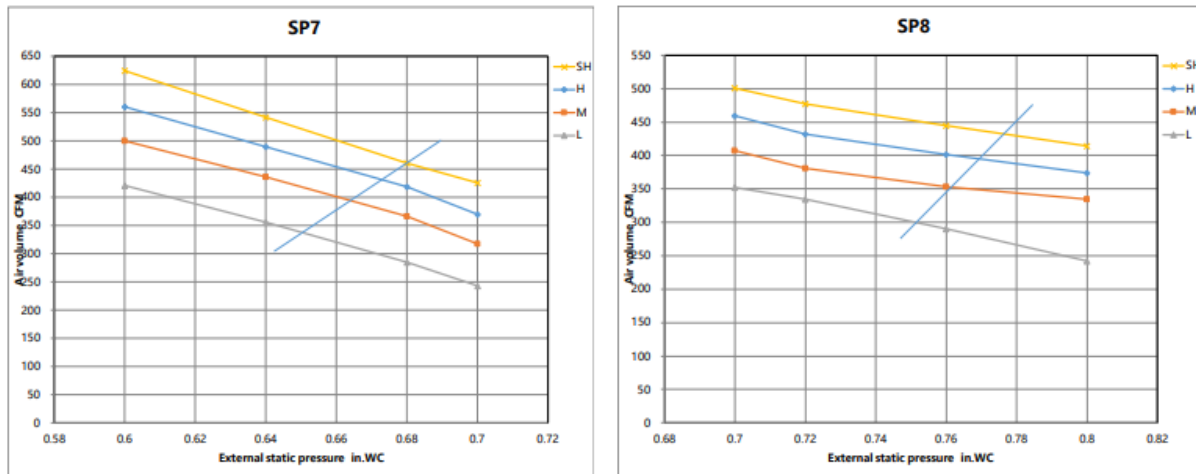


HHHP

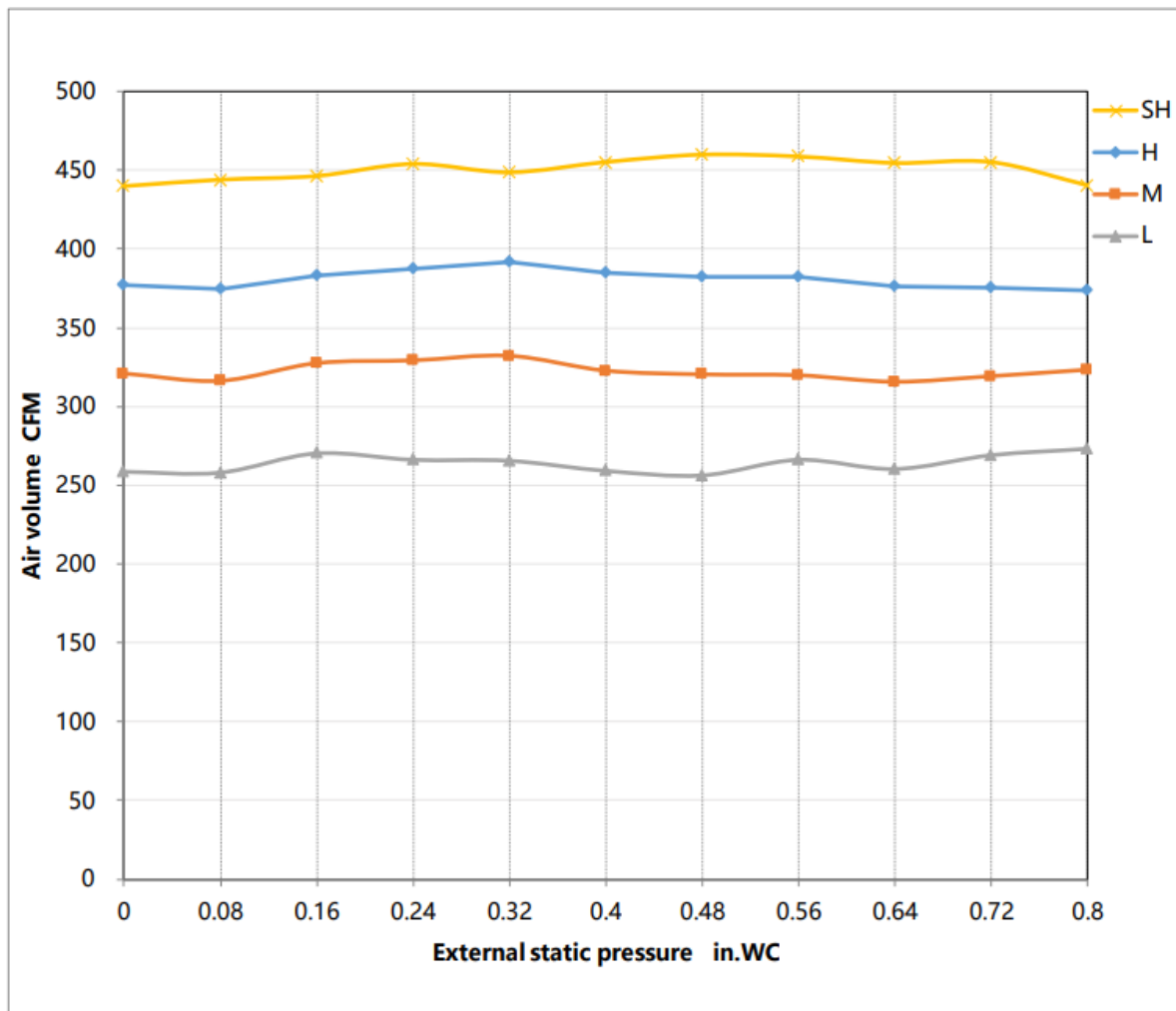
Fan Performance

12HHHP0-C-M-A

Multiple Speeds at Various Settings



Constant air volume

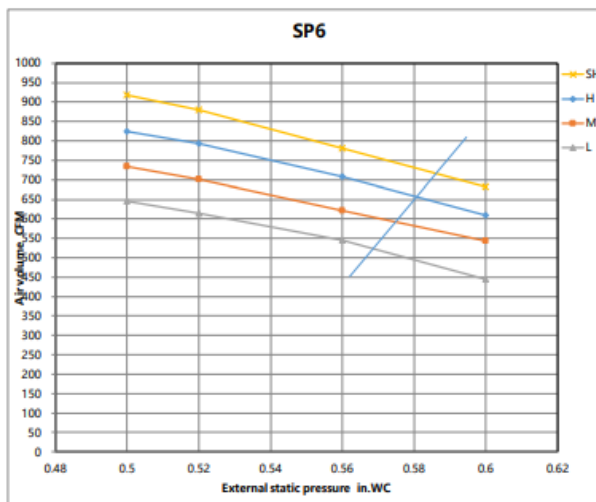
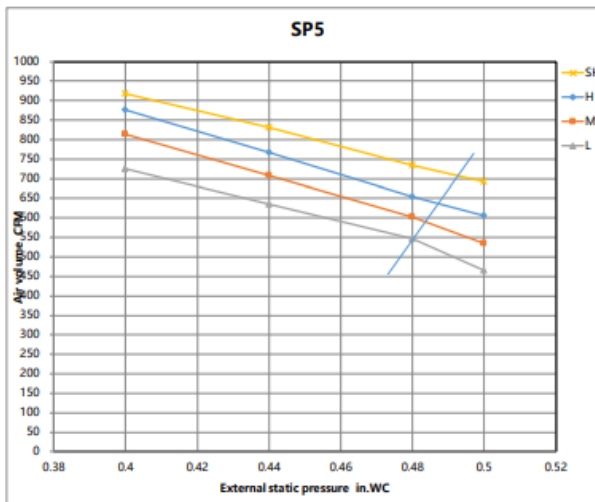
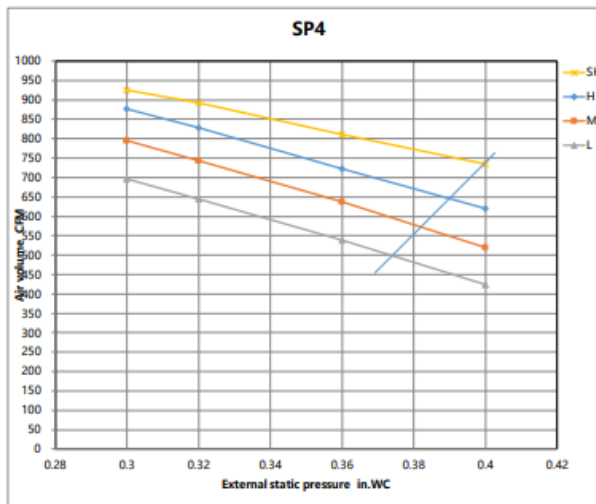
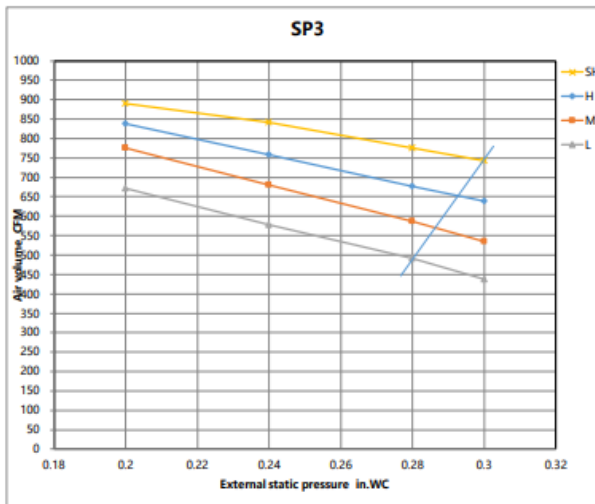
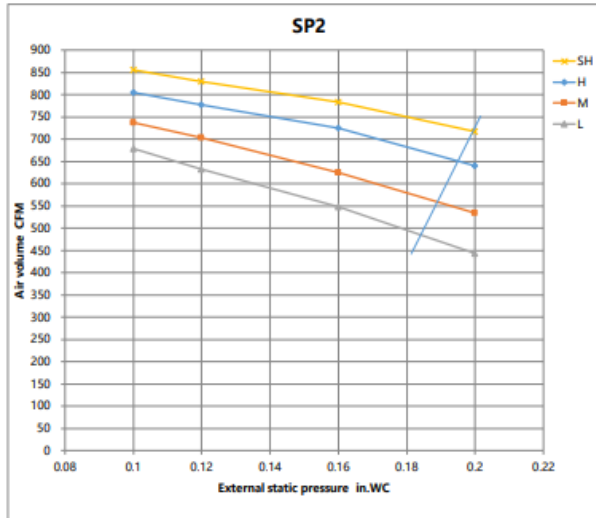
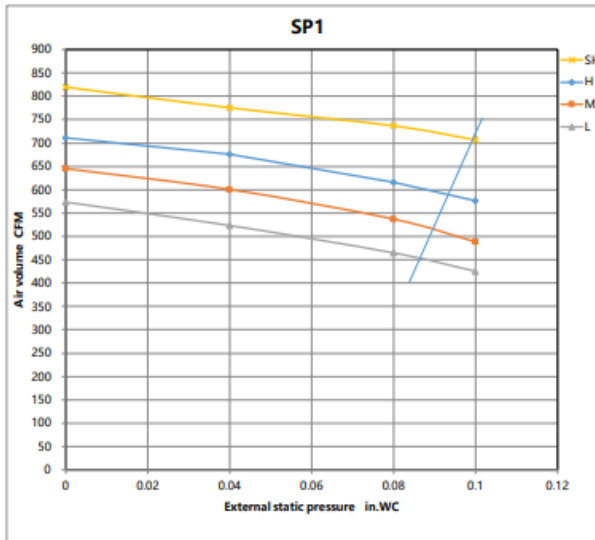


