

Engineering Data

Ceiling Suspended Type

FXHQ-MVJU

60 Hz

R-410A



Table of Contents

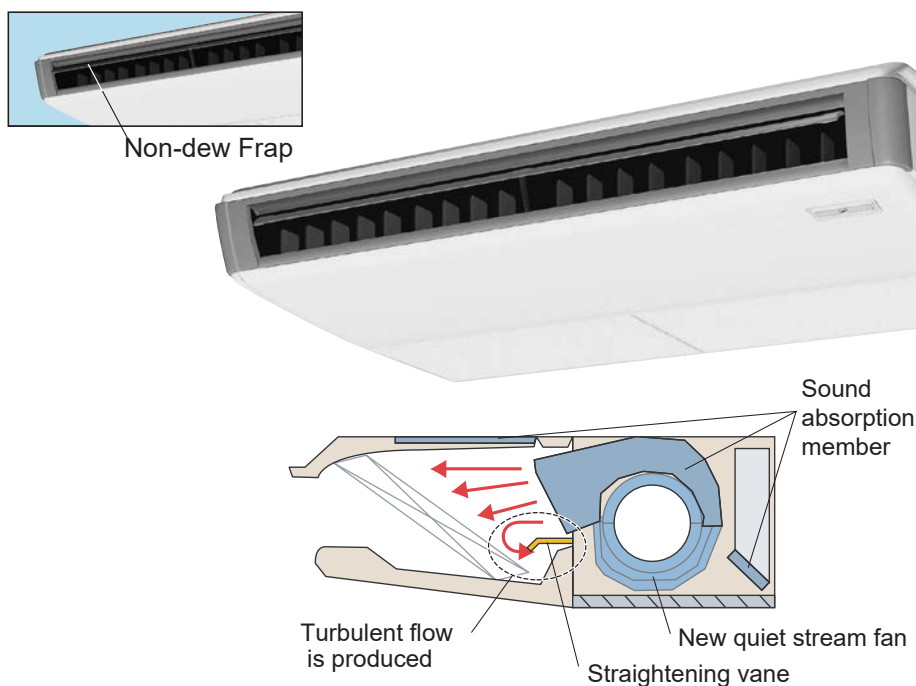
1. Features and Benefits	2
2. Specifications	3
3. Dimensions.....	5
4. Piping Diagrams	8
5. Wiring Diagrams	9
6. Electric Characteristics.....	11
7. Safety Device Setting	12
8. Capacity Tables.....	13
8.1 Cooling Capacity at Te: 43°F (6°C).....	13
8.2 Heating Capacity.....	13
8.3 Correction Factor for Cooling Capacity at Te: 48°F (9°C).....	13
9. Air Velocity and Temperature Distributions (Reference Data)	14
9.1 Cooling Mode	14
9.2 Heating Mode.....	17
10. Sound Levels (Reference Data)	20
10.1 Overall.....	20
10.2 Octave Band Level.....	21
11. Accessories	22
11.1 Optional Accessories (for Unit)	22

1. Features and Benefits

Slim, Efficient, Quiet, Easy to Maintain

With its slim, elegant design, the FXHQ ceiling-suspended unit is a great fit for any light commercial space. Wide air openings provide a comfortable airflow, and an innovative stream fan ensures quiet operation, making it ideal for retail stores, restaurants, classrooms and conference rooms.

- Slim design of less than 8" in height makes it an ideal fits within any interior design
- Wide air discharge outlet distributes a comfortable airflow throughout the space with throw of up to 25 ft.
- Innovative stream fan technology allows for operating sound level as low as 38 dB(A)
- Simple cleaning thanks to the unit's smooth flat louver design and its bristle-free frap that minimizes contamination
- Long-life filter included as standard
- Wide air discharge of 100° for optimal air spread
- Components are accessible from under the unit for ease of maintenance and service
- Models range from 12 MBH to 36 MBH
- Backed by 10 year parts limited warranty



2. Specifications

Ceiling suspended type

Model		FXHQ12MVJU	FXHQ24MVJU
Power supply		1 phase, 60 Hz, 208/230 V	1 phase, 60 Hz, 208/230 V
★1, ★3 Cooling capacity	Btu/h	12,000	24,000
★2, ★3 Heating capacity	Btu/h	13,500	27,000
Casing / Color		White (10Y9/0.5)	White (10Y9/0.5)
Dimensions: (H × W × D)		in. 7-11/16 × 37-13/16 × 26-3/4	7-11/16 × 55-1/8 × 26-3/4
Coil (cross fin coil)	Rows × Stages × FPI	2 × 12 × 15	3 × 12 × 15
	Face area	ft ² 1.96	3.15
Fan	Model	3D12K1AA1	3D12K2AA1
	Type	Sirocco fan	Sirocco fan
	Motor output	W 62	130
	Airflow rate (H/L)	cfm 410/340	710/600
	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 wool	Glass wool
Air filter		Resin net (with mold resistant)	Resin net (with mold resistant)
★4 Sound pressure level (reference data) (H/L)	dBA	42/38	44/42
Weight	lbs	55	80
Piping connections	Liquid pipes	in. ϕ 1/4 (flare connection)	ϕ 3/8 (flare connection)
	Gas pipes	in. ϕ 1/2 (flare connection)	ϕ 5/8 (flare connection)
	Drain pipe	in. VP20 (external dia. 1, internal dia. 3/4)	VP20 (external dia. 1, internal dia. 3/4)
Safety devices		Fuse, Thermal protector for fan motor	Fuse, Thermal protector for fan motor
Refrigerant control		Electronic expansion valve	Electronic expansion valve
Connectable outdoor unit		R410A VRV series	R410A VRV series
Standard accessories		Operation manual, Installation manual, Drain hose, Paper pattern for installation, Clamp metal, Insulation for fitting, Clamps, Washers	Operation manual, Installation manual, Drain hose, Paper pattern for installation, Clamp metal, Insulation for fitting, Clamps, Washers

Note:

- ★1. Nominal cooling capacities are based on the following conditions:
Return air temperature: 80°FDB, 67°FWB
Outdoor temperature: 95°FDB
Equivalent refrigerant piping length: 25 ft (horizontal)
- ★2. Nominal heating capacities are based on the following conditions:
Return air temperature: 70°FDB.
Outdoor temperature: 47°FDB, 43°FWB
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. Anechoic chamber conversion value, measured under JIS conditions. During actual operation, these values may be higher as a result of ambient conditions.

