



FIRST-PAK[™]

HP 

*Space Constrained Heat Pump
with Electric Heat*

1.0 - 2.5 Tons

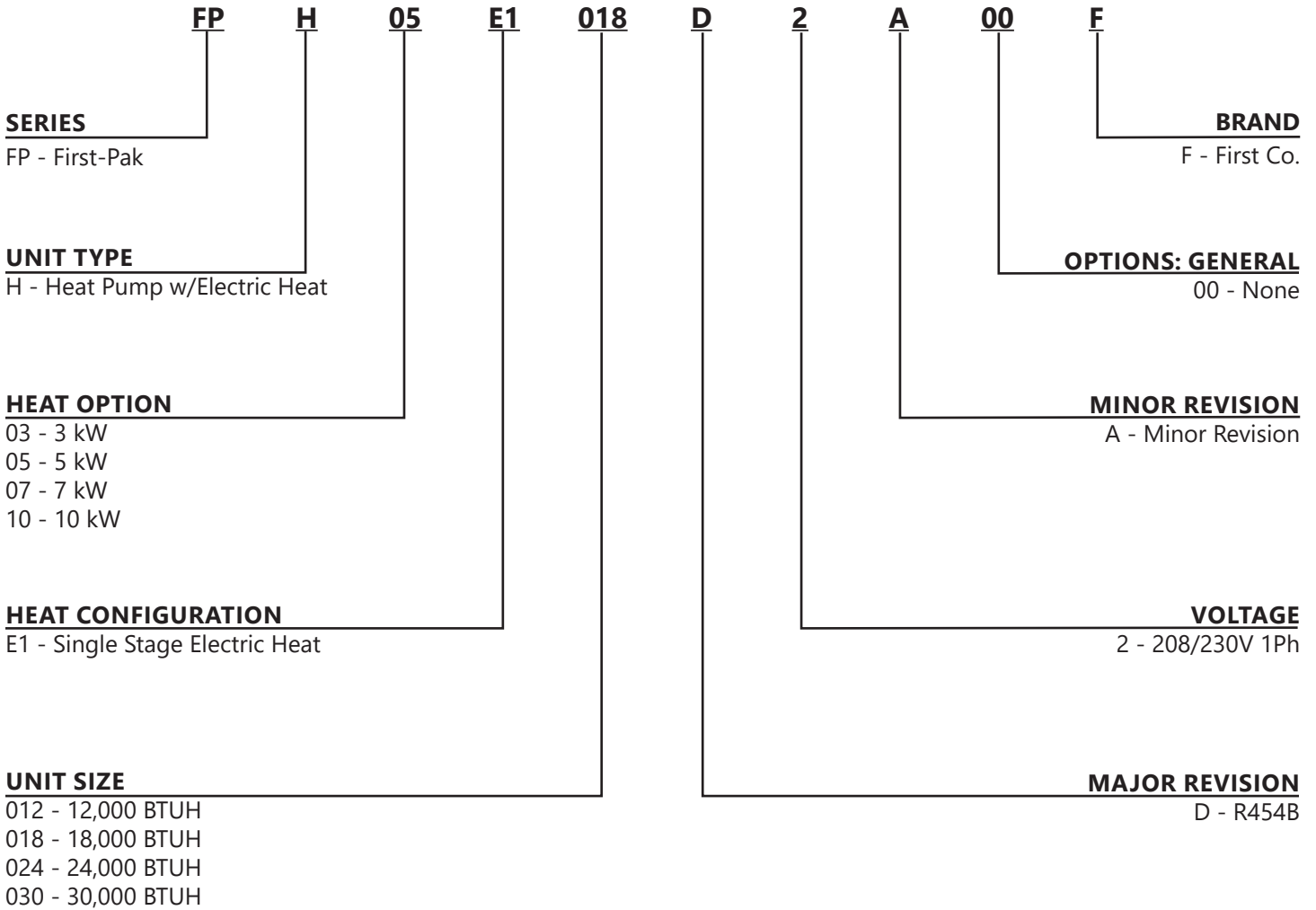
3 – 10 kW Electric Heat

11.9 SEER2 & 6.3 HSPF2

R454B



NOMENCLATURE



FIRST-PAK HP

SPACE CONSTRAINED HEAT PUMP

PRODUCT DESCRIPTION

- Self-contained packaged units with heat pump cooling and electric back up heat.
- Pre-wired and pre-charged with R-454B refrigerant.
- Eliminates the need for outdoor units, electrical lines, and refrigerant lines.
- FPH units are compatible replacements for Magic Pak PWC.