HHHP

Fan Performance

18HHHP0-C-M-A

Multiple Speeds at Various Settings

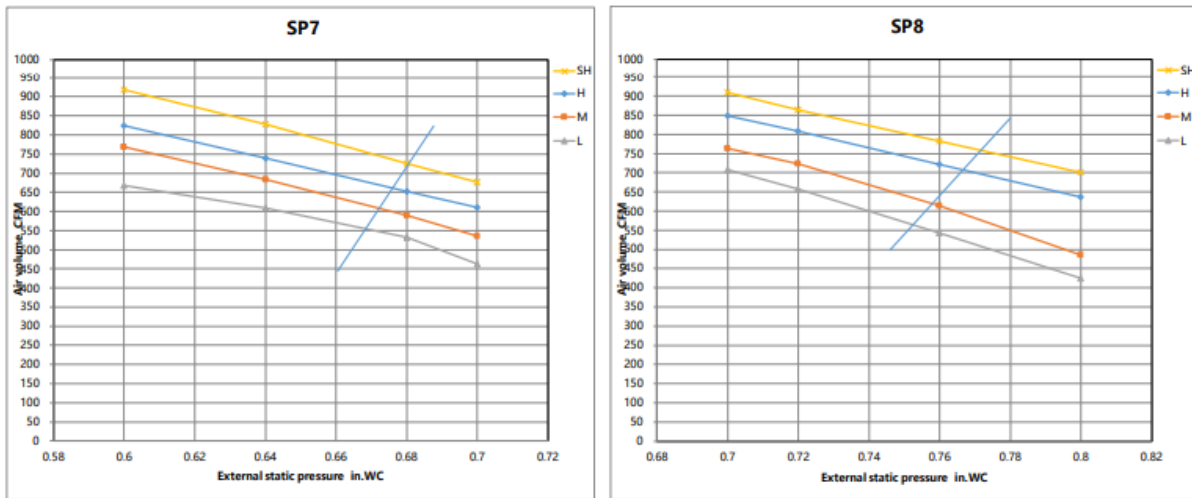


HHHP

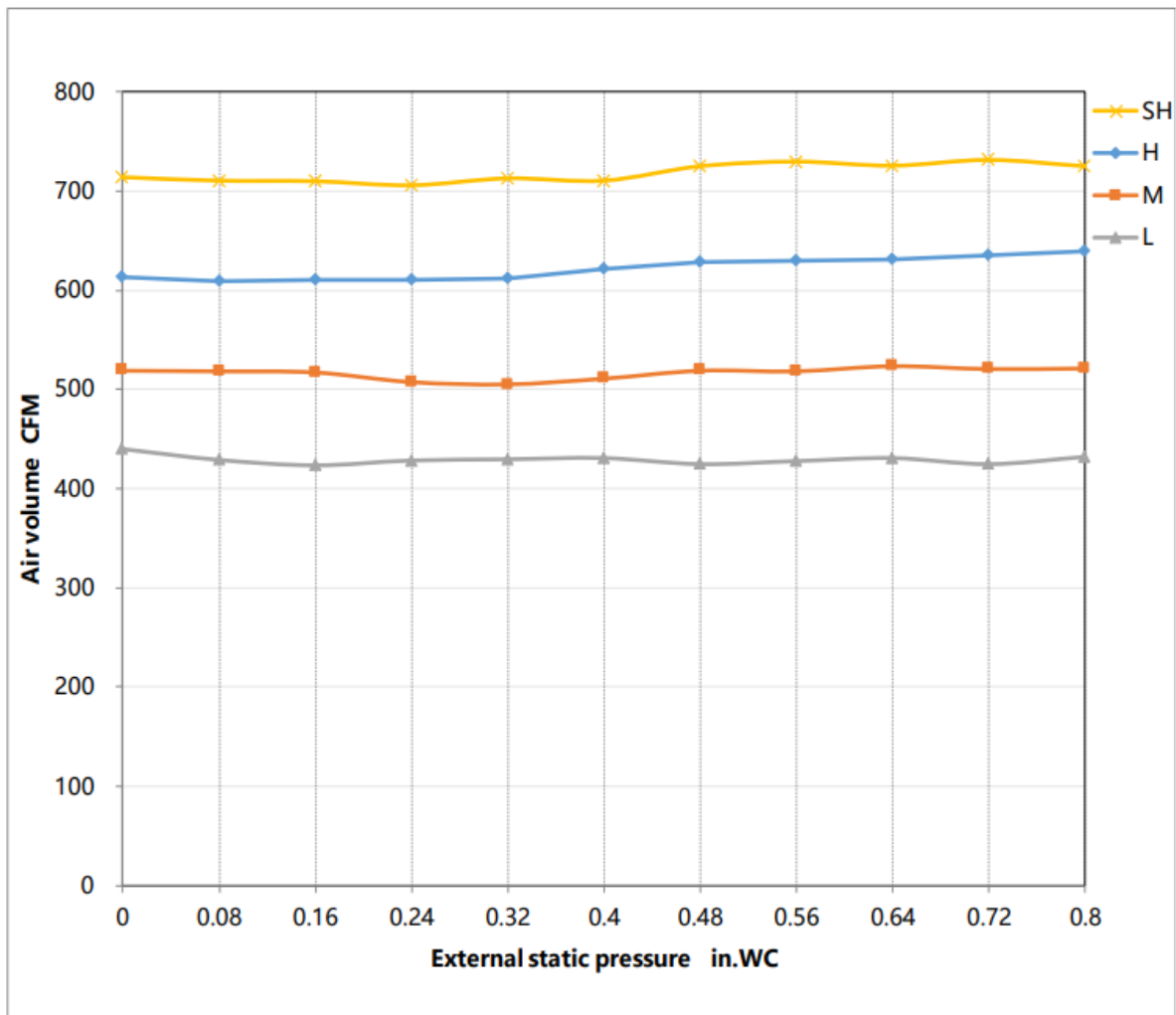
Fan Performance

18HHHP0-C-M-A

Multiple Speeds at Various Settings



Constant air volume

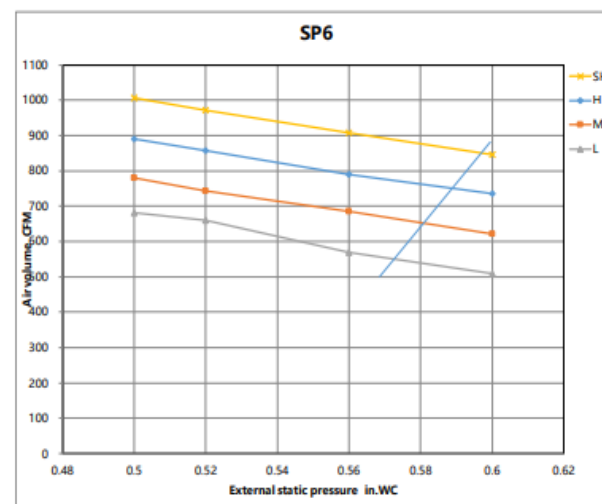
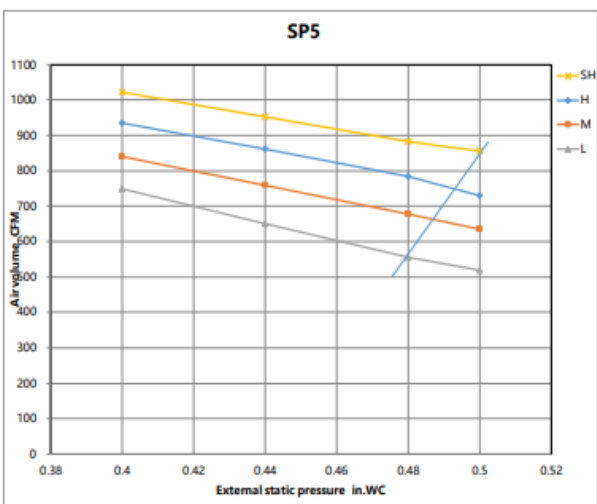
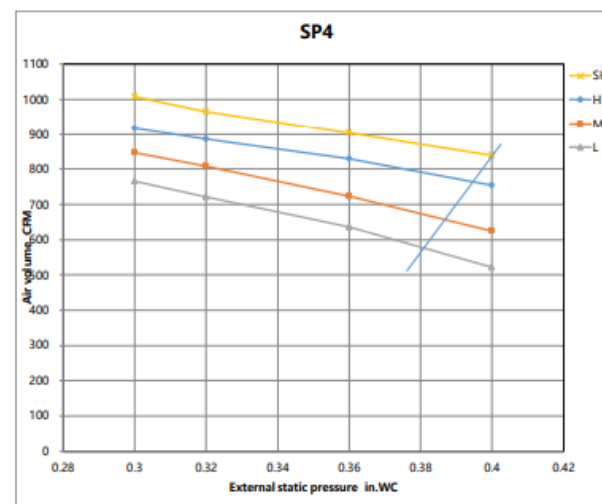
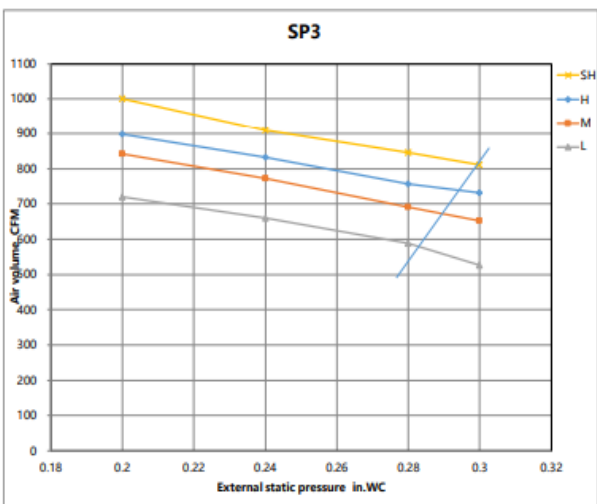
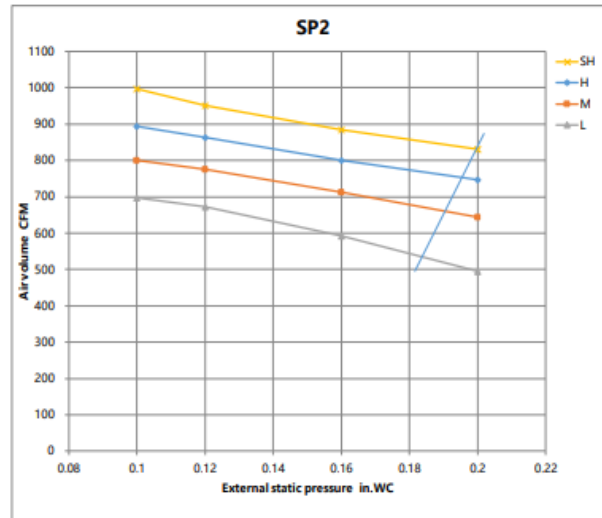
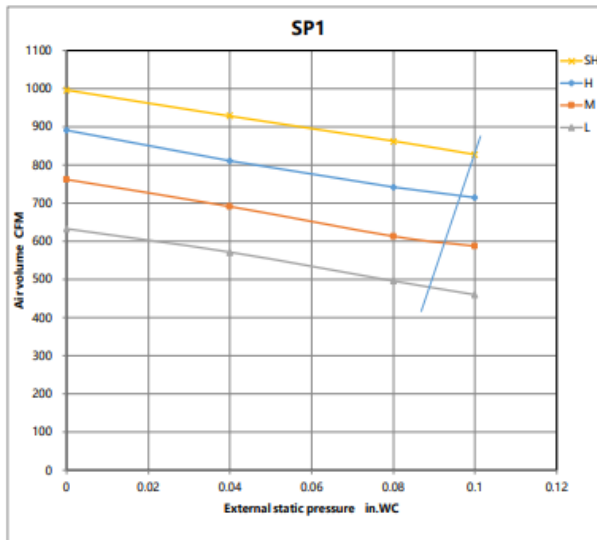


