

Engineering Data

Outdoor Air Processing Unit

FXMQ-MFVJU

60 Hz

R-410A

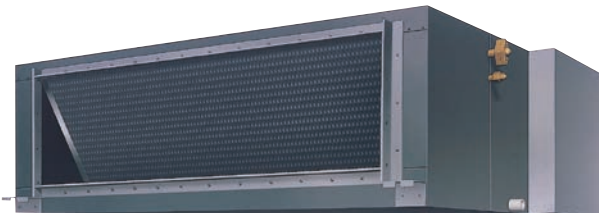


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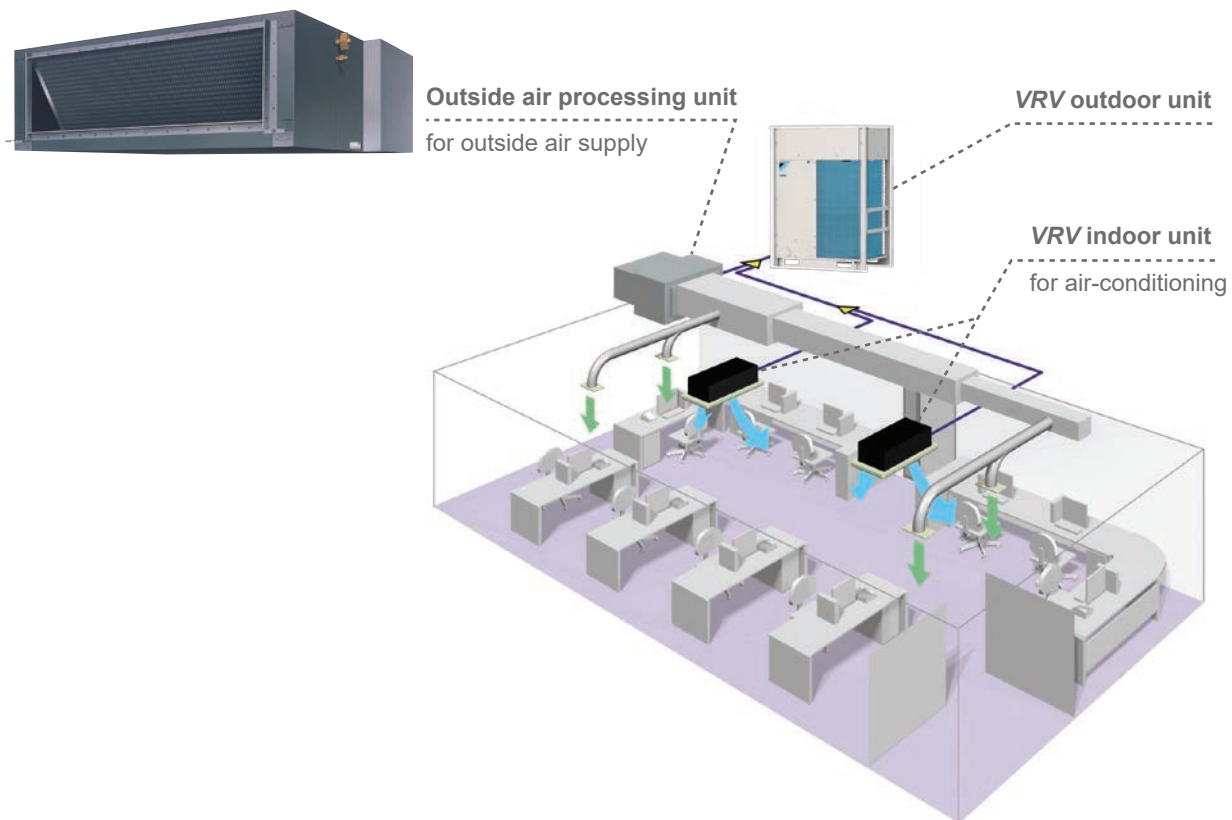
1. Features and Benefits

Concealed, Powerful, Fresh Air Integration

The 100% outside air processing unit provides a zoned, decentralized approach to conditioning outside air. This helps to reduce ductwork and installation time while increasing efficiency and flexibility. Both outside air treatment and space conditioning can be provided from one compact, flexible, and efficient **VRV** system.

VRV indoor units and outdoor air processing unit can be connected to the same refrigerant line, enabling enhanced design flexibility.

- Design flexibility with a capacity range up to 96 MBH
- The nominal airflow rates are 635, 988, and 1,236 CFM
- Improved ductwork and filtration flexibility with ESP capability of up to 1.03" W.G
- Low profile design of less than 19" high to reduce required installation space
- Indoor Air Quality options include MERV 8 and 13 filters and filter boxes
- Seamlessly integrates with North American Daikin **VRV** systems and controllers



2. Specifications

Model		FXMQ48MFVJU		FXMQ72MFVJU			
Power supply		1 phase, 60 Hz, 208/230 V		1 phase, 60 Hz, 208/230 V			
★1, ★3 Cooling capacity	Btu/h	48,000		72,000			
★2, ★3 Heating capacity	Btu/h	30,000		47,000			
Casing / Color		Galvanized steel plate		Galvanized steel plate			
Dimensions: (H × W × D)		in.	18-1/2 × 29-1/4 × 43-5/16		18-1/2 × 54-3/8 × 43-5/16		
Coil (cross fin coil)	Rows × Stages × Fin pitch		3 × 26 × 13		3 × 26 × 13		
	Face area	ft ²	3.01		7.00		
Fan	Model		D13/4G2DA1		D13/4G2DA1		
	Type		Sirocco fan		Sirocco fan		
	Motor output × Number of units		W	380 × 1		380 × 1	
	Airflow rate		cfm	635		988	
	External static pressure		in. H ₂ O	0.88		0.96	
	Drive		Direct drive		Direct drive		
Temperature control		Microprocessor thermostat for cooling and heating		Microprocessor thermostat for cooling and heating			
Sound absorbing thermal insulation material		Glass fiber		Glass fiber			
Air filter		★4		★4			
★6 Sound pressure level (reference data)	dB(A)	43		48			
Weight		lbs	190		271		
Piping connections	Liquid pipes	in.	φ3/8 (flare connection)		φ3/8 (flare connection)		
	Gas pipes	in.	φ5/8 (flare connection)		φ3/4 (brazing connection)		
	Drain pipe	in.	PS1B		PS1B		
Safety devices		Fuse, Thermal protector for fan motor		Fuse, Thermal protector for fan motor			
Refrigerant control		Electronic expansion valve		Electronic expansion valve			
★5 Connectable outdoor units		R410A VRV series		R410A VRV series			
Standard accessories		Operation manual, Installation manual, Sealing pads, Screws, Clamps		Operation manual, Installation manual, Sealing pads, Screws, Clamps, Connection pipes			

Note:

- ★1. Nominal cooling capacities are based on the following conditions:
Outdoor temperature: 91°FDB, 82°FWB (68%RH)
Discharge set temperature: 64°FDB
Equivalent refrigerant piping length: 25 ft (horizontal)
- ★2. Nominal heating capacities are based on the following conditions:
Outdoor temperature: 32°FDB, 27°FWB (50%RH)
Discharge set temperature: 77°FDB
Equivalent refrigerant piping length: 25 ft (horizontal)
- ★3. Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
- ★4. Air filter is not standard accessory, but please mount it in the duct system of the suction side.
Select its duct collection efficiency (gravity method) 50% or more.
- ★5. Within the range that the total capacity of indoor units is 50 to 100%, it is possible to connect to the outdoor unit.
- ★6. Anechoic chamber conversion value, measured under JIS conditions. During actual operation, these values may be higher as a result of installation conditions.

