FXH-L
Ceiling Suspended Type

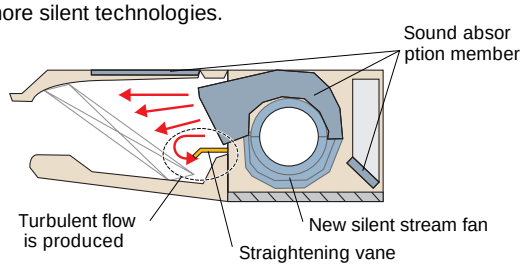
1. Features

FXH32L/FXH63L/FXH100L

Slim body with quieter and wider air flow

●Adoption of newly designed SILENT STREAM FAN

Uses the new silent stream fan and many more silent technologies.



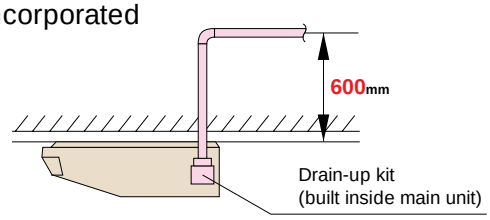
●Low operating sound

(dB(A))

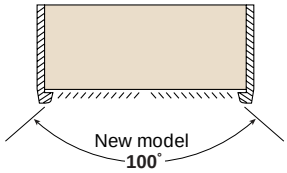
Class	32	63	100
Operating sound (H/L)	36/31	39/34	45/37

●Installation is easy

- Drain-up kit (optional) can be easily incorporated



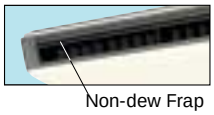
●Wide air discharge openings produce a spreading 100˚ air flow



●Maintenance is easy

- New Non-dew Frap with no implanted

Bristle-free Frap minimizes contamination and makes cleaning simpler.



- Easy to clean flat design
- Maintenance is easier because everything can be performed from below the unit
- A long-life filter (maintenance free up to one year) is equipped as standard

2. Specifications

Ceiling Suspended Type

Model			FXH32LVE	FXH63LVE	FXH100LVE
★1 Cooling Capacity (19.5°CWB)		kcal/h	3,150	6,300	10,000
		Btu/h	12,500	25,000	39,700
		kW	3.7	7.3	11.6
★2 Cooling Capacity (19.0°CWB)		kW	3.6	7.1	11.2
★3 Heating Capacity		kcal/h	3,400	6,900	10,800
		Btu/h	13,600	27,300	42,700
		kW	4.0	8.0	12.5
Casing Color			White (10Y9/0.5)	White (10Y9/0.5)	White (10Y9/0.5)
Dimensions: (H×W×D)		mm	195×960×680	195×1,160×680	195×1,400×680
Coil (Cross Fin Coil)	Rows×Stages×Fin Pitch	mm	2×12×1.75	3×12×1.75	3×12×1.75
	Face Area	m²	0.182	0.233	0.293
Fan	Model		3D12K1AA1	4D12K1AA1	3D12K2AA1
	Type		Sirocco Fan	Sirocco Fan	Sirocco Fan
	Motor Output × Number of Units	W	62×1	62×1	130×1
	Air Flow Rate (H/L)	m³/min	12/10	17.5/14	25/19.5
		cfm	424/353	618/494	883/688
	Drive		Direct Drive	Direct Drive	Direct Drive
Temperature Control			Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating	Microprocessor Thermostat for Cooling and Heating
Sound Absorbing Thermal Insulation Material			Glass Wool	Glass Wool	Glass Wool
Air Filter			Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)	Resin Net (with Mold Resistant)
Piping Connections	Liquid Pipes	mm	ϕ6.4 (Flare Connection)	ϕ9.5 (Flare Connection)	ϕ9.5 (Flare Connection)
	Gas Pipes	mm	ϕ12.7 (Flare Connection)	ϕ15.9 (Flare Connection)	ϕ19.1 (Flare Connection)
	Drain Pipe	mm	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)	VP20 (External Dia. 26 Internal Dia. 20)
Machine Weight		kg	24	28	33
★5 Sound Level (H/L)		dBA	36/31	39/34	45/37
Safety Devices			Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor	Fuse, Thermal Protector for Fan Motor
Refrigerant Control			Electronic Expansion Valve	Electronic Expansion Valve	Electronic Expansion Valve
Connectable outdoor unit			R22 ; K-Series, R407C ; K or L Series	R22 ; K-Series, R407C ; K or L Series	R22 ; K-Series, R407C ; K or L Series
Standard Accessories			Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Clamps, Washers, Flare Nut.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Clamps, Washers.	Operation Manual, Installation Manual, Paper Pattern for Installation, Drain Hose, Clamp Metal, Insulation for Fitting, Clamps, Washers.
Drawing No.			3D035297		