HHHP

Fan Performance

24HHHP0-C-M-A

Multiple Speeds at Various Settings

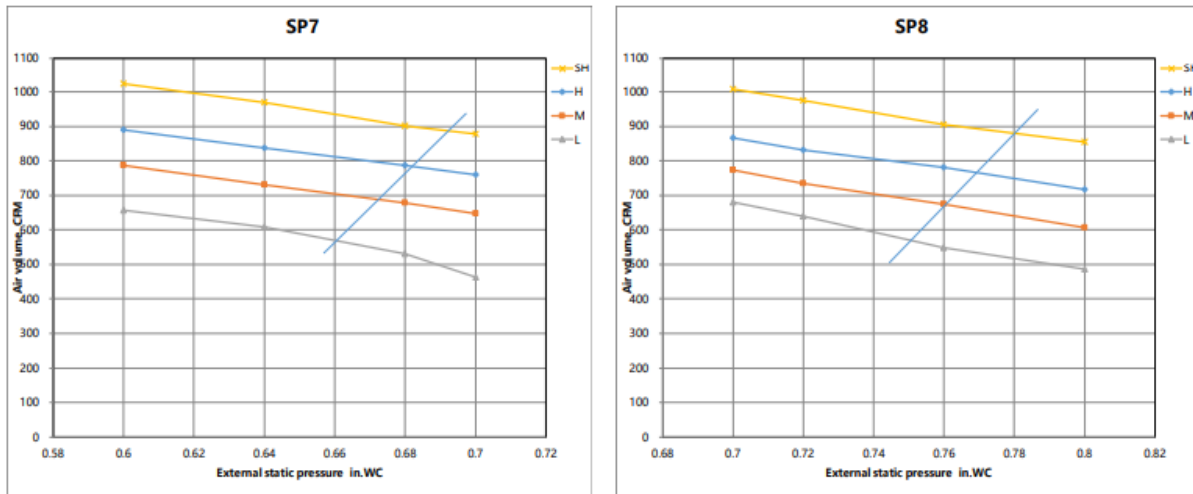


HHHP

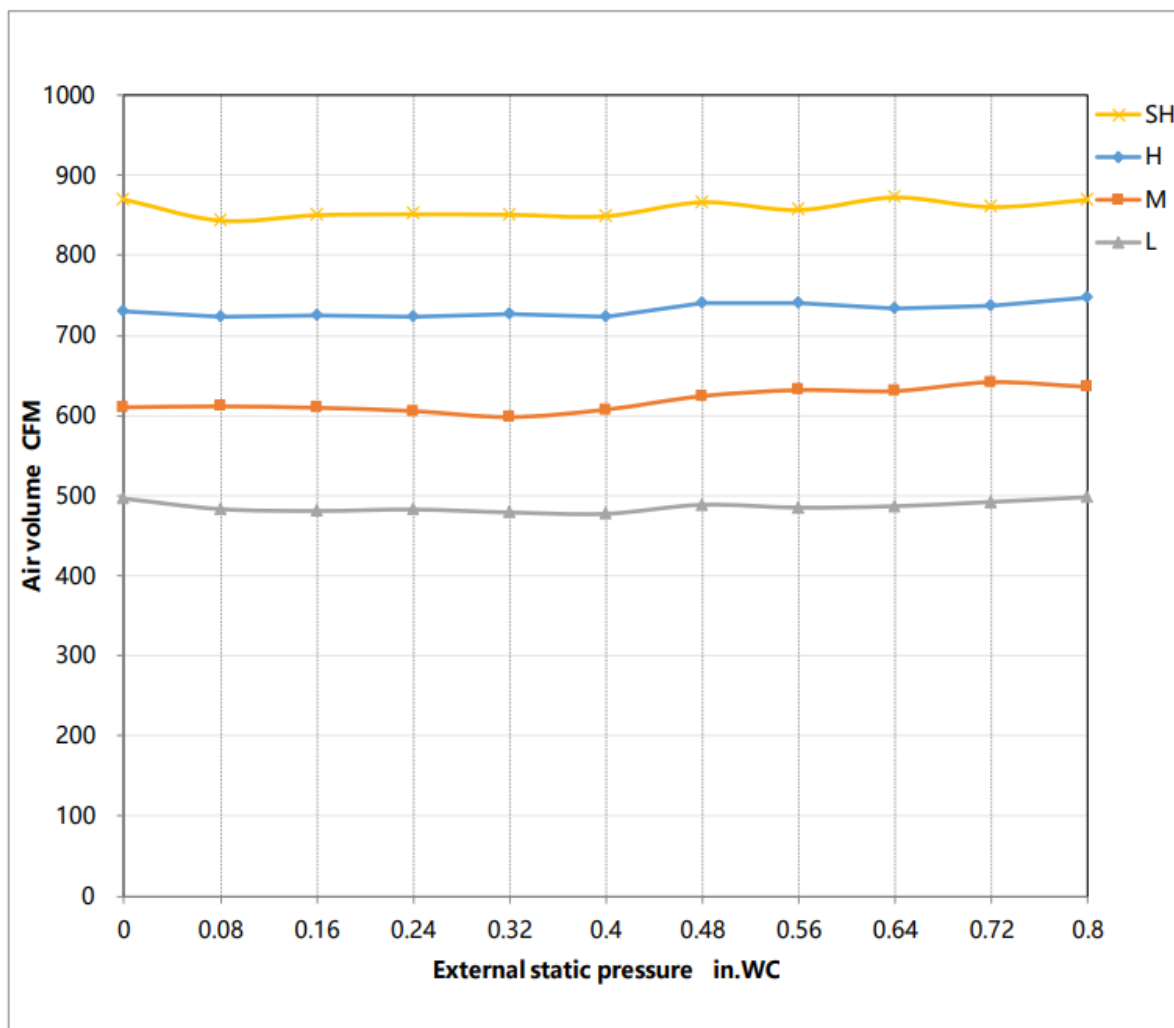
Fan Performance

24HHHP0-C-M-A

Multiple Speeds at Various Settings



Constant air volume

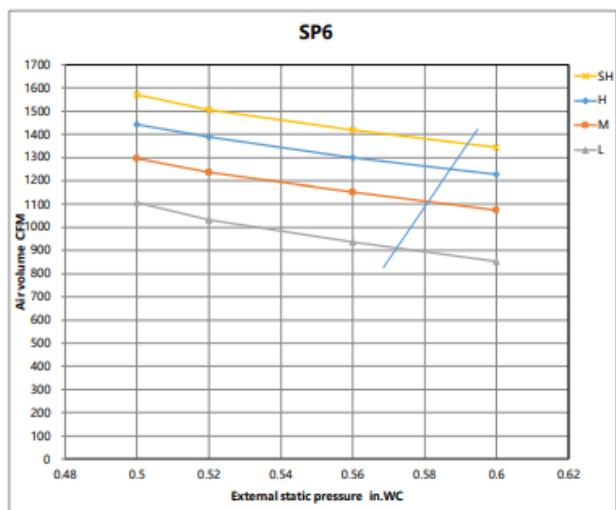
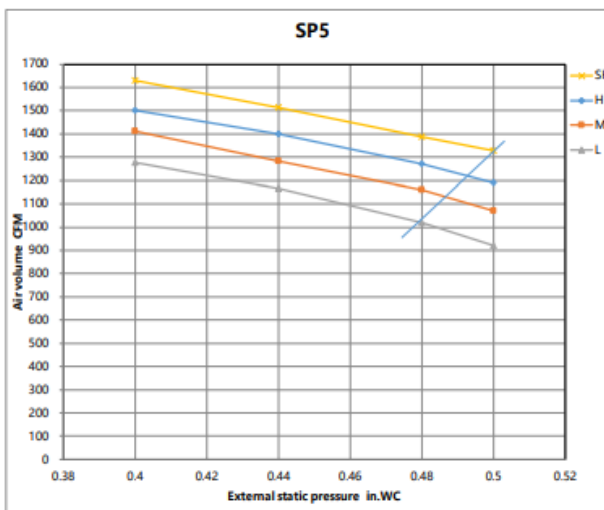
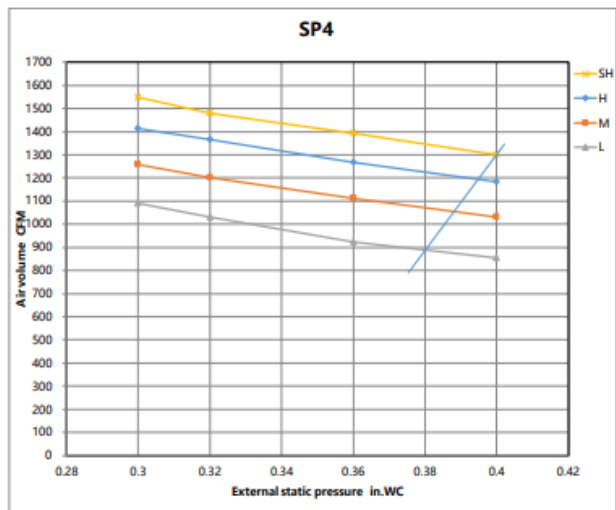
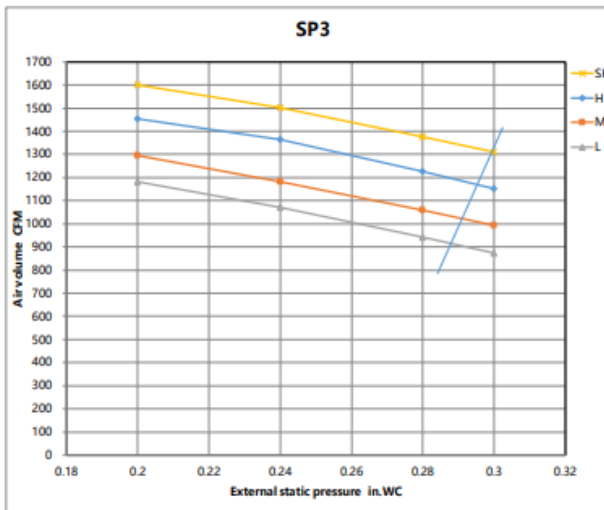
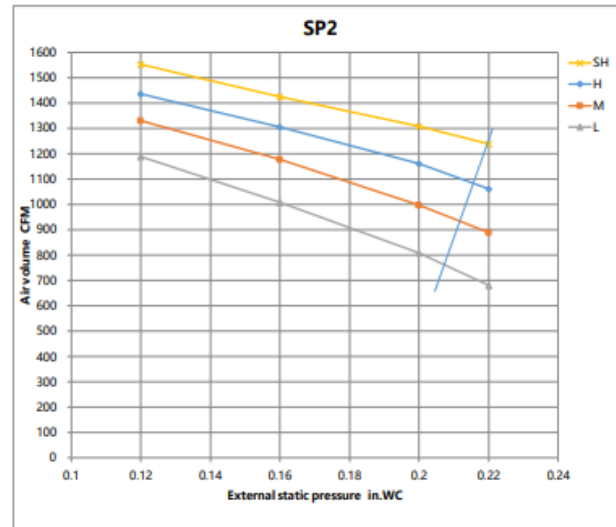
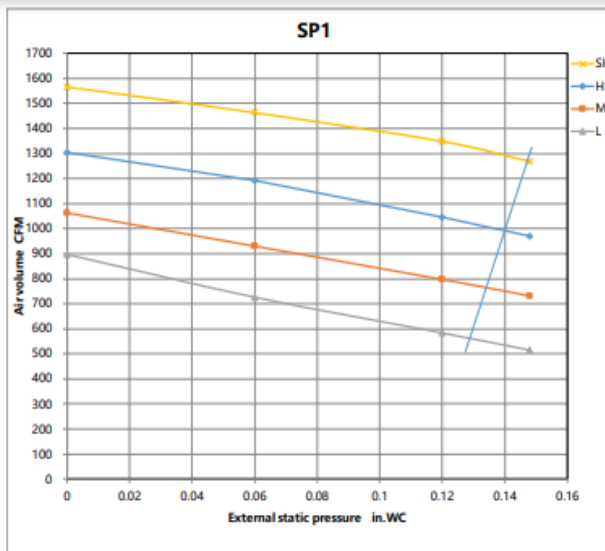


HHHP

Fan Performance

36HHHP0-C-M-A

Multiple Speeds at Various Settings

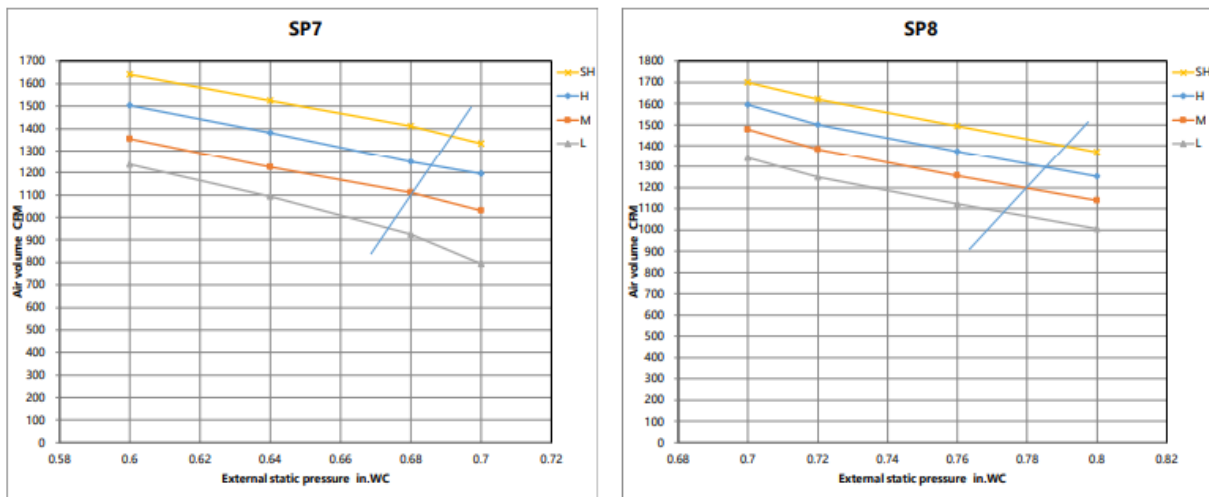


HHHP

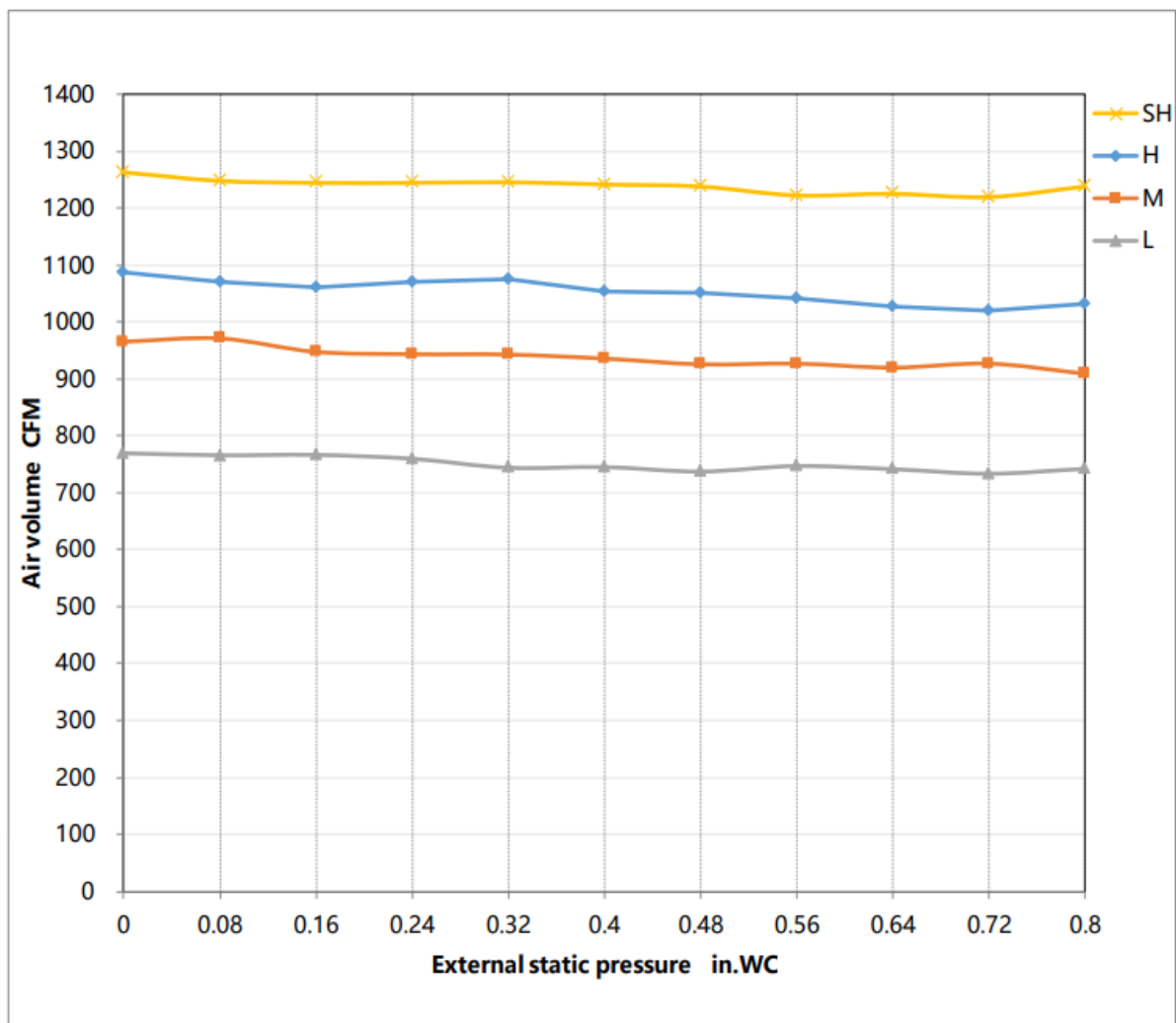
Fan Performance

36HHHP0-C-M-A

Multiple Speeds at Various Settings



Constant air volume

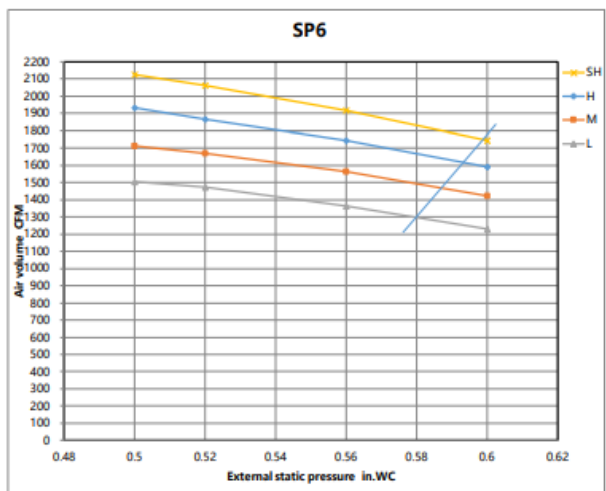
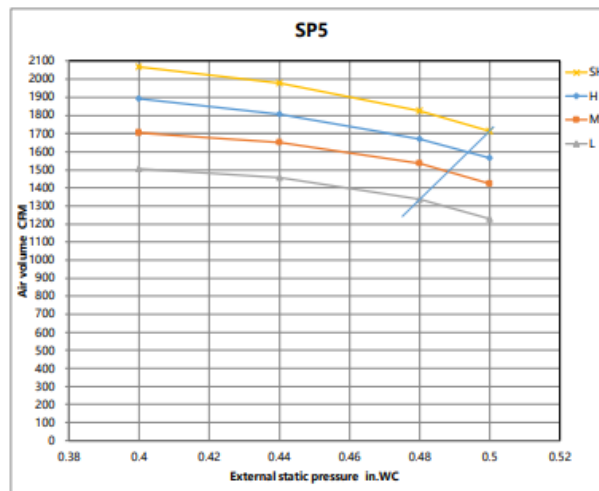
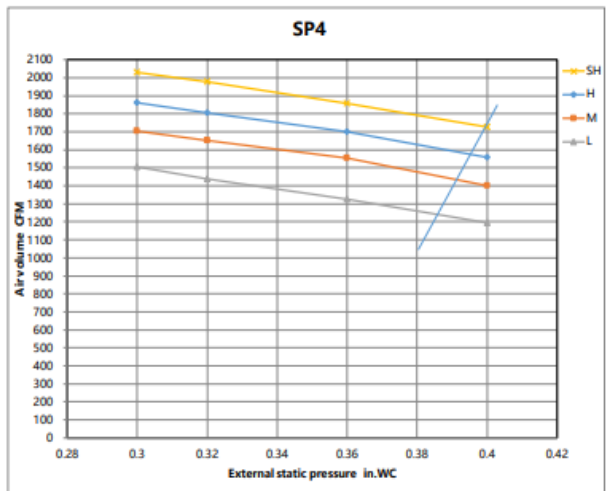
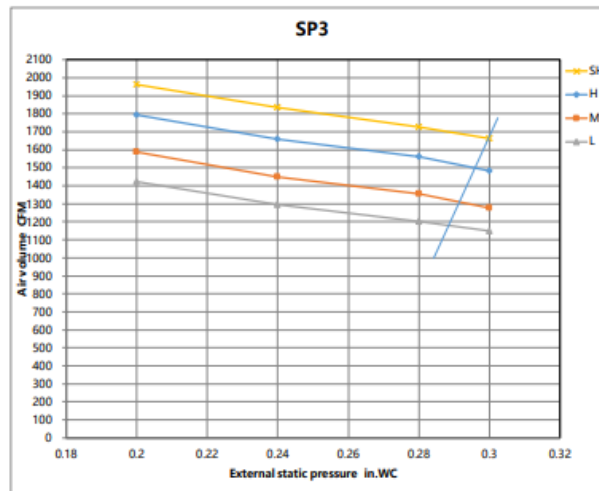
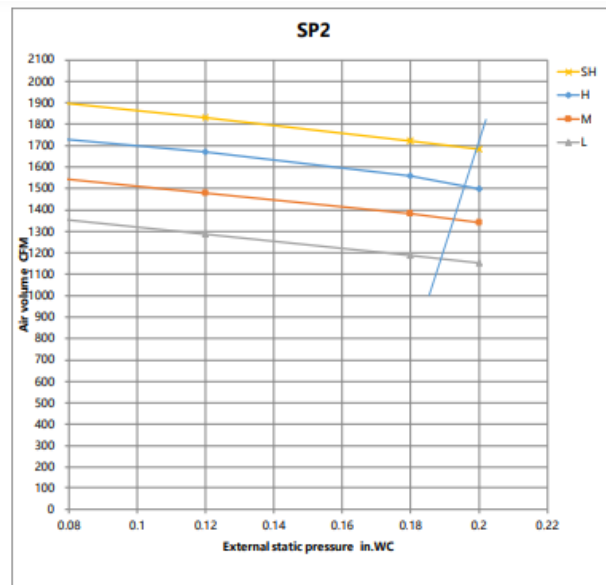
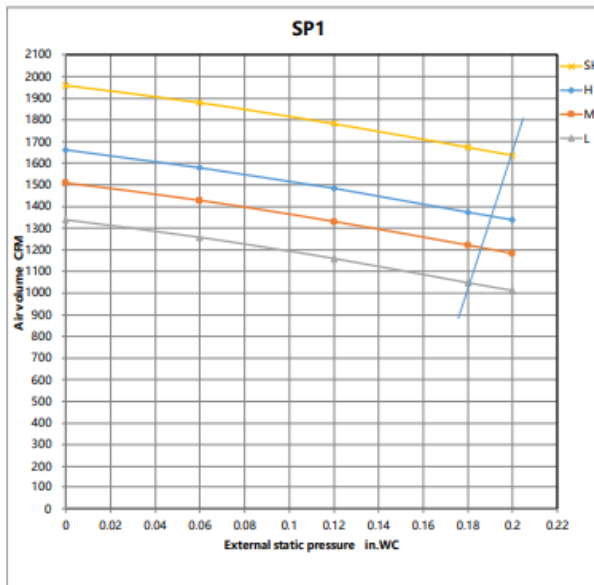