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Model			FXMQ96MFVJU
Power supply			1 phase, 60 Hz, 208/230 V
★1, ★3 Cooling capacity	Btu/h		96,000
★2, ★3 Heating capacity	Btu/h		59,000
Casing / Color			Galvanized steel plate
Dimensions: (H × W × D)		in.	18-1/2 × 54-3/8 × 43-5/16
Coil (cross fin coil)	Rows × Stages × Fin pitch		3 × 26 × 13
	Face area	ft ²	7.00
Fan	Model		D13/4G2DA1
	Type		Sirocco fan
	Motor output × Number of units	W	380 × 1
	Airflow rate	cfm	1,235
	External static pressure	in. H ₂ O	1.03
	Drive		Direct drive
Temperature control			Microprocessor thermostat for cooling and heating
Sound absorbing thermal insulation material			Glass fiber
Air filter			★4
★6 Sound pressure level (reference data)	dB(A)		48
Weight		lbs	271
Piping connections	Liquid pipes	in.	φ3/8 (flare connection)
	Gas pipes	in.	φ7/8 (brazing connection)
	Drain pipe	in.	PS1B
Safety devices			Fuse, Thermal protector for fan motor
Refrigerant control			Electronic expansion valve
★5 Connectable outdoor units			R410A VRV series
Standard accessories			Operation manual, Installation manual, Sealing pads, Screws, Clamps, Connection pipes

Note:

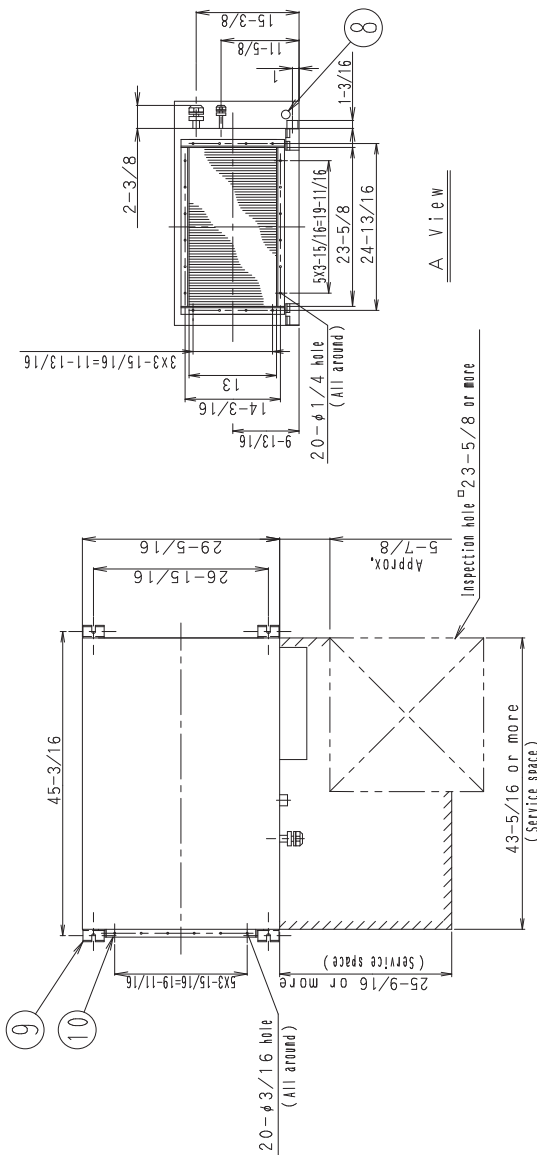
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- ★6. Anechoic chamber conversion value, measured under JIS conditions. During actual operation, these values may be higher as a result of installation conditions.

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3. Dimensions

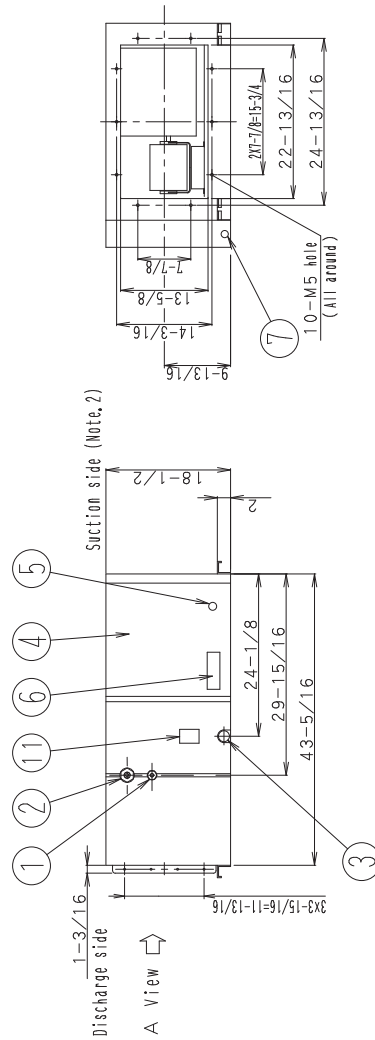
FXMQ48MFVJU

Unit: in.



A View

- Notes) 1, Location of unit's Name Plates:
Control box surface
- 2, Mount the air filter at the suction side,
(Select its color/method (gravity method)
(50% or more,



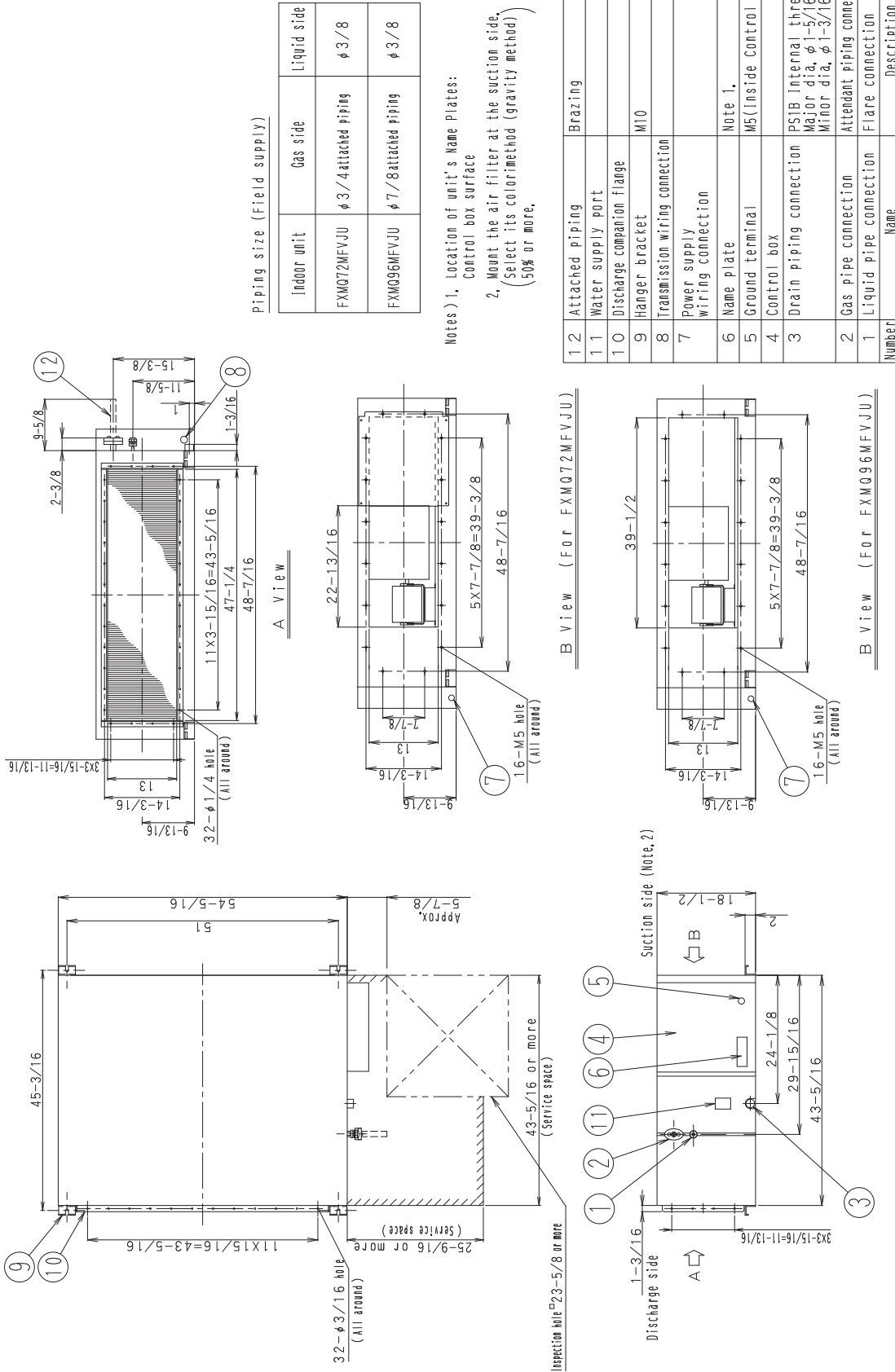
A View

Number	Name	Description
11	Water supply port	
10	Discharge companion flange	
9	Hanger bracket	M10
8	Transmission wiring connection	Note, 1
7	Power supply wiring connection	M5(Inside Control box)
6	Name plate	PS1B Internal thread Major dia, φ1-5/16, Minor dia, φ1-3/16
5	Ground terminal	φ5/8 Flare connection
4	Control box	φ3/8 Flare connection
3	Drain piping connection	
2	Gas pipe connection	
1	Liquid pipe connection	

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FXMQ72-96MFVJU

Unit: in.



