# FG4 Series Fan Coil for Puron® Refrigerant Sizes 24 – 60







A230448

## PREMIUM ENVIRONMENTALLY RESPONSIBLE FAN COIL

The FG4 is the premium air handler combining the proven technology of Carrier fan coils with environmentally balanced Puron refrigerant. The FG achieves an operational advantage when the variable speed ECM (Electronically Commutated Motor) is combined with a Carrier Performance<sup>TM</sup> heat pump with Puron refrigerant.

With attention to quiet, efficient, and comfortable operation, Carrier has developed a new benchmark for superior indoor comfort and control.

Carrier's heat pump and air conditioning systems feature Puron refrigerant (R-410A), the chlorine-free refrigerant that is the future for the residential heating and cooling industry. The FG4 using Puron refrigerant maximizes performance for environmentally balanced systems. In addition to environmental safety, these systems are 30 to 40% more efficient than standard heating and cooling systems, thereby combining excellence in efficiency and environmental responsibility.

The FG4 provides these benefits due to Carrier's command of ECM technology. These motors are extremely efficient at all speeds, and enable the FG4 to operate at the correct speed to deliver airflow precisely, ensuring proper performance across a wide range of duct static pressures. This adaptive efficiency also makes installation quality easier to achieve for today's demanding homeowner.

Carrier's command of ECM technology may be most evident in the comfort advantages that ECM can deliver. For true indoor comfort, the homeowner can achieve command of both temperature and humidity in cooling and heating modes.

Another feature which sets the FG4 apart is the factory-installed TXV, which enhances efficiency and provides compressor protecting operation at all recommended conditions. Grooved tubing, louvered aluminum fins, and the large face areas of the FG refrigerant coils also provide superior efficiency, for high SEER and HSPF performance. Carrier leads the way in condensate control, a hallmark of these multipoise fan coils. All of these featured components are protected within a rugged, prepainted metal cabinet lined with super thick, high density insulation. For neat, high quality installations the unit exterior features sweat refrigerant connections for simple leak free performance, and multiple electrical entry for both high and low voltage service.

Assembled at the factory compliant with low leak requirements of less than 2% cabinet leakage rate at 0.5 inches W.C. and 1.4% cabinet leakage rate at 0.5 inches W.C. when tested in accordance with ASHRAE 193 standard.

### **FEATURES**

## **Environmentally Balanced Refrigerant Technology**

- Puron, chlorine-free, non-ozone depleting refrigerant
- Thermostatic Expansion Valve (TXV) designed to maximize performance with Puron refrigerant

## **Energy Efficient Operation**

- Variable Speed Constant Airflow ECM (Electronically Commutating Motor) operates efficiently at all speeds
- · Maximizes efficiency of heating and cooling systems
- Ultra low power consumption during fan only operation

#### Indoor Weather Control

- Warm, comfortable heating air temperatures
- Unmatched humidity control, especially with Carrier's thermostat with relative humidity controls

#### Airflow and Sound Technology

- Diffuser air discharge section for high airflow efficiency and quiet, smooth operation
- · High duct static capability
- Design meets stringent regulations for cabinet air leakage of less than 2% when tested at 1.0 inches W.C., and cabinet air leakage less than 1.4% at 0.5 inches W.C. when tested in accordance with ASHRAE 193 standard.

## **Condensate Control and Disposal Technology**

- Minimal standing waterless microbial growth for improved IAQ and reduced condensate line clogging and related condensate leakage
- Condensate fittings relocated away from turbulent airflow patterns at the blower entrance for improved condensate control performance
- Overflow feature for slope coil units allows condensate to exit the unit without damage to product under clogged primary and secondary line conditions
- Tested for condensate disposal at conditions much more severe than those required by AHRI
- · Primary and secondary drain connections to comply with HUD

- All pans constructed of an injection molded glass-filled polycarbonate engineered resin material, with brass drain connections.
- · High density, super thick cabinetry insulation with vapor barrier
- · Pre-painted galvanized sheet metal cabinet

## **Heat Transfer Technology**

- · Grooved tubing
- · Lanced sine wave aluminum fins
- · Discreet refined counter-flow refrigerant circuitry
- Bi-flow hard shut-off TXV metering device with mechanical fittings

## **Quality Assisting, Ease of Installation and Service Features**

- · All units multipoise
- Provision made for suspending from roof or ceiling joints
- · Modular cabinet on 60 size units
- · Sweat connections for leak free service
- Multiple electrical entry for application flexibility (high and low voltage)
- Low voltage terminal strip, to safely hold connections within the cabinet
- Cabinet construction features innovations designed to prevent cabinet sweating

#### **Controls and Electrical Features**

- Easy plug connection provided for quick installation of accessory heater packages
- 40VA 208/230V transformer
- Replaceable 5A blade-type auto fuse protects against transformer secondary short

### **Filter Features**

- Factory supplied filter
- New standard sized filter rack fits most common size replacement filters

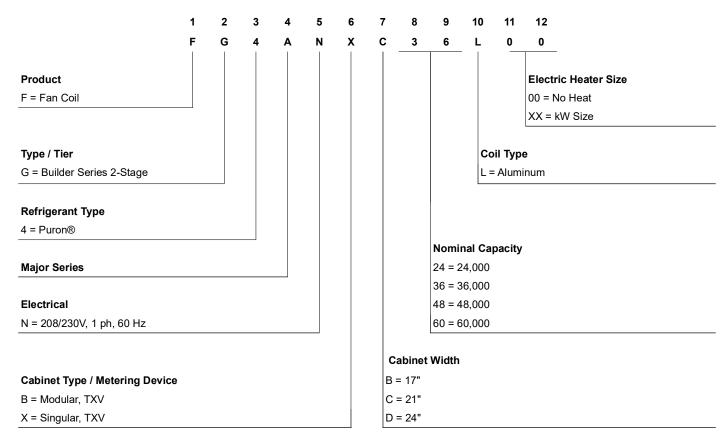
## **Limited Warranty**

Default 5-year parts limited warranty (including compressor and coil)

- 10-year parts limited warranty with timely registration\*.
- Equipment must be registered within 90 days of original installation, except in jurisdictions where warranty benefits cannot be conditioned on registration.
- \* Applies to original purchaser/homeowner and not available to subsequent owners, except in jurisdictions where laws dictate otherwise.

See Warranty certificate for complete details and restrictions.

## **Model Number Nomenclature**









A230445FG

### Table 1 - Models Available

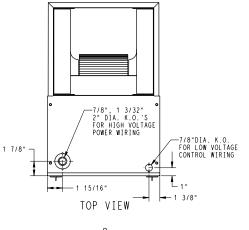
FG4ANXB24L00	FG4ANXC36L00	FG4ANXC48L00	FG4ANBD60L00

Table 2 – Specifications

EVAPORATOR COI	L								
2 Ton	3 Ton	4 Ton	5 Ton						
3.46		5.93	7.42						
А	A								
		TXV							
3/8 (9.5) ID									
3/4 (19.1	) ID	7/	8 (22.2) ID						
3 / 14.5									
BLOWER & MOTO	R								
	Upflow, Dow	nflow, Horizontal							
525	700	875	1050						
700	875	1050	1225						
			1400						
1050	1225	1400	1750						
1/2			3/4						
FILTERS	<u>"</u>								
k can accommodate n	nost common size	filters.							
16 x 20 (406 x 508)	20 x 20 (5	08 x 508)	23 x 20(584 x 508)						
NET CONFIGURATION	OPTIONS		1						
TET COM TOOMATION	or mone								
	2 Ton  3.46 A  3/4 (19.1  BLOWER & MOTOR  525 700 875 1050  1/2  FILTERS k can accommodate n  16 x 20 (406 x 508)	3.46 A Slope  3/8  3/4 (19.1) ID  3  BLOWER & MOTOR  Upflow, Dow  525 700 700 875 875 1050 1050 1225  1/2  FILTERS k can accommodate most common size  16 x 20 (406 x 508) 20 x 20 (56)	2 Ton 3 Ton 4 Ton  3.46 5.93  A Slope  TXV  3/8 (9.5) ID  3/4 (19.1) ID 7/  3 / 14.5  BLOWER & MOTOR  Upflow, Downflow, Horizontal  525 700 875 700 875 700 875 1050 1225 1050 1225 1050 1225 1400  1/2  FILTERS k can accommodate most common size filters.  16 x 20 (406 x 508) 20 x 20 (508 x 508)						

10 7/16"

## **DIMENSIONS**



1 //8"	1 15/16" TOP VIEW	CONTROL WIRING
15/16" —	B	DISCONNECT OR CIRCUIT BREAKER LOCATION  BLOWER, CONTROL, & ELECTRIC HEATER ACCESS PANEL
2 5/8" —		COIL ACCESS PANEL
· · · · · · · · · · · · · · · · · · ·	FITTING PANEL	LIOUID LINE CONNECTION SUCTION LINE CONNECTION

	FRONT	VIEW	
SHOWN WITH OCATIONS FOR			CONNECTION APPLICATIONS

OPENING

INLET AIR

6 3/16"

∽FILTER ACCESS PANEL

UNIT	SERIES	CHA	L E C T R A C T	RICA	L	A	В	С	D	E	F	G	Н	J	CONFIGU SLOPE		SHIPPING WT (LBS)
FG4ANXB24L	A	χ	*			42 11/16"	17 5/8"	15 3/4"	15 5/8"	10 3/4"	18 9/16"	18 1/4"	-	-	-	Х	124
FG4ANXC36L	Α	Х	٠			53 7/16"	21 1/8"	19 1/4"	19 1/8"	19 3/16"	26 15/16"	27 1/2"	-	19"	χ	-	146
FG4ANXC48L	Α	Х				53 7/16"	21 1/8"	19 1/4"	19 1/8"	19 1/2"	27 1/4"	26 15/16"	-	-	-	χ	168
FG4ANBD60L	Α	χ				59 3/16"	24 11/16"	22 3/4"	22 11/16"	25 1/4"	32 15/16"	32 5/8"	34 1/16"		-	Х	203
		0	0							-							

O-NO
-EYES, DUE TO AVAILABLE FIELD
INSTALLED HEATERS.

