



# FIRST-PAK<sup>™</sup>

## GAS



### Single Package Vertical Gas Unit (FPGN8)

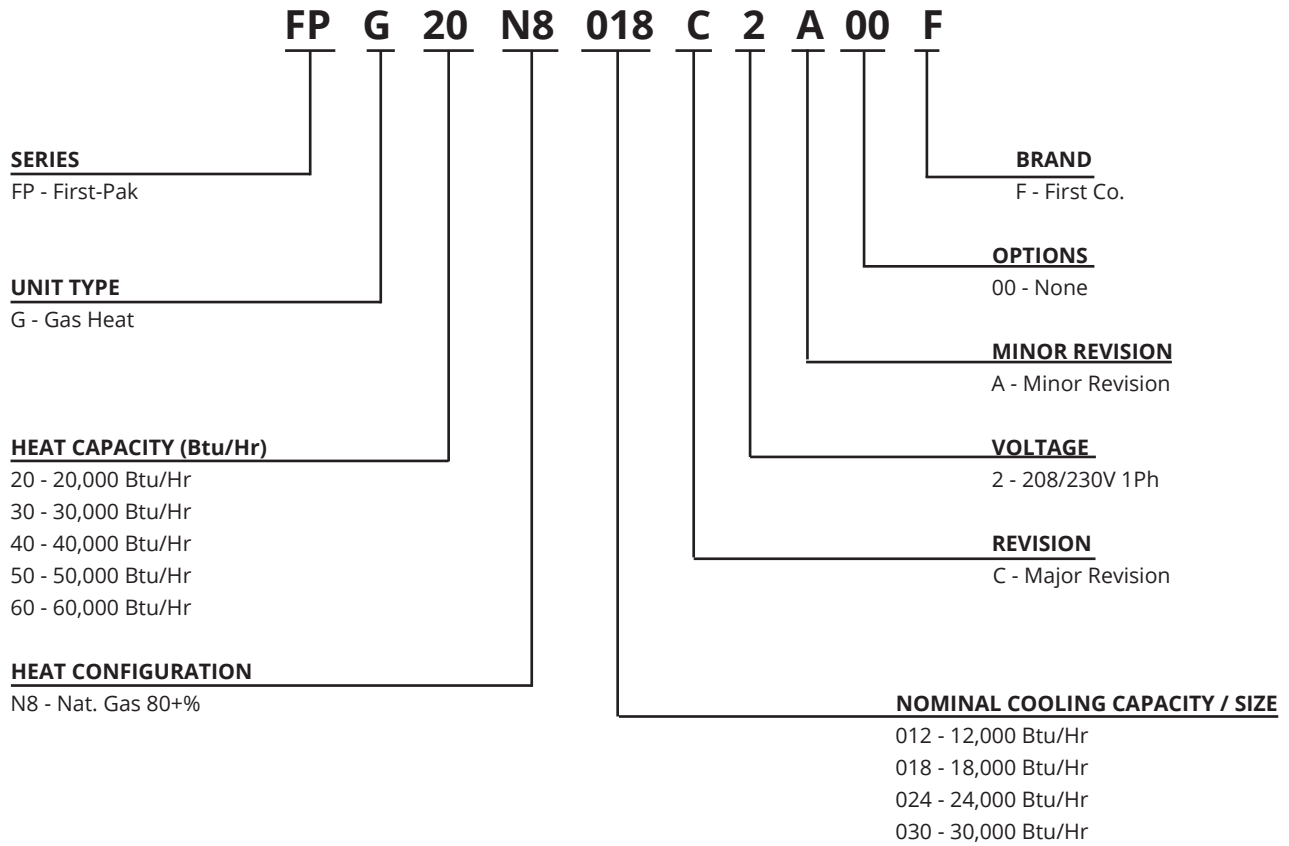
80% AFUE

12,000 through 30,000 BTUH  
Cooling Capacity

Up to 60,000 BTUH Heating  
Capacity



# Nomenclature



## FEATURES

- Self-contained packaged units with gas-fired heating and electric cooling
- Pre-wired and pre-charged from factory
- Eliminates the need for outdoor condensing section units, line-sets and separate ventilation
- All FPG series units are compatible with Magic-Pak, Comfort-Pack and Condo-Pack

## PRODUCT FEATURES

- High efficiency scroll and rotary compressors
- Easily accessible refrigeration service ports with an area for temperature probes
- Factory installed condensate float switch
- Architectural louvers available
- Larger air coil with low face velocity for improved cooling performance
- 80% AFUE gas heat rating for all FPGN8 series models
- Stainless steel heat exchanger for corrosion resistance
- High efficiency ECM indoor blower with multiple speed taps for precise airflow selection
- High efficiency ECM condenser fan motor to improve system efficiency
- Insulation inside of cooling compartment to improve cooling performance and reduce noise
- Dual inlet indoor blower to lower fan rpm's, improve efficiency and reduce noise
- Double isolated compressor mount to lower compressor noise and vibration
- Blower collar locking mechanism to improve seal between cooling chassis and cabinet
- 2.5T models come standard with dual stage scroll compressors