Notes:

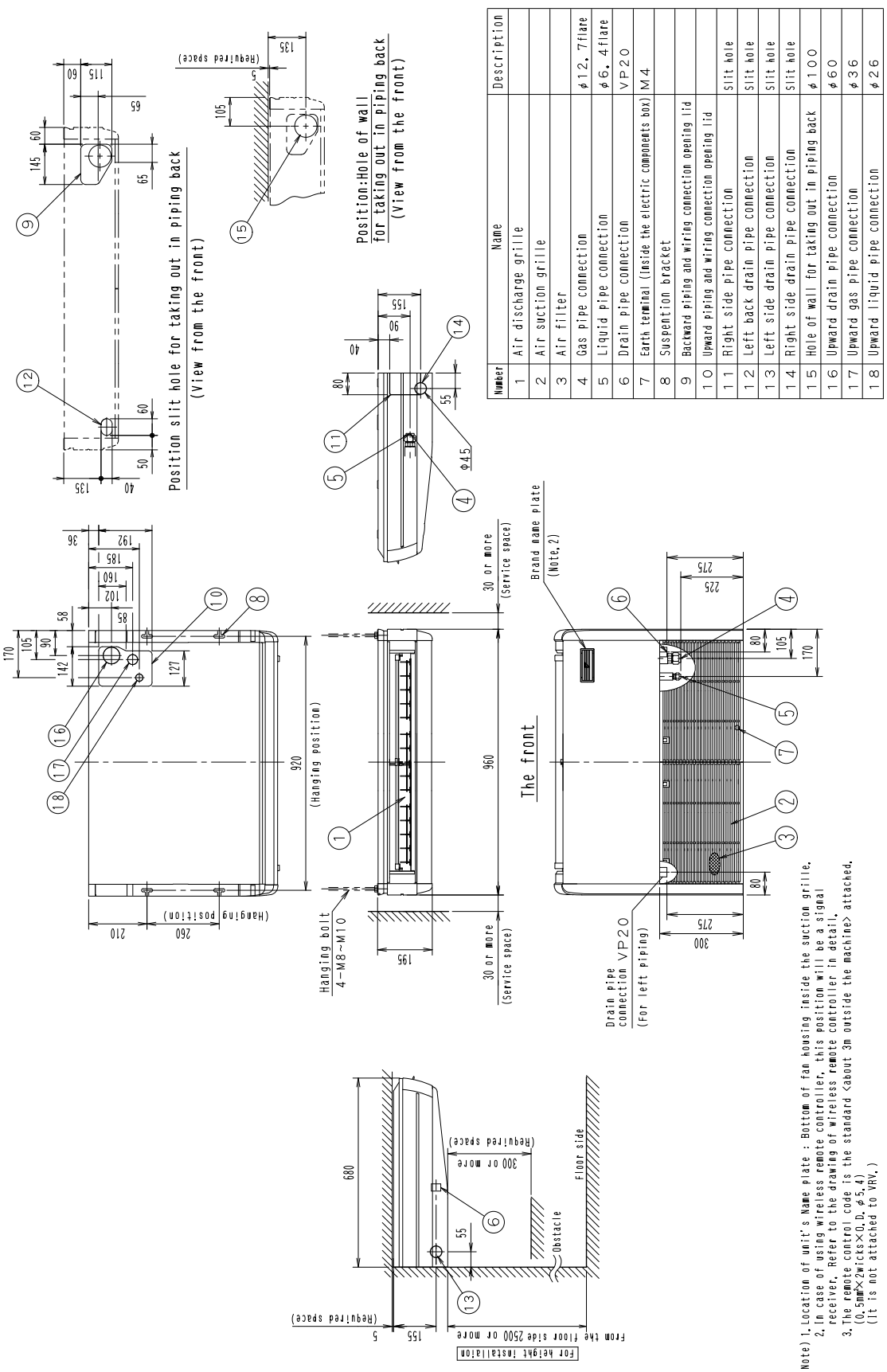
★1 Indoor temp. : 27°CDB, 19.5°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★2 Indoor temp. : 27°CDB, 19.0°CWB / outdoor temp.: 35°CDB / Equivalent piping length: 7.5m, level difference: 0m.
★3 Indoor temp. : 20°CDB / outdoor temp.: 7°CDB, 6°CWB / Equivalent piping length; 7.5m, level difference; 0m. (Heat pump only)
4 Capacities are net, including a deduction for cooling (an addition for heating) for indoor fan motor heat.
★5 Anechoic chamber conversion value, measured under JISB8616 conditions. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
6 Refer to page 260 for Fan Motor Input.