#### NOTE:

- 1. SERIES DESIGNATION IS THE 14TH POSITION OF UNIT PRODUCT NUMBER.
- 2. ALL DIMENSIONS ARE IN "INCHES" UNLESS NOTED.

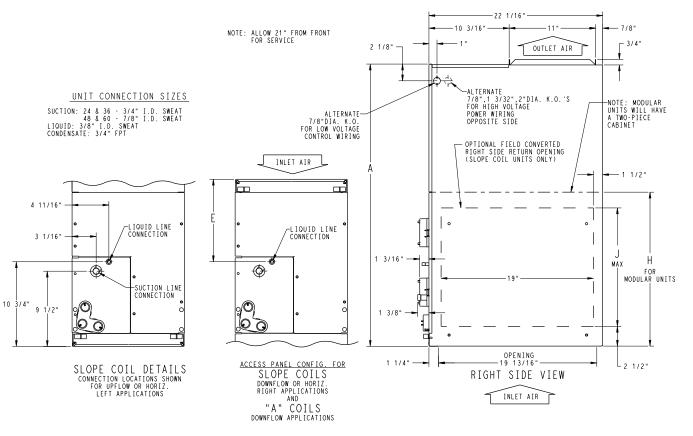


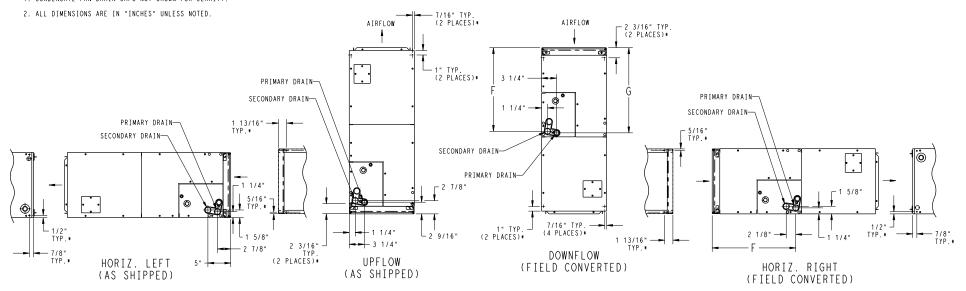
Fig. 1 – Dimensions, sheet 1

## **DIMENSIONS** (cont.)

NOTES:

1. CONDENSATE PAN DRAIN CAPS NOT SHOWN FOR CLARITY.

SLOPE COIL



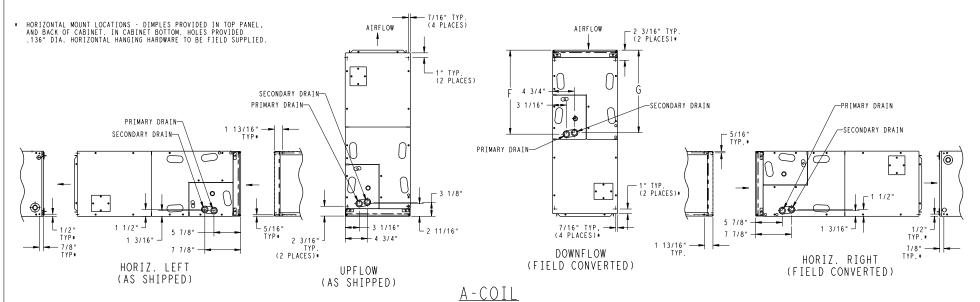
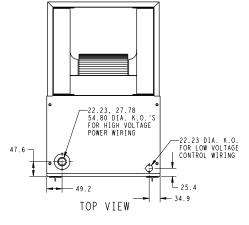


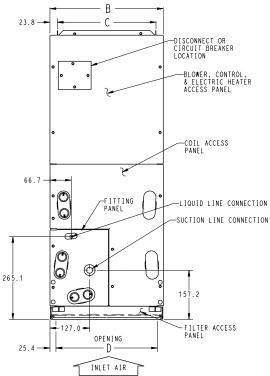
Fig. 2 – Dimensions, sheet 2

Manufacturer reserves the right to change, at any time, specifications and designs without notice

and without obligations.

## **DIMENSIONS** (cont.)





FRONT VIEW

SHOWN WITH "A" COIL DETAILS CONNECTION LOCATIONS FOR UPFLOW OR HORIZ. APPLICATIONS

UNIT	SERIES	Е	LECT	RICA	۱L	A	В	c	D	F	F	G	н		CONF I GL	IL IRATION	SHIPPING WT
Olari	DENTES	CHA	RACT	ERST	ICS	^					'	"	"	,	SLOPE	" A "	(Kgs)
FG4ANXB24L	Α	Х	*			1084.3	447.7	400.0	396.9	273.0	471.5	463.6	-	-	-	Х	56.3
FG4ANXC36L	Α	χ	*			1357.3	536.6	489.0	485.8	487.4	684.2	698.5	-	482.6	Х		66.3
FG4ANXC48L	Α	χ				1357.3	536.6	489.0	485.8	495.3	692.2	684.2	-	-	-	χ	76.3
FG4ANBD60L	Α	Х				1503.4	627.1	577.8	576.3	641.4	836.6	828.7	865.2	-	-	χ	92.2
		0	0				•	•	•	•							

208/230-1-60

X=YES O=NO \*=YES, DUE TO AVAILABLE FIELD INSTALLED HEATERS.

#### NOTE:

- SERIES DESIGNATION IS THE 14TH POSITION OF UNIT PRODUCT NUMBER.
- 2. ALL DIMENSIONS ARE IN "MM" UNLESS NOTED.

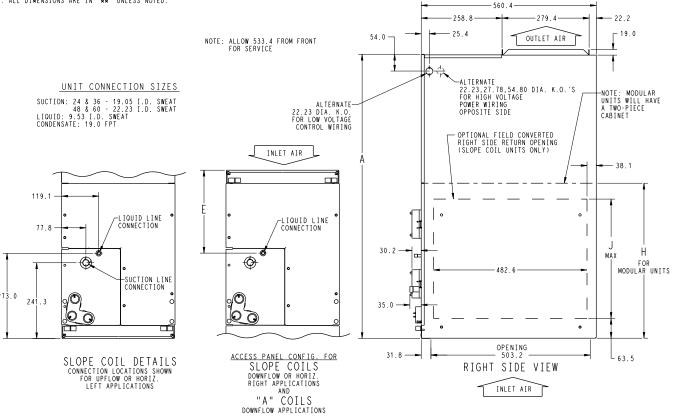


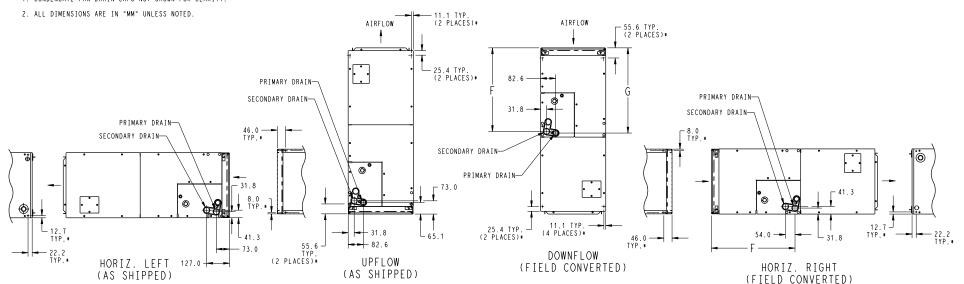
Fig. 3 – Dimensions, sheet 3

## SLOPE COIL

NOTES:

Manufacturer reserves the right to change, at any time, specifications and designs without notice and without obligations.

