



FVM4X-B

Product Specifications

VARIABLE SPEED FAN COILS

ALL MODELS

- 2, 3, 4, and 5 Tons
- Supports two-stage outdoor units
- Available for environmentally balanced R-410A systems
- Bolt-on, hard shut-off TXV metering device factory installed on all models
- Sweat connections
- Primary and secondary drain fittings with brass inserts
- Time delay relay (TDR)
- Field installed heater packages from 5 kW – 30 kW available separately
- HUD approved for manufactured housing
- 208/230-1-60 supply voltage
- Multiposition installation – upflow or horizontal left standard, horizontal right with minor modification (field convertible to downflow with accessory kits)
- Filter (washable) factory supplied
- Heat staging option
- Dehumidification function with standardized logic (same as furnaces and SPP).
- 1 inch (25mm) thick insulation with R value of 4.2

PERFORMANCE

- Variable speed ECM motor on all models
- Adjustable cooling and heating ON/OFF delay
- Heat Pump Comfort option to provide higher than normal heating air delivery temperature
- 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.

EASY TO INSTALL AND SERVICE

- Multiple electrical entry locations
- TXV and manifold positioned to the side for easier cleaning
- Zero clearance without heaters

WARRANTY*

- 10 year No Hassle replacement limited warranty
- 5 year parts limited warranty
 - With timely registration, an additional 5 year parts limited warranty
- * For owner occupied, residential applications only. See warranty certificate for complete details and restrictions, including warranty coverage for other applications.



Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program. For verification of certification for individual products, go to www.ahridirectory.org.



Model Number	Tons	Nominal BTU	CFM (L/s) Range		Dimensions H x W x D in. (mm)	Filter Size in. (mm)	Ship Wt. lbs. (kg)
			Low	High			
FVM4X2400B**	2	24,000	350 (165)	1200 (566)	42-11/16 x 17-5/8 x 22-1/16 (1084 x 448 x 560)	16-3/8 x 21-1/2 (416 x 546)	135 (61)
FVM4X3600B**	3	36,000	415 (196)	1400 (661)	53-7/16 x 21-1/8 x 22-1/16 (1357 x 537 x 560)	19-7/8 x 21-1/2 (505 x 546)	150 (68)
FVM4X4800B**	4	48,000	425 (201)	1600 (755)	53-7/16 x 21-1/8 x 22-1/16 (1357 x 537 x 560)	19-7/8 x 21-1/2 (505 x 546)	172 (78)
FVM4X6000B**	5	60,000	540 (255)	2000 (944)	59-3/16 x 24-11/16 x 22-1/16 (1503 x 627 x 560)	23-5/16 x 21-1/2 (592 x 546)	207 (94)

** B = Copper Tube, Aluminum Fin Evaporator
BL = Aluminum Tube, Aluminum Fin Evaporator
BT = Tin Coated Copper Tube, Aluminum Fin Evaporator

FAN COIL MODEL NUMBER IDENTIFICATION GUIDE

	F	V	M	4	X	2400	B	L
F = Fan Coil			MOTOR TYPE					
V = Variable speed ECM motor								
M = Multiposition	INSTALLATION TYPE		REFRIGERANT					
4 = Environmentally Sound R-410A								
X = TXV	METERING DEVICE		NOMINAL CAPACITY					
2400 = 24,000 BTUH = 2 tons								
3600 = 36,000 BTUH = 3 tons								
4800 = 48,000 BTUH = 4 tons								
6000 = 60,000 BTUH = 5 tons								
B = Copper Tube, Aluminum Fin Evaporator			SALES CODE / FEATURES					
BL = Aluminum Tube, Aluminum Fin Evaporator								
BT = Tin Coated Copper Tube, Aluminum Fin Evaporator								

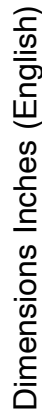
ACCESSORIES PART NUMBER IDENTIFICATION GUIDE