STANDARD FEATURES

- Insulated chassis compartment to improve cooling performance, reduce noise and prevent sweating
- Blower collar locking mechanism to improve seal between cooling chassis and cabinet
- High efficiency ECM indoor blower motor with multiple speed taps for precise airflow selection
- High efficiency ECM outdoor fan motor to improve system efficiency
- Dual inlet indoor blower to lower fan RPMs, improve efficiency and reduce noise.
- High efficiency single stage scroll and rotary compressors
- Double isolated compressor mount to lower compressor noise and vibration
- Larger evaporator coil with low face velocity for improved cooling performance.
- Two drain pans with corrosion resistant coating to drain condensate in cooling and heating operations.
- Factory installed condensate float switch for overflow protection.
- Two thermal expansion valves (TXVs) for both cooling and heating to optimize performance.
- Operates down to as low as 5°F ambient temperature.
- Time-temperature defrost board with selectable defrost interval times (30, 60, 90 mins.) and test mode.
- High and low pressure switch protection.
- Single stage electric heat with automatic reset limit switch and non-resettable fuse link.
- Units charged over 4lbs come with factory installed refrigerant leak mitigation.

SERVICEABILITY FEATURES

- All electrical components and control board are serviceable from front of the unit.
- Slide out cooling chassis for ease of maintenance, service and replacement.
- Easily accessible refrigeration service ports located on exterior of cooling chassis with temperature probe area
- Slide out electric heater for ease of maintenance, service and replacement.

INSTALLED FEATURE

- Drain Pan Heater Kit pre-installed in each unit.

LIMITED WARRANTY

5 year limited warranty on parts and compressor.

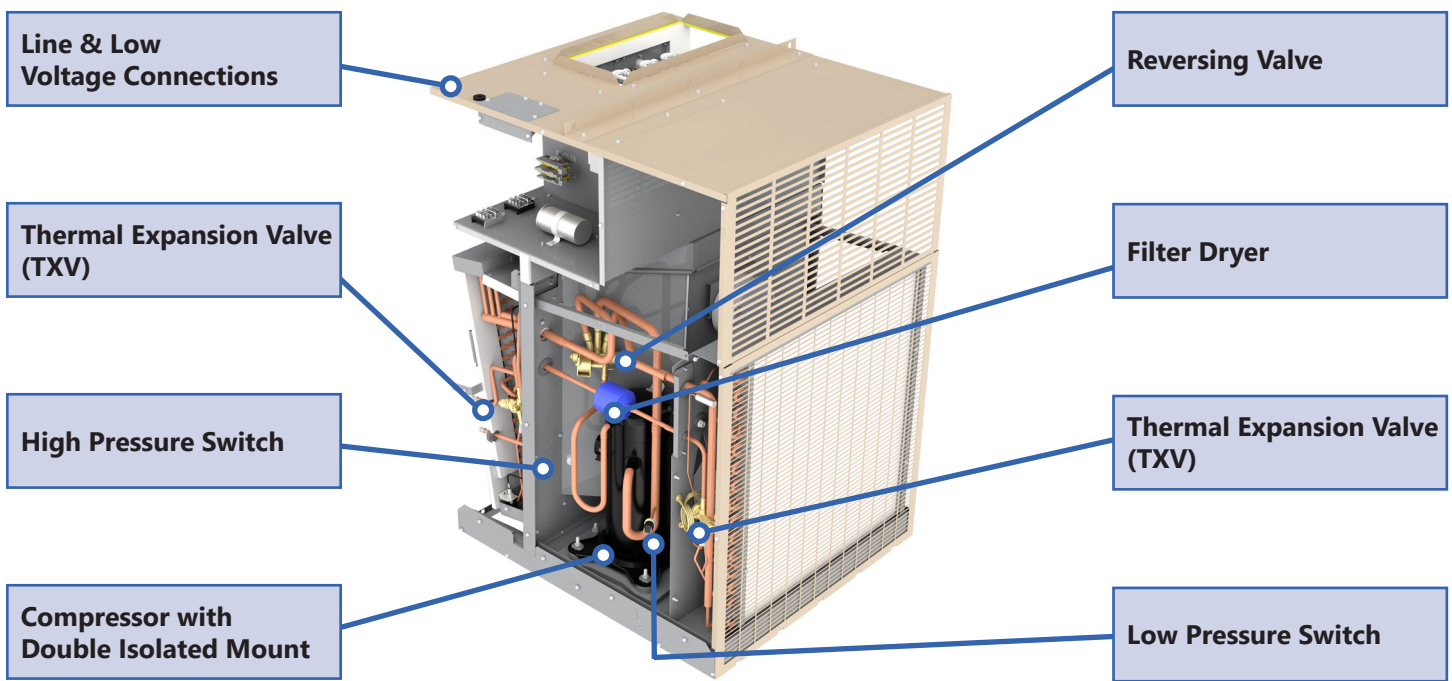
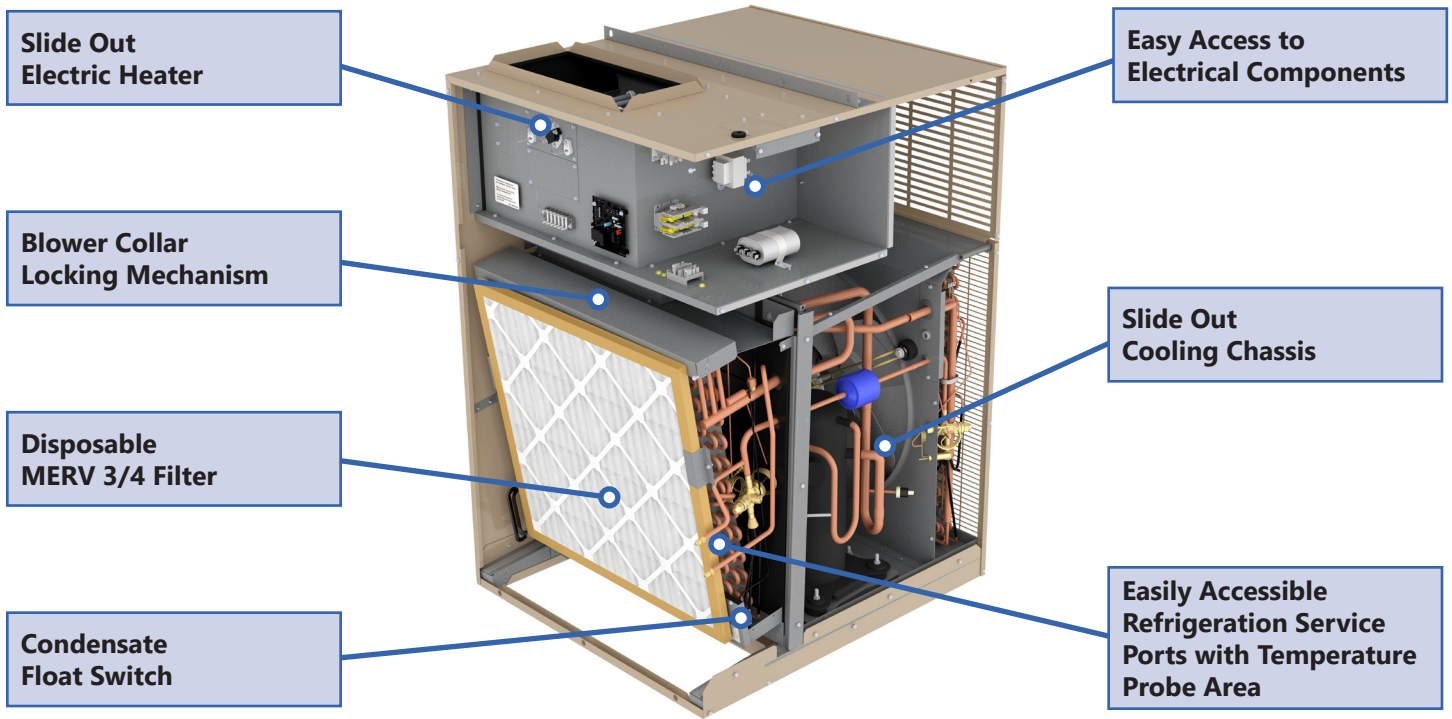
ACCESSORIES