1. CONDENSATE PAN DRAIN CAPS NOT SHOWN FOR CLARITY.



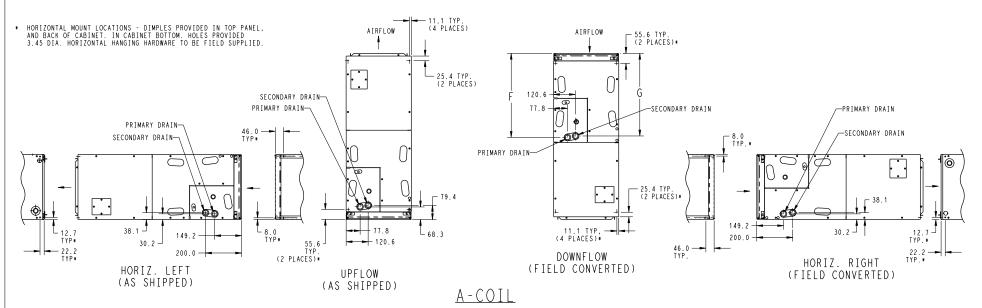


Fig. 4 – Dimensions, sheet 4

## PERFORMANCE DATA

Table 3 - Airflow Delivery Chart - (CFM) in Cooling Mode\*

				OF	PERATING MODE					
	OUTDOOR	SINGLE- APPLIC			TWO—SPEED	APPLICATION			FAN ONLY	,
UNIT	UNIT	Nominal	A/C	High	Speed	Low	Speed			
OIZL	CAPACITY	A/C Cooling	Cooling Dehum	Nominal A/C Cool	A/C Cool Dehum	Nominal A/C Cool	A/C Cool Dehum	Lo	Med	High
	018	525	420	_	_	_	_	350	420	525
24	024	700	560	700	560	560	450	350	560	700
24	030	875	700	_	_	_	_	435	700	875
	036	1050	840	1050	840	840	670	525	840	1050
	024	700	560	700	560	560	450	350	560	700
36	030	875	700	_	_	_	_	435	700	875
36	036	1050	840	1050	840	840	670	525	840	1050
	042	1225	980	_	_	_	_	610	980	1225
	030	875	700	_	_	_	_	435	700	875
48	036	1050	840	1050	840	840	670	525	840	1050
40	042	1225	980	_	_	_	_	610	980	1225
	048	1400	1120	1400	1120	1120	895	700	1120	1400
	036	1050	840	1050	840	840	670	525	840	1050
60	042	1225	980	_	_	_	_	610	980	1225
60	048	1400	1120	1400	1120	1120	895	700	1120	1400
	060	1750	1400	1750	1400	1400	1120	875	1400	1750

#### NOTES:

- \* Consult ARI ratings before matching outdoor unit with fan coil.
- 1. The above airflows result with the AC, HP CFM ADJUST select jumper set on NOM.
- $2.\ Air\ flow\ can\ be\ adjusted\ +15\%\ or\ -10\%\ by\ selecting\ HI\ or\ LO\ respectively\ for\ all\ modes\ except\ fan\ only.$
- 3. Dry coil at 230 volts and with 10kW heater and filter installed.
- 4. Airflows shown are at standard air conditions.

Table 4 – Airflow Delivery Chart – (CFM) in Heat Pump Only Heating Mode

	OPERATING MODE SINGLE—SPEED													
	OUTDOOR		—SPEED CATION	т	WO—SPEED	APPLICATIO	N		FAN ONLY					
<b>UNIT SIZE</b>	UNIT	Heat Down	He of Dumen	High	Speed	Low S	Speed							
	CAPACITY	Heat Pump Comfort	Heat Pump Efficiency	Heat Pump Comfort	Heat Pump Efficiency	Heat Pump Comfort	Heat Pump Efficiency	Lo	Med	High				
	018	470	525	_	_	_	_	350	420	525				
24	024	630	700	630	700	505	560	350	560	700				
24	030	785	875	_	_	_	_	435	700	875				
	036	945	1050	945	1050	755	840	525	840	1050				
	024	630	700	630	700	505	560	350	560	700				
20	030	785	875	_	_	_	_	435	700	875				
36	036	945	1050	945	1050	755	840	525	840	1050				
	042	1100	1225	_	_	_	_	610	980	1225				
	030	785	875	_	_	_	_	435	700	875				
40	036	945	1050	945	1050	755	840	525	840	1050				
48	042	1100	1225	_	_	_	_	610	980	1225				
	048	1260	1400	1260	1400	1010	1120	700	1120	1400				
	036	945	1050	945	1050	755	840	525	840	1050				
00	042	1100	1225	_	_	_	_	610	980	1225				
60	048	1260	1400	1260	1400	1010	1120	700	1120	1400				
	060	1575	1750	1575	1750	1260	1400	875	1400	1750				

#### NOTES

- 1. The above airflows result with the AC, HP CFM ADJUST select jumper set on NOM.
- $2.\,Air\,flow\,\,can\,\,be\,\,adjusted\,\,\pm15\%\,\,or\,\,-10\%\,\,by\,\,selecting\,\,HI\,\,or\,\,LO\,\,respectively\,\,for\,\,all\,\,modes\,\,except\,\,fan\,\,only.$
- 3. Dry coil at 230 volts and with 10kW heater and filter installed.
- 4. Airflows shown are at standard air conditions.

**Table 5 – Airflow Delivery Chart (CFM) — Electric Heating Modes** 

	OUTDOOR					ELEC.	TRIC HEA	TER kW R	ANGE				
FAN UNIT SIZE	UNIT		0-5			0-10			0-15			0-20	
UNIT SIZE	BTUH	Lo	Nom	High	Lo	Nom	High	Lo	Nom	High	Lo	Nom	High
	18,000	700	700	805	750	750	863	_	_	_	_	_	-
24	24,000	700	700	805	750	750	863	1050	1050	1208	_	_	-
24	30,000	875	875	1006	875	875	1006	1050	1050	1208	1200	1200	1380
	36,000	1050	1050	1208	1050	1050	1208	1050	1050	1208	1200	1200	1380
	24,000	700	700	805	750	750	863	1050	1050	1208	1225	_	-
36	30,000	875	875	1006	875	875	1006	1050	1050	1208	1225	_	-
36	36,000	1050	1050	1208	1050	1050	1208	1050	1050	1208	1225	1225	1409
	42,000	1225	1225	1409	1225	1225	1409	1225	1225	1409	1225	1225	1409
	OUTDOOR					ELEC.	TRIC HEA	TER kW R	ANGE				
FAN UNIT SIZE	UNIT		0-10			0-15			0-20			0-30	
UNIT SIZE	BTUH	Lo	Nom	High	Lo	Nom	High	Lo	Nom	High	Lo	Nom	High
	30,000	1000	1000	1150	1200	1200	1380	_	_	_	_	_	_
48	36,000	1100	1100	1265	1200	1200	1380	1300	1300	1495	_	_	_
46	42,000	1225	1225	1409	1225	1225	1409	1350	1350	1553	_	_	_
	48,000	1400	1400	1610	1400	1400	1610	1400	1400	1610	1500	1500	1725
	36,000	1200	1200	1380	1250	1250	1438	1350	1350	1553	_	_	_
60	42,000	1225	1225	1409	1300	1300	1495	1350	1350	1553	_	_	_
00	48,000	1400	1400	1610	14000	14000	1610	1400	1400	1610	1750	1750	2013
	60,000	1750	1750	2013	1750	1750	2013	1750	1750	2013	1750	1750	2013

NOTE: Lo, NOM, and HI refer to AC, HP CFM ADJUST selection.

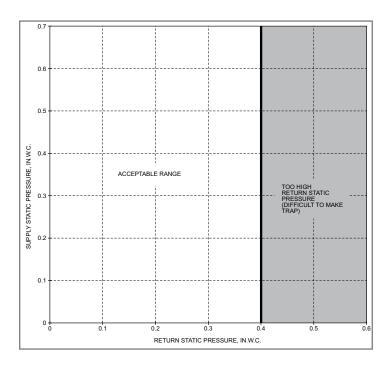
Table 6 - Minimum CFM for Electric Heater Application

				CFM		
FAN COIL UNIT SIZE	HEAT PUMP UNIT SIZE			HEATER SIZE kW		
OIZE	OIZE	5	8, 9, 10	12, 15	18, 20	24, 30
	018	700	750	_	_	_
	024	700	750	1050	_	_
24	030	875	875	1050	1200	_
	036	1050	1050	1050	1200	_
	024	700	700	1050	_	_
36	030	875	875	1050	_	_
	036	1050	1050	1050	1225	_
	042	1225	1225	1225	1225	_
	018	<del>_</del>	1000	1120	<del>_</del>	_
48	036	_	1100	1200	1300	_
	042	_	1225	1225	1350	_
	048	_	1400	1400	1400	1500
	018	<del>_</del>	1200	1250	1350	_
60	042	_	1225	1300	1350	_
	048	<u> </u>	1400	1400	1400	1750
	018 042	_	1750	1750	1750	1750

## NOTES:

<sup>—</sup> Airflow not recommended for heater/system size.

<sup>1.</sup> These airflows are minimum acceptable airflows as UL listed. Actual airflow delivered will be per airflow delivery chart for Electric Heating Modes.