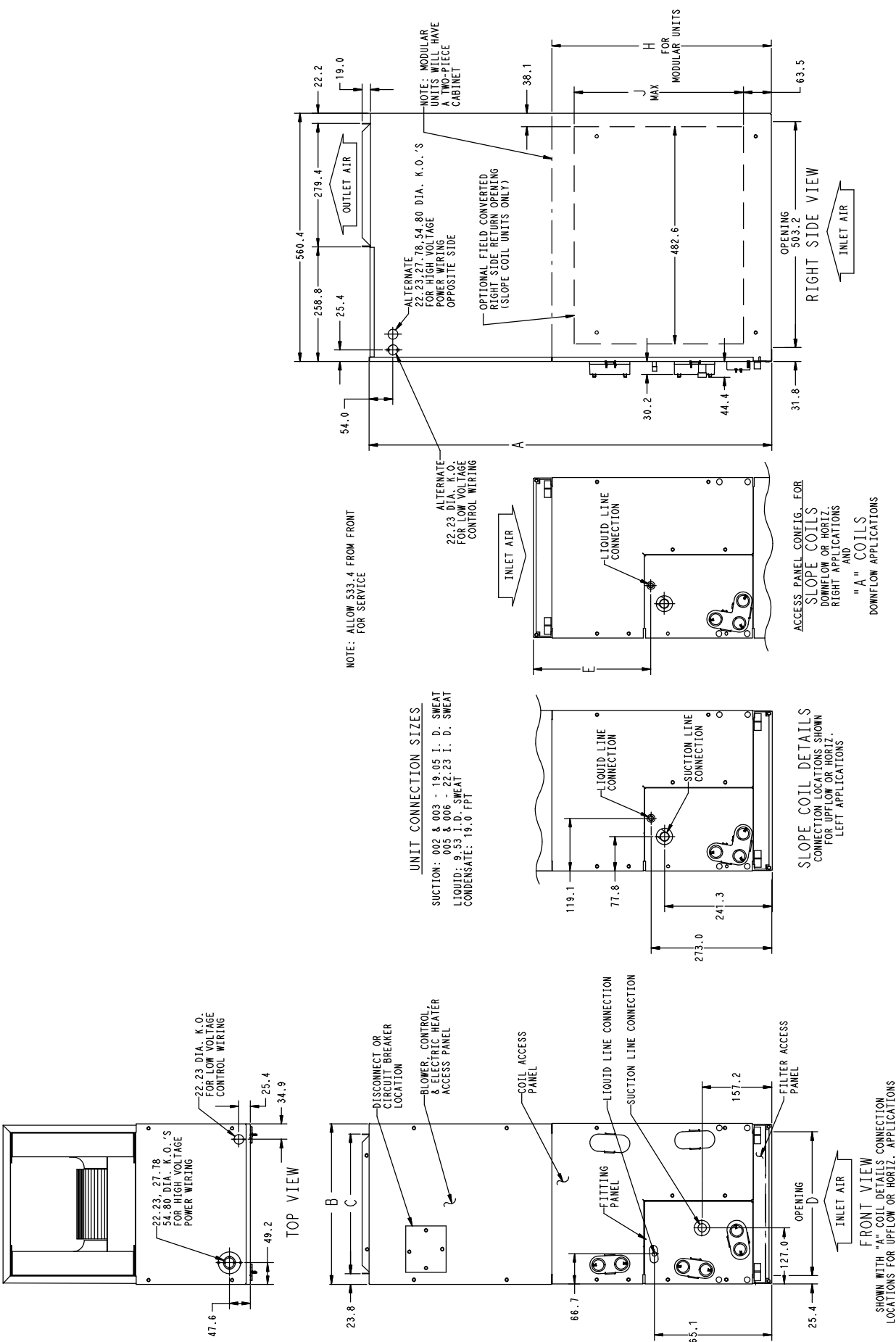
Accessories and Identification Markers Guide					
	EB	AC	01	NCB	A
EB = Evaporator Blower					
AC = Accessory					
01 = Product Identifier Number					
NCB = Non-Combustible Base Kit					
DFK = Down Flow Kit					
PLG = Power Plug (no heat kit)					
SPK = Single Point Wiring Kit					
FKS = Filter Kit Small					
FKM = Filter Kit Medium					
FKL = Filter Kit Large					
FKX = Filter Kit Extra Large					
CTK = Condensate Trap Kit (PVC pipe)					
Sales Code					