Conversion Formulae
kcal/h=kW×860 Btu/h=kW×3414 cfm=m³/min×35.3

7

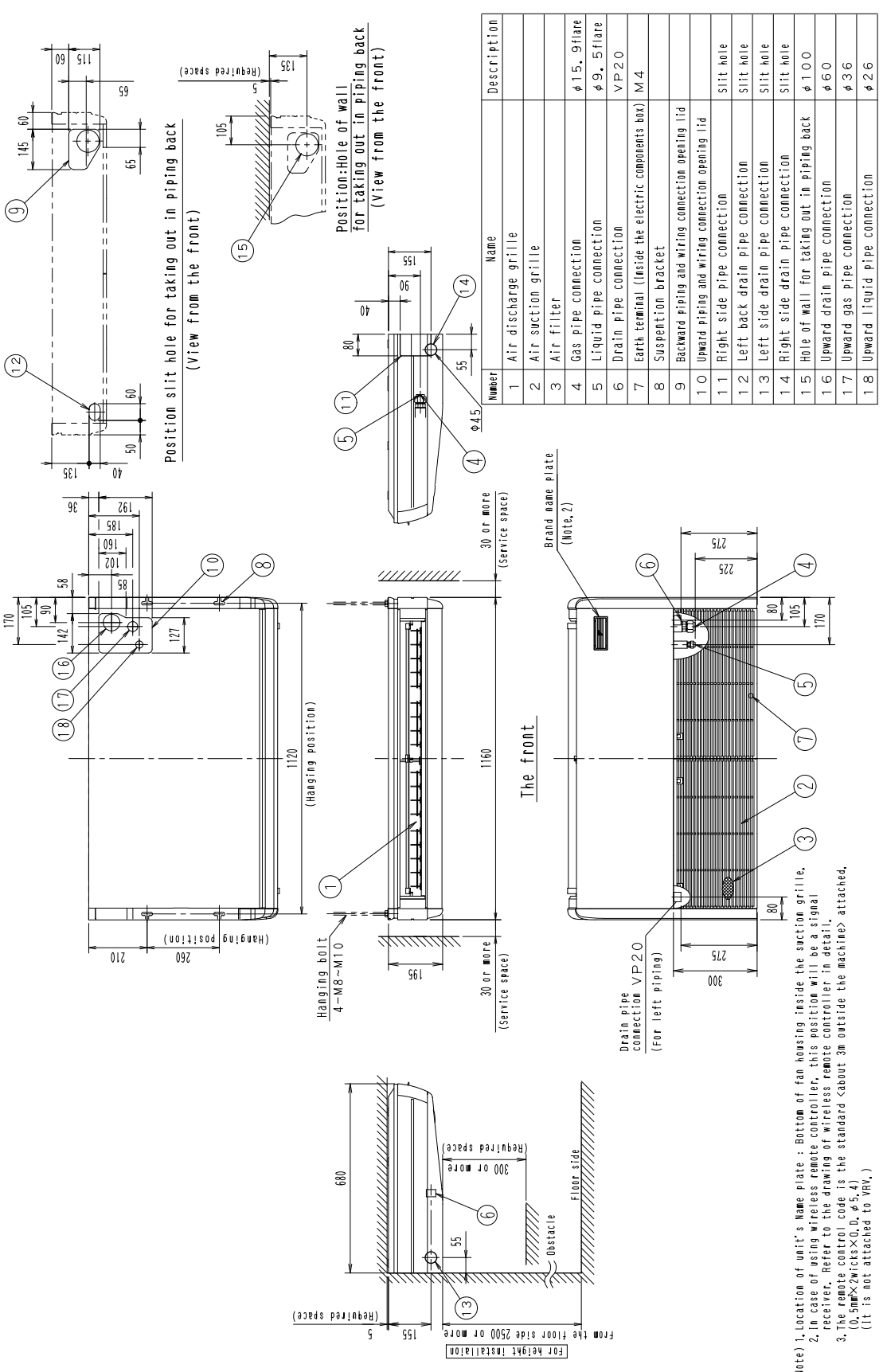
3. Dimensions

FXH32LVE



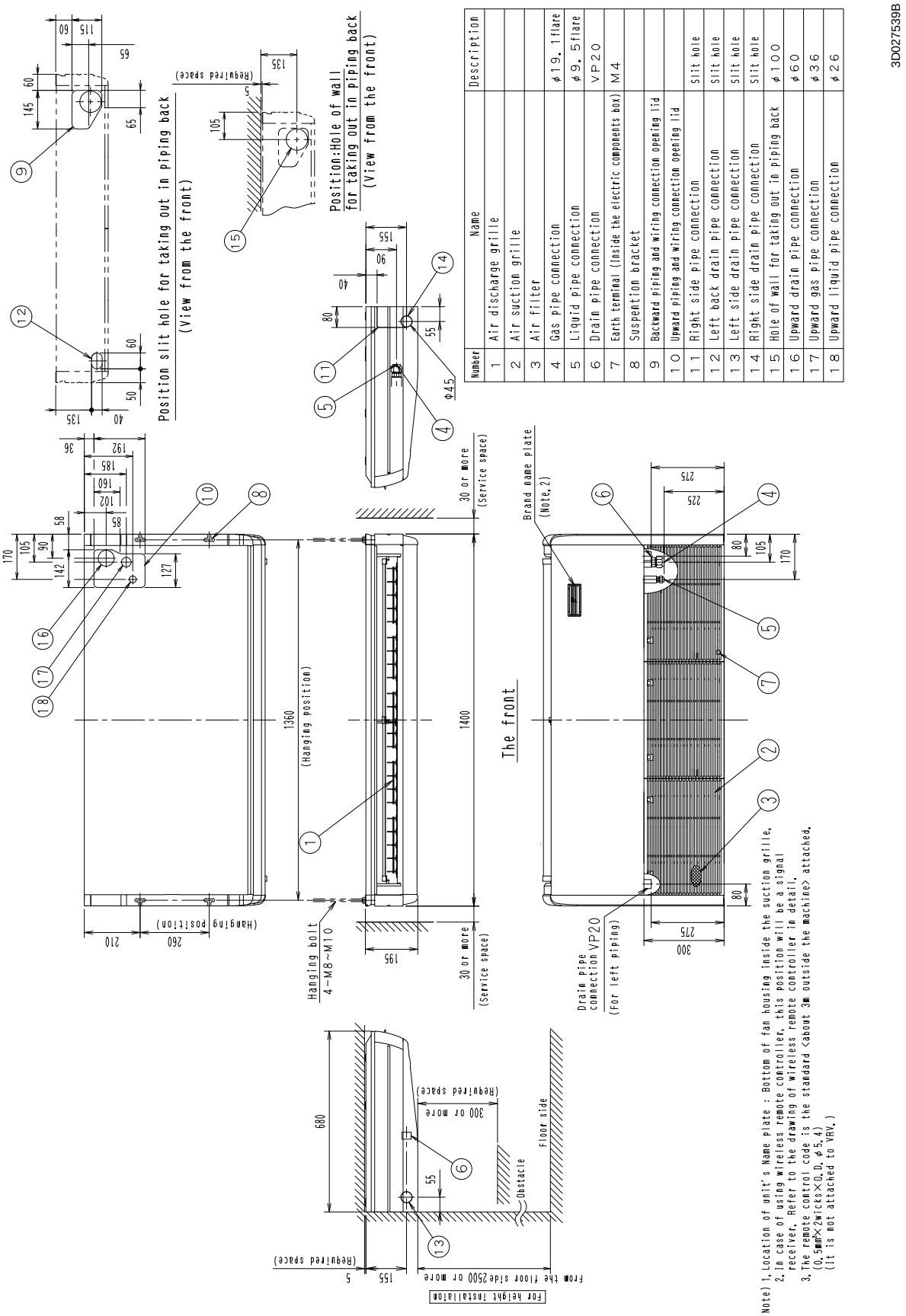
Number	Name	Description
1	Air discharge grille	
2	Air suction grille	
3	Air filter	
4	Gas pipe connection	φ12.7flare
5	Liquid pipe connection	φ6.4flare
6	Drain pipe connection	VP20
7	Earth terminal (inside the electric components box)	M4
8	Suspention bracket	
9	Backward piping and wiring connection opening lid	
10	Upward piping and wiring connection opening lid	
11	Right side pipe connection	Slit hole
12	Left back drain pipe connection	Slit hole
13	Left side drain pipe connection	Slit hole
14	Right side drain pipe connection	Slit hole
15	Hole of wall for taking out in piping back	φ100
16	Upward drain pipe connection	φ60
17	Upward gas pipe connection	φ36
18	Upward liquid pipe connection	φ26