HHHP

Fan Performance

48HHHP0-C-M-A

Multiple Speeds at Various Settings

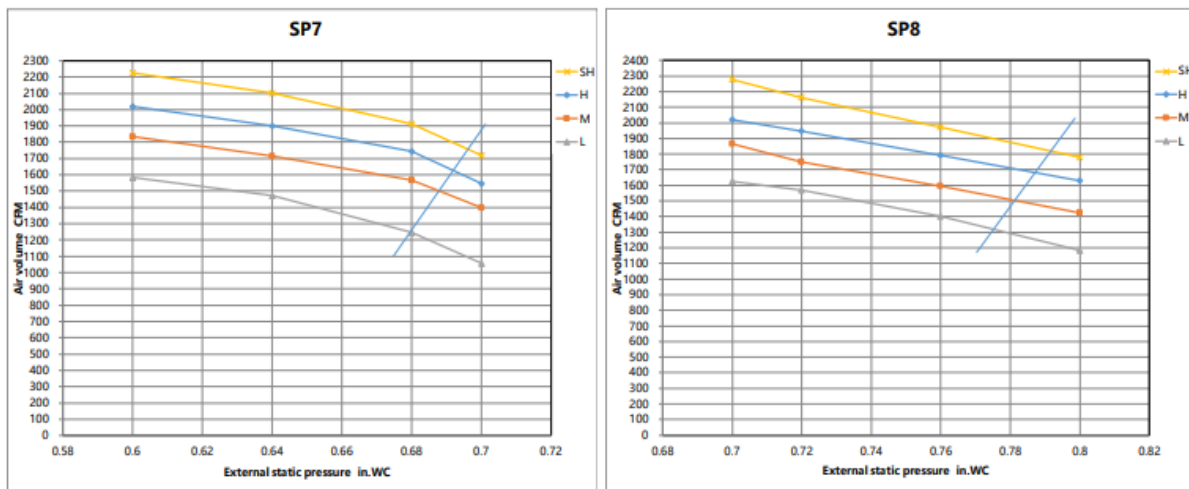


HHHP

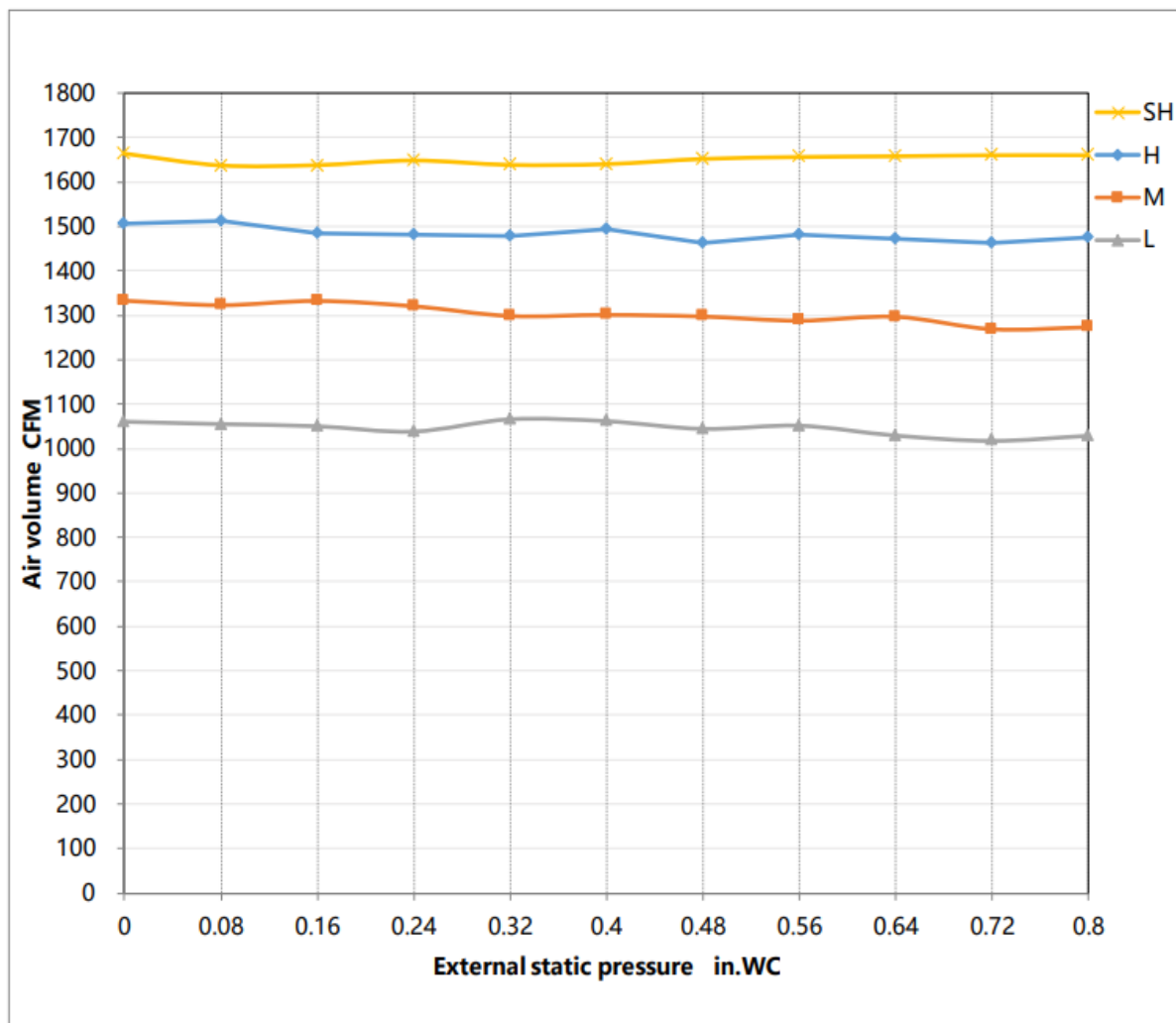
Fan Performance

48HHHP0-C-M-A

Multiple Speeds at Various Settings



Constant air volume

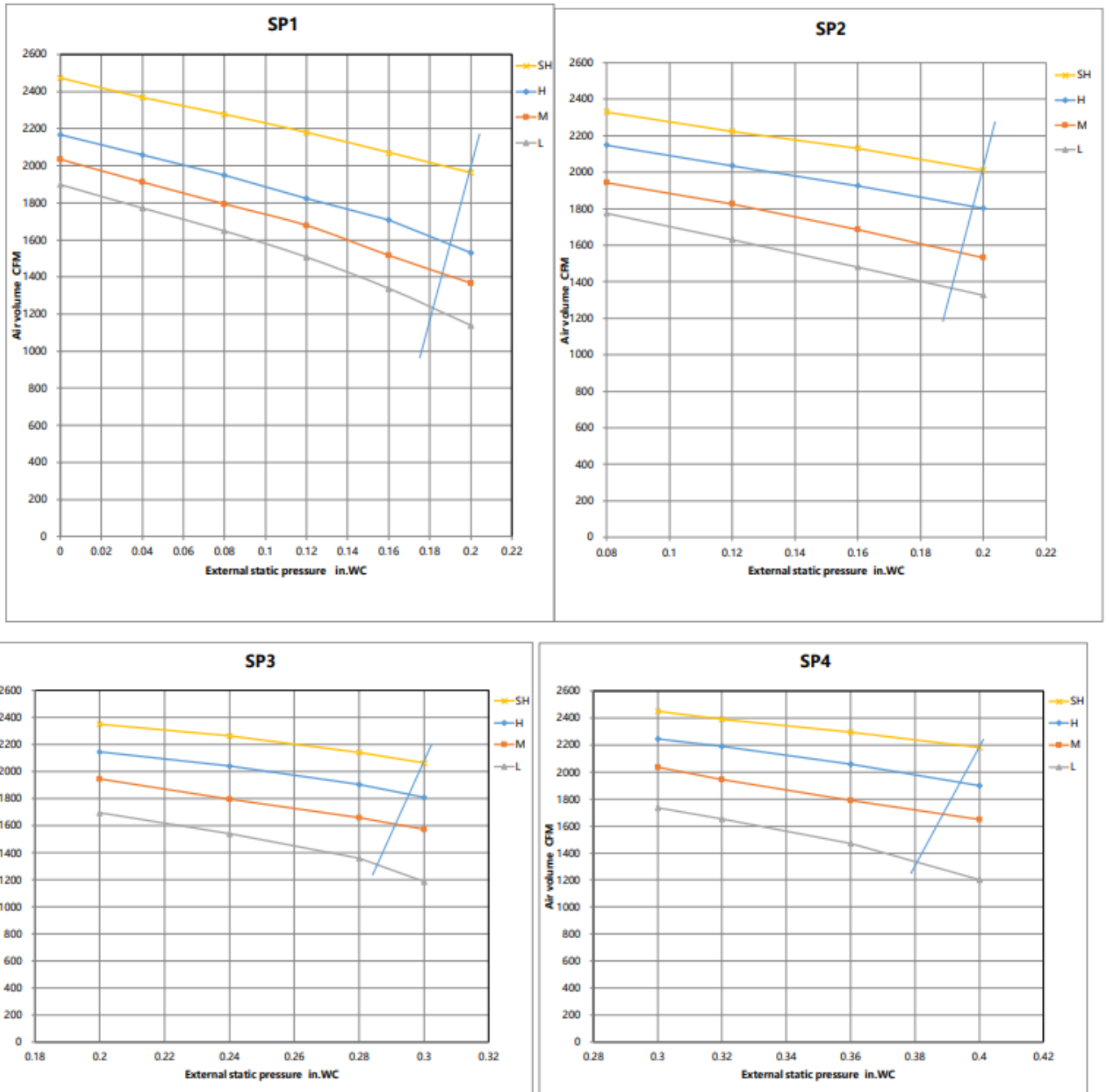


HHHP

Fan Performance

60HHHP0-C-M-A

Multiple Speeds at Various Settings

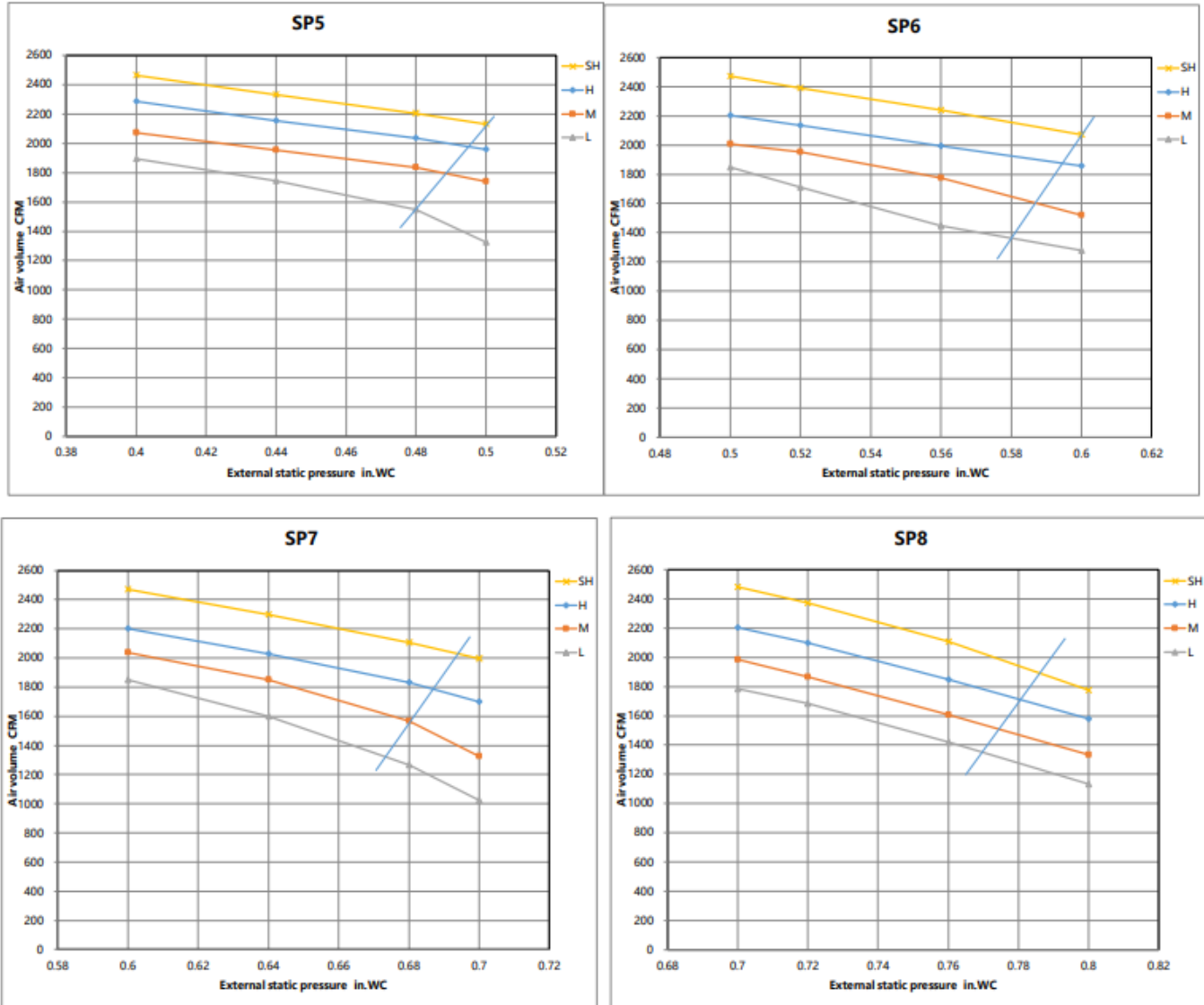


HHHP

Fan Performance

60HHHP0-C-M-A

Multiple Speeds at Various Settings



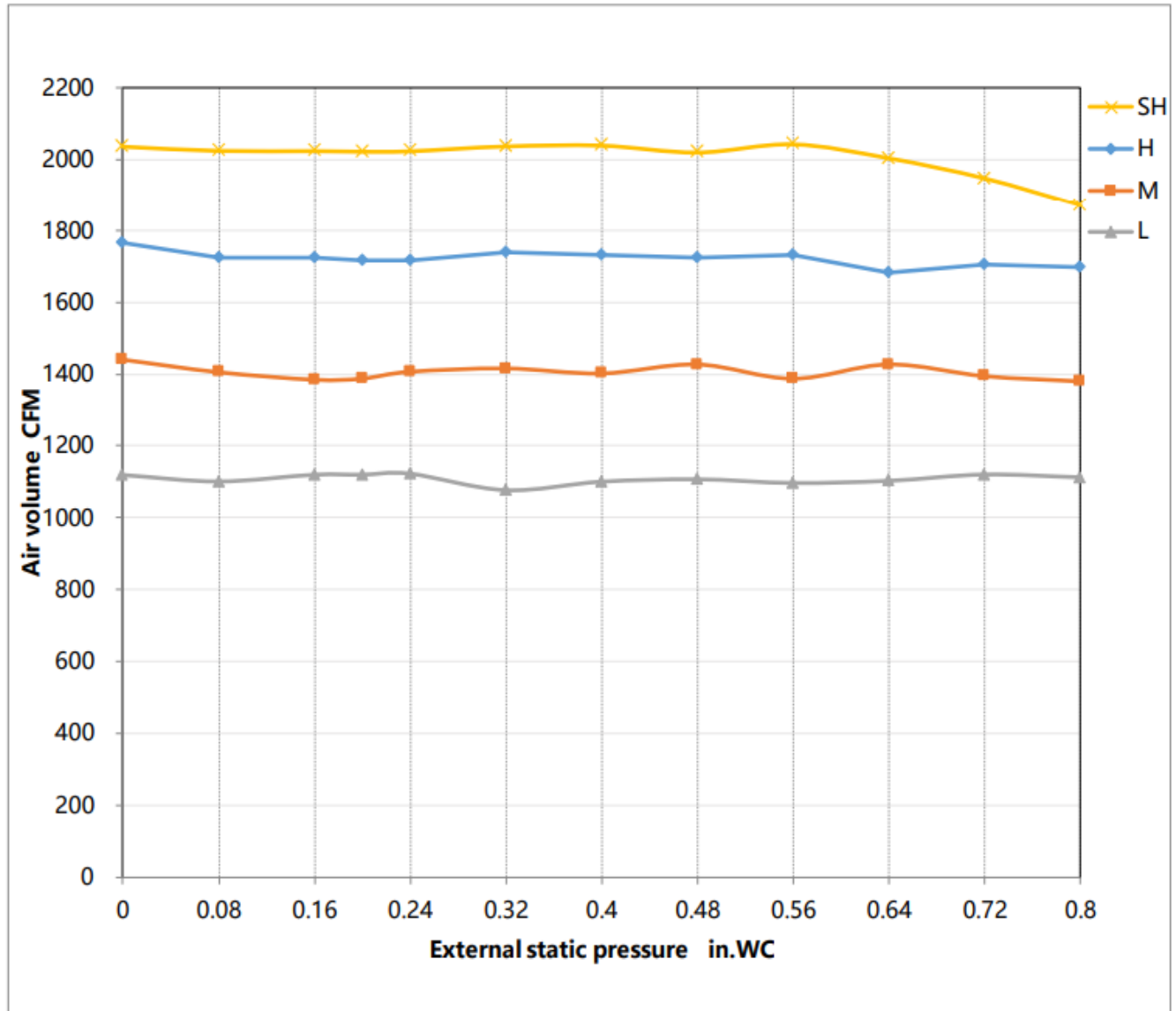
HHHP

Fan Performance

60HHHP0-C-M-A

Multiple Speeds at Various Settings

Constant air volume



HHHP-HH-SYS-B

System Performance

Hyper Heat Systems								
System	Indoor Fan Coil	Outdoor HP	SEER2	EER2	HSPF2	BTU Cooling	BTU Heating	AHRI Reference Number
9HHHP0-HH-SYS-B	9HHHP0-C-M-B	MSH-09HD-B	20.50	14.0	13.8	9,000	9,900	216760098
12HHHP0-HH-SYS-B	12HHHP0-C-M-B	MSH-12HD-B	20.00	12.0	10.6	12,000	12,000	216760099
18HHHP0-HH-SYS-B	18HHHP0-C-M-B	MSH-18HD-B	18.40	12.0	11.1	17,500	19,500	216760100
24HHHP0-HH-SYS-B	24HHHP0-C-M-B	MSH-24HD-B	19.00	12.0	11.7	24,000	26,000	216760101
36HHHP0-HH-SYS-B	36HHHP0-C-M-B	MSH-36HD-B	17.70	12.0	11.1	36,000	42,000	216760102
48HHHP0-HH-SYS-B	48HHHP0-C-M-B	MSH-48HD-B	16.70	10.4	10.8	48,000	52,000	216760103
60HHHP0-HH-SYS-B	60HHHP0-C-M-B	MSH-60HD-B	15.80	10.2	10.4	55,000	60,000	216760104



9HHHP-HH-SYS-B Expanded Cooling @ 344 CFM

CFM	OD DB (°F)	ID WB ID DB	60.8°F (16.0°C)					64.4°F (18.0°C)					67°F (19.4°C)					71.6°F (22.0°C)				
			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	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
			23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C
344	50°F (10°C)	TC	10702	10716	10728	10728	10742	11347	11360	11371	11373	11387	12024	12040	12053	12056	12069	12749	12763	12777	12779	12795
		S/T	0.50	0.58	0.66	0.66	0.76	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	0.56	0.56	0.56	0.56	0.56	0.59	0.59	0.59	0.59	0.59	0.63	0.63	0.63	0.63	0.63	0.66	0.66	0.67	0.67	0.67
	59°F (15°C)	TC	10998	11013	11025	11026	11041	11661	11675	11687	11689	11703	12358	12374	12388	12390	12404	13103	13117	13131	13133	13150
		S/T	0.50	0.59	0.67	0.67	0.76	0.53	0.62	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	0.55	0.55	0.55	0.55	0.55	0.58	0.58	0.58	0.58	0.58	0.62	0.62	0.62	0.62	0.62	0.65	0.65	0.66	0.66	0.66
	68°F (20°C)	TC	11295	11311	11323	11323	11339	11976	11990	12002	12004	12019	12692	12708	12722	12725	12739	13456	13471	13486	13488	13504
		S/T	0.51	0.60	0.69	0.69	0.78	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	0.54	0.54	0.54	0.54	0.54	0.57	0.57	0.57	0.57	0.57	0.61	0.61	0.61	0.61	0.61	0.64	0.64	0.64	0.64	0.65
	77°F (25°C)	TC	11592	11608	11620	11621	11637	12291	12305	12318	12320	12335	13025	13042	13057	13059	13074	13810	13825	13840	13842	13859
		S/T	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	0.53	0.53	0.53	0.53	0.53	0.56	0.56	0.56	0.56	0.57	0.60	0.60	0.60	0.60	0.60	0.63	0.63	0.63	0.63	0.64
	82°F (27.8°C)	TC	11675	11691	11704	11704	11720	12379	12394	12406	12408	12423	13119	13136	13150	13153	13168	13909	13924	13939	13942	13959
		S/T	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	0.60	0.61	0.61	0.61	0.61	0.64	0.64	0.64	0.64	0.64	0.68	0.68	0.68	0.68	0.68	0.72	0.72	0.72	0.72	0.72