## SERVICEABILITY FEATURES

- Slide out cooling chassis for ease of service
- Slide out heating assembly that allows for easy access to all gas heat components
- High efficiency TXV on all models to allow for field adjustments, if required
- See through sight glass that allows for viewing the control board status codes and main burner function
- All electrical components are serviceable from front of the unit
- Compressor capacitor, compressor contactor, and indoor fan control located on panel at the front of the unit
- Additional cooling chassis can be stocked and switched out to limit down time of the occupant
- Refrigerant service ports are located on the outside the cooling chassis.

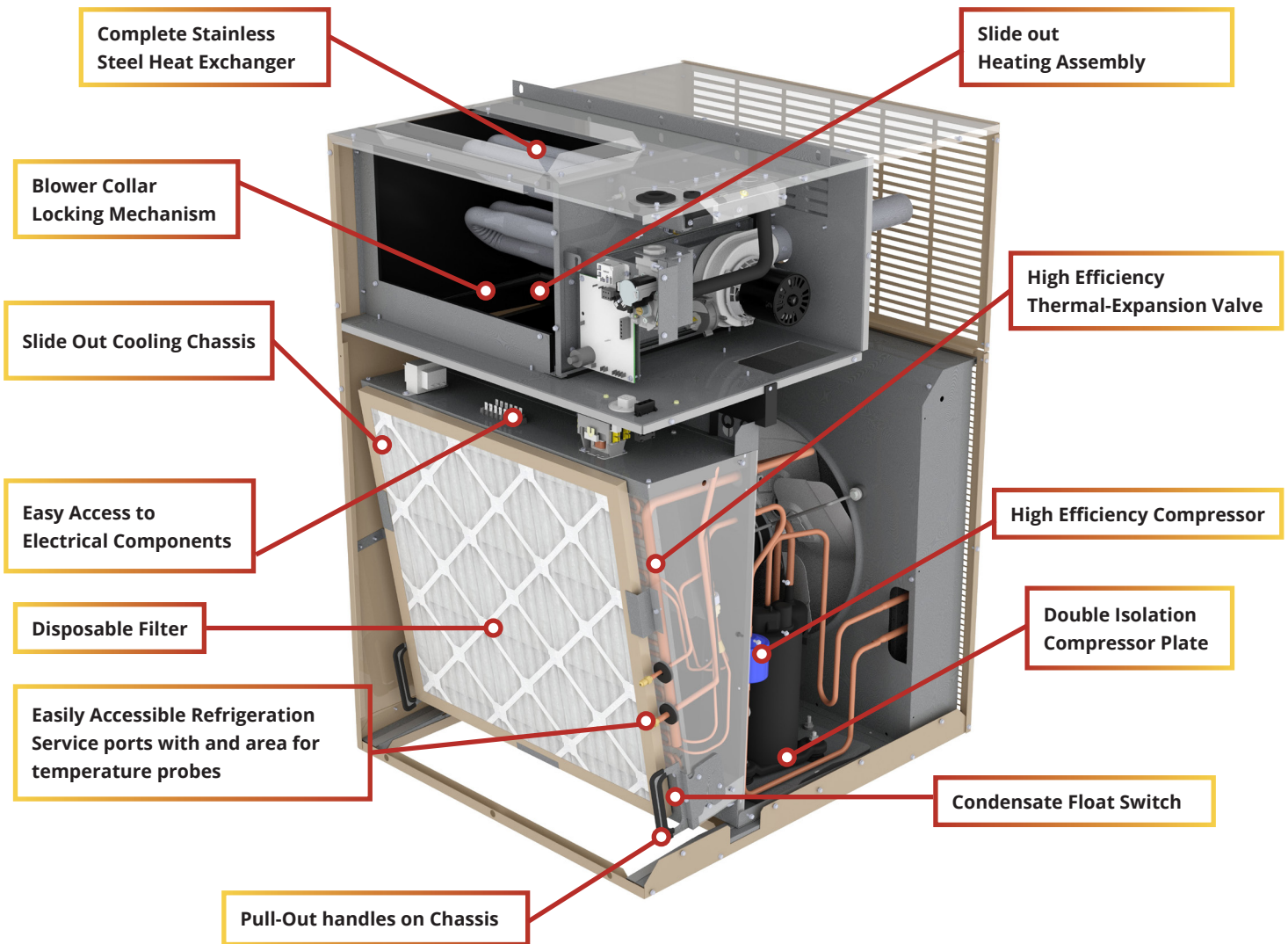
## WARRANTY

- 20 year for heat exchanger and 5 year for parts / compressor

## ACCESSORIES

- Wall Sleeves
- Architectural Louvers
- High Altitude Kit number: 9KHiAlt for any application over 4,500 feet