A02296

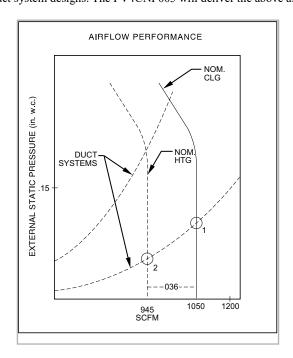
## **Acceptable Duct Conditions**

For satisfactory operation (specifically making dry secondary trap), subject fan coils must be installed with duct systems which fall within the "Acceptable Range" illustrated above.

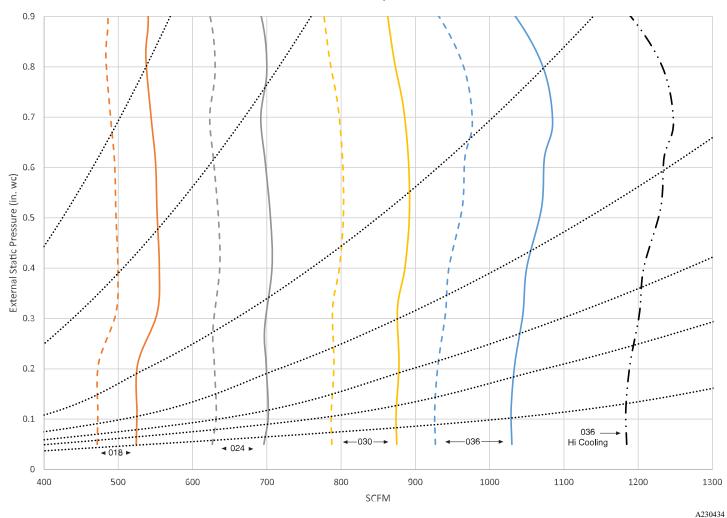
The airflow performance charts for the fan coil depict nominal airflow delivery for heating and cooling mode operation versus duct system static pressure drop. Cooling mode operation is shown as solid vertical lines for all 4 system size selections. Heating mode operation for the 4 system size selections are shown as dashed vertical lines.

The dotted curved lines are static pressure drop characteristics for several fixed-duct systems. These lines can be used to predict the system static pressure drop at any airflow given the actual drop at 1 known point.

For example, a duct system is designed for 0.15 in. water column (in. w.c.) drop at 1200 CFM. The FV4CNF005 operating at nominal cooling airflow would deliver 1050 CFM with a duct system drop of 0.11 in. w.c.. (See point 1 in the Airflow Performance/Static Pressure figure below.) On the same duct system, the FV4CNF005 operating at nominal heating airflow would deliver 945 CFM with a duct system drop of 0.09 in. w.c. (See point 2.) This example is but one of many possible duct system designs. The FV4CNF005 will deliver the above airflows against much higher static pressures.

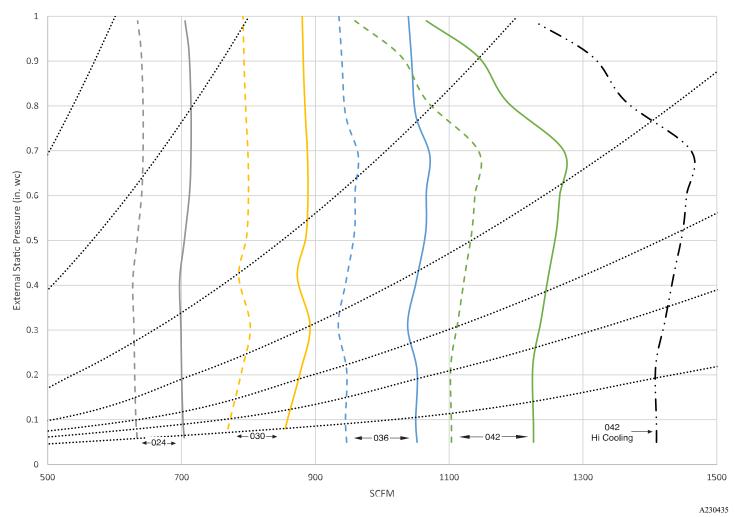


## Airflow Performance, 24 size

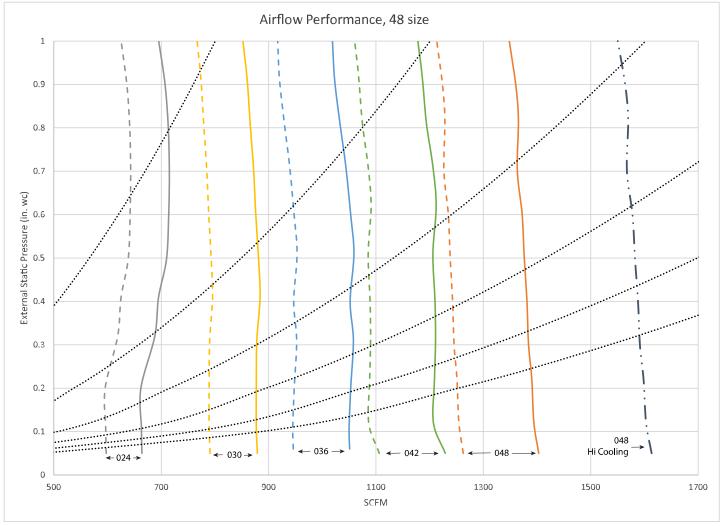


- Nominal Cooling and Heat Pump Efficiency airflow for each size selection. Airflow can be adjusted +15% to -10%. Nominal Heat Pump Comfort airflow for each size selection. Airflow can be adjusted +15% to -10%. Maximum cooling airflow for largest size selection. Adjusted +15% from nominal. Fixed Duct Systems (See description under Acceptable Duct Conditions.)

## Airflow Performance, 36 size

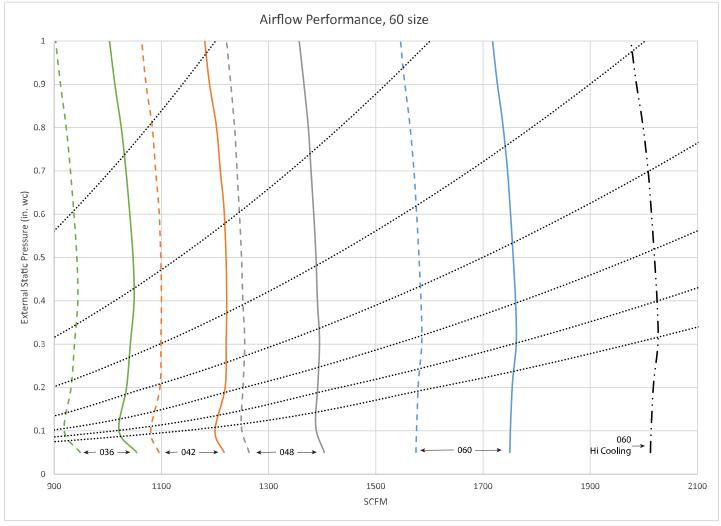


- Nominal Cooling and Heat Pump Efficiency airflow for each size selection. Airflow can be adjusted +15% to -10%. Nominal Heat Pump Comfort airflow for each size selection. Airflow can be adjusted +15% to -10%. Maximum cooling airflow for largest size selection. Adjusted +15% from nominal. Fixed Duct Systems (See description under Acceptable Duct Conditions.)



A230436

- Nominal Cooling and Heat Pump Efficiency airflow for each size selection. Airflow can be adjusted +15% to -10%.
- Nominal Heat Pump Comfort airflow for each size selection. Airflow can be adjusted +15% to -10%.
- · · · · Maximum cooling airflow for largest size selection. Adjusted +15% from nominal. · · · · · Fixed Duct Systems (See description under Acceptable Duct Conditions.)



A230437

- Nominal Cooling and Heat Pump Efficiency airflow for each size selection. Airflow can be adjusted +15% to -10%. Nominal Heat Pump Comfort airflow for each size selection. Airflow can be adjusted +15% to -10%. Maximum cooling airflow for largest size selection. Adjusted +15% from nominal. Fixed Duct Systems (See description under Acceptable Duct Conditions.)