ELECTRIC HEATER MODEL NUMBER IDENTIFICATION GUIDE

		EHK	05	A	K	N	1
EHK = Electric Heater Kit							
05 = 5 kW							
07 = 7 kW							
09 = 9 kW							
10 = 10 kW							
15 = 15 kW							
18 = 18 kW							
20 = 20 kW							
25 = 25 kW							
30 = 30 kW							
		NOMINAL HEAT VALUE					
Sales Code							
K = 208 / 230 single-phase							
H = 208 / 230, 3-phase							
KC = 208 / 230, supplied as single phase, field convertible to 3-phase							
HC = 208 / 230 supplied as 3-phase, field convertible to single phase				VOLTAGE (60 Hz)			
Product Identifier							
Engineering Code							

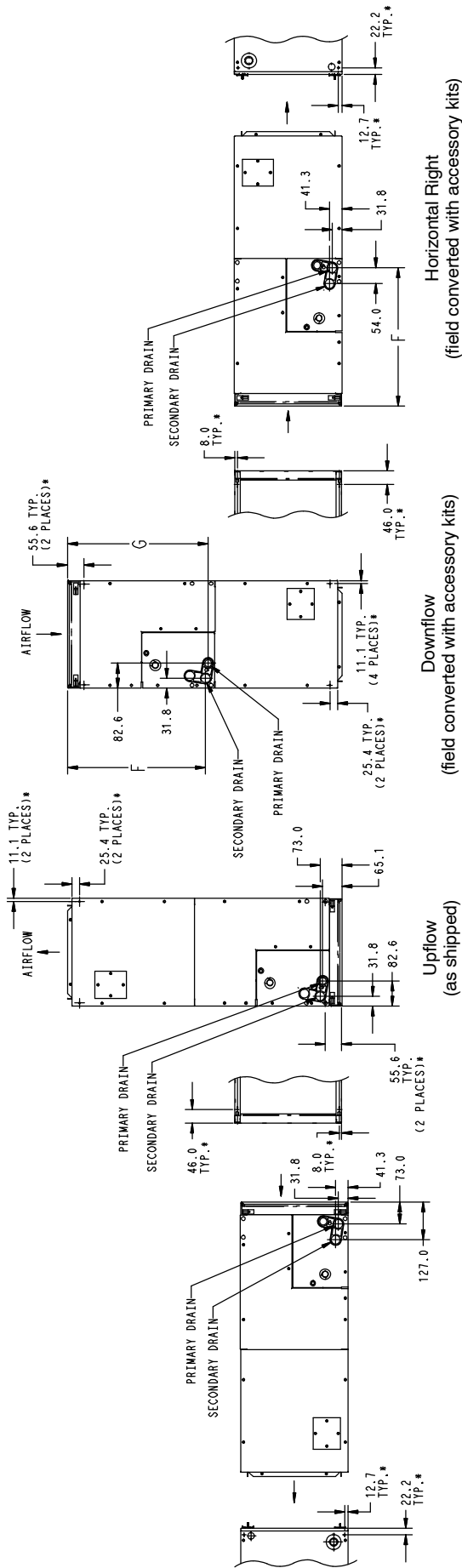




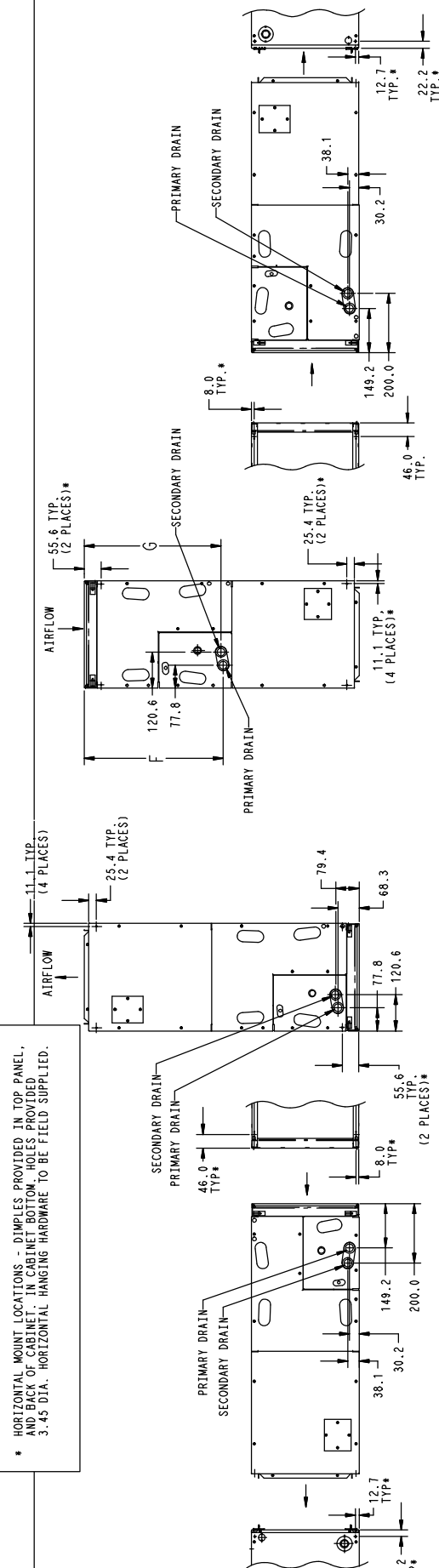


Dimensions MM (SI Metric)

SLOPE COIL



* HORIZONTAL MOUNT LOCATIONS - DIMPLES PROVIDED IN TOP PANEL, AND BACK OF CABINET IN CABINET BOTTOM. HOLES PROVIDED. 3.45 DIA. HORIZONTAL HANGING HARDWARE TO BE FIELD SUPPLIED.



A-COIL

Dimensions MM (SI Metric)

DIMENSIONAL DATA (refer to drawings on previous pages)											
FVM4X Model	Size (tons)	Dimensions Inches (English)									Coil Type
		A	B	C	D	E	F	G	H	J	
2400	2	42-11/16	17-5/8	15-3/4	15-3/8	10-3/4	18-9/16	18-1/4	N/A	N/A	"A"