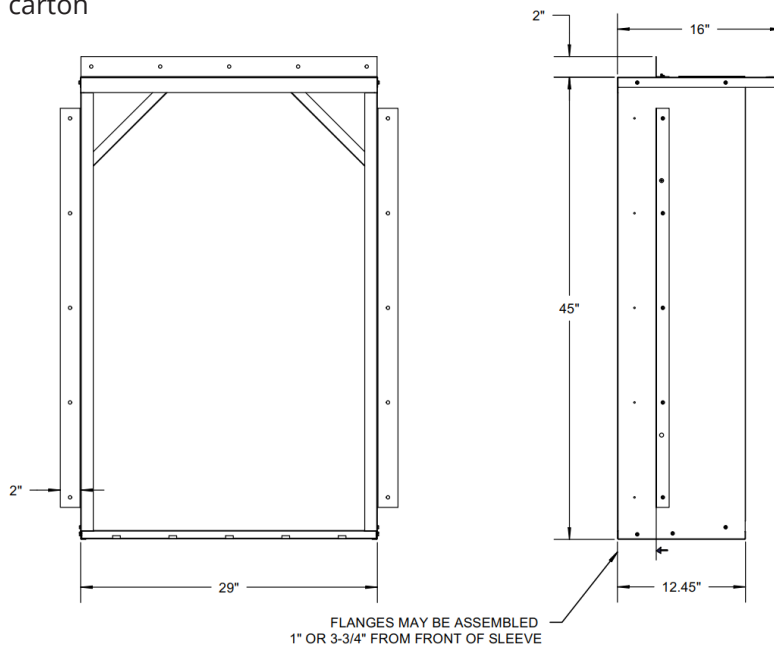
# Features & Benefits



# Accessories Page

## WALL SLEEVES

- Part number 929-10
- Ships unassembled in carton



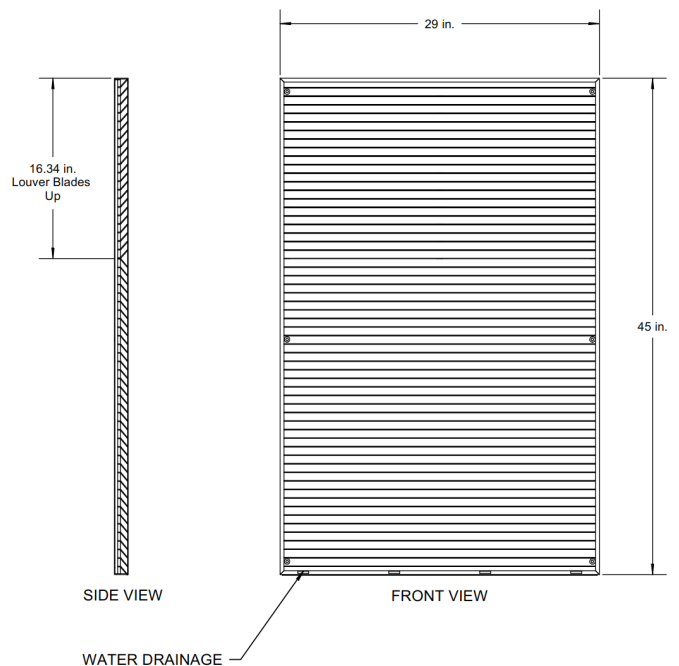
## ALUMINUM ARCHITECTURAL LOUVERS (OPTIONAL)

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

### Standard Paint Colors

\*Custom Color with paint matching.

 *ASCOT WHITE (19)	 *LIGHT STONE (43)	 *SHELBURNE (69)
 *BONE WHITE (24)	 *PORTLAND STONE (49)	 *MEDIUM BRONZE (72)
 *CORONADO RED (34)	 *TAUPE (52)	 *DARK BRONZE (75)
 *FOREST GREEN (36)	 *SAHARA TAN (65)	 *STONE GRAY (78)
 *HERRINGBONE (37)	 *SANDSTONE (67)	 *BLACK (89)