Piping size (Field supply)

Indoor unit	Gas side	Liquid side
FXMQ72MFVJU	φ 3/4 Attached piping	φ 3/8
FXMQ96MFVJU	φ 7/8 Attached piping	φ 3/8

Notes) 1. Location of unit's Name Plates:
Control box surface
2. Mount the air filter at the suction side,
(Select its color/method (gravity method))
(50% or more,

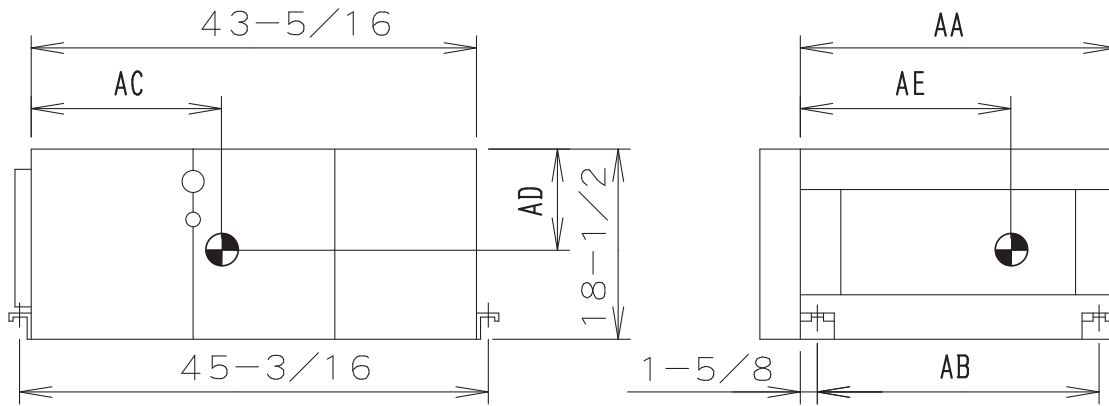
12	Attached piping	Brazing	
11	Water supply port		
10	Discharge companion flange		
9	Hanger bracket	M10	
8	Transmission wiring connection		
7	Power supply wiring connection	Note 1.	
6	Name plate	M5(Inside Control box)	
5	Ground terminal		
4	Control box		
3	Drain piping connection	PS1B Internal thread Major dia. φ 1-5/16, Minor dia. φ 1-3/16	
2	Gas pipe connection	Attendant piping connection	
1	Liquid pipe connection	Flare connection	
	Number	Name	Description

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4. Center of Gravity

FXMQ48-96MFVJU

Unit: in.

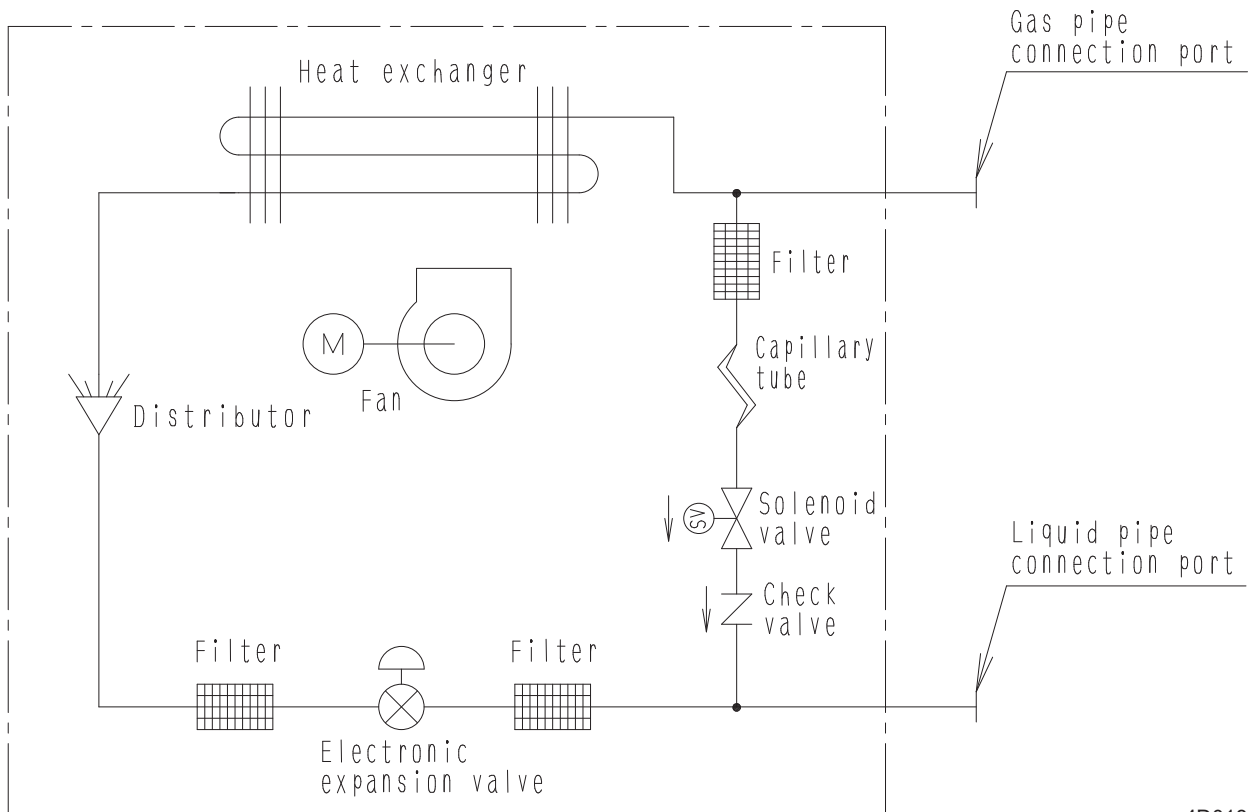


Model	Product Mass	AA	AB	AC	AD	AE
FXMQ48MFVJU	190Lbs	30-11/16	27-3/8	23-5/8	9-13/16	13
FXMQ72MFVJU	271Lbs	54-5/16	51	22-7/16	9-13/16	23-5/8
FXMQ96MFVJU	271Lbs	54-9/16	51	22-7/16	9-13/16	23-5/8

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5. Piping Diagrams

FXMQ48-96MFVJU



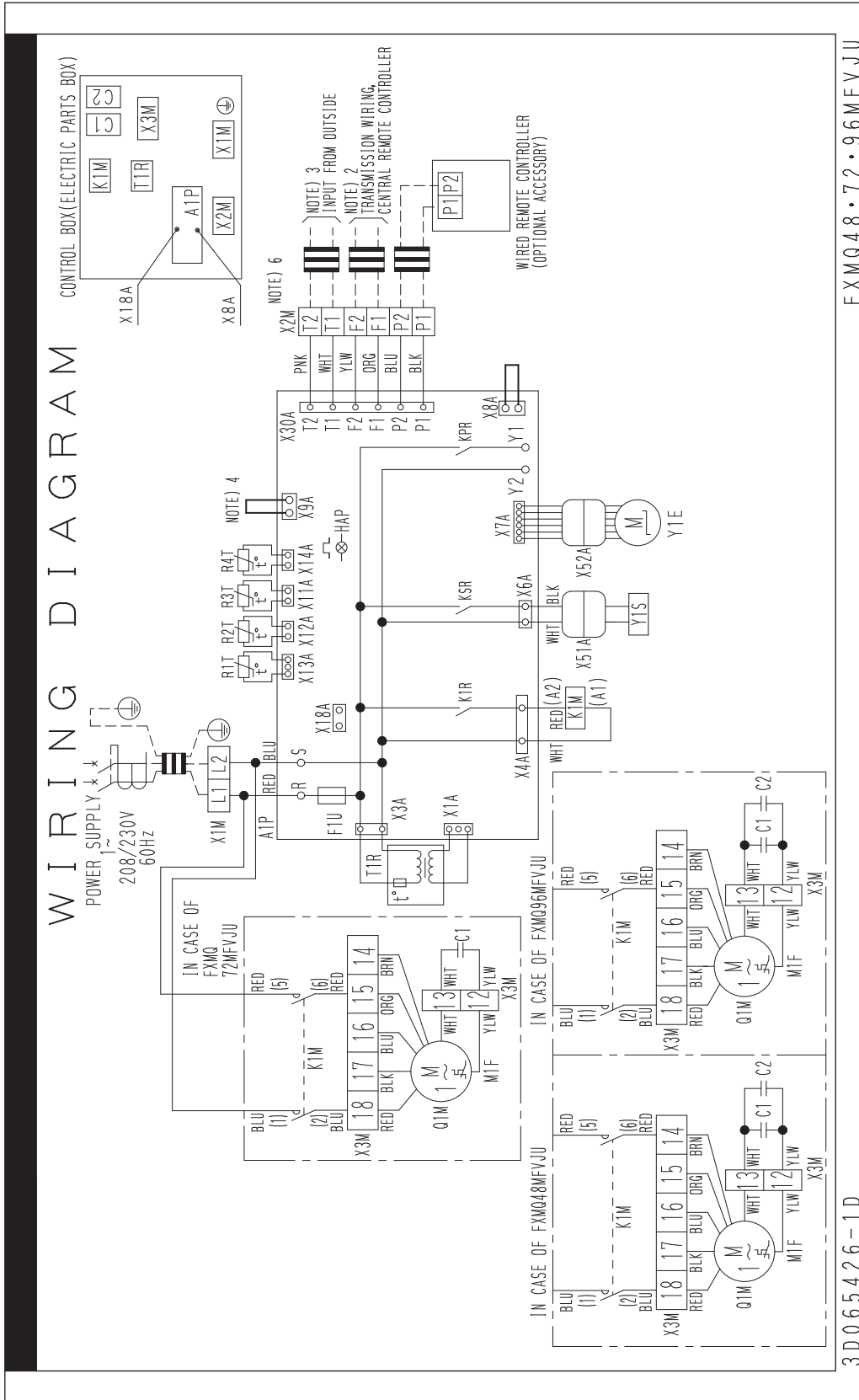
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Unit: in.