**Table 7 – Cooling Capacities (MBtuh)** 

IND	OOR	SATURATED TEMPERATURE LEAVING EVAPORATOR (deg F)  35 40 45 50 55														
COIL			35			40			45			50			55	
CFM	EWB	тс	SHC	BF	TC	SHC	BF	тс	SHC	BF	тс	SHC	BF	тс	SHC	BF
						ı	S	IZE 24							1	
	72	37.50	19.04	0.00	33.96	17.17	0.00	29.95	15.18	0.00	25.35	13.07	0.00	20.11	10.83	0.00
525	67	30.71	19.50	0.00	27.01	17.49	0.00	22.82	15.38	0.00	18.08	13.17	0.00	12.92	10.93	0.00
	62	24.45	19.79	0.00	20.62	17.68	0.00	16.51	15.56	0.01	12.74	12.74	0.05	10.53	10.53	0.21
	72	46.28	23.46	0.00	42.01	21.31	0.00	37.11	18.99	0.00	31.54	16.50	0.00	25.10	13.80	0.01
700	67	38.08	24.46	0.01	33.62	22.14	0.01	28.52	19.62	0.01	22.62	16.92	0.01	16.16	14.14	0.01
	62	30.57	25.26	0.01	25.94	22.75	0.01	20.81	20.13	0.02	16.58	16.58	0.08	13.73	13.73	0.23
	72	53.42	27.14	0.00	48.58	24.80	0.00	42.99	22.24	0.00	36.57	19.46	0.00	29.26	16.44	0.01
875	67	44.14	28.75	0.02	39.07	26.18	0.02	33.23	23.40	0.01	26.53	20.34	0.02	19.00	17.14	0.02
	62	35.64	30.11	0.02	30.44	27.37	0.02	24.72	24.45	0.03	20.16	20.16	0.11	16.72	16.72	0.26
	72	59.25	30.25	0.00	54.00	27.79	0.01	47.91	25.05	0.02	40.85	22.05	0.02	32.69	18.77	0.02
1050	67	49.16	32.52	0.02	43.60	29.78	0.03	37.18	26.76	0.03	29.81	23.50	0.03	21.58	19.97	0.04
	62	39.88	34.49	0.03	34.24	31.56	0.03	28.13	28.41	0.04	23.44	23.44	0.14	19.43	19.43	0.28
	72	64.10	32.93	0.02	58.53	30.39	0.02	52.02	27.54	0.03	44.44	24.38	0.03	35.61	20.89	0.03
1225	67	53.37	35.88	0.04	47.43	33.02	0.04	40.52	29.84	0.04	32.58	26.37	0.04	23.87	22.63	0.05
	62	43.50	38.51	0.04	37.52	35.42	0.04	31.22	32.09	0.06	26.46	26.46	0.17	21.98	21.98	0.31
							S	ZE 36								
	72	46.73	23.71	0.00	42.21	21.42	0.00	37.03	18.95	0.00	31.12	16.32	0.00	24.47	13.58	0.00
700	67	38.23	24.55	0.01	33.46	22.07	0.00	28.13	19.46	0.00	22.20	16.73	0.01	15.77	13.96	0.01
	62	30.47	25.19	0.01	25.73	22.64	0.01	20.64	20.02	0.02	16.45	16.45	0.08	13.57	13.57	0.24
	72	54.14	27.50	0.00	49.01	25.01	0.00	43.08	22.29	0.00	36.32	19.31	0.01	28.48	16.14	0.01
875	67	44.54	28.96	0.01	39.13	26.21	0.02	32.90	23.21	0.02	25.90	20.10	0.01	18.55	16.94	0.02
	62	35.68	30.12	0.02	30.20	27.22	0.02	24.46	24.28	0.03	20.00	20.00	0.11	16.52	16.52	0.26
	72	60.23	30.73	0.00	54.65	28.07	0.02	48.16	25.17	0.01	40.65	21.97	0.02	31.96	18.47	0.02
1050	67	49.80	32.84	0.02	43.85	29.89	0.03	36.97	26.66	0.03	29.12	23.18	0.03	21.00	19.69	0.04
	62	40.12	34.60	0.03	34.09	31.45	0.03	27.83	28.19	0.04	23.19	23.19	0.14	19.17	19.17	0.29
	72	65.33	33.52	0.01	59.35	30.77	0.02	52.41	27.71	0.03	44.36	24.34	0.03	34.94	20.62	0.03
1225	67	54.19	36.28	0.04	47.86	33.21	0.04	40.43	29.78	0.04	31.95	26.07	0.04	23.18	22.28	0.05
	62	43.93	38.70	0.04	37.54	35.38	0.04	30.91	31.83	0.06	26.14	26.14	0.17	21.63	21.63	0.31
	72	69.64	35.98	0.03	63.37	33.15	0.04	56.04	29.99	0.04	47.51	26.47	0.04	37.51	22.57	0.04
1400	67	57.94	39.40	0.05	51.25	36.22	0.05	43.43	32.67	0.05	34.46	28.78	0.05	25.18	24.72	0.07
	62	47.26	42.51	0.05	40.58	39.04	0.06	33.84	35.26	0.08	28.85	28.85	0.20	23.92	23.91	0.34
							S	ZE 48								
	72	55.50	29.11	0.00	50.59	26.54	0.00	44.88	23.71	0.00	38.24	20.63	0.00	30.68	17.36	0.00
875	67	45.72	30.33	0.00	40.45	27.50	0.00	34.52	24.46	0.00	27.67	21.20	0.00	19.98	17.78	0.00
	62	36.75	31.31	0.00	31.36	28.31	0.00	25.38	25.13	0.01	20.06	20.06	0.06	16.66	16.66	0.22
	72	62.61	32.86	0.00	57.23	30.14	0.00	50.90	27.09	0.00	43.49	23.73	0.00	34.84	20.06	0.00
1050	67	51.82	34.75	0.00	45.98	31.70	0.00	39.25	28.31	0.00	31.53	24.69	0.01	22.90	20.87	0.01
	62	41.81	36.27	0.01	35.78	32.96	0.01	29.15	29.47	0.01	23.60	23.60	0.08	19.62	19.62	0.24

**Table 7 – Cooling Capacities (MBtuh)** 

	72	68.60	36.10	0.00	62.85	33.28	0.00	56.08	30.11	0.00	48.02	26.55	0.00	38.54	22.55	0.00
1225	67	57.05	38.72	0.01	50.81	35.50	0.01	43.41	31.92	0.00	34.94	27.95	0.01	25.54	23.82	0.01
	62	46.23	40.86	0.01	39.68	37.32	0.01	32.60	33.60	0.02	26.95	26.95	0.10	22.46	22.46	0.25
	72	73.71	38.97	0.00	67.64	36.08	0.00	60.51	32.80	0.00	52.06	29.07	0.01	41.85	24.88	0.01
1400	67	61.55	42.32	0.01	54.96	38.99	0.01	47.17	35.23	0.01	37.95	31.04	0.01	27.97	26.64	0.02
	62	50.14	45.16	0.02	43.27	41.48	0.02	35.80	37.53	0.03	30.14	30.14	0.12	25.15	25.15	0.27
	72	78.67	41.89	0.00	72.30	38.96	0.00	64.83	35.58	0.01	55.92	31.76	0.01	45.16	27.34	0.02
1600	67	65.91	46.06	0.02	59.04	42.67	0.02	50.80	38.77	0.02	41.09	34.39	0.02	30.45	29.70	0.03
	62	54.03	49.74	0.02	46.89	45.95	0.03	39.16	41.76	0.04	33.49	33.49	0.15	28.02	28.02	0.29
	72	81.90	43.87	0.01	75.39	40.88	0.01	67.68	37.48	0.02	58.47	33.58	0.02	47.34	29.06	0.02
1750	67	68.76	48.66	0.02	61.68	45.22	0.02	53.22	41.25	0.02	43.19	36.78	0.02	32.18	31.88	0.04
	62	56.62	52.98	0.03	49.32	49.11	0.03	41.57	41.19	0.05	35.82	35.82	0.17	30.02	30.02	0.30
					'		S	IZE 60		•	'	•		•		
	72	79.55	38.39	0.00	72.99	35.30	0.00	65.21	31.82	0.00	56.07	27.96	0.00	45.28	23.69	0.00
1050	67	65.98	40.54	0.00	58.84	37.05	0.00	50.47	33.18	0.00	40.84	28.98	0.00	29.88	24.50	0.00
	62	53.30	42.23	0.00	45.80	38.43	0.00	37.36	34.36	0.01	29.92	29.92	0.07	24.95	24.95	0.22
	72	87.50	42.31	0.00	80.43	39.08	0.00	72.12	35.46	0.00	62.20	31.35	0.00	50.39	26.76	0.00
1225	67	72.90	45.29	0.00	65.20	41.61	0.00	56.12	37.49	0.00	45.43	32.88	0.00	33.42	28.01	0.01
	62	59.18	47.71	0.01	50.98	43.61	0.01	41.86	39.23	0.01	34.26	34.26	0.08	28.63	28.63	0.23
	72	94.29	45.76	0.00	86.84	42.45	0.00	78.04	38.71	0.00	67.56	34.46	0.00	54.92	29.60	0.00
1400	67	78.85	49.60	0.01	70.71	45.82	0.00	61.08	41.50	0.01	49.58	36.61	0.01	36.65	31.38	0.01
	62	64.33	52.82	0.01	55.68	48.55	0.01	45.98	43.88	0.02	38.38	38.38	0.10	32.14	32.14	0.25
	72	100.91	49.28	0.00	93.10	45.91	0.00	83.86	42.08	0.00	72.84	37.68	0.00	59.46	32.60	0.01
1600	67	84.67	54.09	0.01	76.18	50.22	0.01	66.02	45.76	0.01	53.86	40.66	0.01	40.02	35.07	0.02
	62	69.49	58.29	0.01	60.49	53.89	0.01	50.41	49.00	0.02	42.85	42.85	0.13	35.97	35.97	0.26
	72	105.21	51.67	0.00	97.24	48.25	0.01	87.70	44.38	0.01	76.28	39.90	0.01	62.50	34.70	0.01
1750	67	88.49	57.22	0.01	79.74	53.27	0.01	69.29	48.78	0.01	56.75	43.55	0.01	42.37	37.74	0.02
	62	72.94	62.18	0.02	63.73	57.71	0.02	53.59	52.69	0.03	46.02	46.02	0.14	38.71	38.71	0.28
	72	111.40	55.29	0.01	103.09	51.86	0.01	93.23	47.91	0.01	81.31	43.32	0.01	66.94	38.00	0.01
2000	67	93.99	62.07	0.02	84.88	58.05	0.02	74.05	53.44	0.02	61.00	48.09	0.02	46.00	41.99	0.03
	62	77.95	68.26	0.02	68.57	63.72	0.03	58.99	58.28	0.06	51.02	51.02	0.17	42.96	42.96	0.30

#### NOTES:

1. Contact manufacturer for cooling capacities at conditions other than shown in table.

2. Formulas:

Leaving db = entering db -sensible heat cap.