	86°F (30°C)	TC	11639	11655	11667	11668	11683	12340	12355	12367	12370	12384	13078	13095	13109	13112	13126	13866	13881	13896	13898	13915
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	0.76	0.76	0.76	0.76	0.76	0.81	0.81	0.81	0.81	0.81	0.86	0.86	0.86	0.86	0.86	0.91	0.91	0.91	0.91	0.91
	95°F (35°C)	TC	11557	11572	11585	11585	11601	12253	12268	12280	12282	12297	12985	13002	13017	13019	13034	13768	13783	13798	13800	13817
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	1.12	1.12	1.12	1.12	1.12	1.18	1.18	1.18	1.19	1.19	1.25	1.25	1.26	1.26	1.26	1.33	1.33	1.33	1.33	1.33
	104°F (40°C)	TC	10464	10479	10490	10490	10504	11095	11108	11119	11121	11135	11758	11773	11786	11789	11802	12466	12480	12494	12495	12511
		S/T	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	1.12	1.12	1.12	1.12	1.12	1.19	1.19	1.19	1.19	1.19	1.26	1.26	1.26	1.26	1.26	1.33	1.33	1.34	1.34	1.34
	110°F (43°C)	TC	9809	9822	9833	9833	9846	10400	10412	10423	10425	10437	11021	11036	11048	11050	11062	11686	11698	11711	11713	11727
		S/T	0.57	0.67	0.76	0.76	0.86	0.60	0.71	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	1.12	1.12	1.12	1.12	1.12	1.19	1.19	1.19	1.19	1.19	1.26	1.26	1.26	1.26	1.26	1.33	1.34	1.34	1.34	1.34
	115°F (46°C)	TC	7911	7922	7930	7930	7941	8388	8398	8406	8408	8417	8889	8900	8910	8912	8922	9424	9435	9445	9446	9458
		S/T	0.57	0.67	0.77	0.77	0.87	0.61	0.71	0.81	0.81	0.92	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00
		PI	0.92	0.92	0.92	0.92	0.92	0.98	0.98	0.98	0.98	0.98	1.04	1.04	1.04	1.04	1.04	1.10	1.10	1.10	1.10	1.10
	122°F (50°C)	TC	5380	5387	5393	5393	5401	5704	5711	5717	5718	5725	6045	6053	6060	6061	6068	6409	6416	6423	6424	6432
		S/T	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.95	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00
		PI	0.66	0.66	0.66	0.66	0.66	0.70	0.70	0.70	0.70	0.70	0.74	0.74	0.74	0.74	0.74	0.78	0.78	0.78	0.78	0.78

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

9HHHP-HH-SYS-B Expanded Heating @ 344 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
344	-22°F	5557	5445	5418	5397	5348	1.48	1.50	1.50	1.50	1.51
	-13°F	6746	6611	6578	6552	6493	1.58	1.60	1.60	1.60	1.61
	-4°F	8664	8491	8448	8414	8339	1.65	1.67	1.67	1.67	1.68
	0°F	10238	10033	9983	9943	9853	1.75	1.76	1.77	1.77	1.78
	5°F	12205	11961	11901	11853	11747	1.87	1.88	1.89	1.89	1.90
	14°F	13050	12789	12725	12674	12560	1.92	1.94	1.94	1.94	1.95
	17°F	13332	13065	13000	12948	12831	1.94	1.95	1.96	1.96	1.97
	22°F	13643	13370	13303	13250	13131	1.91	1.92	1.93	1.93	1.94
	27°F	13954	13675	13606	13552	13430	1.88	1.90	1.90	1.90	1.91
	32°F	14265	13979	13910	13854	13729	1.85	1.87	1.87	1.87	1.88
	35°F	14451	14162	14092	14035	13909	1.84	1.85	1.85	1.86	1.87
	37°F	14848	14551	14478	14420	14291	1.78	1.79	1.80	1.80	1.81
	42°F	15839	15523	15445	15383	15245	1.63	1.65	1.65	1.65	1.66
	44.6°F	16236	15911	15832	15768	15626	1.58	1.59	1.59	1.60	1.60
	47°F	16831	16494	16412	16346	16199	1.49	1.50	1.51	1.51	1.52
	52°F	16457	16128	16047	15983	15839	1.35	1.36	1.36	1.36	1.37
	57°F	16084	15762	15683	15620	15480	1.20	1.21	1.21	1.22	1.22
	59°F	15934	15616	15537	15475	15336	1.14	1.15	1.15	1.16	1.16
	62°F	15710	15396	15319	15258	15120	1.06	1.06	1.07	1.07	1.07
	64.4°F	15561	15249	15173	15112	14976	1.00	1.01	1.01	1.01	1.01