3600	3	53-7/16	21-1/8	19-1/4	19-1/8	19-3/16	26-15/16	27-1/2	N/A	19	Slope
4800	4	53-7/16	21-1/8	19-1/4	19-1/8	19-1/2	27-1/4	26-15/16	N/A	N/A	"A"
6000	5	59-3/16	24-11/16	22-3/4	22-11/16	25-1/4	32-15/16	32-5/8	34-1/16	N/A	"A"

FVM4X Model	Size (tons)	Dimensions mm (SI Metric)									Coil Type
		A	B	C	D	E	F	G	H	J	
2400	2	1084	448	400	397	273	472	464	N/A	N/A	"A"
3600	3	1357	537	489	486	487	684	699	N/A	483	Slope
4800	4	1357	537	489	486	495	692	684	N/A	N/A	"A"
6000	5	1503	627	578	576	641	837	829	865	N/A	"A"

PHYSICAL DATA				
FVM4X	Model Size			
	2400	3600	4800	6000
Blower Data				
Motor type	Variable Speed ECM motor			
HP	1/2	1/2	1/2	3/4
Filter Data (factory supplied, washable)				
Filter Size in. (mm)	16-3/8 x 21-1/2 (416 x 546)	19-7/8 x 21-1/2 (505 x 546)	23-5/16 x 21-1/2 (592 x 546)	
Coil Data (all coils are 3 row, 14-1/2 fins per inch, wavy lanced bare aluminum fin)				
Face Area ft ² (m ²)	3.46 (0.32)	3.46 (0.32)	5.93 (0.55)	7.42 (0.69)
Refrigerant Line Connections (sweat)				
Liquid in. (mm)	3/8 (10)	3/8 (10)	3/8 (10)	3/8 (10)
Suction in. (mm)	3/4 (19)	7/8 (22)	7/8 (22)	7/8 (22)