1.09 x CFM

Leaving wb = wb corresponding to enthalpy of air leaving coil  $(h_{lwb})$ 

 $h_{lwb} = h_{ewb} - \underline{total \ capacity \ (Btuh)}$ 

4.5 x CFM

where  $h_{\text{ewb}}$  = enthalpy of air entering coil. Direct interpolation is permissible. Do not extrapolate.

- 3. SHC is based on 80°F db temperature of air entering coil. Below 80°F db, subtract (Correction Factor x CFM) from SHC. Above 80°F db, add (Correction Factor x CFM) to SHC.
- 4. Bypass Factor = 0 indicates no psychometric solution. Use bypass factor of next lower EWB for approximation.

#### SHC CORRECTION FACTOR

	ENTE	ENTERING AIR DRY-BULB TEMPERATURE °F (°C)											
BYPASS FACTOR	79 (26)	78 (26)	77 (25)	76 (24)	75 (24)	Under 75 (24)							
IAGIGIC	81 (27)	82 (28)	83 (28)	84 (29)	85 (29)	Over 85							
		•	Correction	n Factor									

0.10	.098	1.96	2.94	3.92	4.91	Use
0.20	0.87	1.74	2.62	3.49	4.36	formula
0.30	0.76	1.53	2.29	3.05	3.82	shown below

Interpolation is permissible. Correction Factor = 1.09 x (1 - BF) x (db - 80)

Table 8 – Estimated Sound Power Level of Airflow from Duct (dB)

UNIT SIZE		CONDITIONS			OCTAVE BAI	ND CENTER F	REQUENCY*	,	
	CFM	Ext Static Pressure	63	125	250	500	1000	2000	4000
	400	0.50	69.0	65.0	61.0	58.0	56.0	54.0	50.0
	600	0.50	70.8	66.8	62.8	59.8	57.8	55.8	51.8
24	800	0.50	72.0	68.0	64.0	61.0	59.0	57.0	53.0
24	1000	0.50	73.0	69.0	65.0	62.0	60.0	58.0	54.0
	1200	0.50	73.8	69.8	65.8	62.8	60.8	58.8	54.8
	1400	0.50	74.4	70.4	66.4	63.4	61.4	59.4	55.4
	400	0.50	69.0	65.0	61.0	58.0	56.0	54.0	50.0
	600	0.50	70.8	66.8	62.8	59.8	57.8	55.8	51.8
	800	0.50	72.0	68.0	64.0	61.0	59.0	57.0	53.0
36	1000	0.50	73.0	69.0	65.0	62.0	60.0	58.0	54.0
	1200	0.50	73.8	69.8	65.8	62.8	60.8	58.8	54.8
	1400	0.50	74.4	70.4	66.4	63.4	61.4	59.4	55.4
	1600	0.50	75.0	71.0	67.0	64.0	62.0	60.0	56.0
	400	0.50	69.0	65.0	61.0	58.0	56.0	54.0	50.0
	600	0.50	70.8	66.8	62.8	59.8	57.8	55.8	51.8
	800	0.50	72.0	68.0	64.0	61.0	59.0	57.0	53.0
48	1000	0.50	73.0	69.0	65.0	62.0	60.0	58.0	54.0
	1200	0.50	73.8	69.8	65.8	62.8	60.8	58.8	54.8
	1400	0.50	74.4	70.4	66.4	63.4	61.4	59.4	55.4
	1600	0.50	75.0	71.0	67.0	64.0	62.0	60.0	56.0
	600	0.50	70.8	66.8	62.8	59.8	57.8	55.8	51.8
	800	0.50	72.0	68.0	64.0	61.0	59.0	57.0	53.0
	1000	0.50	73.0	69.0	65.0	62.0	60.0	58.0	54.0
	1200	0.50	73.8	69.8	65.8	62.8	60.8	58.8	54.8
60	1400	0.50	74.4	70.4	66.4	63.4	61.4	59.4	55.4
	1600	0.50	75.0	71.0	67.0	64.0	62.0	60.0	56.0
	1800	0.50	75.5	71.5	67.5	64.5	62.5	60.5	56.5
	2000	0.50	76.0	72.0	68.0	65.0	63.0	61.0	57.0
	2150	0.50	76.3	72.3	68.3	65.3	63.3	61.3	57.3

<sup>\*</sup> Estimated sound power levels have been derived using the method described in the 1987 ASHRAE Systems & Applications Handbook, chapter 52, p. 52.7.

**Table 9 – Airflow Performance Correction Factors** 

HEATER kW	EL EMENTO	STATIC PRESSURECORRECTION (in. wc)						
HEATER KW	ELEMENTS	Sizes 24–48	Size 60					
0	0	+.02	+.03					
5	1	+.01	+.02					
8, 10	2	0	0					
9, 15	3	02	03					
20	4	04	06					
18, 24, 30	6	06	<b>-</b> .10					

The airflow performance table was developed using fan coils with 10-kW electric heaters (2 elements) in the units. For fan coils with heaters made up of a different number of elements, the external available static at a given CFM from the table may be corrected by adding or subtracting pressure. Use table for this correction.

Table 10 - Air Delivery Performance Correction Component Pressure Drop (in. wc) at Indicated Airflow (Dry to Wet Coil)

UNIT		CFM													
SIZE	600	700	800	900	1000	1100	1200	1300	1400	1500	1600				
24	0.012	0.016	0.022	0.028	0.034	0.040	0.049	_	_	_	_				
36	_	0.026	0.034	0.042	0.052	0.063	0.075	0.083	0.091	0.098	0.110				
48	_	0.006	0.008	0.010	0.012	0.015	0.017	0.020	0.023	0.027	0.030				
				•		CFM	•		•						
	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100				
60	0.013	0.016	0.018	0.020	0.023	0.027	0.030	0.034	0.039	0.044	0.048				

Table 11 - Factory-Installed Filter Static Pressure Drop (in. wc)

UNIT					CFM				
SIZE	400	600	800	1000	1200	1400	1600	1800	2000
24	0.020	0.044	0.048	0.072	0.100	_	_	_	_
36	_	0.020	0.035	0.051	0.070	0.092	_	_	_
48	_	_	0.035	0.051	0.070	0.092	0.120	_	_
60	_	_	_	0.038	0.053	0.070	0.086	0.105	0.133

Table 12 – Units without Electrical Heat

				SI	INGLE CIRCUIT	BRANCH CIRCUIT		
UNIT SIZE	MTR HP	VOLTS/PH/HZ MTR FLA		MCA	MOCP	Min Wire Size Awg <sup>*</sup>		
24	1/2		4.0	5.0				
36	1/2	208/230/1/60	4.0	0.0	15	14		
48	3/4	200/230/1/00	5.7	7.1	10	'4		
60	3/4		5.7	/.1				

<sup>\*.</sup> Use copper wire only to connect unit. If other than uncoated (non-plated) 75°C copper wire (solid wire for 10 AWG and smaller, stranded wire for larger than 10 AWG) is used consult applicable tables of the National Electric Code (ANSI/NFPA 70).

NOTE: If branch circuit wire length exceeds 100 ft, consult NEC 210-19a to determine maximum wire length. Use 2% voltage drop. FLA = Full Load Amps; MCA = Minimum Circuit Ampacity; MOCP = Maximum Overcurrent Protection

Table 13 - Electric Heaters

HEATER PART NO.	kW @ 240 V	VOLTS/PH	STAGES (kW OPERATING)	INTERNAL CIRCUIT PROTECTION	FAN COIL SIZE USED WITH	HEATING CAP. <sup>‡</sup> @ 230V	INTELLIGENT HEAT CAPABLE* (kW)
KFFEH0501N05	5	230/1	5	None	All	15,700	-
KFFEH0801N08	8	230/1	8	None	All	25,100	-
KFFEH0901N10	10	230/1	10	None	All	31,400	-
KFFEH3001F15	15	230/1	5, 15	Fuse <sup>†</sup>	All	47,100	5, 10, 15
KFFEH3201F20	20	230/1	5, 20	Fuse <sup>†</sup>	All	62,800	5, 15, 20
KFFEH2901N09	9	230/1 <sup>‡</sup>	3, 9	None	All	28,200	3, 6, 9
KFFEH1601315	15	230/1	5, 15	None	All	47,100	-
KFFEH2001318	18	230/1	6, 12, 18	None	All	56,500	-
KFFEH3401F24	24	230/1**	8, 16, 24	Fuse	48, 60	78,300	8, 16, 24
KFFEH3501F30	30	230/1**	10, 20, 30	Fuse	48, 60	94,100	10, 20, 30
KFFEH2401C05	5	230/1	5	Circuit Breaker	All	15,700	-
KFFEH2501C08	8	230/1	8	Circuit Breaker	All	25,100	-
KFFEH2601C10	10	230/1	10	Circuit Breaker	All	31,400	-
KFFEH3101C15	15	230/1	5, 15	Circuit Breaker	All	47,100	5, 10, 15
KFFEH3301C20	20	230/1	5, 20	Circuit Breaker	All	62,800	5, 15, 20

<sup>\*.</sup> Heaters designed with kW operating values are intelligent heat capable when used with compatible thermostat.