12HHHP-HH-SYS-B Expanded Cooling @ 419 CFM

CFM	OD DB (°F)	ID WB ID DB	60.8°F (16.0°C)					64.4°F (18.0°C)					67°F (19.4°C)					71.6°F (22.0°C)				
			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	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
			23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C
419	50°F (10°C)	TC	10895	10909	10921	10922	10936	11551	11565	11577	11579	11593	12242	12257	12271	12273	12287	12979	12993	13007	13009	13026
		S/T	0.50	0.58	0.66	0.66	0.76	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	0.60	0.60	0.60	0.60	0.60	0.63	0.63	0.63	0.63	0.63	0.67	0.67	0.67	0.67	0.67	0.71	0.71	0.71	0.71	0.71
	59°F (15°C)	TC	11335	11350	11363	11363	11379	12018	12033	12044	12047	12061	12736	12753	12767	12769	12784	13504	13518	13533	13535	13552
		S/T	0.50	0.59	0.67	0.67	0.76	0.53	0.62	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	0.61	0.61	0.61	0.61	0.61	0.64	0.64	0.65	0.65	0.65	0.68	0.68	0.68	0.68	0.68	0.72	0.72	0.72	0.72	0.73
	68°F (20°C)	TC	11776	11791	11804	11805	11821	12485	12500	12512	12515	12530	13231	13248	13263	13266	13280	14028	14044	14059	14061	14079
		S/T	0.51	0.60	0.69	0.69	0.78	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	0.62	0.62	0.62	0.62	0.62	0.66	0.66	0.66	0.66	0.66	0.70	0.70	0.70	0.70	0.70	0.74	0.74	0.74	0.74	0.74
	77°F (25°C)	TC	12216	12232	12246	12246	12263	12952	12968	12980	12983	12998	13726	13744	13759	13762	13777	14553	14569	14585	14587	14605
		S/T	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	0.63	0.63	0.63	0.63	0.63	0.67	0.67	0.67	0.67	0.67	0.71	0.71	0.71	0.71	0.71	0.75	0.75	0.75	0.75	0.75
	82°F (27.8°C)	TC	12292	12309	12322	12322	12339	13033	13048	13061	13064	13079	13812	13830	13845	13848	13863	14644	14660	14676	14678	14696
		S/T	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	0.69	0.69	0.69	0.69	0.69	0.73	0.73	0.73	0.73	0.73	0.77	0.78	0.78	0.78	0.78	0.82	0.82	0.82	0.82	0.82
	86°F (30°C)	TC	12140	12157	12170	12170	12187	12872	12887	12900	12903	12918	13641	13659	13674	13677	13692	14463	14479	14495	14497	14515
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	0.80	0.80	0.80	0.80	0.80	0.85	0.85	0.85	0.85	0.85	0.90	0.90	0.90	0.90	0.90	0.95	0.95	0.96	0.96	0.96
	95°F (35°C)	TC	11799	11815	11828	11828	11844	12510	12525	12537	12540	12555	13258	13275	13290	13292	13307	14057	14072	14087	14089	14107
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	1.05	1.05	1.05	1.05	1.06	1.12	1.12	1.12	1.12	1.12	1.18	1.18	1.19	1.19	1.19	1.25	1.25	1.26	1.26	1.26
	104°F (40°C)	TC	10578	10592	10604	10604	10618	11216	11229	11240	11242	11255	11886	11901	11914	11916	11930	12602	12615	12629	12631	12647
		S/T	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	1.10	1.10	1.10	1.10	1.10	1.17	1.17	1.17	1.17	1.17	1.24	1.24	1.24	1.24	1.24	1.31	1.31	1.31	1.31	1.31
	110°F (43°C)	TC	9845	9859	9869	9870	9883	10439	10451	10461	10463	10476	11062	11077	11089	11091	11103	11729	11742	11754	11756	11771
		S/T	0.57	0.67	0.76	0.76	0.86	0.60	0.71	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	1.13	1.13	1.13	1.13	1.13	1.20	1.20	1.20	1.20	1.20	1.27	1.27	1.27	1.27	1.27	1.34	1.34	1.35	1.35	1.35
	115°F (46°C)	TC	8113	8124	8133	8133	8144	8602	8613	8621	8623	8633	9116	9128	9138	9140	9150	9666	9676	9687	9688	9700
		S/T	0.57	0.67	0.77	0.77	0.87	0.61	0.71	0.81	0.81	0.92	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00
		PI	0.93	0.93	0.94	0.94	0.94	0.99	0.99	0.99	0.99	0.99	1.05	1.05	1.05	1.05	1.05	1.11	1.11	1.11	1.11	1.12
	122°F (50°C)	TC	5804	5812	5818	5819	5826	6154	6161	6167	6169	6176	6522	6530	6537	6539	6546	6915	6922	6930	6931	6939
		S/T	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.95	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00
		PI	0.67	0.68	0.68	0.68	0.68	0.72	0.72	0.72	0.72	0.72	0.76	0.76	0.76	0.76	0.76	0.80	0.80	0.81	0.81	0.81

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

12HHHP-HH-SYS-B Expanded Heating @ 419 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
419	-22°F	6858	6721	6688	6661	6601	1.46	1.47	1.47	1.47	1.48
	-13°F	8566	8395	8353	8319	8244	1.54	1.55	1.56	1.56	1.57
	-4°F	10431	10222	10171	10130	10039	1.63	1.64	1.65	1.65	1.66
	0°F	11264	11039	10984	10940	10842	1.70	1.71	1.72	1.72	1.73
	5°F	12306	12060	12000	11952	11844	1.79	1.80	1.80	1.81	1.81
	14°F	14794	14498	14426	14368	14239	1.84	1.86	1.86	1.86	1.87
	17°F	15624	15311	15235	15174	15037	1.86	1.88	1.88	1.88	1.89
	22°F	15315	15009	14934	14874	14741	1.80	1.82	1.82	1.83	1.83
	27°F	15007	14707	14634	14575	14444	1.75	1.76	1.77	1.77	1.78
	32°F	14699	14405	14333	14276	14147	1.69	1.71	1.71	1.71	1.72
	35°F	14514	14224	14153	14096	13969	1.66	1.67	1.68	1.68	1.69
	37°F	14912	14613	14540	14482	14352	1.62	1.63	1.63	1.64	1.64
	42°F	15904	15586	15508	15446	15307	1.51	1.52	1.52	1.53	1.53
	44.6°F	16302	15976	15896	15832	15690	1.47	1.48	1.48	1.48	1.49
	47°F	16897	16559	16477	16411	16263	1.40	1.41	1.42	1.42	1.42
	52°F	17075	16734	16650	16584	16434	1.27	1.28	1.28	1.29	1.29
	57°F	17253	16908	16824	16756	16606	1.14	1.15	1.15	1.15	1.16
	59°F	17325	16978	16893	16826	16674	1.08	1.09	1.10	1.10	1.10
	62°F	17431	17083	16997	16929	16777	1.01	1.01	1.02	1.02	1.02
	64.4°F	17503	17153	17067	16999	16846	0.95	0.96	0.96	0.96	0.97

18HHHP-HH-SYS-B Expanded Cooling @ 706 CFM

CFM	OD DB (°F)	ID WB	60.8°F (16.0°C)					64.4°F (18.0°C)					67°F (19.4°C)					71.6°F (22.0°C)				
		ID DB	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	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
			23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C
706	50°F (10°C)	TC	18098	18122	18141	18142	18167	19188	19211	19230	19234	19257	20335	20361	20384	20387	20410	21560	21583	21607	21610	21637
		S/T	0.50	0.58	0.66	0.66	0.76	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	0.92	0.92	0.92	0.92	0.92	0.97	0.97	0.97	0.97	0.97	1.03	1.03	1.03	1.03	1.03	1.09	1.09	1.09	1.09	1.10
	59°F (15°C)	TC	18853	18878	18899	18900	18925	19989	20013	20033	20037	20060	21183	21211	21235	21238	21262	22460	22484	22509	22512	22540
		S/T	0.50	0.59	0.67	0.67	0.76	0.53	0.62	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	0.97	0.97	0.97	0.97	0.97	1.03	1.03	1.03	1.03	1.03	1.09	1.09	1.09	1.09	1.09	1.15	1.15	1.16	1.16	1.16
	68°F (20°C)	TC	19608	19635	19656	19657	19683	20790	20815	20835	20839	20864	22032	22061	22085	22089	22114	23360	23385	23410	23414	23443
		S/T	0.51	0.60	0.69	0.69	0.78	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	1.02	1.02	1.02	1.02	1.02	1.08	1.08	1.08	1.08	1.09	1.15	1.15	1.15	1.15	1.15	1.22	1.22	1.22	1.22	1.22
	77°F (25°C)	TC	20364	20391	20413	20414	20442	21591	21617	21638	21642	21668	22881	22911	22936	22940	22966	24260	24286	24312	24316	24346
		S/T	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	1.07	1.07	1.08	1.08	1.08	1.14	1.14	1.14	1.14	1.14	1.21	1.21	1.21	1.21	1.21	1.28	1.28	1.28	1.28	1.28
	82°F (27.8°C)	TC	20310	20337	20359	20360	20387	21534	21559	21581	21585	21611	22820	22850	22875	22880	22905	24195	24222	24248	24252	24282
		S/T	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	1.16	1.16	1.16	1.16	1.16	1.23	1.23	1.23	1.23	1.23	1.30	1.30	1.30	1.30	1.30	1.38	1.38	1.38	1.38	1.38
	86°F (30°C)	TC	19669	19696	19717	19718	19744	20854	20879	20900	20904	20929	22100	22129	22154	22158	22183	23432	23457	23483	23487	23516
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	1.29	1.29	1.29	1.29	1.29	1.37	1.37	1.37	1.37	1.37	1.45	1.45	1.45	1.45	1.45	1.54	1.54	1.54	1.54	1.54
	95°F (35°C)	TC	18227	18252	18272	18272	18297	19326	19349	19368	19372	19395	20481	20507	20530	20534	20557	21715	21738	21762	21765	21792
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	1.59	1.59	1.59	1.59	1.59	1.68	1.69	1.69	1.69	1.69	1.78	1.79	1.79	1.79	1.79	1.89	1.89	1.90	1.90	1.90
	104°F (40°C)	TC	15671	15693	15709	15710	15731	16616	16636	16652	16655	16675	17609	17631	17651	17654	17674	18670	18690	18710	18713	18736
		S/T	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	1.50	1.50	1.50	1.50	1.51	1.59	1.59	1.59	1.59	1.60	1.68	1.69	1.69	1.69	1.69	1.79	1.79	1.79	1.79	1.79
	110°F (43°C)	TC	14138	14157	14172	14173	14192	14990	15008	15022	15025	15043	15885	15906	15924	15927	15945	16843	16861	16879	16882	16903
		S/T	0.57	0.67	0.76	0.76	0.86	0.60	0.71	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	1.45	1.45	1.45	1.45	1.45	1.53	1.54	1.54	1.54	1.54	1.63	1.63	1.63	1.63	1.63	1.72	1.72	1.73	1.73	1.73
	115°F (46°C)	TC	12007	12024	12036	12037	12053	12731	12746	12759	12761	12776	13492	13509	13524	13527	13542	14305	14320	14336	14338	14356
		S/T	0.57	0.67	0.77	0.77	0.87	0.61	0.71	0.81	0.81	0.92	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00
		PI	1.38	1.38	1.38	1.38	1.38	1.46	1.46	1.46	1.46	1.46	1.55	1.55	1.55	1.55	1.55	1.64	1.64	1.64	1.64	1.64
	122°F (50°C)	TC	9167	9179	9189	9189	9202	9719	9731	9740	9742	9754	10300	10313	10325	10327	10338	10920	10932	10944	10946	10960
		S/T	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.95	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00
		PI	1.28	1.28	1.28	1.28	1.29	1.36	1.36	1.36	1.36	1.36	1.44	1.44	1.44	1.44	1.44	1.53	1.53	1.53	1.53	1.53

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

18HHHP-HH-SYS-B Expanded Heating @ 706 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
706	-22°F	9430	9242	9195	9159	9076	1.88	1.90	1.90	1.91	1.91
	-13°F	10665	10452	10400	10358	10265	1.90	1.92	1.92	1.93	1.93
	-4°F	15589	15277	15200	15140	15003	2.17	2.19	2.19	2.19	2.20
	0°F	17120	16778	16694	16627	16478	2.26	2.28	2.28	2.28	2.29
	5°F	19035	18655	18561	18487	18321	2.37	2.39	2.39	2.40	2.41
	14°F	20342	19935	19836	19756	19579	2.33	2.35	2.35	2.36	2.37
	17°F	20778	20362	20260	20179	19998	2.32	2.34	2.34	2.34	2.35
	22°F	20365	19957	19858	19778	19600	2.20	2.22	2.22	2.23	2.24
	27°F	19952	19553	19455	19377	19203	2.09	2.10	2.11	2.11	2.12
	32°F	19539	19148	19052	18976	18805	1.97	1.99	1.99	2.00	2.00
	35°F	19291	18905	18810	18735	18566	1.90	1.92	1.92	1.93	1.93
	37°F	19973	19574	19476	19398	19223	1.87	1.89	1.89	1.90	1.90
	42°F	21679	21245	21139	21054	20865	1.80	1.82	1.82	1.83	1.83
	44.6°F	22361	21914	21804	21717	21522	1.78	1.79	1.79	1.80	1.80
	47°F	23385	22917	22802	22711	22507	1.73	1.75	1.75	1.75	1.76
	52°F	22248	21804	21694	21608	21413	1.52	1.53	1.53	1.54	1.54
	57°F	21112	20690	20587	20504	20320	1.31	1.32	1.32	1.32	1.33
	59°F	20658	20245	20143	20063	19882	1.22	1.23	1.23	1.24	1.24
	62°F	19976	19577	19479	19401	19226	1.09	1.10	1.10	1.11	1.11
	64.4°F	19522	19131	19036	18959	18789	1.01	1.02	1.02	1.02	1.02

24HHHP-HH-SYS-B Expanded Cooling @ 853 CFM

CFM	OD DB (°F)	ID WB ID DB	60.8°F (16.0°C)					64.4°F (18.0°C)					67°F (19.4°C)					71.6°F (22.0°C)				
			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	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
			23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C
853	50°F (10°C)	TC	28561	28599	28630	28631	28670	30282	30318	30348	30354	30390	32091	32133	32169	32175	32211	34025	34062	34099	34104	34147
		S/T	0.50	0.58	0.66	0.66	0.76	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	1.51	1.51	1.51	1.51	1.51	1.60	1.60	1.60	1.60	1.60	1.69	1.70	1.70	1.70	1.70	1.80	1.80	1.80	1.80	1.80
	59°F (15°C)	TC	28553	28591	28622	28623	28662	30273	30309	30339	30345	30381	32082	32124	32159	32165	32201	34015	34052	34089	34094	34137
		S/T	0.50	0.59	0.67	0.67	0.76	0.53	0.62	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	1.60	1.60	1.61	1.61	1.61	1.70	1.70	1.70	1.70	1.70	1.80	1.80	1.80	1.80	1.81	1.91	1.91	1.91	1.91	1.92
	68°F (20°C)	TC	28544	28583	28613	28615	28653	30264	30300	30330	30336	30372	32073	32114	32150	32156	32192	34005	34042	34079	34084	34127
		S/T	0.51	0.60	0.69	0.69	0.78	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	1.70	1.70	1.70	1.70	1.70	1.80	1.80	1.80	1.80	1.81	1.91	1.91	1.91	1.91	1.91	2.02	2.02	2.03	2.03	2.03
	77°F (25°C)	TC	28536	28574	28605	28606	28645	30256	30292	30321	30327	30363	32063	32105	32141	32147	32183	33995	34032	34069	34075	34117
		S/T	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	1.79	1.79	1.80	1.80	1.80	1.90	1.90	1.90	1.90	1.91	2.01	2.01	2.02	2.02	2.02	2.13	2.14	2.14	2.14	2.14
	82°F (27.8°C)	TC	28038	28075	28106	28107	28145	29727	29762	29792	29798	29833	31503	31544	31579	31585	31620	33401	33438	33474	33479	33521
		S/T	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	1.86	1.87	1.87	1.87	1.87	1.98	1.98	1.98	1.98	1.98	2.09	2.10	2.10	2.10	2.10	2.22	2.22	2.23	2.23	2.23
	86°F (30°C)	TC	27016	27052	27081	27082	27119	28644	28678	28706	28712	28746	30355	30394	30428	30434	30468	32184	32219	32254	32259	32299
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	1.95	1.95	1.95	1.95	1.96	2.07	2.07	2.07	2.07	2.07	2.19	2.19	2.20	2.20	2.20	2.32	2.33	2.33	2.33	2.33
	95°F (35°C)	TC	24716	24750	24776	24777	24811	26206	26237	26263	26268	26299	27771	27808	27839	27844	27875	29445	29477	29509	29513	29550
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	2.14	2.15	2.15	2.15	2.15	2.27	2.27	2.28	2.28	2.28	2.41	2.41	2.41	2.41	2.42	2.55	2.55	2.56	2.56	2.56
	104°F (40°C)	TC	20843	20871	20893	20894	20922	22099	22125	22147	22151	22177	23419	23449	23475	23480	23506	24830	24857	24884	24888	24919
		S/T	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	2.10	2.10	2.11	2.11	2.11	2.23	2.23	2.23	2.23	2.24	2.36	2.36	2.37	2.37	2.37	2.50	2.51	2.51	2.51	2.51
	110°F (43°C)	TC	18518	18543	18563	18564	18589	19634	19658	19677	19681	19704	20807	20834	20858	20861	20885	22061	22085	22109	22112	22140
		S/T	0.57	0.67	0.76	0.76	0.86	0.60	0.71	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	2.08	2.08	2.08	2.08	2.08	2.20	2.20	2.21	2.21	2.21	2.33	2.34	2.34	2.34	2.34	2.47	2.48	2.48	2.48	2.48
	115°F (46°C)	TC	15901	15922	15939	15940	15962	16859	16879	16896	16899	16919	17866	17890	17910	17913	17933	18943	18964	18984	18987	19011
		S/T	0.57	0.67	0.77	0.77	0.87	0.61	0.71	0.81	0.81	0.92	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00
		PI	1.87	1.87	1.88	1.88	1.88	1.98	1.99	1.99	1.99	1.99	2.10	2.11	2.11	2.11	2.11	2.23	2.23	2.23	2.23	2.24
	122°F (50°C)	TC	12411	12428	12441	12442	12459	13159	13175	13188	13190	13206	13945	13963	13979	13982	13997	14786	14802	14818	14820	14838
		S/T	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.95	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00
		PI	1.60	1.60	1.60	1.60	1.60	1.69	1.70	1.70	1.70	1.70	1.80	1.80	1.80	1.80	1.80	1.90	1.91	1.91	1.91	1.91