# Physical Data

FIRST-PAK 12 AND 18								
Unit Information	FPG20N8012C	FPG30N8012C	FPG40N8012C	FPG20N8018C	FPG30N8018C	FPG40N8018C	FPG50N8018C	FPG60N8018C
Quantity / Type	Rotary (1)	Rotary (1)	Rotary (1)	Rotary (1)	Rotary (1)	Rotary (1)	Rotary (1)	Rotary (1)
Factory Charge (R410A) lbs. [kg]	3.75 [1.70]	3.75 [1.70]	3.75 [1.70]	4.8 [2.18]	4.8 [2.18]	4.8 [2.18]	4.8 [2.18]	4.8 [2.18]
Compressor Capacitor	40MFD/370V	40MFD/370V	40MFD/370V	35MFD/370V	35MFD/ 370V	35MFD/ 370V	35MFD/ 370V	35MFD/ 370V
Condenser Fan HP [kW]	1/5 [.15]	1/5 [.15]	1/5 [.15]	1/5 [.15]	1/5 [.15]	1/5 [.15]	1/5 [.15]	1/5 [.15]
Indoor Fan HP [kW]	1/3 [.25]	1/3 [.25]	1/3 [.25]	1/3 [.25]	1/3 [.25]	1/3 [.25]	1/3 [.25]	1/3 [.25]
Blower Size (D X W) in. [mm]	10 x 6 [25.4 x 15.24]							
Condenser Dimension (H x W) in. [mm]	26.5 x 22.25 [67.3 x 56.5]							
Evaporator Dimension (H x W) in. [mm]	23.1 x 22.25 [58.7 x 56.5]							
Filter Size (H x W) [mm]	24 x 24 [60.96 x 60.96]							
Input BTU/h [kW]	20000 [5.9]	30000 [8.8]	40000 [11.7]	20000 [5.9]	30000 [8.8]	40000 [11.7]	50000 [14.7]	60000 [17.6]
Output BTU/h [kW]	16200 [4.7]	24300 [7.1]	32400 [9.5]	16200 [4.7]	24300 [7.1]	32400 [9.5]	40500 [11.9]	48600 [14.2]
AFUE	81	81	81	81	81	81	81	81
No. of Burners	2	3	4	2	3	4	5	6
Orifice Size (Natural Gas) in. [mm]	.061 [1.55]	.061 [1.55]	.061 [1.55]	.061 [1.55]	.061 [1.55]	.061 [1.55]	.061 [1.55]	.061 [1.55]
Max. Outlet Air Temp. °F [°C]	155 [68]	160 [71]	160 [71]	155 [68]	160 [71]	160 [71]	165 [74]	165 [74]
Max. Static Pressure IWC [pa]	.5" [125]							
Gas Piping Connection in. [mm]	1/2" [1.27]							
Operating Weight lb. [kg]	264 [120]	266 [121]	268 [122]	288 [131]	290 [132]	297 [135]	299 [136]	301 [137]
Shipping Weight lb. [kg]	291 [132]	293 [133]	295 [134]	315 [143]	317 [144]	324 [147]	326 [148]	328 [149]

Data is subject to change. Please verify most current information on [www.firstco.com](http://www.firstco.com) or [www.AE-Air.com](http://www.AE-Air.com) websites.

# Physical Data

Continued

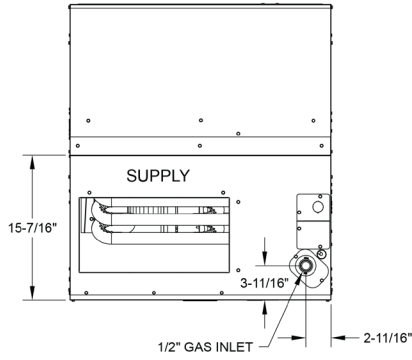
FIRST-PAK 24 AND 30							
Unit Information	FPG30N8024C	FPG40N8024C	FPG50N8024C	FPG60N8024C	FPG40N8030C	FPG50N8030C	FPG60N8030C
Quantity / Type	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)	Scroll (1)
Factory Charge (R410A) lbs. [kg]	4.9 [2.21]	4.9 [2.21]	4.9 [2.21]	4.9 [2.21]	5.0 [2.27]	5.0 [2.27]	5.0 [2.27]
Compressor Capacitor	35MFD/ 370V	35MFD/ 370V	35MFD/370V	30MFD/370V	30MFD/ 370V	30MFD/370V	30MFD/370V
Condenser Fan HP [kW]	1/3 [.25]	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]	1/3 [.25]	1/3 [.25]	1/2 [.37]	1/2 [.37]	1/2 [.37]	1/2 [.37]
Blower Size (D X W) in. [mm]	10 x 6 [25.4 x 15.24]						
Condenser Dimension (H x W) in. [mm]	26.5 x 22.25 [67.3 x 56.5]						
Evaporator Dimension (H x W) in. [mm]	23.1 x 22.25 [58.7 x 56.5]						
Filter Size (H x W) [mm]	24 x 24 [60.96 x 60.96]						
Input BTU/h [kW]	30000 [8.8]	40000 [11.7]	50000 [14.7]	60000 [17.6]	40000 [11.7]	50000 [14.7]	60000 [17.6]
Output BTU/h [kW]	24300 [7.1]	32400 [9.5]	40500 [11.9]	48600 [14.2]	32400 [9.5]	40500 [11.9]	48600 [14.2]
AFUE	81	81	81	81	81	81	81
No. of Burners	3	4	5	6	4	5	6
Orifice Size (Natural Gas) in. [mm]	.061 [1.55]	.061 [1.55]	.061 [1.55]	.061 [1.55]	.061 [1.55]	.061 [1.55]	.061 [1.55]
Max. Outlet Air Temp. °F [°C]	160 [71]	160 [71]	165 [74]	165 [74]	160 [71]	165 [74]	165 [74]
Max. Static Pressure IWC [pa]	0.5" [125]						
Gas Piping Connection in. [mm]	1/2" [1.27]						
Operating Weight lb. [kg]	315 [143]	317 [144]	319 [145]	321 [146]	331 [150]	333 [151]	335 [152]
Shipping Weight lb. [kg]	342 [155]	344 [156]	346 [157]	348 [158]	358 [163]	360 [164]	362 [165]