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Ceiling suspended type

Model			FXHQ36MVJU
Power supply			1 phase, 60 Hz, 208/230 V
★1, ★3 Cooling capacity	Btu/h		36,000
★2, ★3 Heating capacity	Btu/h		40,000
Casing / Color			White (10Y9/0.5)
Dimensions: (H × W × D)		in.	7-11/16 × 62-5/8 × 26-3/4
Coil (cross fin coil)	Rows × Stages × FPI		2 × 12 × 15 + 2 × 10 × 15
	Face area	ft²	3.66 + 2.95
Fan	Model		—
	Type		Sirocco fan
	Motor output	W	130
	Airflow rate (H/L)	cfm	830/670
	Drive		Direct drive
Temperature control			Microprocessor thermostat for cooling and heating
Sound absorbing thermal insulation material			Glass wool
Air filter			Resin net (with mold resistant)
★4 Sound pressure level (reference data) (H/L)	dBA		46/42
Weight		lbs	90
Piping connections	Liquid pipes	in.	ϕ3/8 (flare connection)
	Gas pipes	in.	ϕ5/8 (flare connection)
	Drain pipe	in.	VP20 (external dia. 1, internal dia. 3/4)
Safety devices			Fuse, Thermal protector for fan motor
Refrigerant control			Electronic expansion valve
Connectable outdoor unit			R410A VRV series
Standard accessories			Operation manual, Installation manual, Drain hose, Paper pattern for installation, Clamp metal, Insulation for fitting, Clamps, Washers

Note:

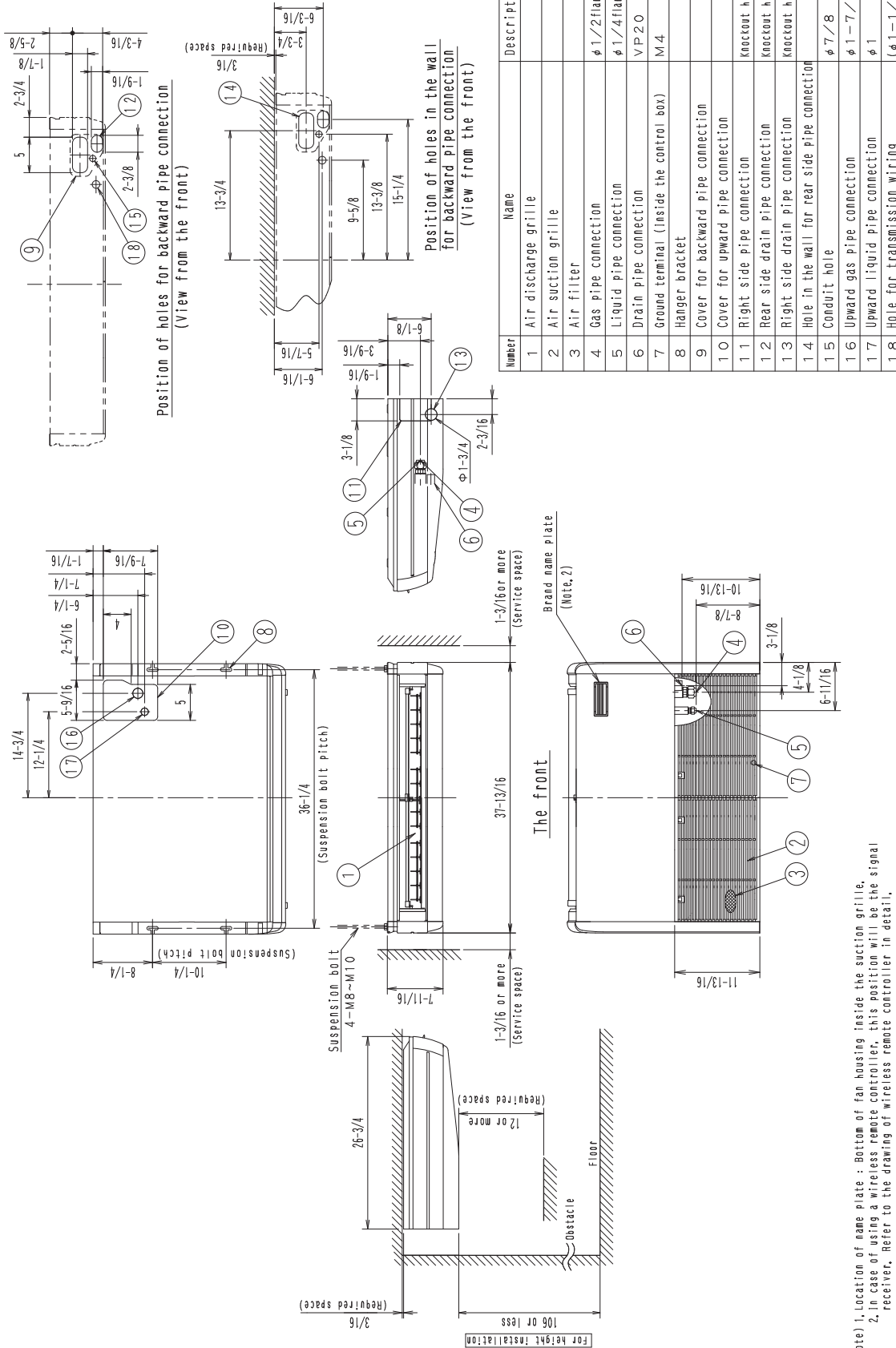
- ★1. Nominal cooling capacities are based on the following conditions:
 Return air temperature: 80°FDB, 67°FWB
 Outdoor temperature: 95°FDB
 Equivalent refrigerant piping length: 25 ft (horizontal)
- ★2. Nominal heating capacities are based on the following conditions:
 Return air temperature: 70°FDB.
 Outdoor temperature: 47°FDB, 43°FWB
 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. Anechoic chamber conversion value, measured under JIS conditions. During actual operation, these values may be higher as a result of ambient conditions.

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3. Dimensions

FXHQ12MVJU

Unit: in.