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

24HHHP-HH-SYS-B Expanded Heating @ 853 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
853	-22°F	11834	11597	11539	11493	11390	2.49	2.51	2.52	2.52	2.53
	-13°F	16009	15688	15610	15547	15408	2.68	2.71	2.71	2.72	2.73
	-4°F	19833	19436	19339	19262	19089	2.87	2.89	2.90	2.90	2.92
	0°F	22264	21819	21709	21623	21428	2.99	3.01	3.02	3.03	3.04
	5°F	25302	24796	24672	24573	24352	3.14	3.17	3.17	3.18	3.19
	14°F	24969	24470	24347	24250	24032	2.90	2.92	2.93	2.93	2.94
	17°F	24858	24361	24239	24142	23925	2.81	2.84	2.84	2.85	2.86
	22°F	26138	25615	25487	25385	25157	2.82	2.84	2.85	2.86	2.87
	27°F	27418	26870	26735	26628	26389	2.83	2.85	2.86	2.86	2.87
	32°F	28698	28124	27984	27872	27621	2.84	2.86	2.86	2.87	2.88
	35°F	29466	28877	28732	28618	28360	2.84	2.86	2.87	2.87	2.89
	37°F	29919	29320	29174	29057	28796	2.78	2.80	2.80	2.81	2.82
	42°F	31050	30429	30277	30156	29884	2.62	2.64	2.64	2.65	2.66
	44.6°F	31503	30873	30718	30595	30320	2.55	2.58	2.58	2.59	2.60
	47°F	32181	31538	31380	31255	30973	2.46	2.48	2.48	2.49	2.50
	52°F	32216	31572	31414	31289	31007	2.26	2.28	2.28	2.28	2.29
	57°F	32251	31606	31448	31323	31041	2.05	2.07	2.07	2.08	2.09
	59°F	32265	31620	31462	31336	31054	1.97	1.99	1.99	2.00	2.00
	62°F	32286	31641	31483	31357	31074	1.85	1.87	1.87	1.87	1.88
	64.4°F	32300	31654	31496	31370	31088	1.77	1.78	1.79	1.79	1.80

36HHHP-HH-SYS-B Expanded Cooling @ 1,235 CFM

CFM	OD DB (°F)	ID WB ID DB	60.8°F (16.0°C)					64.4°F (18.0°C)					67°F (19.4°C)					71.6°F (22.0°C)				
			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	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
			23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C
1235	50°F (10°C)	TC	40813	40868	40912	40914	40969	43273	43324	43367	43376	43427	45858	45918	45969	45978	46029	48621	48674	48727	48735	48795
		S/T	0.50	0.58	0.66	0.66	0.76	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	2.93	2.93	2.94	2.94	2.94	3.10	3.11	3.11	3.11	3.12	3.29	3.29	3.30	3.30	3.30	3.49	3.49	3.50	3.50	3.50
	59°F (15°C)	TC	38848	38900	38942	38944	38997	41189	41238	41279	41287	41336	43650	43707	43756	43764	43813	46280	46330	46381	46388	46446
		S/T	0.50	0.59	0.67	0.67	0.76	0.53	0.62	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	2.76	2.76	2.76	2.76	2.77	2.92	2.93	2.93	2.93	2.93	3.10	3.10	3.10	3.10	3.11	3.28	3.29	3.29	3.29	3.29
	68°F (20°C)	TC	36883	36933	36972	36974	37024	39106	39152	39191	39198	39245	41442	41496	41542	41550	41596	43939	43987	44035	44041	44096
		S/T	0.51	0.60	0.69	0.69	0.78	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	2.58	2.59	2.59	2.59	2.59	2.74	2.74	2.74	2.75	2.75	2.90	2.91	2.91	2.91	2.91	3.08	3.08	3.08	3.08	3.09
	77°F (25°C)	TC	34918	34965	35002	35004	35051	37022	37066	37103	37110	37154	39234	39285	39329	39336	39380	41598	41643	41688	41695	41747
		S/T	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	2.41	2.41	2.42	2.42	2.42	2.56	2.56	2.56	2.56	2.56	2.71	2.71	2.72	2.72	2.72	2.87	2.87	2.88	2.88	2.88
	82°F (27.8°C)	TC	34045	34091	34128	34129	34175	36097	36140	36176	36183	36226	38254	38303	38346	38353	38396	40559	40603	40647	40653	40704
		S/T	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	2.47	2.47	2.48	2.48	2.48	2.62	2.62	2.63	2.63	2.63	2.78	2.78	2.78	2.78	2.79	2.94	2.95	2.95	2.95	2.95
	86°F (30°C)	TC	33624	33670	33706	33707	33753	35651	35693	35728	35735	35778	37781	37830	37872	37879	37921	40057	40101	40144	40151	40201
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	2.72	2.72	2.72	2.72	2.73	2.88	2.88	2.89	2.89	2.89	3.05	3.06	3.06	3.06	3.06	3.23	3.24	3.24	3.24	3.25
	95°F (35°C)	TC	32677	32721	32757	32758	32802	34647	34688	34722	34729	34770	36717	36764	36805	36812	36853	38929	38971	39014	39020	39068
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	3.27	3.27	3.27	3.27	3.28	3.46	3.47	3.47	3.47	3.48	3.67	3.67	3.68	3.68	3.68	3.89	3.90	3.90	3.90	3.91
	104°F (40°C)	TC	30739	30780	30813	30814	30856	32591	32630	32662	32668	32707	34538	34583	34622	34628	34667	36619	36659	36699	36705	36750
		S/T	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	3.22	3.22	3.22	3.22	3.23	3.41	3.41	3.42	3.42	3.42	3.61	3.62	3.62	3.62	3.63	3.83	3.84	3.84	3.84	3.84
	110°F (43°C)	TC	29575	29615	29647	29648	29688	31358	31395	31426	31432	31469	33231	33274	33311	33318	33355	35233	35272	35310	35316	35360
		S/T	0.57	0.67	0.76	0.76	0.86	0.60	0.71	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	3.19	3.19	3.19	3.19	3.20	3.38	3.38	3.38	3.39	3.39	3.58	3.58	3.59	3.59	3.59	3.80	3.80	3.80	3.80	3.81
	115°F (46°C)	TC	22815	22846	22870	22871	22902	24190	24219	24243	24247	24276	25635	25669	25697	25702	25731	27180	27209	27239	27243	27277
		S/T	0.57	0.67	0.77	0.77	0.87	0.61	0.71	0.81	0.81	0.92	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00
		PI	2.66	2.67	2.67	2.67	2.67	2.82	2.83	2.83	2.83	2.83	2.99	3.00	3.00	3.00	3.00	3.17	3.18	3.18	3.18	3.19
	122°F (50°C)	TC	13802	13820	13835	13836	13854	14633	14651	14665	14668	14685	15508	15528	15545	15548	15565	16442	16460	16478	16480	16501
		S/T	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.95	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00
		PI	1.97	1.97	1.97	1.97	1.98	2.09	2.09	2.09	2.09	2.10	2.21	2.22	2.22	2.22	2.22	2.35	2.35	2.35	2.35	2.35

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

36HHHP-HH-SYS-B Expanded Heating @ 1,235 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
1235	-22°F	23532	23061	22946	22854	22648	4.68	4.72	4.73	4.74	4.76
	-13°F	28840	28263	28122	28009	27757	5.01	5.05	5.06	5.07	5.09
	-4°F	31947	31308	31152	31027	30748	4.77	4.81	4.82	4.83	4.85
	0°F	35700	34986	34811	34671	34359	4.88	4.92	4.93	4.94	4.96
	5°F	40390	39583	39385	39227	38874	5.03	5.07	5.08	5.09	5.11
	14°F	40802	39986	39786	39627	39271	5.05	5.09	5.10	5.11	5.14
	17°F	40940	40121	39920	39761	39403	5.06	5.10	5.11	5.12	5.14
	22°F	41535	40704	40500	40338	39975	4.97	5.01	5.02	5.03	5.05
	27°F	42130	41287	41080	40916	40548	4.87	4.91	4.92	4.93	4.95
	32°F	42724	41870	41661	41494	41120	4.78	4.82	4.83	4.84	4.85
	35°F	43081	42220	42009	41841	41464	4.72	4.76	4.77	4.78	4.80
	37°F	43599	42727	42513	42343	41962	4.57	4.61	4.61	4.62	4.64
	42°F	44892	43994	43774	43599	43206	4.19	4.22	4.23	4.24	4.26
	44.6°F	45409	44501	44278	44101	43704	4.04	4.07	4.08	4.09	4.10
	47°F	46185	45261	45035	44855	44451	3.81	3.84	3.85	3.85	3.87
	52°F	46163	45240	45014	44834	44430	3.43	3.46	3.47	3.47	3.49
	57°F	46142	45219	44993	44813	44410	3.05	3.08	3.09	3.09	3.10
	59°F	46133	45210	44984	44804	44401	2.90	2.93	2.93	2.94	2.95
	62°F	46120	45198	44972	44792	44389	2.68	2.70	2.71	2.71	2.72
	64.4°F	46112	45189	44963	44783	44380	2.53	2.55	2.55	2.56	2.57

48HHHP-HH-SYS-B Expanded Cooling @ 1,647 CFM

CFM	OD DB (°F)	ID WB ID DB	60.8°F (16.0°C)					64.4°F (18.0°C)					67°F (19.4°C)					71.6°F (22.0°C)				
			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	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
			23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C
1647	50°F (10°C)	TC	53850	53922	53980	53983	54055	57095	57163	57219	57230	57298	60506	60585	60652	60663	60731	64152	64221	64291	64301	64381
		S/T	0.50	0.58	0.66	0.66	0.76	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	3.65	3.66	3.66	3.66	3.67	3.87	3.88	3.88	3.88	3.89	4.11	4.11	4.12	4.12	4.12	4.35	4.36	4.36	4.36	4.37
	59°F (15°C)	TC	54169	54242	54300	54303	54376	57433	57501	57558	57569	57638	60865	60944	61012	61023	61091	64532	64602	64672	64682	64763
		S/T	0.50	0.59	0.67	0.67	0.76	0.53	0.62	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	3.66	3.66	3.67	3.67	3.67	3.88	3.89	3.89	3.89	3.89	4.11	4.12	4.12	4.12	4.13	4.36	4.36	4.37	4.37	4.38
	68°F (20°C)	TC	54488	54561	54620	54622	54696	57772	57840	57897	57909	57977	61223	61303	61371	61382	61451	64912	64983	65053	65063	65144
		S/T	0.51	0.60	0.69	0.69	0.78	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	3.67	3.67	3.67	3.67	3.68	3.89	3.89	3.89	3.90	3.90	4.12	4.12	4.13	4.13	4.13	4.37	4.37	4.38	4.38	4.38
	77°F (25°C)	TC	54807	54881	54940	54942	55016	58110	58179	58236	58248	58317	61582	61662	61731	61742	61811	65292	65363	65434	65445	65526
		S/T	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	3.67	3.68	3.68	3.68	3.69	3.89	3.90	3.90	3.90	3.91	4.12	4.13	4.13	4.14	4.14	4.37	4.38	4.38	4.38	4.39
	82°F (27.8°C)	TC	54254	54327	54385	54388	54461	57523	57591	57648	57660	57728	60960	61039	61107	61118	61187	64633	64703	64773	64784	64864
		S/T	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	3.89	3.90	3.90	3.90	3.91	4.13	4.13	4.14	4.14	4.14	4.37	4.38	4.39	4.39	4.39	4.64	4.64	4.65	4.65	4.66
	86°F (30°C)	TC	52889	52960	53017	53019	53091	56076	56142	56198	56209	56276	59426	59503	59570	59581	59647	63007	63075	63144	63154	63232
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	4.35	4.35	4.36	4.36	4.37	4.61	4.62	4.62	4.62	4.63	4.89	4.89	4.90	4.90	4.90	5.18	5.19	5.19	5.19	5.20
	95°F (35°C)	TC	49817	49884	49938	49940	50008	52820	52882	52934	52945	53008	55975	56048	56110	56121	56183	59348	59412	59477	59486	59560
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	5.37	5.38	5.39	5.39	5.39	5.70	5.70	5.71	5.71	5.72	6.04	6.04	6.05	6.05	6.06	6.40	6.41	6.41	6.42	6.42
	104°F (40°C)	TC	41950	42007	42052	42054	42111	44479	44531	44575	44584	44637	47136	47197	47250	47259	47311	49976	50030	50085	50093	50155
		S/T	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	4.64	4.64	4.65	4.65	4.65	4.92	4.92	4.93	4.93	4.93	5.21	5.22	5.22	5.22	5.23	5.52	5.53	5.54	5.54	5.54
	110°F (43°C)	TC	37230	37280	37321	37322	37373	39474	39521	39560	39568	39615	41832	41887	41933	41941	41988	44353	44401	44449	44456	44512
		S/T	0.57	0.67	0.76	0.76	0.86	0.60	0.71	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	4.20	4.20	4.21	4.21	4.21	4.45	4.45	4.46	4.46	4.46	4.71	4.72	4.73	4.73	4.73	5.00	5.00	5.01	5.01	5.02
	115°F (46°C)	TC	25842	25877	25905	25906	25941	27399	27432	27459	27464	27497	29036	29074	29106	29112	29144	30786	30819	30853	30857	30896
		S/T	0.57	0.67	0.77	0.77	0.87	0.61	0.71	0.81	0.81	0.92	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00
		PI	3.30	3.30	3.31	3.31	3.31	3.50	3.50	3.51	3.51	3.51	3.71	3.71	3.72	3.72	3.72	3.93	3.94	3.94	3.94	3.95
	122°F (50°C)	TC	10657	10672	10683	10683	10698	11299	11313	11324	11326	11340	11974	11990	12003	12006	12019	12696	12710	12724	12726	12741
		S/T	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.95	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00
		PI	2.11	2.11	2.11	2.11	2.11	2.23	2.24	2.24	2.24	2.24	2.37	2.37	2.37	2.37	2.38	2.51	2.51	2.51	2.51	2.52