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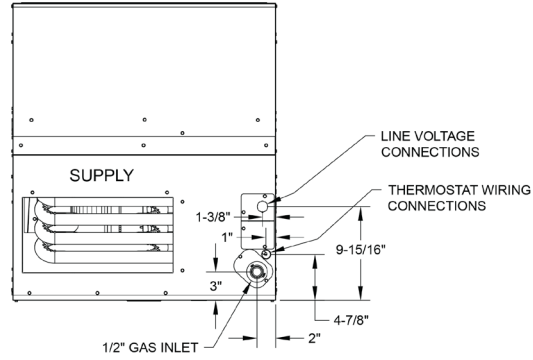
# Physical Data

## Unit Dimensions

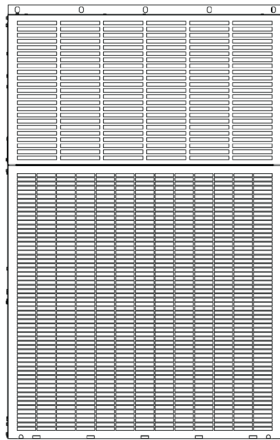
TOP VIEW:  
2-5 BURNER



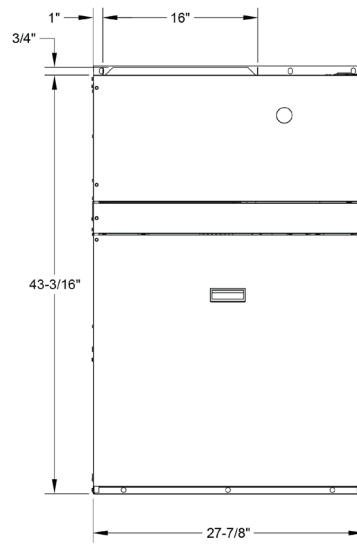
TOP VIEW:  
6 BURNER



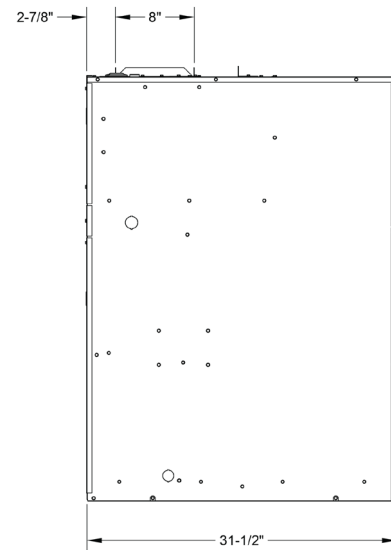
REAR VIEW



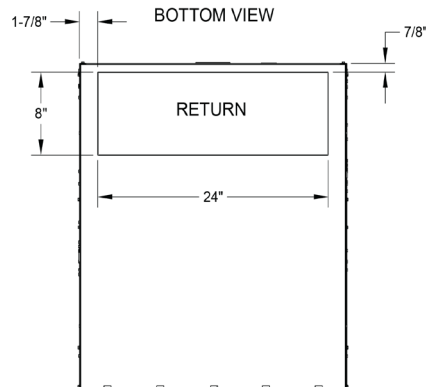
FRONT VIEW



SIDE VIEW



BOTTOM VIEW





# Electrical & Performance Data

ELECTRICAL DATA											
MODEL NUMBER	VOLTAGE PH-HZ	COMPRESSOR		CONDENSOR MOTOR		INDOOR MOTOR		MIN. CIRCUIT AMPACITY	MAX. CIRCUIT PROTECTION	MIN. VOLTAGE	MAX. VOLTAGE
		RLA	LRA	FLA	HP	FLA	HP				
FPG20N8012C	208/230-1-60	5.5	26	2.8	1/3	2.8	1/3	12	15	187	252
FPG30N8012C	208/230-1-60	5.5	26	2.8	1/3	2.8	1/3	12	15	187	252
FPG40N8012C	208/230-1-60	5.5	26	2.8	1/3	2.8	1/3	12	15	187	252
FPG20N8018C	208/230-1-60	7.2	38	2.8	1/3	2.8	1/3	15	20	187	252
FPG30N8018C	208/230-1-60	7.2	38	2.8	1/3	2.8	1/3	15	20	187	252
FPG40N8018C	208/230-1-60	7.2	38	2.8	1/3	2.8	1/3	15	20	187	252
FPG50N8018C	208/230-1-60	7.2	38	2.8	1/3	2.8	1/3	16	20	187	252
FPG60N8018C	208/230-1-60	7.2	38	2.8	1/3	2.8	1/3	16	20	187	252
FPG30N8024C	208/230-1-60	10.7	55	2.8	1/3	2.8	1/3	19	30	187	252
FPG40N8024C	208/230-1-60	10.7	55	2.8	1/3	2.8	1/3	19	30	187	252
FPG50N8024C	208/230-1-60	10.7	55	2.8	1/3	2.8	1/3	19	30	187	252
FPG60N8024C	208/230-1-60	10.7	55	2.8	1/3	2.8	1/3	19	30	187	252
FPG40N8030C	208/230-1-60	13.5	87	2.8	1/3	4.1	1/2	24	35	187	252
FPG50N8030C	208/230-1-60	13.5	87	2.8	1/3	4.1	1/2	24	35	187	252
FPG60N8030C	208/230-1-60	13.5	87	2.8	1/3	4.1	1/2	24	35	187	252

FPG AHRI DATA											
MODEL NUMBER	Cooling						Heating				
	Btu/Hr	EER	SEER2	S/T	Full Load CFM	Part Load CFM	Heat CFM	Input Btu/Hr	Output Btu/hr	AFUE	Temp. Rise Range °F
FPG20N8012C	12,000	10.5	11.7	0.75	460	-	375	20000	16200	81	25-55
FPG30N8012C							500	30000	24300		30-60
FPG40N8012C							670	40000	32400		30-60
FPG20N8018C	16,500	10.0	11.7	0.78	650	-	375	20000	16200		25-55
FPG30N8018C							500	30000	24300		30-60
FPG40N8018C							670	40000	32400		30-60
FPG50N8018C							750	50000	40500		35-65