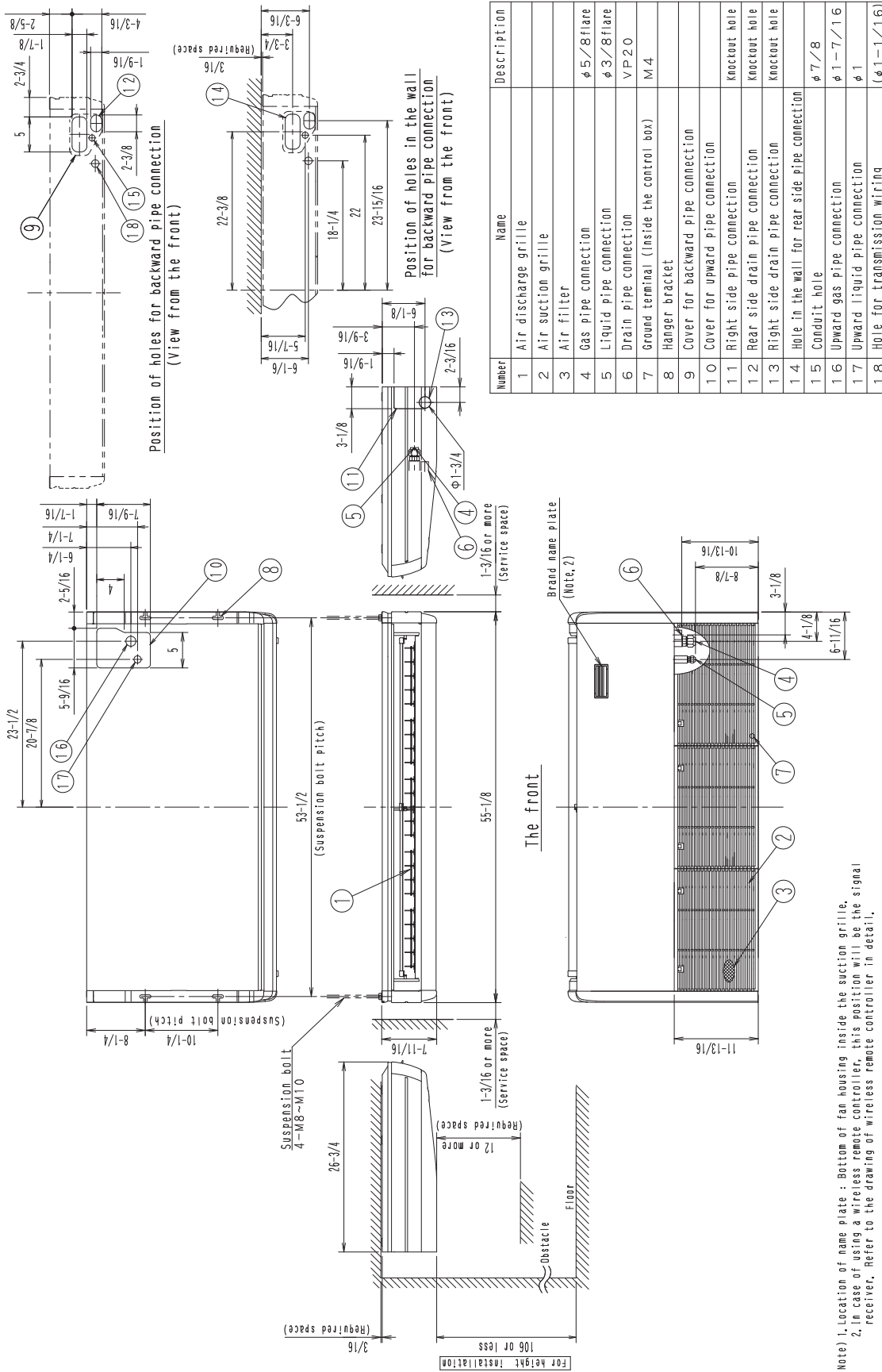


Note 1. Location of name plate : Bottom of fan housing inside the suction grille.
 2. In case of using a wireless remote controller, this position will be the signal receiver. Refer to the drawing of wireless remote controller in detail.

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FXHQ24MVJU

Unit: in.



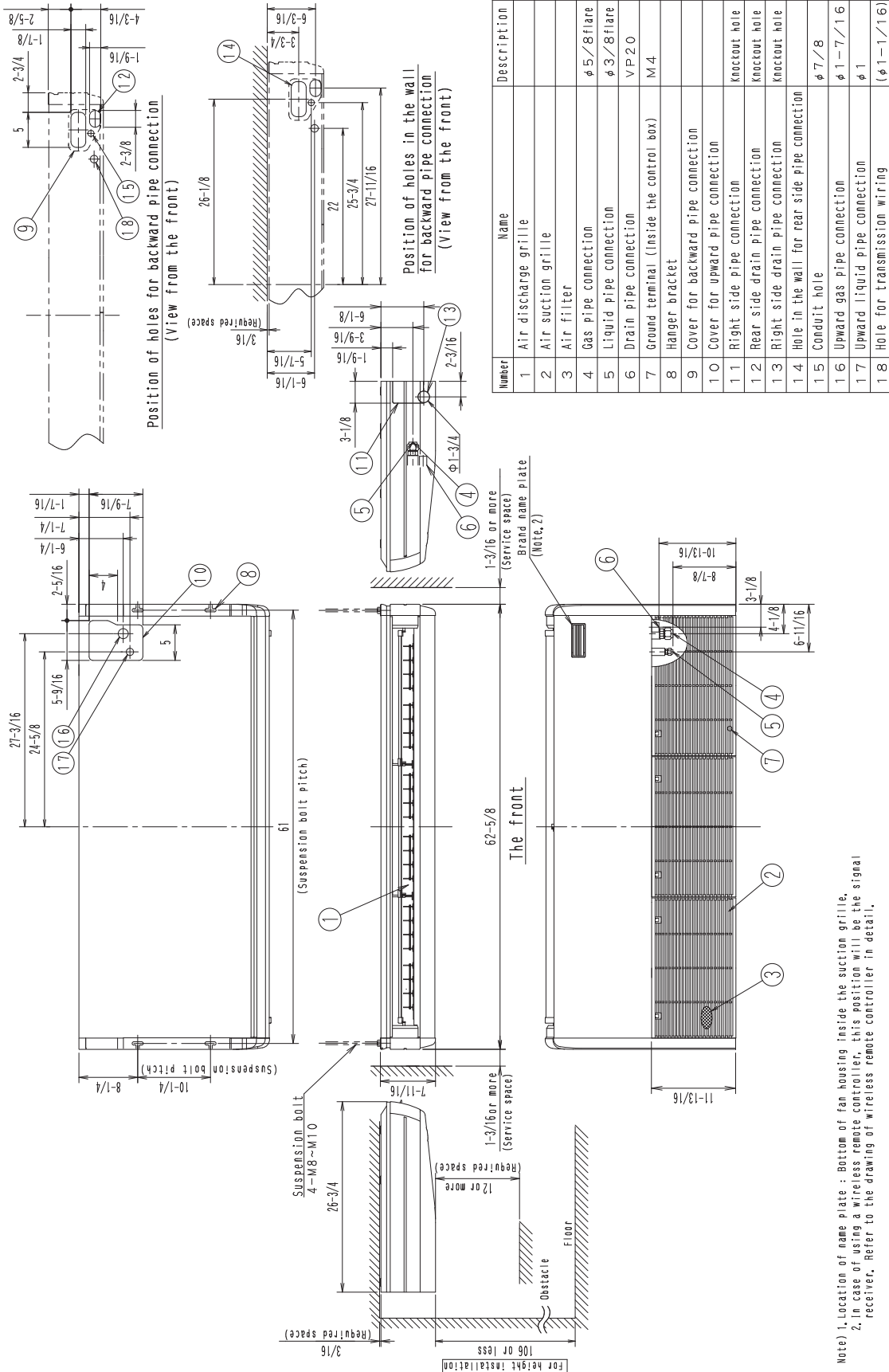
Number	Name	Description
1	Air discharge grille	
2	Air suction grille	
3	Air filter	
4	Gas pipe connection	φ5/8 flare
5	Liquid pipe connection	φ3/8 flare
6	Drain pipe connection	VP20
7	Ground terminal (inside the control box)	M4
8	Hanger bracket	
9	Cover for backward pipe connection	
10	Cover for upward pipe connection	
11	Right side pipe connection	Knockout hole
12	Rear side drain pipe connection	Knockout hole
13	Right side drain pipe connection	Knockout hole
14	Hole in the wall for rear side pipe connection	
15	Conduit hole	φ7/8
16	Upward gas pipe connection	φ1-7/16
17	Upward liquid pipe connection	φ1
18	Hole for transmission wiring	(φ1-1/16)

Note) 1. Location of name plate : Bottom of fan housing inside the suction grille.
 2. In case of using a wireless remote controller, this position will be the signal receiver. Refer to the drawing of wireless remote controller in detail.

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FXHQ36MVJU

Unit: in.