NOTE: for 240 volts, multiply 230V heater amps by 1.04.

Table 14 - Electric Heater Internal Protection

HEATER kW	FUSES QTY/SIZE	CKT BKR QTY/SIZE (all are 2-pole)
5	_	1/60
8	_	1/60
9	_	_
10	_	1/60
15	2/30, 2/60	2/60
15	_	_
18	_	<del>-</del>
20	4/60	2/60
24	6/60	_
30	6/60	<del>-</del>

Single circuit application of F15 and F20 heaters requires Single-point wiring kit accessory.

Field convertible to 3 phase.

<sup>‡.</sup> Field convertible to 3 phase.\*\*. These heaters are field convertible to 1 phase, single or multiple supply circuit.

Table 15 - Electric Heater Electrical Data

					Р		ue	ATER AMP		MIN	N AMPACIT	·				BRAI	NCH CIF	CUIT			
FC Size	Motor FLA	HEATER PART NO.	k	w	H A	Internal Circuit		208/230V*	3		208/230V*	ī		ire Size ( 208/230V			nd Wire 08/230V			use/Ckt s 208/23	
Jize	used				S	Protection	Single	Dual (	Circuit	Single	Dual (	Circuit	Single	Dual (	Circuit	Single	Dual (	Circuit	Single	Dual (	Circuit
			240V	208V	E		Circuit	L1,L2	L3,L4	Circuit	L1,L2	L3,L4	Circuit	L1,L2	L3,L4	Circuit	L1,L2	L3,L4	Circuit	L1,L2	L3,L4
24	4.0	KFFEH0401N03	3	2.3	1	None	10.7/11.9	_	ı	18.4/19.9	_	_	12/12	_	_	12/12	_	_	20/20	_	
24-36	4.0	KFFEH0501N05	5	3.8	1	None	17.8/19.7	_	_	27.3/29.6	_	_	10/10	_	_	10/10	_	_	30/30	_	
24-36	4.0	KFFEH2401C05	5	3.8	1	Ckt Bkr	17.8/19.7	_	_	27.3/29.6	_	_	10/10	_	_	10/10	_	_	30/30	_	_
48-60	5.7	KFFEH0501N05	5	3.8	1	None	17.8/19.7	_		29.4/31.8	_	_	10/8	_	_	10/10	_	_	30/35	_	_
48-60	5.7	KFFEH2401C05	5	3.8	1	Ckt Bkr	17.8/19.7	_	I	29.4/31.8	_	_	10/8	_	_	10/10	_	_	30/35	_	_
24-36	4.0	KFFEH0801N08	8	6.0	1	None	28.5/31.5	_	_	40.6/44.4	_	_	8/8	_	_	10/10	_	_	45/45	_	_
24-36	4.0	KFFEH2501C08	8	6.0	1	Ckt Bkr	28.5/31.5	_	_	40.6/44.4	_	_	8/8	_	_	10/10	_	_	45/45	_	_
48-60	5.7	KFFEH0801N08	8	6.0	1	None	28.5/31.5	_	_	42.8/46.5	_	_	8/8	_	_	10/10	_	_	45/50	_	_
48-60	5.7	KFFEH2501C08	8	6.0	1	Ckt Bkr	28.5/31.5	_	ı	42.8/46.5	_	_	8/8	_	_	10/10	_	_	45/50	_	_
24-36	4.0	KFFEH0901N10	10	7.5	1	None	35.6/39.4	_	_	49.5/54.3	_	_	8/6	_	_	10/10	_	_	50/60	_	_
24-36	4.0	KFFEH2601C10	10	7.5	1	Ckt Bkr	35.6/39.4	_	_	49.5/54.3	_	_	8/6	_	_	10/10	_	_	50/60	_	_
48-60	5.7	KFFEH0901N10	10	7.5	1	None	35.6/39.4	_	_	51.6/56.4	_	_	6/6	_	_	10/10	_	_	60/60	_	_
48-60	5.7	KFFEH2601C10	10	7.5	1	Ckt Bkr	35.6/39.4	_	I	51.6/56.4	_	_	6/6	_	_	10/10	_	_	60/60	_	_
36	4.0	KFFEH2901N09 <sup>‡</sup>	9	6.8	1	None	32.2/35.6	_	_	45.3/49.5	_	_	8/6	_	_	10/10	_	_	50/50	_	_
36	4.0	KFFEH2901N09	9	6.8	3	None	18.6/20.6	_	_	28.3/30.8	_	_	8/8	_	_	10/10	_	_	30/35	_	_
48-60	5.7	KFFEH2901N09 <sup>‡</sup>	9	6.8	1	None	32.2/35.6	_	_	47.4/51.6	_	_	8/6	_	_	10/10	_	_	50/60	_	_
48-60	5.7	KFFEH2901N09	9	6.8	3	None	18.6/20.6	_		30.4/32.9	_	_	8/8	_	_	10/10	_	_	35/35	_	_
24-36	4.0	KFFEH3001F15**	15	11.3	1	Fuse	53.4/59.1	35.6/39.4	17.8/19.7	71.8/78.9	49.5/54.3	22.3/24.6	4/4	8/6	10/10	8/8	10/10	10/10	80/80	50/60	25/25
24-36	4.0	KFFEH3101C15	15	11.3	1	Ckt Bkr	53.4/59.1	35.6/39.4	17.8/19.7	71.8/78.9	49.5/54.3	22.3/24.6	4/4	8/6	10/10	8/8	10/10	10/10	80/80	50/60	25/25
48-60	5.7	KFFEH3001F15**	15	11.3	1	Fuse	53.4/59.1	35.6/39.4	17.8/19.7	73.9/81.0	51.6/56.4	22.3/24.6	4/4	6/6	10/10	8/8	10/10	10/10	80/90	60/60	25/25
48-60	5.7	KFFEH3101C15	15	11.3	1	Ckt Bkr	53.4/59.1	35.6/39.4	17.8/19.7	73.9/81.0	51.6/56.4	22.3/24.6	4/4	6/6	10/10	8/8	10/10	10/10	80/90	60/60	25/25
36	4.0	KFFEH1601315	15	11.3	3	None	30.8/34.1	_		43.5/47.6	_	_	8/6	_	_	10/10	_	_	50/50	_	_
48-60	5.7	KFFEH1601315	15	11.3	3	None	30.8/34.1	_		45.6/49.8	_	_	8/6	_	_	10/10	_	_	50/50	_	_
48-60	5.7	KFFEH2001318	18	13.5	3	None	37.2/41.2	_	-	53.6/58.6	_	_	6/6	_	_	10/10	_	_	60/60	_	_
36	4.0	KFFEH3201F20**	20	15.0	1	Fuse	71.2/78.8	35.6/39.4	35.6/39.4	94.0/103.5	49.5/54.3	44.5/49.3	3/2	6/6	8/8	8/6	10/10	10/10	100/110	50/60	45/50
36	4.0	KFFEH3301C20	20	15.0	1	Ckt Bkr	71.2/78.8	35.6/39.4	35.6/39.4	94.0/103.5	49.5/54.3	44.5/49.3	3/2	6/6	8/8	8/6	10/10	10/10	100/110	50/60	45/50
48-60	5.7	KFFEH3201F20**	20	15.0	1	Fuse	71.2/78.8	35.6/39.4	35.6/39.4	96.3/105.6	51.6/56.4	44.5/49.3	3/2	6/6	8/8	8/6	10/10	10/10	100/110	60/60	45/50
48-60	5.7	KFFEH3301C20	20	15.0	1	Ckt Bkr	71.2/78.8	35.6/39.4	35.6/39.4	96.3/105.6	51.6/56.4	44.5/49.3	3/2	6/6	8/8	8/6	10/10	10/10	100/110	60/60	45/50
48-60	5.7	KEEE113404E04 <sup>‡†</sup>	24	18.0	3	Fuse	49.3/54.6	_	_	68.8/75.4	_	_	4/4	_	_	8/8	_	_	70/80	_	_
48-60	5.7	KFFEH3401F24 <sup>††</sup>	24	18.0	1	Fuse	85.5/94.5	_	1	114.0/125.3	_	_	2/1	_	_	6/6	_	_	125/150	_	_
48-60	5.7	KEEEHOEO4E00††	30	22.5	3	Fuse	61.7/68.2	_	_	84.3/92.4	_	_	4/3	_	_	8/8	_	_	90/100	_	_
48-60	5.7	KFFEH3501F30 <sup>††</sup>	30	22.5	1	Fuse	106.8/118.1	_		140.6/154.8	_	_	0/00	l –	_	6/6	_	_	150/175	_	_

- \*. For 240V, multiply 230V heater amps by 1.04. Wire sizing and over-current protection may need adjustment per local code requirements.