- Wall Sleeves
- Architectural Louvers
- Drain Pan Heater Kit - Wiring Harness EW84060 kit (field installed only)
- Filler Plate for Magic-Pak Replacement Kit. (contact customer service for part number)

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SPACE CONSTRAINED HEAT PUMP

FEATURES AND BENEFITS

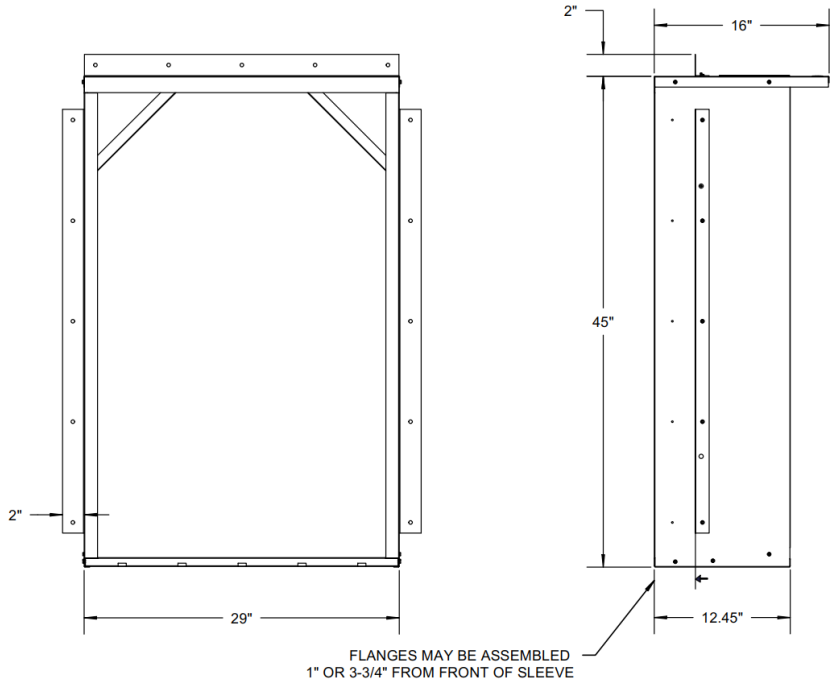


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SPACE CONSTRAINED HEAT PUMP

ACCESSORIES WALL SLEEVES

- Part number 929-10
- Ships unassembled in carton

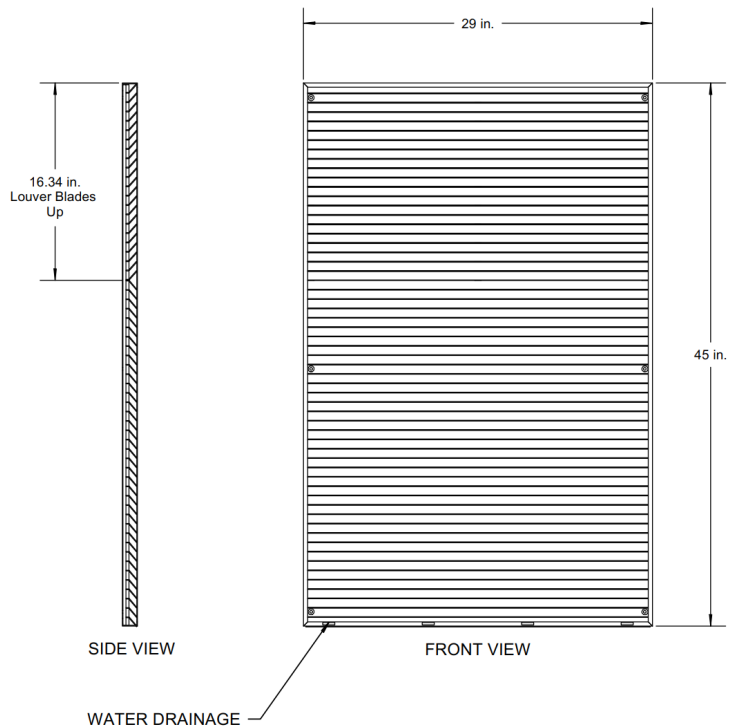


ALUMINUM ARCHITECTURAL LOUVERS (OPTIONAL)

- Part number G230A Clear Anodized Finish
- Part number G230S* Custom Painted Finish

STANDARD PAINT COLORS

*Custom Color with paint matching.



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SPACE CONSTRAINED HEAT PUMP

PHYSICAL DATA

Model Number	FPH03E1012D	FPH05E1012D	FPH07E1012D	FPH05E1018D	FPH07E1018D	FPH10E1018D
Compressor Qty/Type	Rotary (1)	Rotary (1)	Rotary (1)	Rotary (1)	Rotary (1)	Rotary (1)
Factory Charge (R454B) lbs. [kg]	4 [1.81]	4 [1.81]	4 [1.81]	4.375 [1.98]	4.375 [1.98]	4.375 [1.98]
Compressor Capacitor	35/370	35/370	35/370	35/370	35/370	35/370
Condenser Fan HP [kW]	1/5 [.15]	1/5 [.15]	1/5 [.15]	1/3 [.25]	1/3 [.25]	1/3 [.25]
Indoor Fan HP [kW]	1/4 [.17]	1/4 [.17]	1/4 [.17]	1/4 [.17]	1/3 [.25]	1/3 [.25]
Blower Size (D x W) in. [cm]	10 x 6 [25.4 x 15.24]					
Condenser Dimension (H x W) in. [cm]	26.46 x 22.25 [67.2 x 56.5]					
Evaporator Dimension (H x W) in. [cm]	23.15 x 22.25 [58.8 x 56.5]			24 x 22 [60.96 x 55.88]		
Filter Size (H x W in. [cm])	24 x 24 [60.96 x 60.96]					
Electric Heater [kW] @240V	3	5	7(2x3.5kW)	5	7(2x3.5kW)	10(2x5kW)
Max. Static Pressure IWC [pa]	0.5 [125]					
Operating Weight lb. [kg]	265 [120]	265 [120]	265 [120]	300 [136]	300 [136]	300 [136]
Shipping Weight lb. [kg]	295 [133]	295 [133]	295 [133]	330 [149]	330 [149]	330 [149]