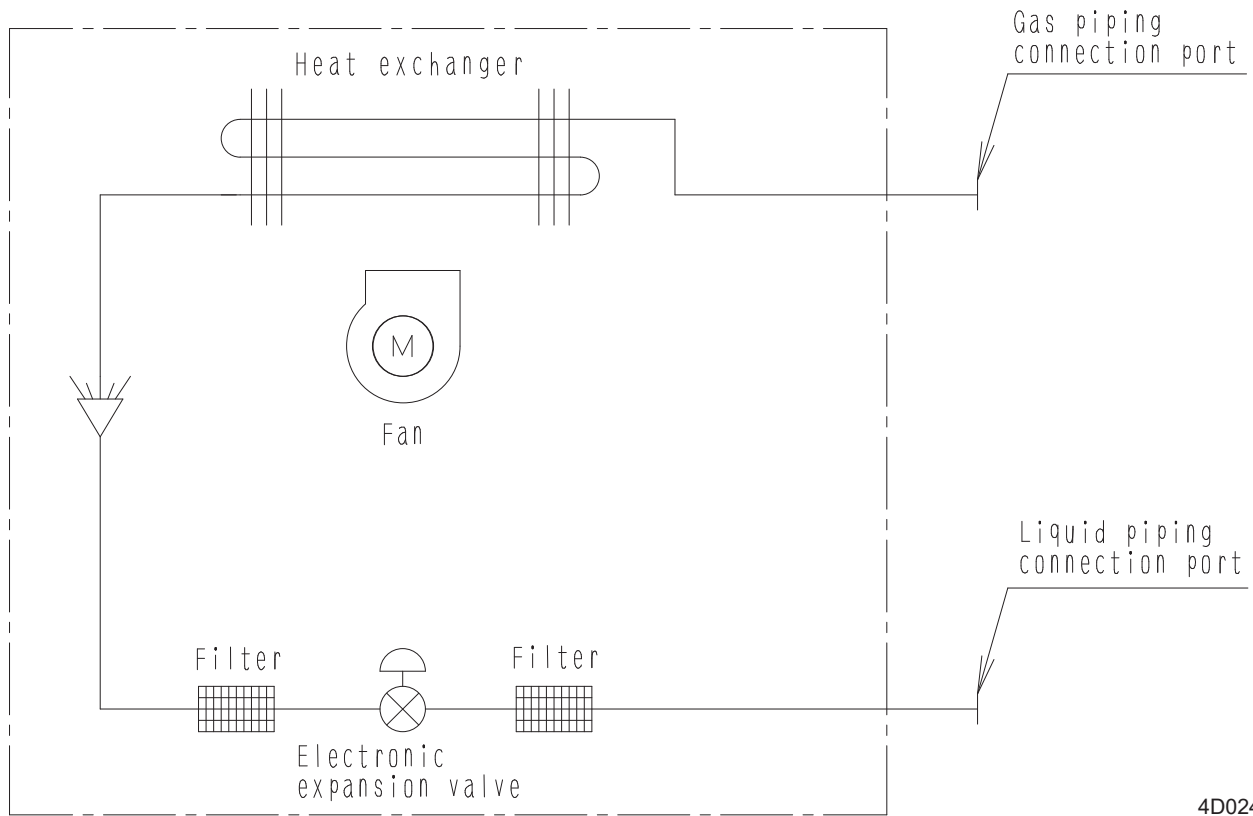


Note) 1. Location of name plate : Bottom of fan housing inside the suction grille.
 2. In case of using a wireless remote controller, this position will be the signal receiver. Refer to the drawing of wireless remote controller in detail.

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4. Piping Diagrams

FXHQ12-36MVJU



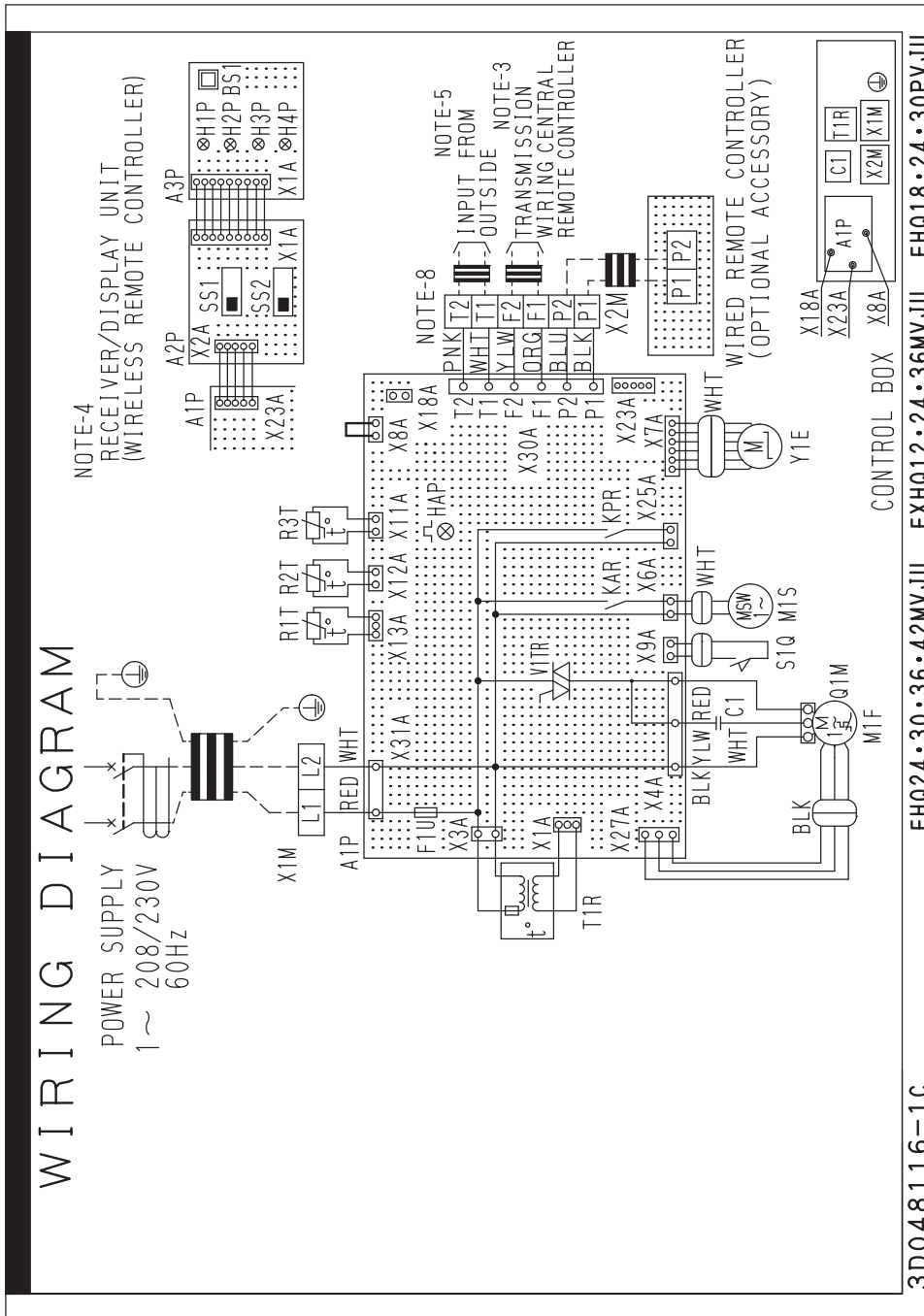
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Unit: in.