ELECTRICAL DATA, FAN COIL ONLY WITHOUT ELECTRIC HEAT			
FVM4X Model	208/230V, single phase, 60 Hz		
	Motor Full Load Amps (FLA)	Minimum Circuit Ampacity (MCA)	Maximum Fuse/Ckt Bkr Amps (Max OverCurrent Protection - MOCP)
2400	4.3	5.4	15
3600	4.3	5.4	15
4800	4.3	5.4	15
6000	6.8	8.5	15

AIRFLOW PERFORMANCE - CFM RANGE		
FVM4X Model	Use with Outdoor Unit Size	CFM (L/s) Range
2400	18, 24, 30, 36	350-1200 (165 - 566)
3600	24, 30, 36, 42	415-1400 (196 - 661)
4800	30, 36, 42, 48	425-1600 (201 - 755)
6000	36, 42, 48, 60	540-2000 (255 - 944)

AIRFLOW PERFORMANCE – CFM IN COOLING MODE (A/C or Heat Pump)										
FVM4X Model	Outdoor Unit Size	Single Stage Cooling		Two-Stage Cooling				Fan Only		
				High		Low				
		Nominal	Dehum	Nominal	Dehum	Nominal	Dehum	Low	Med	Hi
2400	18	525	420	Two-Stage outdoor unit not offered				350	420	525
	24	700	560	700	560	560	450	350	560	700
	30	875	700	Two-Stage outdoor unit not offered				440	700	875
	36	1050	840	1050	840	840	670	525	840	1050
3600	24	700	560	700	560	560	450	415	560	700
	30	875	700	Two-Stage outdoor unit not offered				440	700	875
	36	1050	840	1050	840	840	670	525	840	1050
	42	1225	980	Two-Stage outdoor unit not offered				615	980	1225
4800	30	875	700	Two-Stage outdoor unit not offered				440	700	875
	36	1050	840	1050	840	840	670	525	840	1050
	42	1225	980	Two-Stage outdoor unit not offered				615	980	1225
	48	1400	1120	1400	1120	1120	900	700	1120	1400
6000	36	1050	840	1050	840	840	670	540	840	1050
	42	1225	980	Two-Stage outdoor unit not offered				615	980	1225
	48	1400	1120	1400	1120	1120	900	700	1120	1400
	60	1750	1400	1750	1400	1400	1120	875	1400	1750

NOTES:

1. The above airflows result with the AC/HP CFM ADJUST select jumper set on NOM.
2. Airflow 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 valid for systems with total external static pressure between 0.1 and 0.7 inches water column.

AIRFLOW PERFORMANCE – CFM IN HEAT PUMP HEATING MODE ONLY										
FVM4X Model	Outdoor Unit Size	Single Stage HP Heating		Two-Stage HP Heating				Fan Only		
				High		Low				
		Comfort	Eff	Comfort	Eff	Comfort	Eff	Low	Med	Hi
2400	18	475	525	Two-Stage outdoor unit not offered				350	380	475
	24	630	700	630	700	505	560	350	505	630
	30	785	875	Two-Stage outdoor unit not offered				440	630	785
	36	945	1050	945	1050	755	840	525	755	945
3600	24	630	700	630	700	505	560	415	505	630
	30	785	875	Two-Stage outdoor unit not offered				440	630	785
	36	945	1050	945	1050	755	840	525	755	945
	42	1100	1225	Two-Stage outdoor unit not offered				615	880	1100
4800	30	785	875	Two-Stage outdoor unit not offered				440	630	785
	36	945	1050	945	1050	755	840	525	755	945
	42	1100	1225	Two-Stage outdoor unit not offered				615	880	1100
	48	1260	1400	1260	1400	1010	1120	700	1010	1260
6000	36	945	1050	945	1050	755	840	540	755	945
	42	1100	1225	Two-Stage outdoor unit not offered				615	880	1100
	48	1260	1400	1260	1400	1010	1120	700	1010	1260
	60	1575	1750	1575	1750	1260	1400	875	1260	1575

NOTES:

1. The above airflows result with the AC/HP CFM ADJUST select jumper set on NOM.
2. Airflow 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 valid for systems with total external static pressure between 0.1 and 0.7 inches water column.