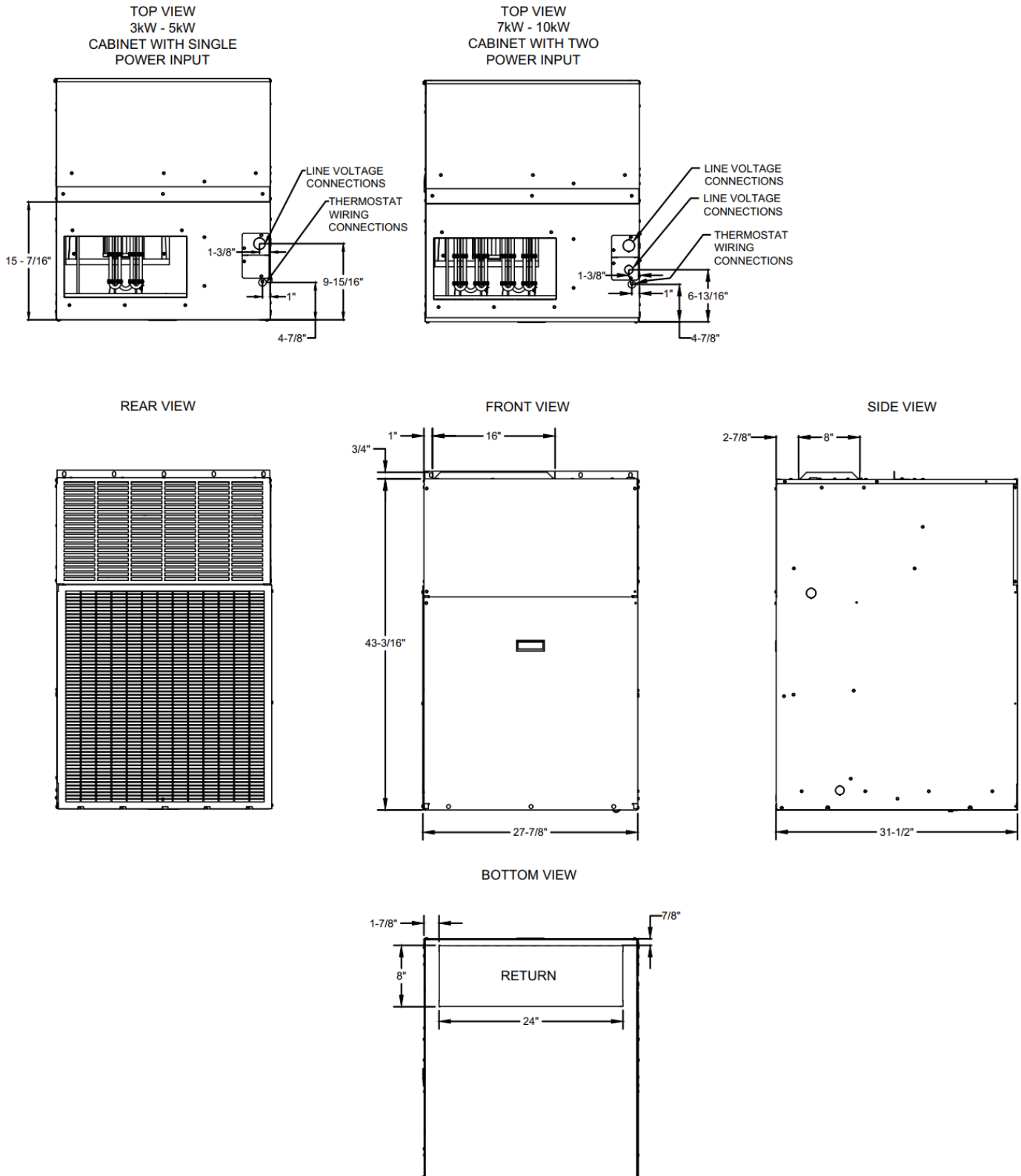
FPE Models	FPH05E1024D	FPH07E1024D	FPH10E1024D	FPH05E1030D	FPH07E1030D	FPH10E1030D
Compressor Qty/Type	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)
Factory Charge (R454B) lbs. [kg]	4 [1.81]	4 [1.81]	4 [1.81]	4.875 [2.21]	4.875 [2.21]	4.875 [2.21]
Compressor Capacitor	35/370	35/370	35/370	40/370	40/370	40/370
Condenser Fan HP [kW]	1/3 [.25]	1/3 [.25]	1/3 [.25]	1/3 [.25]	1/3 [.25]	1/3 [.25]
Indoor Fan HP [kW]	1/3 [.25]	1/2 [.37]	1/2 [.37]	1/2 [.37]	1/2 [.37]	1/2 [.37]
Blower Size (D x W) in. [cm]	10 x 6 [25.4 x 15.24]					
Condenser Dimension (H x W) in. [cm]	26.46 x 22.25 [67.2 x 56.5]					
Evaporator Dimension (H x W) in. [cm]	24 x 22 [60.96 x 55.88]					
Filter Size (H x W) in. [cm]	24 x 24 [60.96 x 60.96]					
Electric Heater [kW] @240	5	7(2x3.5kW)	10(2x5kW)	5	7(2x3.5kW)	10(2x5kW)
Max. Static Pressure IWC [pa]	0.5 [125]					
Operating Weight lb. [kg]	305 [138]	305 [138]	305 [138]	310 [140]	310 [140]	310 [140]
Shipping Weight lb. [kg]	335 [151]	335 [151]	335 [151]	340 [153]	340 [153]	340 [153]