Model	Gas	Liquid
FXHQ12MVJU	ϕ1/2	ϕ1/4
FXHQ24-36MVJU	ϕ5/8	ϕ3/8

5. Wiring Diagrams

FXHQ12-36MVJU



NOTES)

1. : TERMINAL BLOCK : FIELD WIRING
2. : SHORT CIRCUIT CONNECTOR
3. IN CASE USING CENTRAL REMOTE CONTROLLER, CONNECT IT TO THE UNIT IN ACCORDANCE WITH THE ATTACHED INSTRUCTION MANUAL.
4. X23A IS CONNECTED WHEN THE WIRELESS REMOTE CONTROLLER KIT IS BEING USED.
5. WHEN 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 THE UNIT.
6. SYMBOLS SHOW AS FOLLOWS.
(BLU: BLUE BLK: BLACK ORG: ORANGE PNK: PINK RED: RED WHT: WHITE YLW: YELLOW)
7. USE COPPER CONDUCTORS ONLY.
8. CLASS 2 WIRE

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FXHQ12-36MVJU

ELECTRICAL COMPONENTS AND WIRING CONNECTORS FOR INDOOR UNIT	
A1P	PRINTED CIRCUIT BOARD
C1	CAPACITOR (M1F)
F1U	FUSE (Ⓟ 5 A, 250 V)
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)
KAR	MAGNETIC RELAY (M1S)
KPR	MAGNETIC RELAY
M1F	MOTOR (INDOOR FAN)
M1S	MOTOR (SWING FLAP)
Q1M	THERMO SWITCH (M1F EMBEDDED)
R1T	THERMISTOR (AIR)
R2T	THERMISTOR (COIL LIQUID)
R3T	THERMISTOR (COIL GAS)
S1Q	LIMIT SWITCH (SWING FLAP)
T1R	TRANSFORMER (208-230 V / 25 V)
V1TR	TRIAC
X1M	TERMINAL BLOCK (POWER)
X2M	TERMINAL BLOCK (CONTROL)
Y1E	ELECTRONIC EXPANSION VALVE
RECEIVER / DISPLAY UNIT (ATTACHED TO WIRELESS REMOTE CONTROLLER)	
A2P	PRINTED CIRCUIT BOARD
A3P	PRINTED CIRCUIT BOARD
BS1	PUSH BUTTON (ON/OFF)
H1P	LIGHT EMITTING DIODE (ON-RED)
H2P	LIGHT EMITTING DIODE (TIMER-GREEN)
H3P	LIGHT EMITTING DIODE (FILTER SIGN-RED)
H4P	LIGHT EMITTING DIODE (DEFROST-ORANGE)
SS1	SELECTOR SWITCH (MAIN/SUB)
SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
CONNECTOR FOR OPTIONAL PARTS	
X18A	CONNECTOR (WIRING ADAPTOR FOR ELECTRICAL APPENDICES)
X23A	CONNECTOR (WIRELESS REMOTE CONTROLLER)

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6. Electric Characteristics

FXHQ12-36MVJU

Model	Power supply					IFM		Input (W)		SCCR
	Hz	Volts	Voltage range	MCA	MOP	KW	FLA	Cooling	Heating	
FXHQ12MVJU	60	208/230 V	Max. 253 V Min. 187 V	0.8	15	0.062	0.6	90	90	SCCR kA rms, Symmetrical @600 V MAX: 5
FXHQ24MVJU				1.0	15	0.130	0.8	127	127	
FXHQ36MVJU				1.4	15	0.130	1.1	161	161	

Symbol:

- MCA: Minimum Circuit Ampacity (A)
- MOP: Maximum Overcurrent Protective Device (A)
- KW: Fan Motor Rated Output (kW)
- FLA: Full Load Ampacity (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. Minimum 15 A)
4. Select wire size based on the value of MCA.
5. Either a fuse or a circuit breaker is acceptable.

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7. Safety Device Setting

Model		FXHQ12MVJU	FXHQ24MVJU	FXHQ36MVJU
Printed circuit board fuse		250 V, 5 A	250 V, 5 A	250 V, 5 A
Fan motor thermal fuse	°F	–	–	–
Fan motor thermal protector	°F	OFF: 266±9 ON: 176±36	OFF: 266±9 ON: 176±36	OFF: 266±9 ON: 176±36

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8. Capacity Tables

8.1 Cooling Capacity at Te: 43°F (6°C)

Model	Indoor air temp. °FWB (°CWB) (Te: 43°F (6°C))											
	61 (16.1)		64 (17.8)		67 (19.4)		70 (21.1)		72 (22.2)		75 (23.9)	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH
FXHQ12MVJU	9.5	8.5	10.7	8.8	12.0	9.4	12.7	9.4	12.9	9.3	13.1	8.9
FXHQ24MVJU	18.9	15.3	21.5	16.6	24.0	17.1	25.5	17.4	25.8	17.1	26.3	16.2
FXHQ36MVJU	28.4	21.8	32.2	23.9	36.0	25.1	38.2	25.3	38.7	24.6	39.4	23.7

TC: Total capacity: MBH
 SHC: Sensible heat capacity: MBH

Note:

- These capacity tables can be used when selecting a **VRV** indoor unit. The actual capacity of the **VRV** system depends on factors such as the selected model of outdoor units, outdoor air temperature and piping length. Please confirm that the corrected capacity of the **VRV** system satisfies the required heat load.
- ☐ shows rated condition.

8.2 Heating Capacity

Model	Indoor air temp. °FDB (°CDB) (Tc: 115°F (46°C))											
	62 (16.7)		65 (18.3)		68 (20.0)		70 (21.1)		72 (22.2)		75 (23.9)	
	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC	TC	
	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	
FXHQ12MVJU	14.9	14.7	14.0	13.5	13.0	12.3						
FXHQ24MVJU	29.7	29.5	28.0	27.0	26.0	24.5						
FXHQ36MVJU	44.6	44.2	42.0	40.0	39.0	36.8						

TC: Total capacity: MBH

Note:

- These capacity tables can be used when selecting a **VRV** indoor unit. The actual capacity of the **VRV** system depends on factors such as the selected model of outdoor units, outdoor air temperature and piping length. Please confirm that the corrected capacity of the **VRV** system satisfies the required heat load.
- ☐ shows rated condition.

8.3 Correction Factor for Cooling Capacity at Te: 48°F (9°C)

Refer to the correction factor table below when a mini-split indoor unit is connected to a **VRV** Heat Pump system using a Branch Port box.

Model	Indoor air temp. °FWB (°CWB) (Te: 48°F (9°C))													
	57 (13.9)		61 (16.1)		64 (17.8)		67 (19.4)		70 (21.1)		72 (22.2)		75 (23.9)	
	TC	SHF	TC	SHF	TC	SHF	TC	SHF	TC	SHF	TC	SHF	TC	SHF
FXHQ12MVJU	0.71	1.09	0.69	1.18	0.74	1.13	0.78	1.09	0.81	1.07	0.82	1.05	0.84	1.04
FXHQ24MVJU	0.69	1.12	0.70	1.17	0.74	1.13	0.78	1.09	0.81	1.07	0.82	1.06	0.84	1.06
FXHQ36MVJU	0.69	1.12	0.70	1.17	0.75	1.12	0.79	1.08	0.82	1.06	0.83	1.06	0.85	1.06