AIRFLOW DELIVERY (CFM)													
FVM4X Model	Outdoor Unit Capacity (BTUH)	Electric Heater kW Range											
		0 – 5			0 – 10			0 – 15			0 – 20		
		LO	NOM	HI	LO	NOM	HI	LO	NOM	HI	LO	NOM	HI
2400	18	625	625	625	675	675	675	*	*	*	*	*	*
	24	650	725	835	*	725	835	875	875	875	*	*	*
	30	815	905	1040	*	905	1040	900	900	1040	1100	1100	1100
	36	980	1085	1250	980	1085	1250	980	1085	1250	1100	1100	1250
3600	24	675	725	835	875	875	*	*	*	*	*	*	*
	30	815	905	1040	875	905	1040	1100	1100	1100	*	*	*
	36	980	1085	1250	980	1085	1250	1100	1100	1250	1225	1225	1250
	42	1140	1270	1460	1140	1270	1460	1140	1270	1460	1225	1270	1460
		0 – 10			0 – 15			0 – 20			0 – 30		
4800	30	975	975	1040	1100	1100	1100	*	*	*	*	*	*
	36	980	1085	1250	1100	1100	1250	1250	1250	1250	*	*	*
	42	1140	1270	1460	1140	1270	1460	1250	1270	1460	*	*	*
	48	1305	1450	1665	1305	1450	1665	1305	1450	1665	1500	1500	1665
6000	36	1100	1100	1250	1350	1350	1350	*	*	*	*	*	*
	42	1140	1270	1460	1350	1350	1460	1525	1525	1525	*	*	*
	48	1305	1450	1665	1350	1450	1665	1525	1525	1665	1750	1750	1750
	60	1630	1810	2085	1630	1810	2085	1630	1810	2085	1750	1810	2085

* Airflow not recommended for heater/system size

NOTE: LO, NOM, and HI refer to AC/HP CFM ADJUST selection on the control board.

HEAT PUMP MINIMUM CFM WHEN USING ELECTRIC HEAT (CFM)						
FVM4X Model	Outdoor Unit Size	Heater Size kW				
		5	8, 9, 10	15	18, 20	24, 30
2400	18	625	625	--	--	--
	24	650	725	875	--	--
	30	800	875	875	1040	--
	36	970	970	970	1040	--
3600	24	675	875	--	--	--
	30	800	875	1100	1150	--
	36	975	975	1100	1225	--
	42	1125	1125	1125	1225	--
4800	30	800	875	875	1150	--
	36	975	975	1100	1225	--
	42	1125	1125	1125	1225	--
	48	1305	1305	1305	1305	1400
6000	36	1100	1100	1350	1350	--
	42	1125	1125	1350	1350	--
	48	1300	1300	1350	1465	1750
	60	1625	1625	1625	1750	1750

A/C MINIMUM CFM WHEN USING ELECTRIC HEAT (CFM)						
FVM4X Model		Heater Size kW				
		5	8, 9, 10	15	18, 20	24, 30
2400	Heater Only	625	625	725	875	--
3600		675	700	850	1050	--
4800		675	700	850	1050	1400
6000		1050	1050	1050	1050	1750

NOTES:

1. Heater Only–Air conditioner with electric heater application.
2. These airflows are minimum acceptable airflows as UL listed. Actual airflow delivered will be per airflow delivery chart for Electric Heating Modes.