Model	Gas	Liquid
FXMQ48MFVJU	φ5/8	φ3/8
FXMQ72MFVJU	φ3/4	
FXMQ96MFVJU	φ7/8	

6. Wiring Diagrams

FXMQ48-96MFVJU



FXMQ48 • 72 • 96MFVJU

NOTES)

1. [Symbol] : TERMINAL BLOCK, [Symbol] : CONNECTOR, [Symbol] : TERMINAL, [Symbol] : SHORT CIRCUIT CONNECTOR, [Symbol] : FIELD WIRING.
2. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
3. IN CASE CONNECTING THE INPUT WIRES FROM OUTSIDE, FORCED OFF OR ON/OFF CONTROL OPERATION CAN BE SELECTED BY REMOTE CONTROLLER. IN DETAILS, REFER TO THE INSTALLATION MANUAL ATTACHED TO THE UNIT.
4. DO NOT REMOVE SHORT CIRCUIT CONNECTOR OF X9A.
5. SYMBOLS SHOW AS FOLLOWS: RED: RED BLK: BLACK WHT: WHITE YLW: YELLOW PPL: PURPLE GRY: GRAY BLU: BLUE PNK: PINK ORG: ORANGE GRN: GREEN
6. CLASS 2 WIRE

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FXMQ48-96MFVJU

ELECTRICAL COMPONENTS AND WIRING CONNECTORS FOR INDOOR UNIT	
A1P	PRINTED CIRCUIT BOARD
C1·C2	CAPACITOR (M1F)
F1U	FUSE (Ⓟ, 5 A, 250 V) (A1P)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)
K1M	MAGNETIC RELAY (M1F)
K1R	MAGNETIC RELAY (M1F)
KPR	MAGNETIC RELAY (M1P)
KSR	MAGNETIC RELAY (Y1S)
M1F	MOTOR (FAN)
Q1M	THERMAL PROTECTOR (M1F EMBEDDED 135°C)
R1T	THERMISTOR (SUCTION AIR)
R2T	THERMISTOR (COIL, LIQUID)
R3T	THERMISTOR (COIL, GAS)
R4T	THERMISTOR (DISCHARGE AIR)
T1R	TRANSFORMAR (208 V / 230 V 25 VA)
X1M	TERMINAL BLOCK (POWER)
X2M	TERMINAL BLOCK (CONTROL)
X3M	TERMINAL BLOCK
X51A, X52A	CONNECTOR
Y1E	ELECTRIC EXPANSION VALVE
Y1S	SOLENOID VALVE (HOT GAS)
CONNECTOR FOR OPTIONAL PARTS	
X18A	CONNECTOR (WIRING ADAPTOR FOR ELECTRICAL APPENDICES)

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7. Electric Characteristics

FXMQ48-96MFVJU

Model	Power supply				IFM		Input (W)		SCCR	
	Hz	Volts	Voltage range	MCA	MOP	KW	FLA	Cooling		Heating
FXMQ48MFVJU	60	208/230 V	Max. 253 V Min. 187 V	2.1	15	0.380	1.7	359	359	SCCR kA rms, Symmetrical @600 V MAX: 5
FXMQ72MFVJU				3.6	15	0.380	2.9	548	548	
FXMQ96MFVJU				4.1	15	0.380	3.3	638	638	

Symbol:

MCA: Min. Circuit Amps (A)

MOP: Max. Overcurrent Protective Device (A)

KW: Fan Motor Rated Output (kW)

FLA: Full Load Amps (A)

IFM: Indoor Fan Motor

SCCR: Short-Circuit Current Rating

Note:

1. Voltage range

Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits.

2. Maximum allowable voltage unbalance between phase is 2%.

3. MCA/MOP

$$MCA = 1.25 \times FLA$$

$$MOP \leq 4 \times FLA$$

(Next lower standard fuse rating. Min. 15 A)

4. Select wire size based on the MCA.

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8. Capacity Tables

FXMQ48MFVJU

Cooling

Outdoor air temperature	°FWB							
°FDB	62	66	70	74	78	82	86	90
	Capacity							
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
67	13000	15900						
71	13000	15900	18300					
75	13000	15900	18300	23300				
79		15900	18300	22900				
83			18300	22900	37700			
87			17900	22600	37300	48300		
91			17900	22200	37000	48000	56200	
95				21900	36600	47600	55800	59600

Heating

Outdoor air temperature	°FWB								
°FDB	19	23	27	31	35	39	43	51	55
	Capacity								
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
22	32600	32600	-	-	-	-	-	-	-
32	-	-	30000	-	-	-	-	-	-
37	-	-	26600	26600	26600	-	-	-	-
42	-	-	-	-	21500	21500	21500	-	-
52	-	-	-	-	-	16800	16800	16800	-
57	-	-	-	-	-	-	12100	12100	12100

Note:

- The above capacities are based on the following conditions:
 Air discharge temperature setting: 64°F for cooling operation,
 77°F for heating (factory setting).
 Equivalent piping length: 25 ft.
 Level difference: 0 ft.
- The above capacities values are general average values which can be generated by each compressor operation level.
- A value enclosed in means rated capacity.

FXMQ72MFVJU

Cooling

Outdoor air temperature	°FWB							
°FDB	62	66	70	74	78	82	86	90
	Capacity							
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
67	19600	24000	-	-	-	-	-	-
71	19600	24000	27600	-	-	-	-	-
75	19600	24000	27600	34700	-	-	-	-
79	-	24000	27300	34400	-	-	-	-
83	-	-	27300	34000	56500	-	-	-
87	-	-	27000	33700	55900	72600	-	-
91	-	-	27000	33100	55600	72000	84200	-
95	-	-	-	32700	54900	71300	83800	89300

Heating

Outdoor air temperature	°FWB								
°FDB	19	23	27	31	35	39	43	51	55
	Capacity								
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
22	50700	50700	-	-	-	-	-	-	-
32	-	-	47000	-	-	-	-	-	-
37	-	-	41200	41200	41200	-	-	-	-
42	-	-	-	-	33800	33800	33800	-	-
52	-	-	-	-	-	26300	26300	26300	-
57	-	-	-	-	-	-	18900	18900	18900

Note:

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 Air discharge temperature setting: 64°F for cooling operation,
 77°F for heating (factory setting).
 Equivalent piping length: 25 ft.
 Level difference: 0 ft.
- The above capacities values are general average values which can be generated by each compressor operation level.
- A value enclosed in means rated capacity.