TC: Total capacity
 SHF: Sensible heat factor

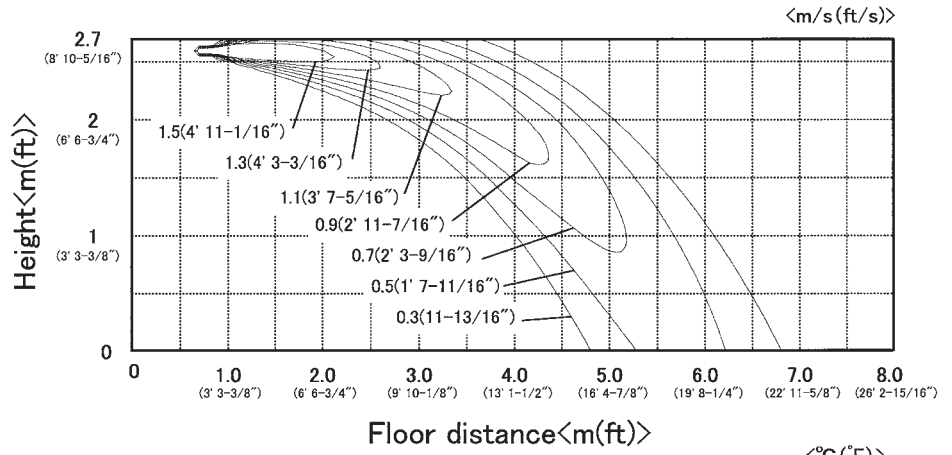
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9. Air Velocity and Temperature Distributions (Reference Data)

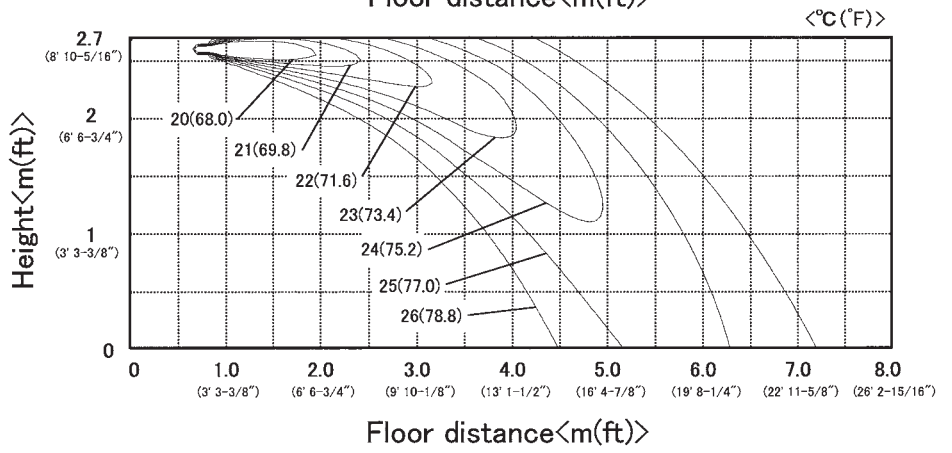
9.1 Cooling Mode

FXHQ12MVJU <Cooling mode>

AIRFLOW DISTRIBUTIONS



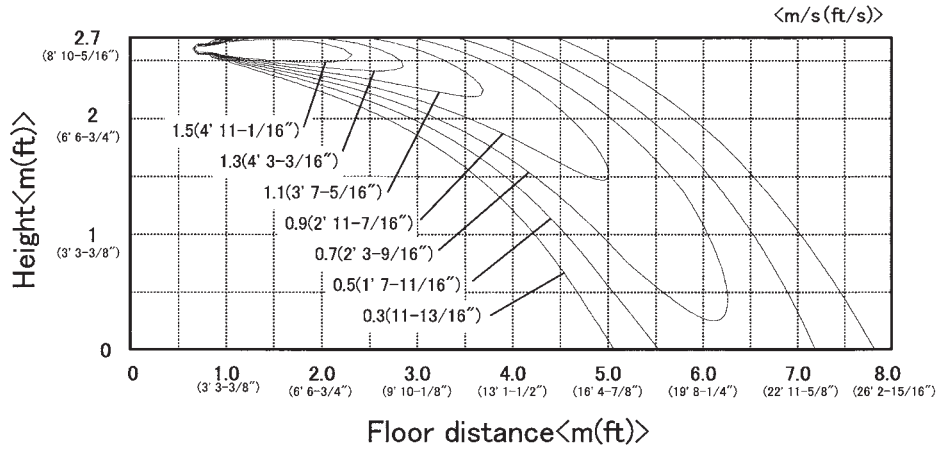
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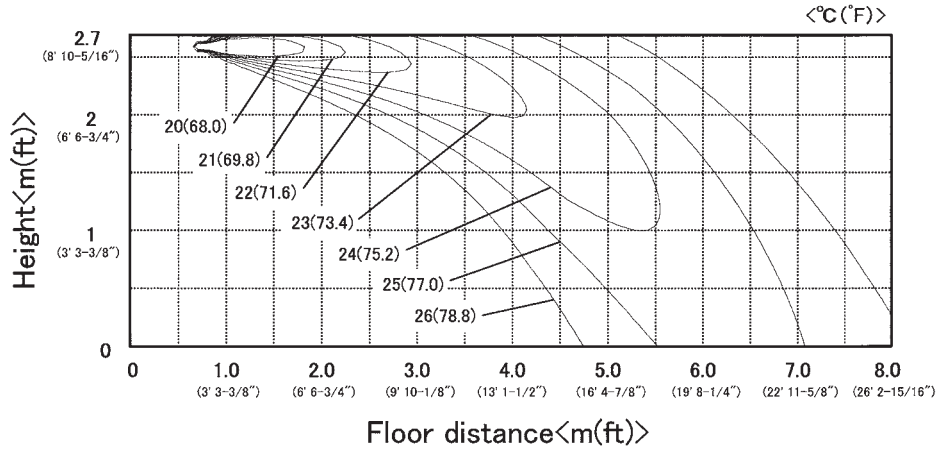
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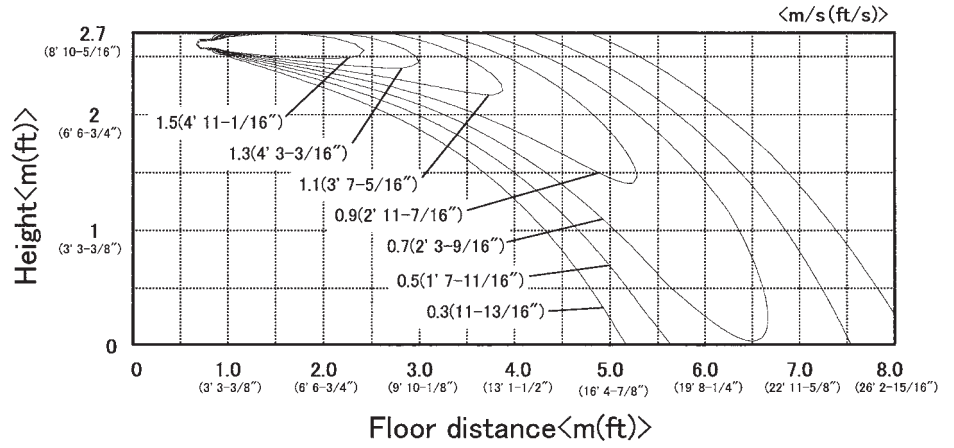
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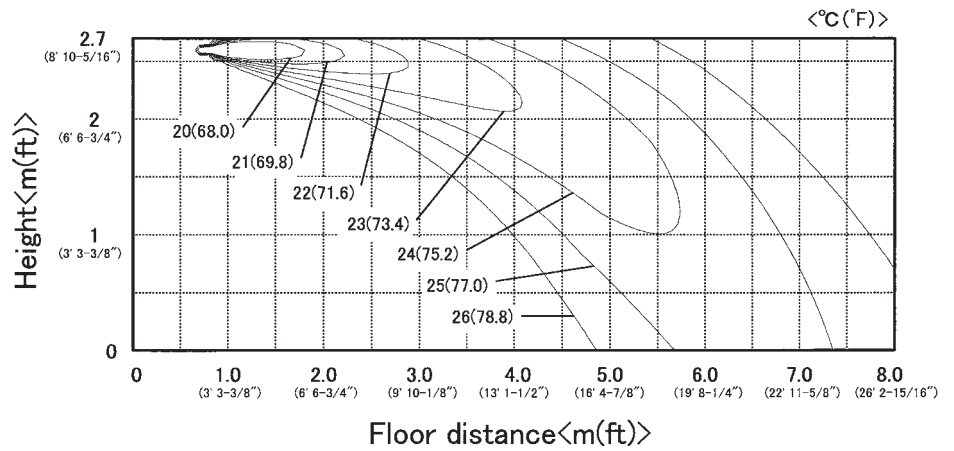
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FXHQ36MVJU <Cooling mode>