FXH63LVE



Number	Name	Description
1	Air discharge grille	
2	Air suction grille	
3	Air filter	
4	Gas pipe connection	φ15.9flare
5	Liquid pipe connection	φ9.5flare
6	Drain pipe connection	VP20
7	Earth terminal (inside the electric components box)	M4
8	Suspention bracket	
9	Backward piping and wiring connection opening lid	
10	Upward piping and wiring connection opening lid	
11	Right side pipe connection	Slit hole
12	Left back drain pipe connection	Slit hole
13	Left side drain pipe connection	Slit hole
14	Right side drain pipe connection	Slit hole
15	Hole of wall for taking out in piping back	φ100
16	Upward drain pipe connection	φ60
17	Upward gas pipe connection	φ36
18	Upward liquid pipe connection	φ26

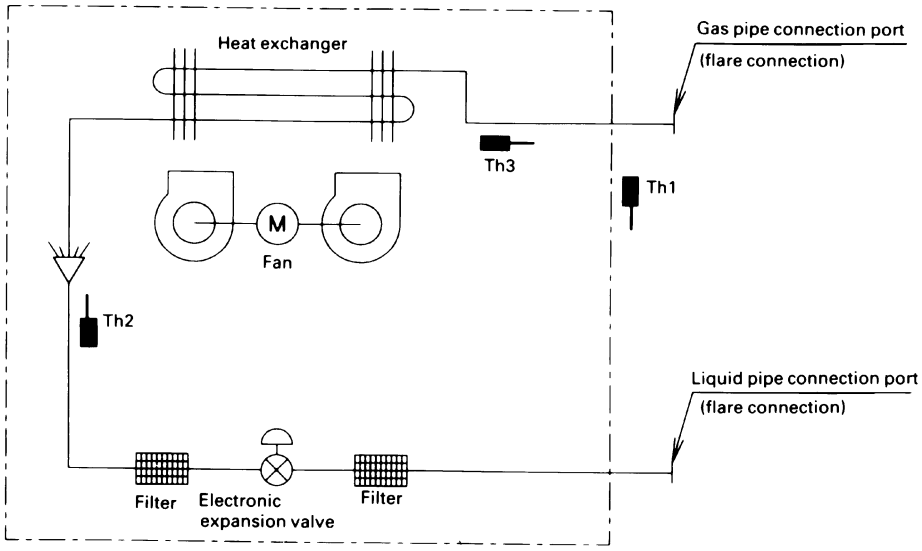
FXH100LVE



Number	Name	Description
1	Air discharge grille	
2	Air suction grille	
3	Air filter	
4	Gas pipe connection	φ19.1flare
5	Liquid pipe connection	φ9.5flare
6	Drain pipe connection	VP20
7	Earth terminal (Inside the electric components box)	M4
8	Suspention bracket	
9	Backward piping and wiring connection opening lid	
10	Upward piping and wiring connection opening lid	
11	Right side pipe connection	Slit hole
12	Left back drain pipe connection	Slit hole
13	Left side drain pipe connection	Slit hole
14	Right side drain pipe connection	Slit hole
15	Hole of wall for taking out in piping back	φ100
16	Upward drain pipe connection	φ60
17	Upward gas pipe connection	φ36
18	Upward liquid pipe connection	φ26

Note) 1. Location of unit's Name plate : Bottom of fan housing inside the suction grille.
2. In case of using wireless remote controller, this position will be a signal receiver. Refer to the drawing of wireless remote controller in detail.
3. The remote control code is the standard <about 3m outside the machine> attached.
(0.5mm×2wicks×0.D. φ5.4)
(It is not attached to VRV.)

4. Piping Diagrams



Th1: Thermister for suction air temp.
Th2: Thermister for liquid line temp.
Th3: Thermister for gas line temp.