  †. Copper wire must be used. If other than uncoated (non-plated), 75°C ambient, copper wire (solid wire for smaller, and stranded wire for larger than 10 AWG) is used, consult applicable tables of the National Electric Code (ANSI/NFPA 70).
- Field convertible to 3 phase.

  \*\*. Single circuit application of F15 and F20 heaters requires single-point wiring kit accessory.
- ††. Field convertible to 1 phase, single or multiple supply circuit.

Table 16 - Field Multipoint Wiring or 24- and 30-kW Single Phase

FC Size	Motor FLA	HEATER PART NO.	kW		PHASE	HEAT	ER AMPS 208	3/230V	MIN A	MPACITY 208	/230V <sup>*</sup>		IRE SIZE 208/230V		MIN GND WIRE SIZE	MAX FUS	SE/CKT BK 208/230V	KR AMPS
Size	used		240V	208V		L1,L2	L3,L4	L5,L6	L1,L2	L3,L4	L5,L6	L1,L2	L3,L4	L5,L6	208/230V	L1,L2	L3,L4	L5,L6
48-60	5.7	KFFEH3401F24 <sup>‡</sup>	24	18.0	1	28.5/31.5	28.5/31.5	28.5/31.5	43.3/47.0	35.6/39.4	35.6/39.4	8/8	8/8	8/8	10/10	50/50	40/40	40/40
48-60	5.7	KFFEH3501F30 <sup>‡</sup>	30	22.5	1	35.6/39.4	35.6/39.4	35.6/39.4	52.1/56.9	44.5/49.3	44.5/49.3	6/6	8/8	8/8	10/10	60/60	45/50	45/50

- \*. Includes blower motor amps of largest fan coil used with heater.
  †. Copper wire must be used. If other than uncoated (non-plated), 75°C ambient, copper wire (solid wire for 10 AWG and smaller, stranded wire for larger than 10 AWG) is used, consult applicable tables of the NEC (ANSI/NFPA 70).
  ‡. Field convertible to 1 phase, single or multiple supply circuit.

## **ACCESSORIES**

Table 17 - Accessories

	ITEM	ACCESSORY PART NO.*	FAN COIL SIZE USED WITH
1.	Disconnect Kit	KFADK0301DSC	All single phase 3kW - 10kW heaters
		KFACB0201CFB	24, 36
2.	Downflow Base Kit	KFACB0301CFB	48
		KFACB0401CFB	60
3.	Downflow Conversion Kit <sup>†</sup>	KFADC0201SLP	Slope Coil Units—36
J.	Downlow Conversion Kit	KFADC0401ACL	A-Coil Units—24, 48, 60
4.	Downflow/Horizontal Conversion Gasket Kit	KFAHD0101SLP	All
5.	Horizontal Water Management Kit (25 pack) ‡	KFAHC0125AAA	A-Coil Units—36, 48, 60
6.	Single-Point Wiring Kit	KFASP0101SPK	Only with 15- and 20-kW Fused Heaters
7.	Filter	See Table 2 for filter	dimensional details.
		FNCCABXX0017 (MERV 8—FILXXFNC0017) (MERV 11—FILXXFNC0117) (MERV 13—FILXXFNC0317)	24, 36
8.	Fan Coil Filter Cabinet (Fan Coil Filter Media)	FNCCABXX0021 (MERV 8—FILXXFNC0021) (MERV 11—FILXXFNC0121) (MERV 13—FILXXFNC0321)	48
		FNCCABXX0024 (MERV 8—FILXXFNC0024) (MERV 11—FILXXFNC0124) (MERV 13—FILXXFNC0324)	60
	Infinite Control Air Duniforn	DGAPAXX1620 (PGAPXCAR1620-A02)	24
9.	Infinity Series Air Purifier (Purifier Replacement Cartridge)	DGAPAXX2020 (PGAPXCAR2020-A02)	36, 48
	( a.m.e. replacement caranage)	DGAPAXX2420 (PGAPXCAR2420-A02)	60
10.	PVC Condensate Trap Kit (50 pack)	KFAET0150ETK	All
	TXV Kit with Brazed Inlet Connection,	KSBTX0201PUR	24L, 36L
	Puron (R-410A) Refrigerant,	KSBTX0301PUR	48L
	Aluminum Coils Only	KSBTX0401PUR	60L
11.	TVV/IZA with NA - the section I Fitting	KSCTX0101PUR	24
	TXV Kit with Mechanical Fitting, Puron (R-410A) Refrigerant,	KSCTX0401PUR	36
	Aluminum Coils Only	KSCTX0501PUR	48
		KSCTX0601PUR	60
12.	Door Gasket Kit **	344994-751	All
13.	Accessory Quick Connect Kit	KFAPS0110KIT	All

<sup>\*</sup> Factory authorized and listed, field-installed.

## **Accessory Kits Description Suggested and Required Use**

#### l. Disconnect Kit

The kit is used to disconnect electrical power to the fan coil so service or maintenance may be performed safely.

SUGGESTED USE: Units for 3- through 10-kW electric resistance heaters and cooling controls.

#### 2. Downflow Base Kit

This kit is designed to provide a 1-in. (25MM) minimum clearance between unit discharge plenum, ductwork, and combustible materials. It also provides a gap-free seal with the floor.

REQUIRED USE: This kit must be used whenever fan coils are used in downflow applications.

<sup>\*\*</sup> This kit is for replacement of factory installed gaskets if they are damaged or removed from the fan coil.

<sup>†</sup> KFAHD0101SLP must also be purchased for down flow applications.

<sup>‡</sup> KFAHD0101SLP must also be purchased for down flow or horizontal applications.

#### 3. Downflow Conversion Kit

Fan coils are shipped from the factory for upflow or horizontal-left applications. Downflow conversion kits provide proper condensate water drainage and support for the coil when used in downflow applications. Separate kits are available for slope coils and A-coils.

REQUIRED USE: This kit must be used whenever fan coils are used in downflow applications.

#### 4. Downflow/Horizontal Conversion Gasket Kit

This kit provides the proper gasketing of units when applied in either a downflow (FE4A or FE5A) or horizontal (FE4A only) application.

REQUIRED USE: Fan coils in either downflow or horizontal applications.

#### 5. Horizontal Water Management Kit

This kit provides proper installation of fan coils under conditions of high static pressure and high relative humidty.

SUGGESTED USE: All fan coils.

#### 6. Single Point Wiring Kit

The single point wiring kit acts as a jumper between L1 and L3 lugs, and between the L2 and L4 lugs. This allows the installer to run 2 heavy-gauge, high-voltage wires into the fan coil rather than 4 light-gauge, high-voltage wires.

SUGGESTED USE: Fan coils with 15- and 20-kW fused heaters only.

#### 7. Filters

These filters collect large dust particles from the return air entering the fan coil and prevents them from collecting on the coil. This process helps to keep the coil clean, which increases heat transfer and, in turn, the efficiency of the system.

SUGGESTED USE: To replace filters in fan coils.

REQUIRED USE: All units unless a filter grille is used.

#### 8. Fan Coil Filter Cabinet

This cabinet is mounted to the fan coil on the return air end and designed to slip over the outer fan coil casing. The cabinets are insulated using the same insulation as production fan coils. They are designed for the removal of particulates from indoor air using FILXXFNC00 (17, 21, 24) media filter cartridges. These fan coil media filter cartridge kits are designed for the removal of particles from indoor air. The cartridge is installed in the return air duct next to the air handler or further upstream.

SUGGESTED USE: All fan coils.

#### Air Purifier

The Air Purifier wires directly to fan coil and requires no duct transitions with Carrier units. These purifiers both capture and kill airborne viruses, bacteria, mold spores, and allergens. It comes with an airflow sensor. Maintenance is limited to replacement of the purification cartridge, and inspection/brush cleaning of the ionization array.

SUGGESTED USE: All fan coils.

9.

#### 10. Condensate Drain Trap Kit

This kit consists of 50 PVC condensate traps. Each trap is pre-formed and ready for field installation. This deep trap helps the system make and hold proper condensate flow even during blower initiation.

SUGGESTED USE: All fan coils.

#### 11. TXV Kit

These kits are designed to add TXVs to piston fan coils or convert R-22 fan coils to Puron® (R-410A) TXVs.

### 12. Door Gasket Kit

This kit consists of specific adhesive-backed foam strips which are applied to the unit door and frame, limiting air leakage.

#### 13. Accessory Quick Connect Kit

This kit enables the installer to easily connect a 230V IAQ accessory (air purifier, electronic air cleaner, UV light, etc.) kit to a fan coil unit, eliminating the need to run a separate power supply to the accessory. Use of this kit may eliminate the requirement for a licensed electrician to complete the job (check local codes).

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