* Electric heat is single stage and wired for single W signal

FIRST-PAK HP

SPACE CONSTRAINED HEAT PUMP

PHYSICAL DATA UNIT DIMENSIONS



FIRST-PAK HP

SPACE CONSTRAINED HEAT PUMP

ELECTRICAL DATA

FIRST-PAK HP															
Model Number	Voltage	COMPRESSOR		OUTDOOR MOTOR		INDOOR MOTOR		MIN. CIRCUIT AMPACITY (MCA)				MAX. OVERCURRENT PROTECTION (MOP)			
		RLA	LRA	FLA	HP	FLA	HP	CIRCUIT 1 (L1-L2)		CIRCUIT 2 (L3-L4)		CIRCUIT 1 (L1-L2)		CIRCUIT 2 (L3-L4)	
								240V	208V	240V	208V	240V	208V	240V	208V
FPH03E1012D*	208/230-1-60	4.6	25	1.9	1/5	2.3	1/4	26	23	0	0	30	25	0	0
FPH05E1012D*	208/230-1-60	4.6	25	1.9	1/5	2.3	1/4	36	32	0	0	40	35	0	0
FPH07E1012D*	208/230-1-60	4.6	25	1.9	1/5	2.3	1/4	10	10	39	32	15	15	40	30
FPH05E1018D*	208/230-1-60	7.2	47	2.8	1/3	2.8	1/3	41	37	0	0	45	40	0	0
FPH07E1018D*	208/230-1-60	7.2	47	2.8	1/3	2.8	1/3	15	15	39	32	20	20	40	30
FPH10E1018D*	208/230-1-60	7.2	47	2.8	1/3	2.8	1/3	15	15	55	45	20	20	60	40
FPH05E1024D*	208/230-1-60	10.2	58	2.8	1/3	4.1	1/2	46	42	0	0	50	45	0	0
FPH07E1024D*	208/230-1-60	10.2	58	2.8	1/3	4.1	1/2	20	20	41	32	25	25	45	30
FPH10E1024D*	208/230-1-60	10.2	58	2.8	1/3	4.1	1/2	20	20	56	45	25	25	60	45
FPH05E1030D*	208/230-1-60	12.8	77	2.8	1/3	4.1	1/2	49	45	0	0	60	50	0	0
FPH07E1030D*	208/230-1-60	12.8	77	2.8	1/3	4.1	1/2	23	23	41	32	35	35	45	30
FPH10E1030D*	208/230-1-60	12.8	77	2.8	1/3	4.1	1/2	23	23	56	45	35	35	60	45

* Circuits 1 and 2 require separate sets of power wires connected to the unit, each backed by an independent circuit breaker

Circuit 1 is used exclusively to power electric heaters

Refer to wiring diagram in FPH Installation & Operation Manual for additional details

Wire size should be determined in accordance with National Electrical Codes

Units are rated at 208/230V, but MOP & MCA values are calculated at 208/240V

RLA – Rated Load Amps

LRA – Locked Rotor Amps

FLA – Full Load Amps

HP – Horsepower

FIRST-PAK HP

SPACE CONSTRAINED HEAT PUMP

RATED COOLING AND HEATING PERFORMANCE

FIRST-PAK HP													
MODEL NUMBER	COOLING						HEATING		HEATING				
	Btu/hr	EER	SEER	S/T	CFM FULL LOAD	CFM PART LOAD	Net Capacity at 47°F (BTU/H)	HSPF2	240V		208V		
									KW	Btu/Hr	KW	Btu/Hr	Btu/Hr
FPH03E1012D*	10600	10.5	11.9	0.85	450	-	11000	6.3	03	10236	2.25	7677	
05									17061	3.75	12796		
07									23885	5.25	17914		
FPH05E1018D*	16500	10.5	11.9	0.78	650	-	16000	6.3	05	17061	3.75	12796	
07									23885	5.25	17914		
10									34121	7.5	25591		
FPH05E1024D*	22500	10	11.7	0.78	850	-	21500	6.3	05	17061	3.75	12796	
07									23885	5.25	17914		
10									34121	7.5	25591		
FPH05E1030D*	25800	9	11.7	0.73	950	700	25000	6.3	05	17061	3.75	12796	
07									23885	5.25	17914		
10									34121	7.5	25591		