4D034245

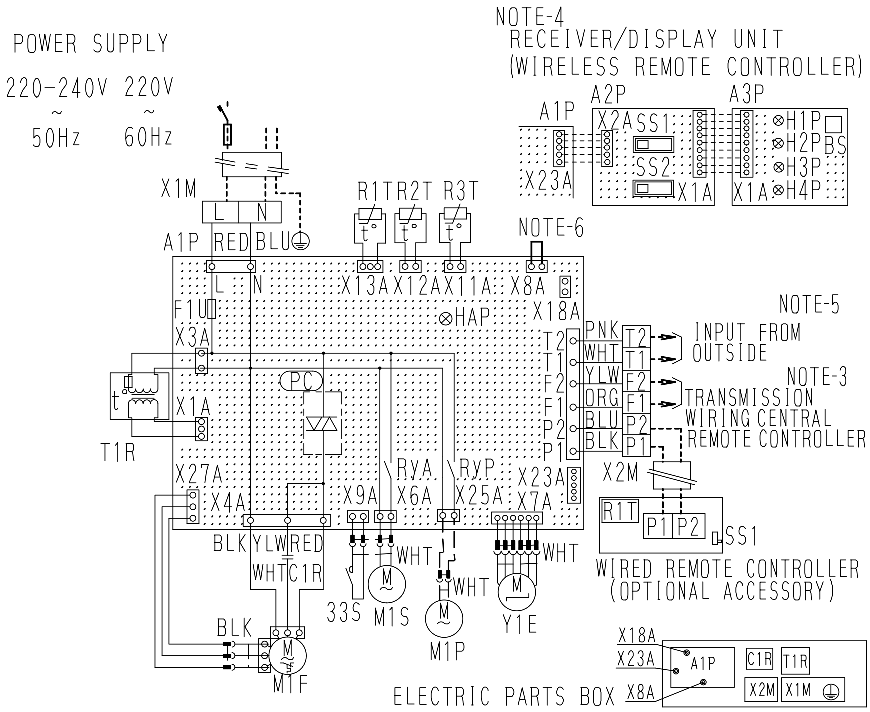
■ **Refrigerant pipe connection port diameters**

(mm)

Model	Gas	Liquid
FXH32L	ϕ12.7	ϕ6.4
FXH63L	ϕ15.9	ϕ9.5
FXH100L	ϕ19.1	

5. Wiring Diagrams

FXYHP 32K / 63K / 100KVE



33S	LIMIT SWITCH (SWING FLAP)	H3P	LIGHT EMITTING DIODE (FILTER SIGN-RED)
A1P	PRINTED CIRCUIT BOARD		
C1R	CAPACITOR (M1F)	H4P	LIGHT EMITTING DIODE (DEFROST-ORANGE)
F1U	FUSE(250V,5A Ⓑ)OR F10T 250V		
HAP	LIGHT EMITTING DIODE (SERVICE MONITOR-GREEN)	SS1	SELECTOR SWITCH (MAIN/SUB)
		SS2	SELECTOR SWITCH (WIRELESS ADDRESS SET)
M1F	MOTOR (INDOOR FAN)		
M1S	MOTOR (SWING FLAP)		CONNECTOR FOR OPTIONAL PARTS
Q1F	THERMO SWITCH (M1F EMBEDDED)	X8A	CONNECTOR (FLOAT SWITCH)
R1T	THERMISTOR (AIR)	X18A	CONNECTOR (WIRING ADAPTOR FOR ELECTORICAL APPENDICES)
R2T	THERMISTOR (COIL LIQUID)		
R3T	THERMISTOR (COIL GAS)	X23A	CONNECTOR (WIRELESS REMOTE CONTROLLER)
RyA	MAGNETIC RELAY (M1S)		
RyP	MAGNETIC RELAY (M1P)		
T1R	TRANSFOMER (220-240V/22V)		
X1M	TERMINAL STRIP (POWER)		
X2M	TERMINAL STRIP (CONTROL)		
Y1E	ELECTRONIC EXPANSION VALVE		
PC	PHASE CONTROL CIRCUIT		
	OPTIONAL PARTS		
M1P	MOTOR (DRAIN PUMP)		
	WIRED REMOTE CONTROLLER		
R1T	THERMISTOR (AIR)		
SS1	SELECTOR SWITCH (MAIN/SUB)		
	RECEIVER/DISPLAY UNIT (ATTACHED TO WIRELESS REMOTE CONTROLLER)		
A2P	PRINTED CIRCUIT BOARD		
A3P	PRINTED CIRCUIT BOARD		
BS	PUSH BUTTON (ON/OFF)		
H1P	LIGHT EMITTING DIODE (ON-RED)		
H2P	LIGHT EMITTING DIODE (TIMER-GREEN)		