AIRFLOW DISTRIBUTIONS



TEMPERATURE DISTRIBUTIONS

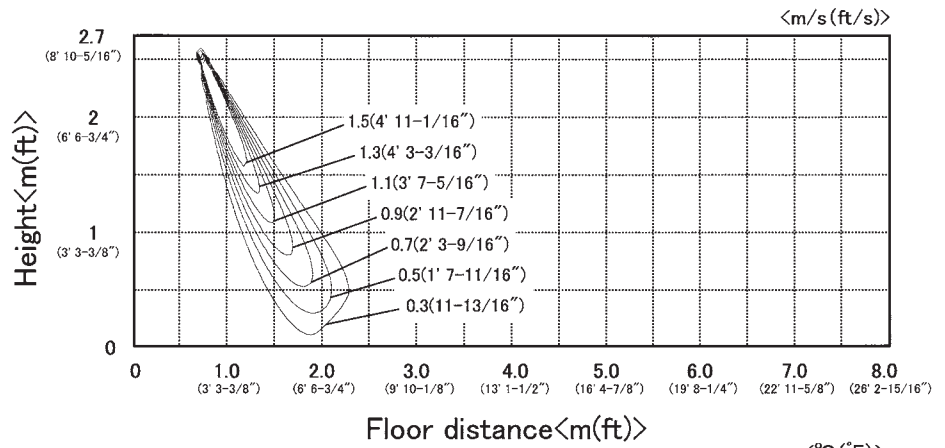


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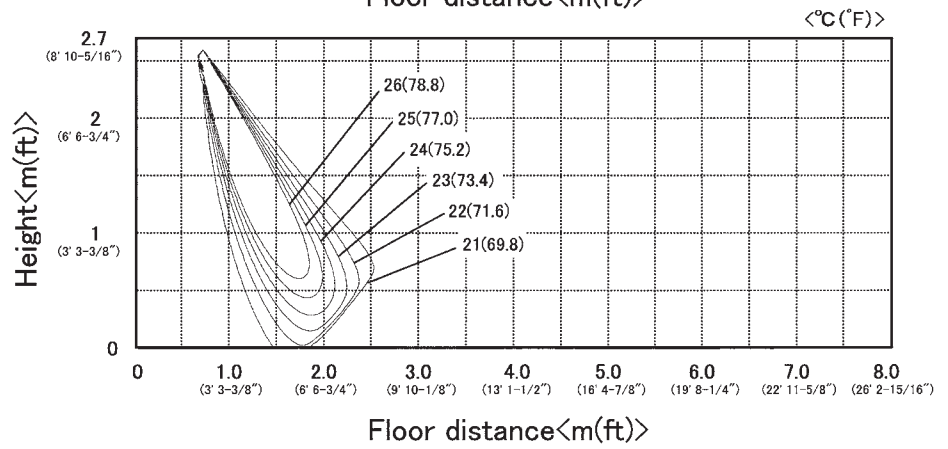
9.2 Heating Mode

FXHQ12MVJU <Heating mode>

AIRFLOW DISTRIBUTIONS



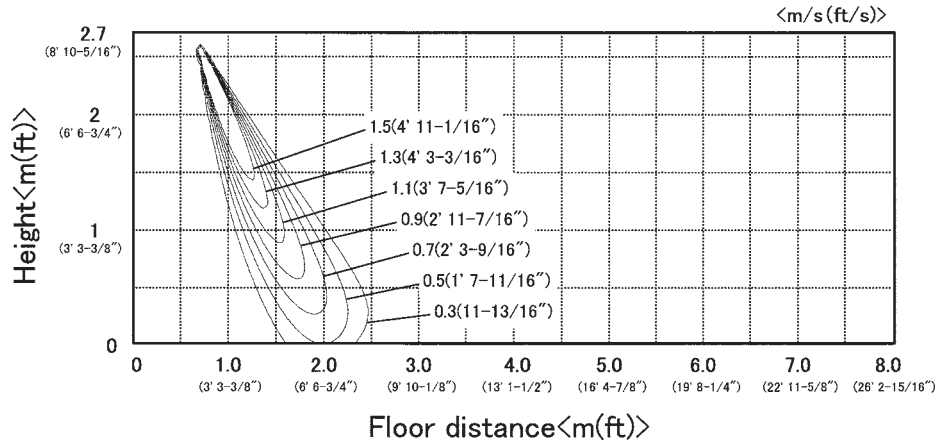
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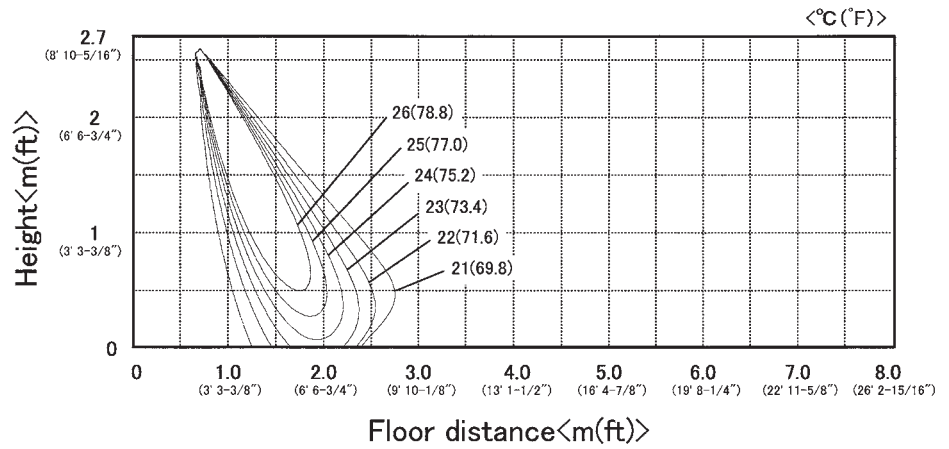
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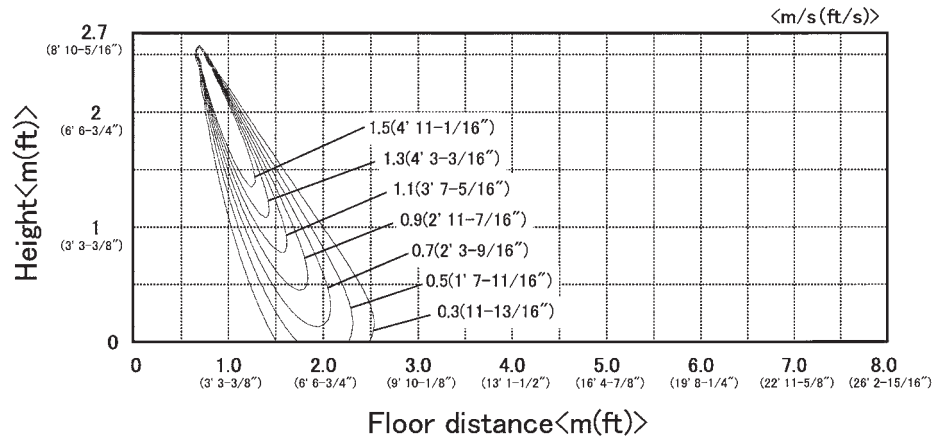
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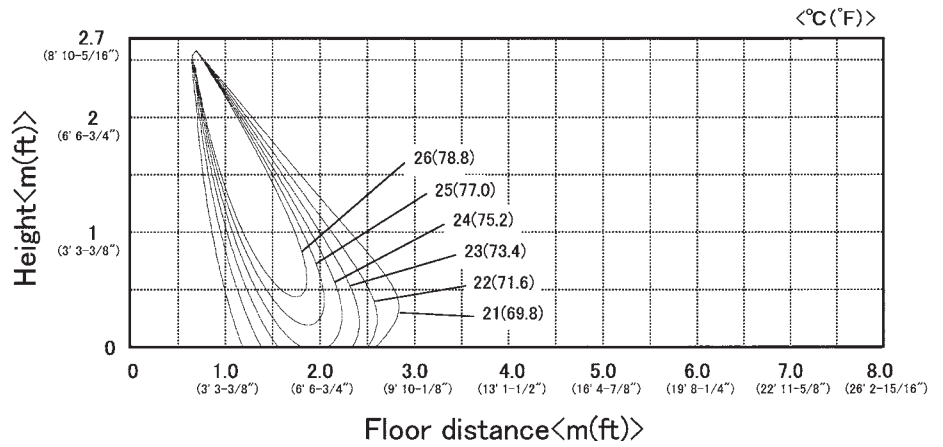
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FXHQ36MVJU <Heating mode>