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

48HHHP-HH-SYS-B Expanded Heating @ 1,647 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
1647	-22°F	25460	24950	24826	24726	24504	4.98	5.02	5.04	5.05	5.07
	-13°F	32374	31726	31568	31442	31159	5.07	5.11	5.12	5.13	5.15
	-4°F	39082	38300	38109	37956	37615	5.67	5.71	5.73	5.74	5.76
	0°F	43845	42968	42753	42582	42199	6.11	6.16	6.17	6.18	6.21
	5°F	49800	48804	48560	48365	47930	6.66	6.71	6.73	6.74	6.77
	14°F	51805	50769	50515	50313	49860	6.03	6.08	6.10	6.11	6.13
	17°F	52473	51423	51166	50962	50503	5.83	5.87	5.89	5.90	5.92
	22°F	54711	53617	53349	53136	52657	5.93	5.98	5.99	6.00	6.03
	27°F	56950	55811	55532	55310	54812	6.04	6.09	6.10	6.11	6.13
	32°F	59188	58005	57715	57484	56966	6.14	6.19	6.20	6.22	6.24
	35°F	60531	59321	59024	58788	58259	6.20	6.25	6.27	6.28	6.30
	37°F	60616	59404	59107	58870	58340	6.06	6.11	6.12	6.13	6.16
	42°F	60827	59611	59313	59076	58544	5.69	5.74	5.75	5.76	5.78
	44.6°F	60912	59694	59395	59158	58625	5.54	5.59	5.60	5.61	5.63
	47°F	61039	59818	59519	59281	58747	5.32	5.37	5.38	5.39	5.41
	52°F	60562	59351	59054	58818	58289	4.88	4.92	4.93	4.94	4.96
	57°F	60086	58884	58590	58355	57830	4.43	4.47	4.48	4.48	4.50
	59°F	59895	58697	58404	58170	57647	4.25	4.29	4.30	4.30	4.32
	62°F	59609	58417	58125	57893	57371	3.98	4.02	4.03	4.03	4.05
	64.4°F	59419	58230	57939	57707	57188	3.81	3.84	3.85	3.85	3.87

60HHHP-HH-SYS-B Expanded Cooling @ 2,000 CFM

CFM	OD DB (°F)	ID WB ID DB	60.8°F (16.0°C)					64.4°F (18.0°C)					67°F (19.4°C)					71.6°F (22.0°C)				
			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	73.4°F	77.0°F	80.0°F	80.6°F	84.2°F
			23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C	23.0°C	25.0°C	26.7°C	27.0°C	29.0°C
2000	50°F (10°C)	TC	55480	55555	55614	55617	55692	58823	58893	58951	58963	59033	62338	62419	62488	62500	62570	66094	66166	66238	66248	66330
		S/T	0.50	0.58	0.66	0.66	0.76	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90
		PI	2.83	2.83	2.83	2.83	2.84	3.00	3.00	3.00	3.00	3.01	3.18	3.18	3.18	3.18	3.19	3.37	3.37	3.38	3.38	3.38
	59°F (15°C)	TC	55964	56039	56100	56102	56178	59337	59407	59466	59477	59548	62882	62963	63034	63045	63116	66670	66743	66816	66826	66909
		S/T	0.50	0.59	0.67	0.67	0.76	0.53	0.62	0.71	0.71	0.81	0.56	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91
		PI	3.09	3.10	3.10	3.10	3.10	3.28	3.28	3.28	3.29	3.29	3.47	3.48	3.48	3.48	3.49	3.68	3.69	3.69	3.69	3.70
	68°F (20°C)	TC	56448	56524	56585	56587	56664	59850	59921	59980	59992	60063	63426	63508	63579	63591	63662	67247	67320	67393	67404	67488
		S/T	0.51	0.60	0.69	0.69	0.78	0.54	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.61	0.72	0.82	0.82	0.93
		PI	3.36	3.36	3.36	3.36	3.37	3.56	3.56	3.57	3.57	3.57	3.77	3.78	3.78	3.78	3.78	4.00	4.00	4.01	4.01	4.01
	77°F (25°C)	TC	56932	57009	57070	57073	57150	60363	60435	60494	60506	60578	63970	64053	64124	64136	64207	67824	67898	67971	67982	68067
		S/T	0.52	0.61	0.69	0.69	0.79	0.55	0.65	0.74	0.74	0.84	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.94
		PI	3.62	3.63	3.63	3.63	3.63	3.84	3.84	3.85	3.85	3.85	4.07	4.07	4.08	4.08	4.08	4.31	4.32	4.32	4.32	4.33
	82°F (27.8°C)	TC	56554	56630	56691	56694	56770	59963	60034	60093	60105	60176	63545	63627	63698	63710	63781	67374	67447	67520	67531	67615
		S/T	0.53	0.62	0.70	0.70	0.80	0.56	0.66	0.75	0.75	0.85	0.59	0.70	0.79	0.79	0.90	0.63	0.74	0.84	0.84	0.95
		PI	3.93	3.94	3.94	3.94	3.95	4.17	4.18	4.18	4.18	4.19	4.42	4.43	4.43	4.43	4.44	4.69	4.69	4.70	4.70	4.70
	86°F (30°C)	TC	55436	55510	55570	55573	55648	58777	58846	58904	58916	58986	62288	62369	62439	62450	62520	66041	66113	66185	66195	66278
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	4.40	4.40	4.41	4.41	4.41	4.66	4.67	4.67	4.67	4.68	4.94	4.95	4.95	4.95	4.96	5.24	5.24	5.25	5.25	5.26
	95°F (35°C)	TC	52919	52990	53048	53050	53121	56108	56175	56230	56242	56308	59461	59538	59604	59615	59682	63043	63112	63180	63190	63269
		S/T	0.53	0.63	0.71	0.71	0.81	0.57	0.66	0.75	0.75	0.86	0.60	0.70	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97
		PI	5.44	5.44	5.45	5.45	5.46	5.76	5.77	5.78	5.78	5.79	6.11	6.12	6.12	6.13	6.13	6.48	6.48	6.49	6.49	6.50
	104°F (40°C)	TC	41703	41759	41804	41806	41863	44216	44269	44313	44321	44374	46858	46919	46971	46980	47032	49681	49735	49790	49797	49859
		S/T	0.55	0.64	0.73	0.73	0.83	0.58	0.68	0.77	0.77	0.88	0.62	0.72	0.82	0.82	0.93	0.65	0.76	0.87	0.87	0.99
		PI	4.47	4.48	4.48	4.48	4.49	4.74	4.75	4.75	4.75	4.76	5.02	5.03	5.04	5.04	5.04	5.33	5.33	5.34	5.34	5.35
	110°F (43°C)	TC	34974	35021	35058	35060	35107	37081	37125	37162	37169	37213	39297	39348	39392	39399	39443	41664	41710	41755	41762	41814
		S/T	0.57	0.67	0.76	0.76	0.86	0.60	0.71	0.80	0.80	0.91	0.64	0.75	0.85	0.85	0.97	0.68	0.79	0.90	0.90	1.00
		PI	3.89	3.90	3.90	3.90	3.91	4.13	4.13	4.14	4.14	4.14	4.37	4.38	4.39	4.39	4.39	4.64	4.64	4.65	4.65	4.65
	115°F (46°C)	TC	24176	24208	24234	24235	24268	25633	25663	25688	25693	25724	27164	27199	27230	27235	27265	28801	28832	28863	28868	28904
		S/T	0.57	0.67	0.77	0.77	0.87	0.61	0.71	0.81	0.81	0.92	0.65	0.76	0.86	0.86	0.98	0.68	0.80	0.91	0.91	1.00
		PI	3.17	3.17	3.17	3.17	3.18	3.36	3.36	3.36	3.37	3.37	3.56	3.56	3.57	3.57	3.57	3.77	3.78	3.78	3.78	3.79
	122°F (50°C)	TC	9779	9792	9802	9803	9816	10368	10380	10391	10393	10405	10987	11002	11014	11016	11028	11649	11662	11675	11677	11691
		S/T	0.59	0.69	0.78	0.78	0.89	0.62	0.73	0.83	0.83	0.95	0.66	0.77	0.88	0.88	1.00	0.70	0.82	0.93	0.93	1.00
		PI	2.20	2.20	2.20	2.20	2.21	2.33	2.33	2.33	2.34	2.34	2.47	2.47	2.48	2.48	2.48	2.62	2.62	2.62	2.62	2.63

TC:Total Cooling Capacity (BTU/hr)

S/T:Sensible Cooling Capacity Ratio

PI:Power Input(kW)

60HHHP-HH-SYS-B Expanded Heating @ 2,000 CFM

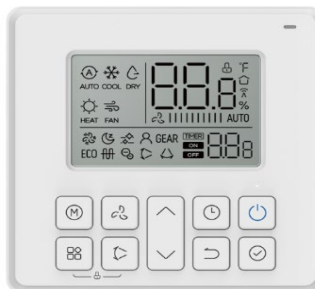
CFM	HEATING PERFORMANCE AT INDOOR DRY BULB TEMPERATURE										
	OD DB (°F)	TC : Total Heating Capacity(BTU/hr)					PI : Power Input(kW)				
		Indoor Conditions (DB °F)					Indoor Conditions (DB °F)				
		60.8°F	68°F	70°F	71.6°F	75.2°F	60.8°F	68°F	70°F	71.6°F	75.2°F
2000	-22°F	30621	30008	29858	29739	29471	6.29	6.34	6.35	6.36	6.39
	-13°F	39050	38269	38078	37926	37584	6.60	6.65	6.66	6.68	6.70
	-4°F	46542	45611	45383	45201	44795	6.76	6.82	6.83	6.84	6.87
	0°F	51336	50310	50058	49858	49409	6.87	6.93	6.94	6.96	6.99
	5°F	57330	56183	55902	55679	55177	7.01	7.07	7.09	7.10	7.13
	14°F	61027	59807	59508	59270	58736	7.04	7.09	7.11	7.12	7.15
	17°F	62260	61015	60710	60467	59923	7.04	7.10	7.12	7.13	7.16
	22°F	61403	60175	59874	59634	59098	6.66	6.71	6.73	6.74	6.77
	27°F	60545	59335	59038	58802	58272	6.27	6.33	6.34	6.35	6.38
	32°F	59688	58494	58202	57969	57447	5.89	5.94	5.95	5.96	5.99
	35°F	59174	57990	57700	57470	56952	5.66	5.70	5.72	5.73	5.75
	37°F	60569	59358	59061	58825	58295	5.57	5.61	5.62	5.63	5.66
	42°F	64058	62777	62463	62213	61653	5.33	5.38	5.39	5.40	5.42
	44.6°F	65454	64145	63824	63569	62997	5.24	5.28	5.29	5.30	5.32
	47°F	67547	66196	65865	65602	65011	5.10	5.14	5.15	5.16	5.18
	52°F	64934	63635	63317	63064	62496	4.63	4.67	4.68	4.69	4.71
	57°F	62321	61075	60769	60526	59982	4.17	4.20	4.21	4.22	4.23
	59°F	61276	60050	59750	59511	58976	3.98	4.01	4.02	4.03	4.05
	62°F	59708	58514	58221	57988	57467	3.70	3.73	3.74	3.75	3.76
	64.4°F	58663	57490	57202	56973	56461	3.51	3.54	3.55	3.56	3.57

Control Options

Part Number	Description
MWRC	Wireless infrared remote controller with timer, sleep function, follow me and turbo function.
SWC120LR	Standard wired wall controller with operation mode control, timer and follow me functions.
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.
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.
M24V-INT	24V Interface Kit that allows the use of a conventional 24V thermostat with an HHP system.



MWRC
Wireless Remote



SWC120LR
Standard Wired
Wall Controller



WIFI-DWC120X2
Deluxe Wired Wall



DWC120X2
Deluxe Wired Wall



M24V-INT 24V
Interface Kit

Solid Ceiling Access Panels

Standard Features

Design

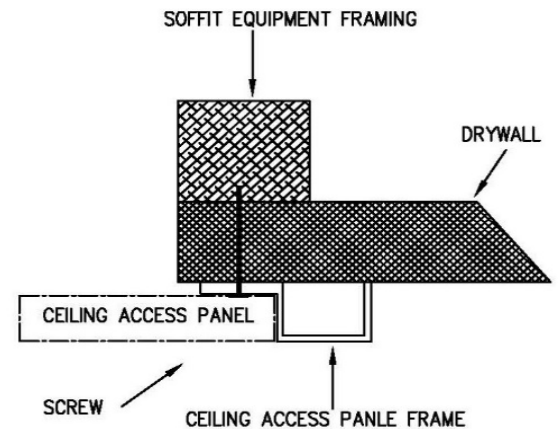
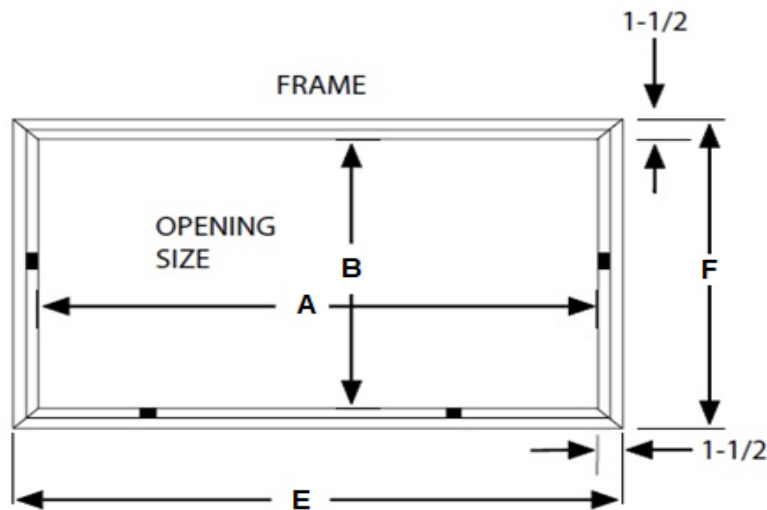
Interior Panel Braces
Integrated Clips in Panel Frame
Single Piece Wrapped Frame with 90° Squared Corner Seams
Captive Screw Retainers

Materials

Heavy Gauge Galvanized Steel Construction
with Off-White Powder Paint Finish
Stainless Steel Screws with Protective Washers

Packaging

Individually Wrapped and Individually Boxed
Interior Glossy Label with Panel Model Number and Barcode



PANEL MODEL NUMBER	INSIDE FRAME		OUTSIDE FRAME		FAN COIL MODELS
	A	B	E	F	
CAP4633-S	46	33	49	36	9HHHP0-C-M-A, 12HHHP0-C-M-A
CAP5833-S	58	33	61	36	18HHHP0-C-M-A
CAP5833-S	58	33	61	36	24HHHP0-C-M-A
CAP6634-S	66	34	69	37	36HHHP0-C-M-A
CAP6634-S	66	34	69	37	48HHHP0-C-M-A
CAP7435-S	74	35	77	38	60HHHP0-C-M-A





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