FXMQ96MFVJU

Cooling

Outdoor air temperature	°FWB							
°FDB	62	66	70	74	78	82	86	90
	Capacity							
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
67	26000	31800						
71	26000	31800	36700					
75	26000	31800	36700	46200				
79		31800	36300	45900				
83			36300	45600	75400			
87			36000	44900	74700	96600		
91			36000	44200	74000	96000	112400	
95				43800	73300	95300	111700	119300

Heating

Outdoor air temperature	°FWB								
°FDB	19	23	27	31	35	39	43	51	55
	Capacity								
	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh	MBh
22	63700	63700							
32			59000						
37			51800	51800	51800				
42					42300	42300	42300		
52						33200	33200	33200	
57							23700	23700	23700



Note:

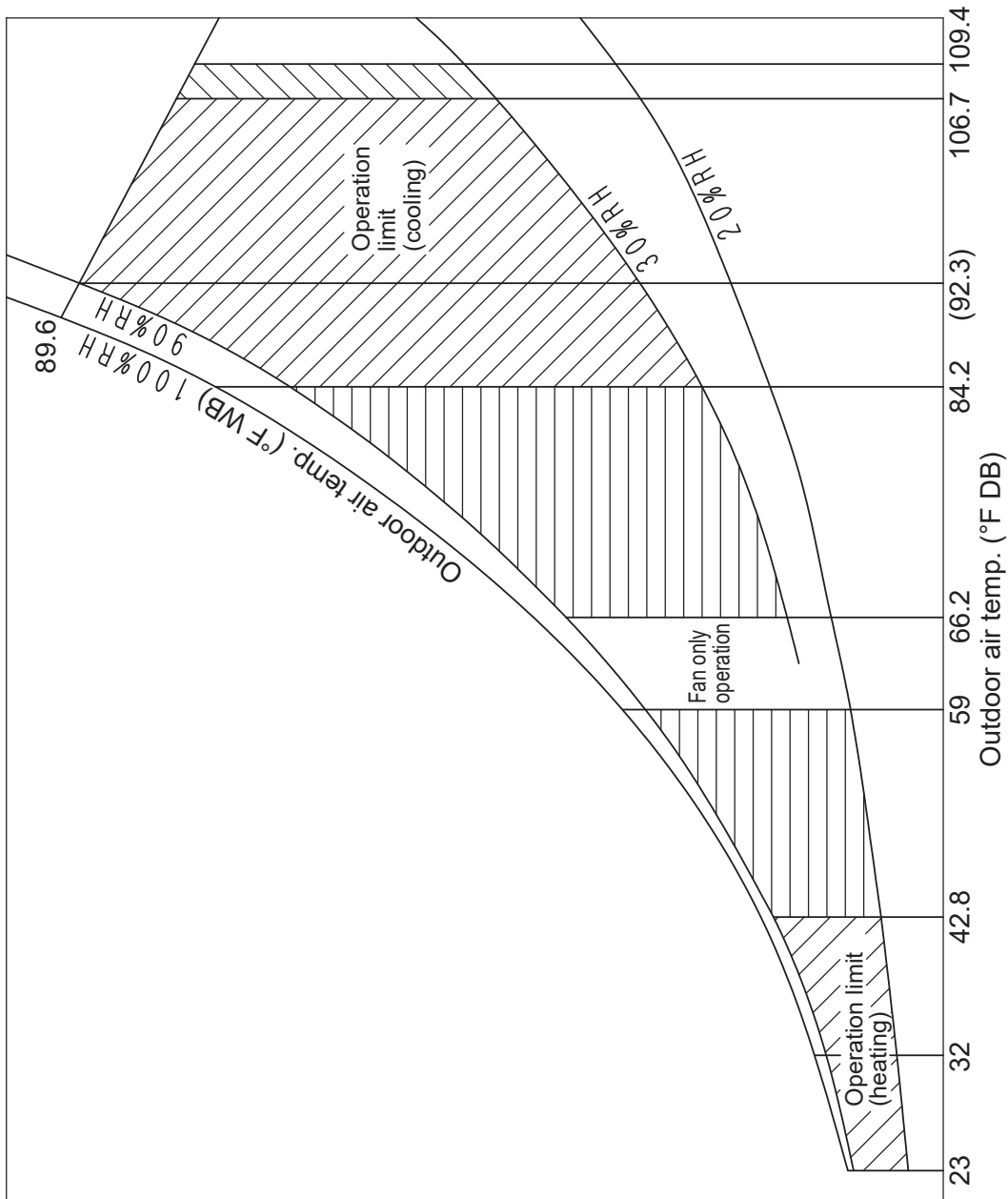
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 Equivalent piping length: 25 ft.
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- A value enclosed in means rated capacity.

9. Operation Limit

FXMQ48MFVJU



NOTE

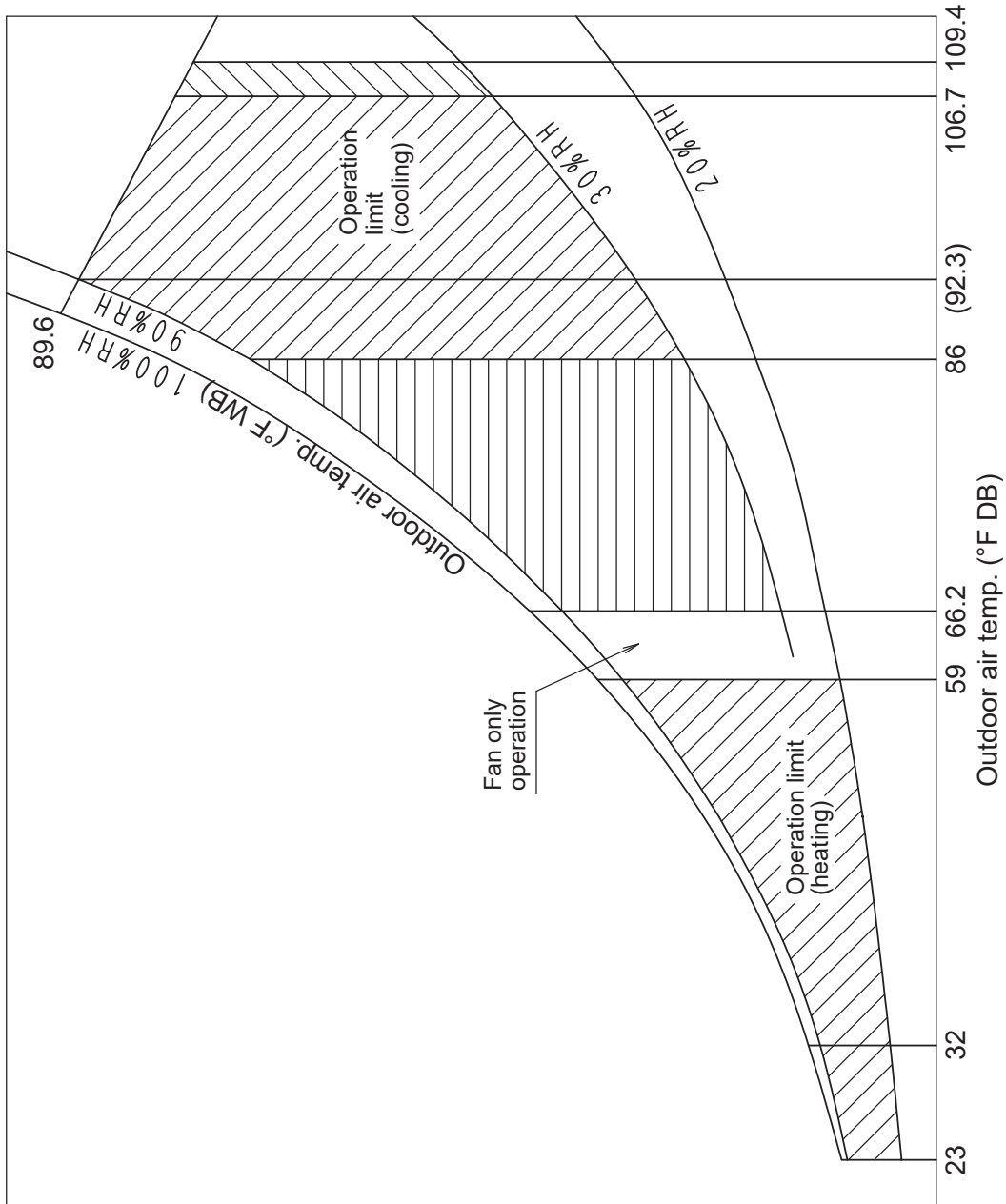
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(Indoor and outdoor units)
Equivalent pipe length: 25 ft.
Level difference: 0 ft.
- 2)  : The discharge air temperature may not match the temperature setting for too large outdoor-air processing capacity. Thermostat OFF may be carried out.
- 3)  : The discharge air temperature may not match the temperature setting for too small outdoor-air processing capacity.
- 4) The system will not operate in fan mode when the outdoor-air temperature is 41°F or below.