ELECTRIC HEATER ELECTRICAL DATA

BRANCH CIRCUIT													
Heater Model	Heater kW 230v	Heater kW 208v	PHASE	INTERNAL CIRCUIT PROTECTION	HEATER AMPS 208/230V			Min Ampacity ☆ 208/230V			Min Wire Size (AWG) 208/230V ¹		
					Single Circuit	Dual Circuit		Single Circuit	Dual Circuit		Single Circuit	Dual Circuit	
						L1,L2	L3,L4		L1,L2	L3,L4		L1,L2	L3,L4
EHK05AKN*	5	3.8	1	None	18.1/20.0	—	—	26.0/28.4	—	—	10/10	—	—
EHK05AKN**	5	3.8	1	None	18.1/20.0	—	—	31.2/33.5	—	—	8/8	—	—
EHK05AKB*	5	3.8	1	Ckt Bkr	18.1/20.0	—	—	26.0/28.4	—	—	10/10	—	—
EHK05AKB**	5	3.8	1	Ckt Bkr	18.1/20.0	—	—	31.2/33.5	—	—	8/8	—	—
EHK07AKN	8	6.0	1	None	28.9/32.0	—	—	44.7/48.5	—	—	8/8	—	—
EHK07AKB	8	6.0	1	Ckt Bkr	28.9/32.0	—	—	44.7/48.5	—	—	8/8	—	—
EHK09AKCN†	9	6.8	1	None	32.8/36.0	—	—	49.5/53.5	—	—	8/6	—	—
EHK10AKN	10	7.5	1	None	36.2/40.0	—	—	53.8/58.5	—	—	8/8	—	—
EHK10AKB	10	7.5	1	Ckt Bkr	36.2/40.0	—	—	53.8/58.5	—	—	6/6	—	—
EHK15AKF	15	11.3	1	Fuse	54.2/59.9	36.2/40.0	18.1/20.0	76.3/83.4	53.8/58.5	22.7/25.0	4/4	6/6	10/10
EHK15AKB	15	11.3	1	Ckt Bkr	—	36.2/40.0	18.1/20.0	—	53.8/58.5	22.7/25.0	—	6/6	10/10
EHK15AHN	15	11.3	3	None	31.3/34.6	—	—	47.7/51.8	—	—	8/6	—	—
EHK18AHN	18	13.5	3	None	37.8/41.5	—	—	55.5/60.4	—	—	6/6	—	—
EHK20AKF	20	15.0	1	Fuse	72.3/79.9	36.2/40.0	36.2/40.0	98.9/108.4	53.8/58.5	45.3/50.0	3/2	6/6	8/8
EHK20AKB	20	15.0	1	Ckt Bkr	—	36.2/40.0	36.2/40.0	—	53.8/58.5	45.3/50.0	—	6/6	8/8
EHK25AHCF†	24	18.0	3	Fuse	50.1/55.4	—	—	71.2/77.8	—	—	4/4	—	—
EHK30AHCF†	30	22.5	3	Fuse	86.7/95.5	—	—	116.9/127.9	—	—	1/1	—	—
EHK30AHCF‡	30	22.5	1	Fuse	62.8/69.2	—	—	86.8/95.0	—	—	3/3	—	—
EHK30AHCF‡‡	30	22.5	1	Fuse	109.0/120.0	—	—	144.8/158.5	—	—	0/00	—	—

Notes:

- 1 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 National Electric Code (ANSI/NFPA 70).
- * When used with Fan Coil model sizes 2400, 3600.
- ** When used with Fan Coil model sizes 4800, 6000.
- ☆ Includes blower motor amps of largest Fan Coil used with heater.
- † Supplied as single phase, field convertible to 3-phase.
- ‡ Supplied as 3-phase, field convertible to single phase, single or multiple supply circuits.
- ‡‡ Length shown is as measured one way along wire path between unit and service panel for a voltage drop not to exceed 2%.