FPG60N8018C	900	60000	48600	35-65							
FPG30N8024C	22,000	10.0	11.7	0.74	790	-	500	30000	24300		30-60
FPG40N8024C							670	40000	32400		30-60
FPG50N8024C							750	50000	40500		35-65
FPG60N8024C							900	60000	48600		35-65
FPG40N8030C*	26,000	9.0	11.7	0.74	920	620	670	40000	32400	30-60	
FPG50N8030C*							750	50000	40500	35-65	
FPG60N8030C*							900	60000	48600	35-65	

All units tested to AHRI 210/240 2020 (SEER2)

All FPG\*\*N8030C models tested with dual stage scroll compressors

Data is subject to change. Please verify most current information on [www.firstco.com](http://www.firstco.com) or [www.AE-Air.com](http://www.AE-Air.com) websites.

# Extended Performance Data

MODEL NUMBER	Indoor Temp DB/WB	Outdoor Temperature °F														
		65.0			85.0			95.0			105.0			115.0		
		MBH	S/T	kW	MBH	S/T	kW	MBH	S/T	kW	MBH	S/T	kW	MBH	S/T	kW
FPG**N8012C	75/57	13.2	1.0	0.9	12.1	1.0	1.1	12.1	1.0	1.2	11.0	1.0	1.3	10.4	1.0	1.4
	75/63	14.2	0.8	0.9	12.9	0.8	1.1	12.9	0.8	1.2	11.5	0.9	1.3	10.8	0.9	1.5
	80/67	15.2	0.8	0.9	13.8	0.8	1.1	13.8	0.8	1.2	12.3	0.9	1.3	11.6	0.9	1.5
	85/72	16.4	0.7	0.9	14.9	0.7	1.1	14.9	0.7	1.2	13.4	0.8	1.4	12.6	0.8	1.5
FPG**N8018C	75/57	18.4	1.0	1.2	16.8	1.0	1.4	15.9	1.0	1.5	15.0	1.0	1.6	14.1	1.0	1.8
	75/63	19.6	0.8	1.3	17.6	0.8	1.4	16.5	0.8	1.5	15.4	0.8	1.6	14.0	0.8	1.8
	80/67	20.7	0.7	1.3	18.6	0.8	1.4	17.5	0.8	1.6	16.2	0.8	1.7	14.2	1.0	1.8
	85/72	22.2	0.7	1.3	20.0	0.7	1.5	19.0	0.8	1.6	17.3	0.7	1.7	15.6	0.7	1.8
FPG**N8024C	75/57	23.9	1.0	1.7	21.4	1.0	2.0	20.4	1.0	2.2	19.3	1.0	2.4	18.3	1.0	2.7
	75/63	25.7	0.8	1.7	23.2	0.8	2.0	21.9	0.8	2.2	20.7	0.8	2.4	19.4	0.9	2.7
	80/67	27.5	0.7	1.7	24.8	0.8	2.0	23.5	0.8	2.2	22.2	0.8	2.5	20.8	0.8	2.7
	85/72	29.7	0.7	1.7	26.9	0.7	2.0	25.5	0.7	2.3	24.1	0.7	2.5	22.6	0.8	2.7
FPG**N8030C	75/57	27.5	1.0	2.2	25.2	1.0	2.5	24.0	1.0	2.8	22.7	1.0	3.0	21.5	1.0	3.3
	75/63	30.1	0.7	2.2	27.1	0.8	2.5	25.6	0.8	2.8	24.0	0.8	3.0	22.5	0.8	3.3
	80/67	31.6	0.7	2.2	28.4	0.8	2.5	26.9	0.8	2.8	25.2	0.8	3.1	23.6	0.9	3.4
	85/72	33.9	0.7	2.2	30.6	0.7	2.6	28.9	0.7	2.8	26.8	0.7	3.1	25.8	0.8	3.4