FXMQ72MFVJU



NOTE

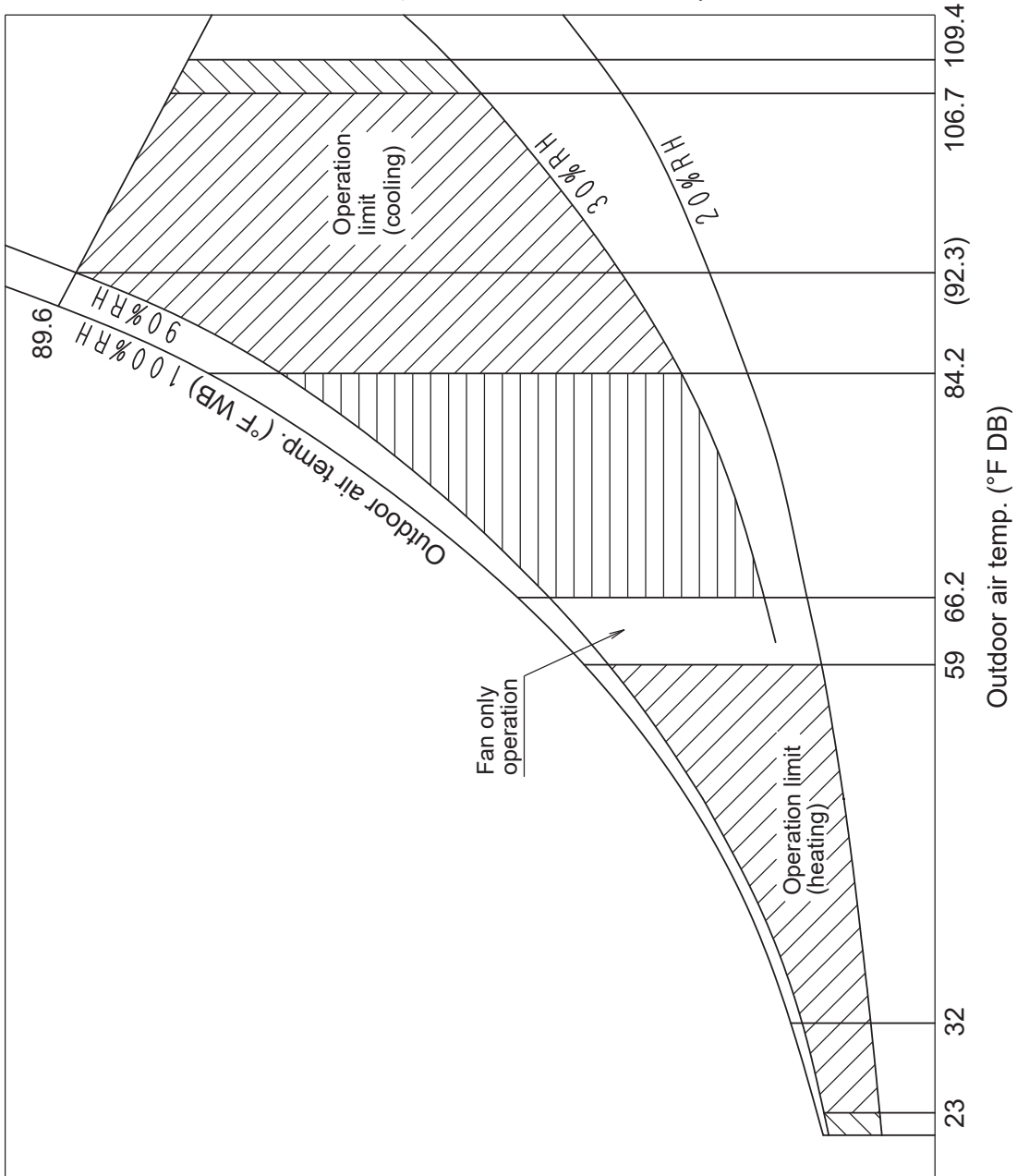
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- 4) The system will not operate in fan mode when the outdoor-air temperature is 41°F or below.



FXMQ96MFVJU

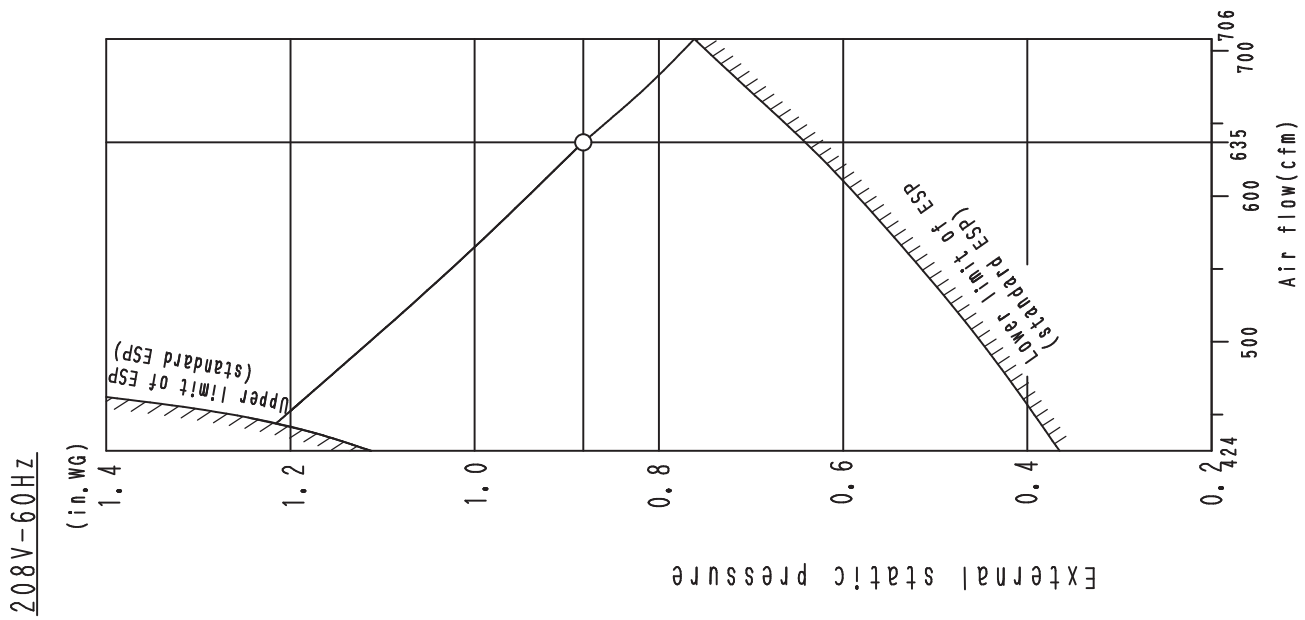
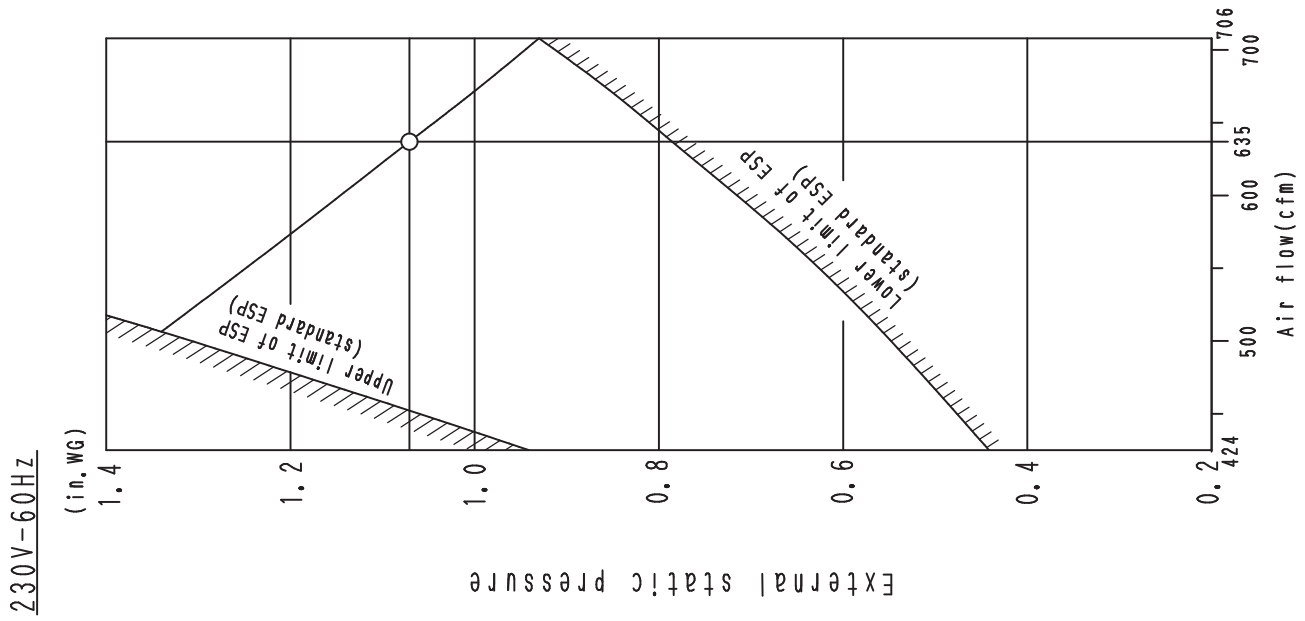
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10.Fan Performances