*S/T is not a rated value

EXTENDED HEATING PERFORMANCE

HEAT PUMP ONLY

FIRST-PAK HP													
Model	Airflow	47/43			35/33			17/15			5/0		
		Net Capacity	Power Input	Outlet Dry Bulb	Net Capacity	Power Input	Outlet Dry Bulb	Net Capacity	Power Input	Outlet Dry Bulb	Net Capacity	Power Input	Outlet Dry Bulb
		SCFM	BTUH	kW	°F	BTUH	kW	°F	BTUH	kW	°F	BTUH	kW
FPH*12D*	450	11000	0.9	92	7500	0.9	87	5000	0.9	82	4000	0.8	79
FPH*18D*	650	16000	1.3	93	11500	1.3	88	9000	1.2	83	6800	0.1	80
FPH*24D*	850	21500	1.9	93	16000	1.8	88	12000	1.8	83	8500	0.2	80
FPH*30D*	950	25000	2.2	93	17000	2.1	88	14000	2.1	83	10500	2.1	83

Performance data is based on nominal CFM and 70°F indoor dry bulb

*May experience some loss in capacity.

*This data is to be used as reference values only and does not constitute a rating or a guarantee that the installed system will perform as indicated

FIRST-PAK HP

SPACE CONSTRAINED HEAT PUMP

COMBINED EXTENDED HEATING PERFORMANCE

HEAT PUMP AND ELECTRIC HEAT

FIRST-PAK HP									
Model	Heater Size, 240V	47/43		35/33		17/15		5/0	
		Net Capacity	Power Input	Net Capacity	Power Input	Net Capacity	Power Input	Net Capacity	Power Input
	kW	BTUH	kW	BTUH	kW	BTUH	kW	BTUH	kW
FPH03E1012D2A00F	3	21230	11.1	17730	11.1	15230	11.1	14230	11.0
FPH05E1012D2A00F	5	28060	18.0	24560	18.0	22060	17.9	21060	17.8
FPH07E1012D2A00F	7	34880	24.8	31380	24.8	28880	24.7	27880	24.6
FPH05E1018D2A00F	5	33060	18.4	28560	18.4	26060	18.3	23860	18.3
FPH07E1018D2A00F	7	39880	25.2	35380	25.2	32880	25.1	30680	25.1
FPH10E1018D2A00F	10	50120	35.4	45620	35.4	43120	35.3	40920	35.3
FPH05E1024D2A00F	5	38560	19.0	33060	18.9	29060	18.9	25560	18.8
FPH07E1024D2A00F	7	45380	25.8	39880	25.7	35880	25.7	32380	25.6
FPH10E1024D2A00F	10	55620	36.0	50120	35.9	46120	35.9	42620	35.8
FPH05E1030D2A00F	5	42060	19.3	34060	19.2	31060	19.2	27560	19.1
FPH07E1030D2A00F	7	48880	26.1	40880	26.0	37880	26.0	34380	25.9
FPH10E1030D2A00F	10	59120	36.3	51120	36.2	48120	36.2	44620	36.2

Performance data is based on nominal CFM and 70°F indoor dry bulb

*May experience some loss in capacity.

*This data is to be used as reference values only and does not constitute a rating or a guarantee that the installed system will perform as indicated

FIRST-PAK HP

SPACE CONSTRAINED HEAT PUMP

BLOWER PERFORMANCE

FIRST-PAK HP												
MODEL	Motor Tap	Motor Speed	IWC STATIC PRESSURE									
			0.10		0.20		0.30		0.40		0.50	
			SCFM	W	SCFM	W	SCFM	W	SCFM	W	SCFM	W
FPH03E1012D*	1		403	42	369	47	341	51	307	56	275	61
	2	WH	464	57	430	61	402	66	368	71	335	75
	3	GC	550	81	516	85	488	90	454	95	422	99
	4	Y2	601	98	567	103	539	108	505	112	473	117
FPH05E1012D*	1		505	67	471	72	443	77	409	81	377	86
	2	WH	464	57	430	61	402	66	368	71	335	75
	3	GC	550	81	516	85	488	90	454	95	422	99
	4	Y2	601	98	567	103	539	108	505	112	473	117
FPH07E1012D*	1		602	99	566	104	537	108	504	112	472	117
	2	WH	465	57	429	62	399	66	366	71	335	75
	3	GC	551	81	515	86	486	90	453	95	421	99
	4	Y2	602	99	566	104	537	108	504	112	472	117
FPH05E1018D*	1		607	67	581	72	553	77	526	83	499	88
	2		657	80	631	85	603	91	576	96	549	102
	3	WH	748	108	722	113	694	119	667	124	640	130
	4	GC	765	114	738	119	710	125	684	130	657	136
	5	Y2	805	129	778	134	750	140	724	145	697	151
FPH07E1018D*	1		607	67	581	72	553	77	526	83	499	88
	2		657	80	631	85	603	91	576	96	549	102
	3	WH	748	108	722	113	694	119	667	124	640	130
	4	GC	765	114	738	119	710	125	684	130	657	136
	5	Y2	805	129	778	134	750	140	724	145	697	151
FPH10E1018D*	1		607	67	581	72	553	77	526	83	499	88
	2		828	138	801	144	773	149	746	154	720	160
	3	WH	748	108	722	113	694	119	667	124	640	130
	4	GC	932	188	905	193	877	198	850	203	824	209
	5	Y2	995	223	968	228	940	233	913	238	887	244