IMPORTANT: These extended capacities are based on the rated values of the combination as input by the user. These are reference values only. This information does not constitute a rating or a guarantee that the installed system will perform as indicated.

Data is subject to change. Please verify most current information on [www.firstco.com](http://www.firstco.com) or [www.AE-Air.com](http://www.AE-Air.com) websites.



# Fan Air Flow Performance

MODEL NUMBER	Motor Speed	Mid Rise °F	Rise Range °F	SCFM @ External Static Pressure (in.w.c)									
				0.10		0.20		0.30		0.40		0.50	
				SCFM	Temp Rise °F	SCFM	Temp Rise °F	SCFM	Temp Rise °F	SCFM	Temp Rise °F	SCFM	Temp Rise °F
FPG20N8012C	T1	40.0	25-55	270	56	240	-	210	-	170	-	130	-
	T2 <sup>H</sup>		25-55	380	39	350	43	320	47	280	53	240	-
	T3		25-55	470	32	440	34	400	37	370	40	330	45
	T4 <sup>C</sup>		25-55	500	30	470	32	430	35	400	37	360	42
	T5		25-55	650	23	620	24	590	25	560	27	520	29
FPG30N8012C	T1	45.0	30-60	270	-	240	-	210	-	170	-	130	-
	T2 <sup>H</sup>		30-60	500	45	470	48	430	52	400	56	360	-
	T3		30-60	610	37	580	39	550	41	510	44	470	48
	T4 <sup>C</sup>		30-60	500	45	470	48	430	52	400	56	360	-
	T5		30-60	650	34	620	36	590	38	560	40	520	43
FPG40N8012C	T1	45.0	30-60	270	-	240	-	210	-	170	-	130	-
	T2 <sup>H</sup>		30-60	650	46	620	48	590	51	560	54	520	58
	T3		30-60	790	38	760	39	730	41	700	43	660	46
	T4 <sup>C</sup>		30-60	500	-	470	-	430	-	400	-	360	-
	T5		30-60	650	46	620	48	590	51	560	54	520	58
FPG20N8018C	T1	40.0	25-55	420	36	390	39	360	42	320	46	280	53
	T2 <sup>H</sup>		25-55	380	39	350	43	320	47	280	53	240	-
	T3		25-55	470	32	440	34	400	37	370	40	330	45
	T4 <sup>C</sup>		25-55	660	23	630	24	600	25	570	26	530	28
	T5		25-55	790	19	760	20	730	21	700	21	660	23
FPG30N8018C	T1	45.0	30-60	420	54	390	58	360	-	320	-	280	-
	T2 <sup>H</sup>		30-60	500	45	470	48	430	52	400	56	360	-
	T3		30-60	610	37	580	39	550	41	510	44	470	48
	T4 <sup>C</sup>		30-60	660	34	630	36	600	38	570	40	530	43
	T5		30-60	980	23	950	24	920	25	880	25	840	27
FPG40N8018C	T1	45.0	30-60	420	-	370	-	330	-	310	-	270	-
	T2 <sup>H</sup>		30-60	670	45	620	48	580	51	560	53	520	57
	T3		30-60	810	37	760	40	720	42	700	43	660	45
	T4 <sup>C</sup>		30-60	680	44	630	48	590	51	570	52	530	56
	T5		30-60	970	31	920	33	880	34	860	35	820	36
FPG50N8018C	T1	50.0	35-65	430	-	380	-	340	-	320	-	280	-
	T2 <sup>H</sup>		35-65	760	49	710	53	680	56	660	57	620	61
	T3		35-65	890	42	840	44	810	47	790	48	750	50
	T4 <sup>C</sup>		35-65	700	54	650	58	610	61	590	64	550	-
	T5		35-65	970	39	920	41	880	42	860	43	820	45
FPG60N8018C	T1	50.0	35-65	420	-	370	-	350	-	320	-	280	-
	T2 <sup>H</sup>		35-65	920	49	870	52	850	53	820	55	770	58
	T3		35-65	990	45	940	48	920	49	890	51	840	53
	T4 <sup>C</sup>		35-65	680	-	630	-	610	-	580	-	530	-
	T5		35-65	990	45	940	48	920	49	890	51	840	53

N/A - \*Do not operate this unit at static ranges out side of the temperature rise range.