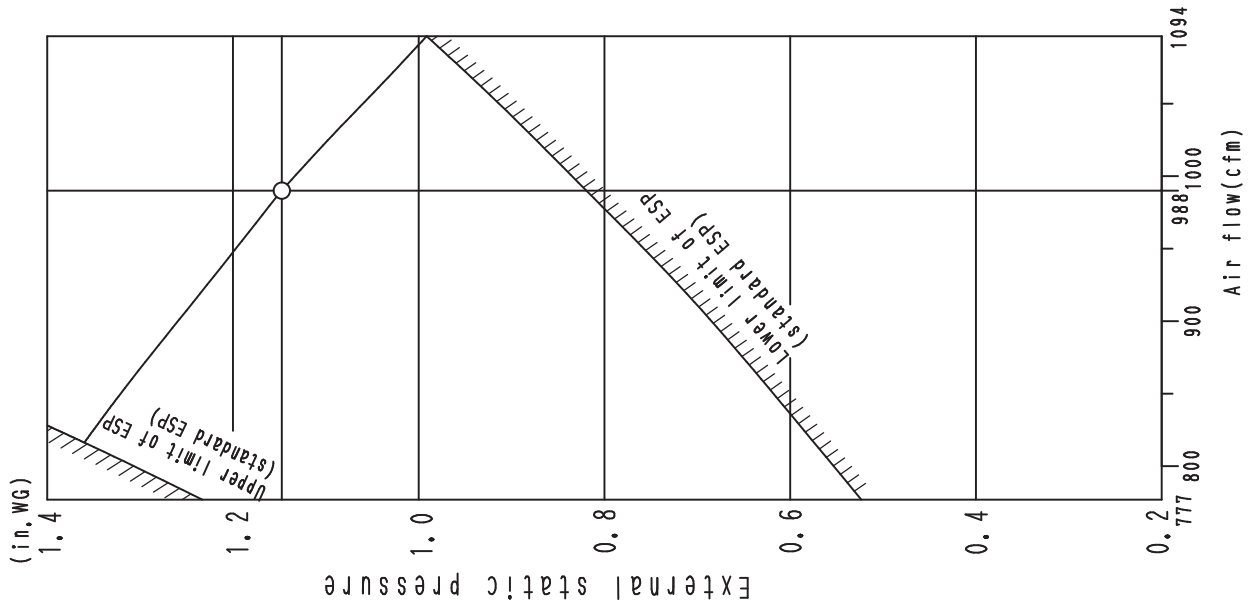
FXMQ48MFVJU



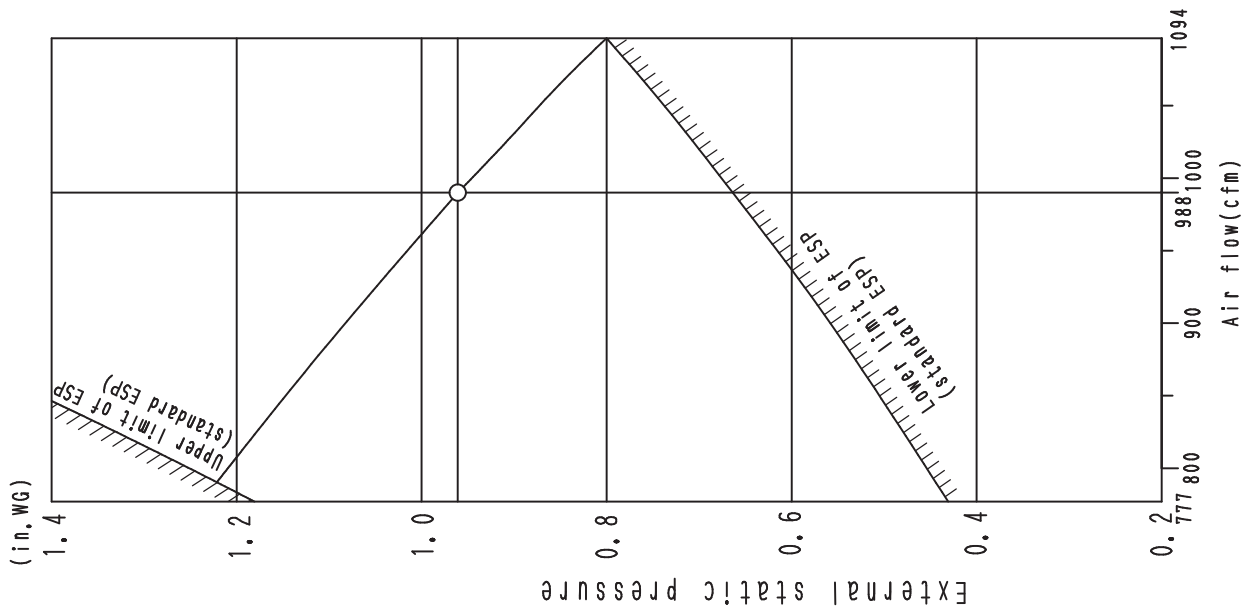
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FXMQ72MFVJU