^C Factory-set default tap cooling and heat pump

^H Factory-set default tap electric heat

Tap T1 is fan only operation (all models)

Tap T2 is electric heat only operation (FPH**E1012)

T2 and T3 are electric heat only operation (FPH**E1018 - 030)

Tap T3 and T4 are cooling and heat pump operation; (FPH**E1012)

T4 and T5 are cooling and heat pump operation (FPH**E1018 - 030)

Blower performance data based on dry coil at 70°F DB EAT with standard 1" clean air filter

SCFM - standard cubic feet per minute

FIRST-PAK HP

SPACE CONSTRAINED HEAT PUMP

BLOWER PERFORMANCE (CONT'D)

FIRST-PAK HP												
MODEL	Motor Tap	Motor Speed	IWC STATIC PRESSURE									
			0.10		0.20		0.30		0.40		0.50	
			SCFM	W	SCFM	W	SCFM	W	SCFM	W	SCFM	W
FPH05E1024D*	1		608	68	577	74	550	80	523	85	496	91
	2		655	80	623	86	597	92	570	97	543	102
	3	WH	752	106	721	112	694	118	667	123	640	129
	4	GC	924	171	893	177	866	183	839	188	812	194
	5	Y2	1025	225	994	232	967	237	940	243	913	248
FPH07E1024D*	1		608	68	577	74	550	80	523	85	496	91
	2		655	80	623	86	597	92	570	97	543	102
	3	WH	752	106	721	112	694	118	667	123	640	129
	4	GC	924	171	893	177	866	183	839	188	812	194
	5	Y2	1025	225	994	232	967	237	940	243	913	248
FPH10E1024D*	1		608	68	577	74	550	80	523	85	496	91
	2		870	147	839	153	812	159	785	165	758	170
	3	WH	752	106	721	112	694	118	667	123	640	129
	4	GC	924	171	893	177	866	183	839	188	812	194
	5	Y2	1025	225	994	232	967	237	940	243	913	248
FPH05E1030D*	1		684	87	653	93	626	99	599	105	572	110
	2		813	126	782	132	755	138	728	143	701	148
	3	WH	881	152	850	158	823	164	796	169	769	174
	4	GC	1025	225	994	232	967	237	940	243	913	248
	5	Y2	1119	288	1088	294	1061	300	1034	305	1007	311
FPH07E1030D*	1		684	87	653	93	626	99	599	105	572	110
	2		813	126	782	132	755	138	728	143	701	148
	3	WH	881	152	850	158	823	164	796	169	769	174
	4	GC	1025	225	994	232	967	237	940	243	913	248
	5	Y2	1119	288	1088	294	1061	300	1034	305	1007	311
FPH10E1030D*	1		684	87	653	93	626	99	599	105	572	110
	2		924	171	893	177	866	183	839	188	812	194
	3	WH	1025	225	994	232	967	237	940	243	913	248
	4	GC	752	106	721	112	694	118	667	123	640	129
	5	Y2	1025	225	994	232	967	237	940	243	913	248

C Factory-set default tap cooling and heat pump

H Factory-set default tap electric heat

Tap T1 is fan only operation (all models)

Tap T2 is electric heat only operation (FPH**E1012)

T2 and T3 are electric heat only operation (FPH**E1018 - 030)

Tap T3 and T4 are cooling and heat pump operation; (FPH**E1012)

T4 and T5 are cooling and heat pump operation (FPH**E1018 - 030)

Blower performance data based on dry coil at 70°F DB EAT with standard 1" clean air filter

SCFM - standard cubic feet per minute



In keeping with its policy of continuous progress and product improvement, First Co. reserves the right to make changes without notice. Refer to Installation, Operation and Maintenance (IOM) manual for maintenance and servicing information located at www.firstco.com/first-pak/



AMERICAN-MADE. FAMILY OWNED.



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