Airflow shown tested at 70° DB at dry coil conditions

<sup>H</sup> denotes default heating tap

<sup>C</sup> denotes default cooling tap

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# Fan Air Flow Performance

Continued

MODEL NUMBER	Motor Speed	Mid Rise °F	Rise Range °F	SCFM @ External Static Pressure (in.w.c)									
				0.10		0.20		0.30		0.40		0.50	
				SCFM	Temp Rise °F	SCFM	Temp Rise °F	SCFM	Temp Rise °F	SCFM	Temp Rise °F	SCFM	Temp Rise °F
FPG30N8024C	T1	45.0	30-60	420	54	390	58	360	-	320	-	280	-
	T2 <sup>H</sup>		30-60	500	45	470	48	430	52	400	56	360	-
	T3		30-60	640	35	610	37	570	39	540	42	500	45
	T4 <sup>C</sup>		30-60	820	27	790	28	760	30	730	31	690	33
	T5		30-60	980	23	950	24	920	25	880	25	840	27
FPG40N8024C	T1	45.0	30-60	420	-	370	-	330	-	310	-	270	-
	T2 <sup>H</sup>		30-60	670	45	620	48	580	51	560	53	520	57
	T3		30-60	810	37	760	40	720	42	700	43	660	45
	T4 <sup>C</sup>		30-60	830	36	790	38	750	40	730	41	690	44
	T5		30-60	970	31	920	33	880	34	860	35	820	36
FPG50N8024C	T1	50.0	35-65	420	-	370	-	330	-	310	-	270	-
	T2 <sup>H</sup>		35-65	760	49	710	53	680	56	660	57	620	61
	T3		35-65	890	42	840	44	810	47	790	48	750	50
	T4 <sup>C</sup>		35-65	850	44	800	47	760	49	740	51	700	54
	T5		35-65	970	39	920	41	880	42	860	43	820	45
FPG60N8024C	T1	50.0	35-65	420	-	380	-	340	-	320	-	280	-
	T2 <sup>H</sup>		35-65	910	49	870	52	840	54	810	55	780	58
	T3		35-65	1020	44	980	46	940	48	920	49	880	51
	T4 <sup>C</sup>		35-65	840	54	800	56	760	59	740	61	710	64
	T5		35-65	970	46	930	48	900	50	870	52	840	54
FPG40N8030C	T1	45.0	30-60	540	55	500	60	460	-	420	-	370	-
	T2 <sup>H</sup>		30-60	660	45	620	48	580	52	530	56	490	-
	T3		30-60	850	35	810	37	760	39	720	42	670	45
	T4 <sup>Clow</sup>		30-60	730	41	690	44	640	47	600	50	560	54
	T5 <sup>Chigh</sup>		30-60	980	31	940	32	890	34	850	35	810	37
FPG50N8030C	T1	50.0	35-65	560	-	510	-	470	-	420	-	380	-
	T2 <sup>H</sup>		35-65	840	45	790	47	750	50	710	53	660	56
	T3		35-65	990	38	940	40	900	42	860	44	810	46
	T4 <sup>Clow</sup>		35-65	740	50	700	54	650	57	610	61	570	-
	T5 <sup>Chigh</sup>		35-65	990	38	940	40	900	42	860	44	810	46
FPG60N8030C	T1	50.0	35-65	560	-	510	-	470	-	420	-	380	-
	T2 <sup>H</sup>		35-65	950	47	900	50	860	52	820	55	780	58
	T3		35-65	1070	42	1020	44	980	46	940	48	890	50
	T4 <sup>Clow</sup>		35-65	740	60	700	65	650	-	610	-	570	-
	T5 <sup>Chigh</sup>		35-65	990	45	940	48	900	50	860	52	810	55

N/A - \*Do not operate this unit at static ranges out side of the temperature rise range.

Airflow shown tested at 70° DB at dry coil conditions

<sup>H</sup> denotes default heating tap

<sup>C</sup> denotes default cooling tap

The FPG\*\*N8030C models have two cooling taps. T4<sup>Clow</sup> is low speed cooling (Y1). T4<sup>Chigh</sup> is high speed cooling (Y2)

Data is subject to change. Please verify most current information on [www.firstco.com](http://www.firstco.com) or [www.AE-Air.com](http://www.AE-Air.com) websites.



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