AIRFLOW DISTRIBUTIONS



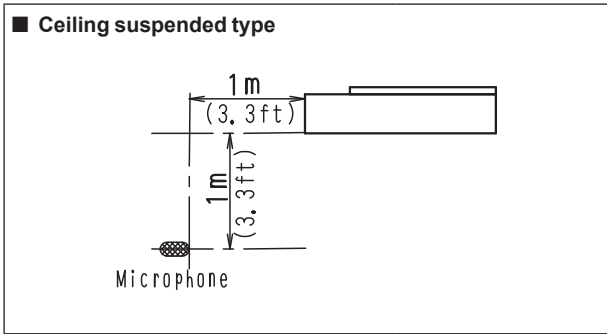
TEMPERATURE DISTRIBUTIONS



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10.Sound Levels (Reference Data)

10.1 Overall



Note:

Operation noise differs with operation and ambient conditions.

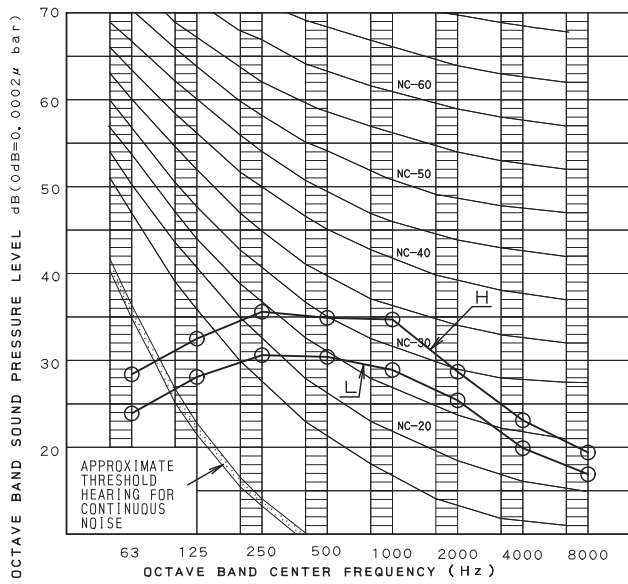
dBA

Model	208/230 V, 60 Hz	
	H	L
FXHQ12MVJU	42	38
FXHQ24MVJU	44	42
FXHQ36MVJU	46	42

10.2 Octave Band Level

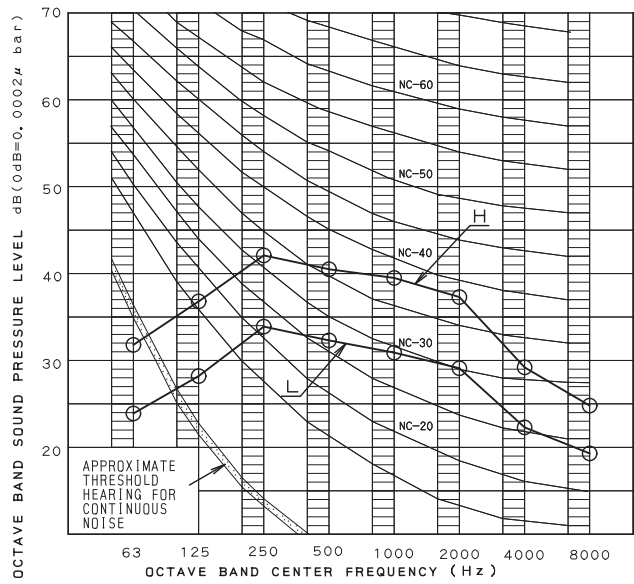
○ — ○ 208/230 V, 60 Hz

FXHQ12MVJU



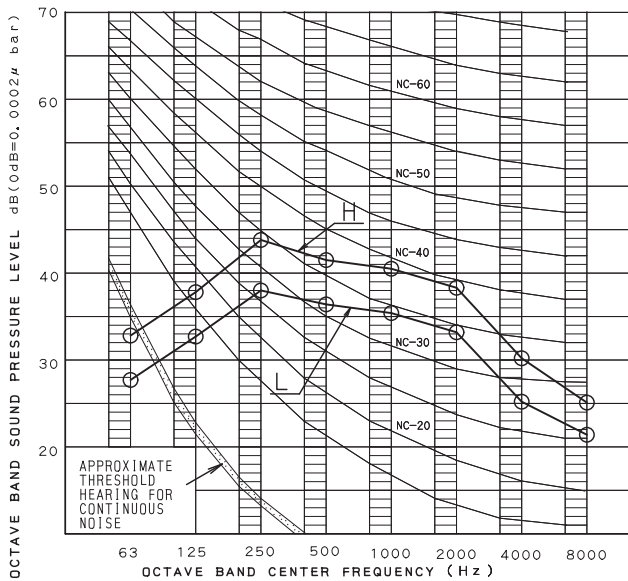
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FXHQ24MVJU



C: 4D052513

FXHQ36MVJU



C: 4D052514


11. Accessories

11.1 Optional Accessories (for Unit)

Option	FXHQ12MVJU	FXHQ24MVJU	FXHQ36MVJU
Replacement long-life filter (resin net)	KAFJ501D56	KAFJ501D112	KAFJ501D160
L-type piping kit (for upward direction)	KHFP5M35	KHFP5M63	KHFP5M160

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- 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.