230V-60Hz



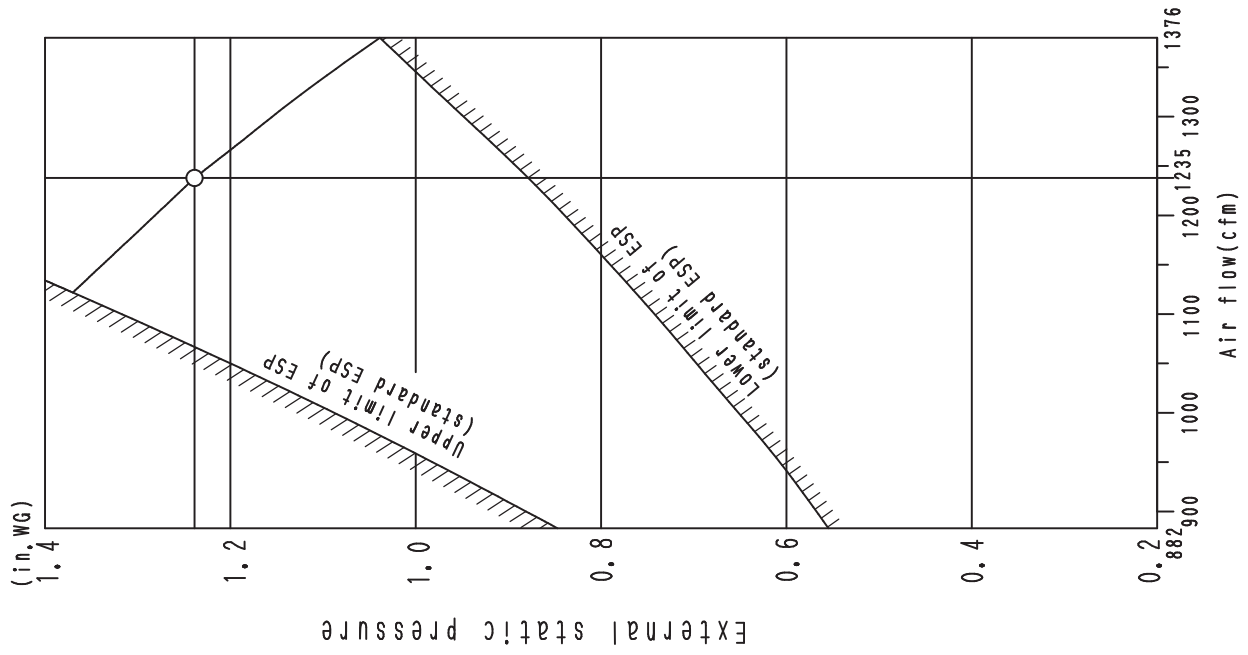
208V-60Hz



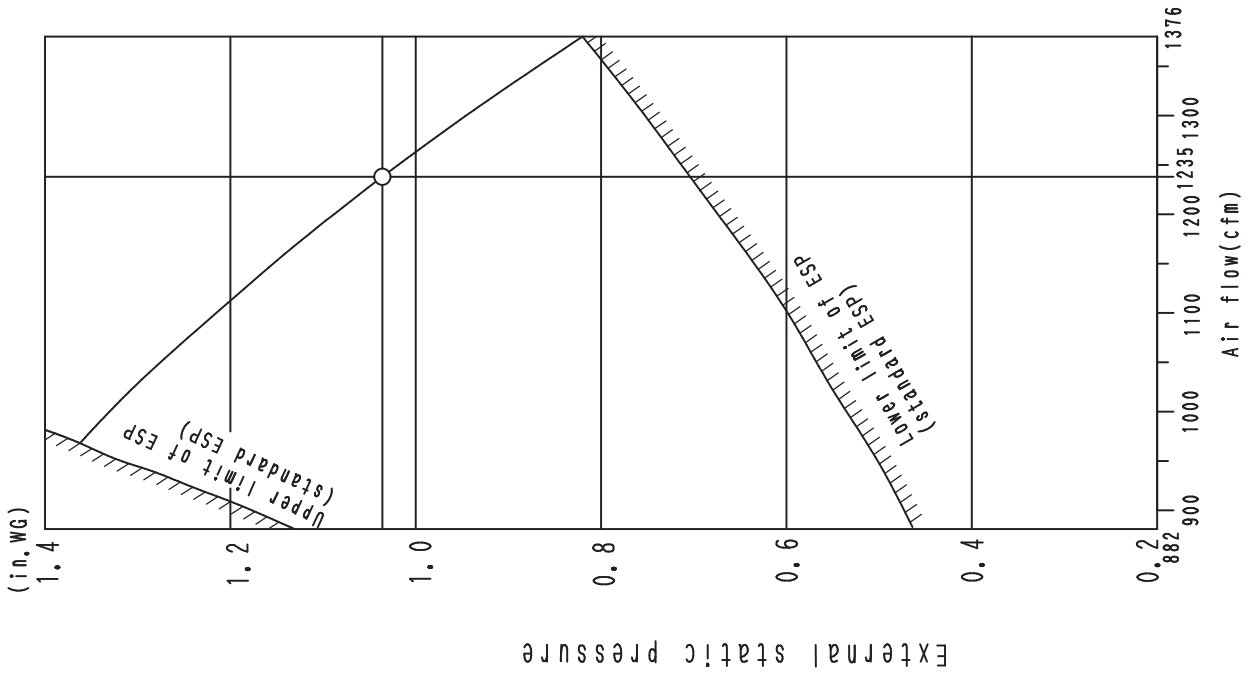
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FXMQ96MFVJU

230V-60Hz



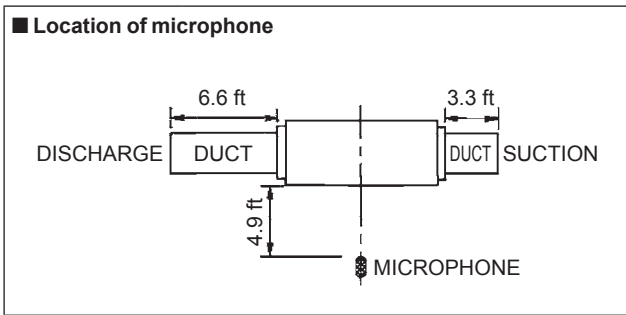
208V-60Hz



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11. Sound Levels (Reference Data)

11.1 Overall



Note:

1. Operation noise differs with operation and ambient conditions.

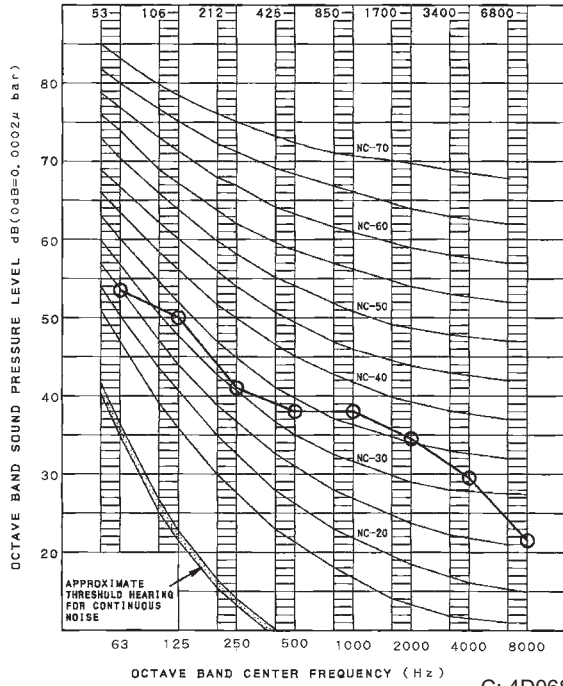
dBA

Model	208/230 V, 60 Hz
FXMQ48MFVJU	43
FXMQ72MFVJU	48
FXMQ96MFVJU	48

11.2 Octave Band Level

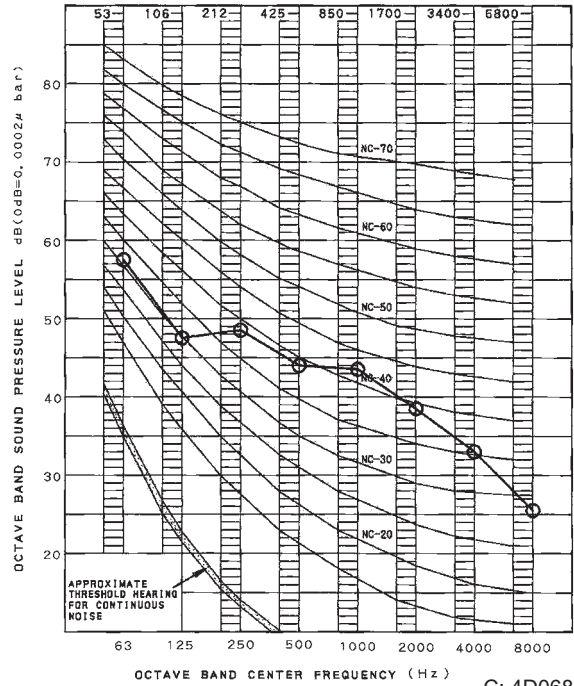
○ — ○ 208/230 V, 60 Hz

FXMQ48MFVJU



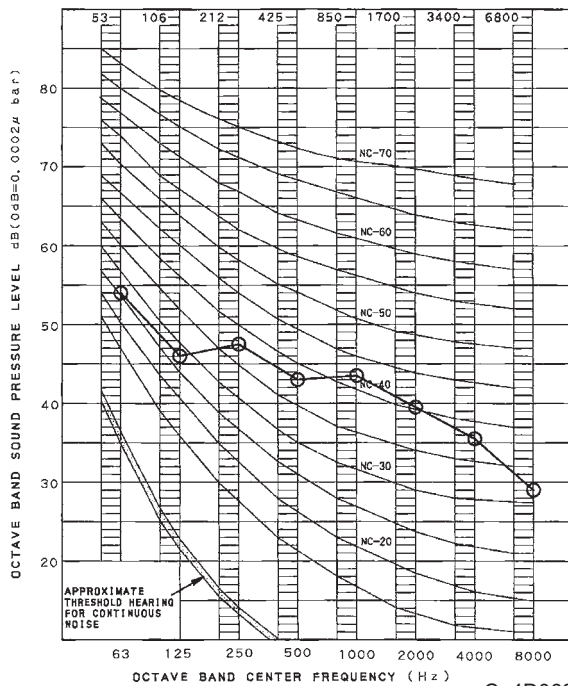
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FXMQ72MFVJU



C: 4D068576

FXMQ96MFVJU



C: 4D068577

12. Accessories

12.1 Optional Accessories (for Unit)

Option		FXMQ48MFVJU	FXMQ72MFVJU	FXMQ96MFVJU
Drain pump kit		KDU30L250VE		
High efficiency filter	65%	KAF372M140	KAF372M280	
	90%	KAF373M140	KAF373M280	
Filter chamber ★1		KDJ3705L140	KDJ3705L280	
Long life replacement filter		KAF371M140	KAF371M280	


C: 3D065445

Note:

★1. Filter chamber has a suction-type flange. (Main unit does not have.)

- Dimensions and weight of the equipment may vary depending on the options used.
- Some options may not be usable due to the equipment installation conditions, so please confirm prior to ordering.
- Some options may not be used in combination.
- Operating sound may increase somewhat depending on the options used.



- Warning**  ● Ask a qualified installer or contractor to install this product. Do not try to install the product yourself. Improper installation can result in water or refrigerant leakage, electrical shock, fire or explosion.
- Use only those parts and accessories supplied or specified by Daikin. Ask a qualified installer or contractor to install those parts and accessories. Use of unauthorised parts and accessories or improper installation of parts and accessories can result in water or refrigerant leakage, electrical shock, fire or explosion.
 - Read the user's manual carefully before using this product. The user's manual provides important safety instructions and warnings. Be sure to follow these instructions and warnings.

If you have any inquiries, please contact your local importer, distributor and/or retailer.

Cautions on product corrosion

1. Air conditioners should not be installed in areas where corrosive gases, such as acid gas or alkaline gas, are produced.
2. If the outdoor unit is to be installed close to the sea shore, direct exposure to the sea breeze should be avoided. If you need to install the outdoor unit close to the sea shore, contact your local distributor.