FIELD MULTIPOINT WIRING OR 24 AND 30 KW SINGLE PHASE

Heater Model	Heater kW		Heater Amps 208/230V			Minimum Circuit Ampacity 208/230V ☆			Minimum Wire Size (AWG) 208/230V†			Min Gnd Wire Size 208/230V		Max Fuse/Ckt Bkr Amps 208/230V		Max Wire Length 208/230V (FT) ‡‡	
	230V	208V	L1, L2	L3, L4	L5, L6	L1, L2	L3, L4	L5, L6	L1, L2	L3, L4	L5, L6	L1, L2	L3, L4	L1, L2	L3, L4	L1, L2	L3, L4
	24	18.0	1	28.9/32.0	28.9/32.0	28.9/32.0	36.2/40.0	36.2/40.0	8/8	8/8	8/8	8/8	8/8	45/50	40/40	59/60	73/73
EHK30AHCF‡	30	22.5	1	36.2/40.0	36.2/40.0	36.2/40.0	45.3/50.0	45.3/50.0	6/6	8/8	8/8	10/10	10/10	60/60	50/50	78/80	59/59

ACCESSORIES		
Part Number	Description	Use with Model Sizes
EBAC01DSC	Disconnect Kit	use with All single phase Heaters 5 kW thru 10 kW
EBAC02NCB	Downflow Base Kit	2400B
EBAC03NCB		3600B, 4800B
EBAC04NCB		6000B
EBAC01DFS		3600B
EBAC02DFA	Downflow Conversion Kit – “A” Coil	2400B, 4800B, 6000B
EBAC01SPK	Single Point Wiring Kit	only for use with 15 kW & 20 kW fused heaters
Square D® part # QOU14100JBAF	Single Point Wiring Kit – Square D® Jumper Bar Assembly	Only for use with EHK15AKB and EHK20AKB breaker heaters
EBAC01FKM	Filter Kit (washable, box of 12) Factory Supplied	2400B
EBAC01FKL		3600B, 4800B
EBAC01FKX		6000B
NASA00201FR	Standard Filter Rack (16 x 20 x 1 filter required)	2400B
NASA00301FR	Standard Filter Rack (20 x 20 x 1 filter required)	3600B, 4800B
NASA00401FR	Standard Filter Rack [quantity 2] (12 x 20 x 1 filter required)	6000B
EBAC01PLG	No Heat (Plug) Kit (box of 6)	ALL (Factory Installed)
EBAC01CTK	PVC Condensate Trap Kit (box of 50)	ALL
EBAC01GSK	Horizontal/Downflow Gasket Kit	ALL (required for horizontal right and downflow)
NAEA20101TX	TXV Kit, R-22, Copper or Tin Coil Only	2400, 3600
NAEA20201TX		4800
NAEA20301TX		6000
NAEB20101TX	TXV Kit, R-22, Aluminum Coil Only	2400BL, 3600BL
NAEB20201TX		4800BL
NAEB20301TX		6000BL
1191140	Door Gasket Kit **	ALL

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

ELECTRIC HEATERS		
Part Number	Description	Use with Model Sizes
EHK05AKN	5 kW, single phase, no internal circuit protection	ALL
EHK05AKB	5 kW, single phase, with circuit breakers	ALL
EHK07AKN	8 kW, single phase, no internal circuit protection	ALL
EHK07AKB	8 kW, single phase, with circuit breakers	ALL
EHK09AKCN	9 kW, supplied as single phase, field convertible to 3-phase, no internal circuit protection	3600B, 4800B, 6000B
EHK10AKN	10 kW, single phase, no internal circuit protection	ALL
EHK10AKB	10 kW, single phase, with circuit breakers	ALL
EHK15AKF	15 kW, single phase, with fuses	ALL
EHK15AKB	15 kW, single phase, with circuit breakers	ALL†
EHK15AHN	15 kW, 3-phase, no internal circuit protection	ALL†
EHK18AHN	18 kW, 3-phase, no internal circuit protection	4800B, 6000B
EHK20AKF	20 kW, single phase, with fuses	ALL†
EHK20AKB	20 kW, single phase, with circuit breakers	ALL†
EHK25AHCF	24 kW, supplied as 3-phase, field convertible to single phase, with fuses	4800B, 6000B
EHK30AHCF	30 kW, supplied as 3-phase, field convertible to single phase, with fuses	4800B, 6000B

† 15kW & 20kW are not recommended for specific heat pump applications, see AIRFLOW DELIVERY (CFM)

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.