NOTES)

1. ▭▭▭ : TERMINAL ⊙⊙, ⇉ : CONNECTOR ⊡ : CONNECTOR
   —○— : WIRE CLAMP
2. ---- : FIELD WIRING
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. IN CASE INSTALLING THE DRAIN PUMP, REMOVE THE JUMPER CONNECTOR OF X8A AND EXECUTE THE ADDITIONAL WIRING FOR FLOAT SWITCH AND DRAIN PUMP.
7. SYMBOLS SHOW AS FOLLOWS. (PNK:PINK WHT:WHITE YLW:YELLOW ORG:ORANGE BLU:BLUE BLK:BLACK RED:RED)
8. USE COPPER CONDUCTORS ONLY.

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6. Capacity Tables

6.1 Cooling Capacity

FXH – L

Cooling capacity

Unit Size	Outdoor air temp. °CDB	Indoor air temp.													
		14.0°CWB		16.0°CWB		18.0°CWB		19.0°CWB		20.0°CWB		22.0°CWB		24.0°CWB	
		20°CDB		23°CDB		26°CDB		27°CDB		28°CDB		30°CDB		32°CDB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
32	10.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.3	3.0	4.7	3.1
	12.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.3	3.0	4.7	3.1
	14.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.3	3.0	4.7	3.1
	16.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.3	3.0	4.7	3.1
	18.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.3	3.0	4.7	3.1
	20.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.3	3.0	4.7	3.1
	21.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.3	3.0	4.7	3.1
	23.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.3	3.0	4.7	3.1
	25.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.3	3.0	4.6	3.0
	27.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.3	3.0	4.6	3.0
	29.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.2	3.0	4.5	3.0
	31.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.2	2.9	4.4	2.9
	33.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.1	2.9	4.3	2.9
	35.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.8	2.9	4.0	2.9	4.2	2.9
	37.0	2.5	2.3	2.9	2.6	3.4	2.8	3.6	2.9	3.7	2.9	3.9	2.9	4.2	2.8
	39.0	2.5	2.3	2.9	2.6	3.4	2.8	3.5	2.9	3.6	2.9	3.9	2.8	4.1	2.8
63	10.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.4	5.5	9.3	5.5
	12.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.4	5.5	9.3	5.5
	14.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.4	5.5	9.3	5.5
	16.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.4	5.5	9.3	5.5
	18.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.4	5.5	9.3	5.5
	20.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.4	5.5	9.3	5.5
	21.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.4	5.5	9.3	5.5
	23.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.4	5.5	9.3	5.5
	25.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.4	5.5	9.1	5.5
	27.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.4	5.5	9.0	5.4
	29.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.3	5.4	8.8	5.4
	31.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.2	5.3	8.7	5.3
	33.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.5	5.3	8.0	5.3	8.5	5.2
	35.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.4	5.2	7.9	5.2	8.4	5.2
	37.0	4.9	4.2	5.8	4.6	6.7	5.1	7.1	5.2	7.3	5.2	7.8	5.1	8.2	5.1
	39.0	4.9	4.2	5.8	4.6	6.7	5.1	6.9	5.1	7.2	5.1	7.6	5.1	8.1	5.0
100	10.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.3	8.4	14.7	8.6
	12.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.3	8.4	14.7	8.6
	14.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.3	8.4	14.7	8.6
	16.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.3	8.4	14.7	8.6
	18.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.3	8.4	14.7	8.6
	20.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.3	8.4	14.7	8.6
	21.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.3	8.4	14.7	8.6
	23.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.3	8.4	14.6	8.6
	25.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.3	8.4	14.4	8.5
	27.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.3	8.4	14.2	8.4
	29.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	13.2	8.3	13.9	8.2
	31.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	12.9	8.2	13.7	8.1
	33.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.9	8.1	12.7	8.1	13.4	8.1
	35.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	8.0	11.7	8.0	12.5	8.0	13.2	7.9
	37.0	7.7	6.3	9.1	7.0	10.5	7.8	11.2	7.9	11.5	7.9	12.2	7.9	13.0	7.8
	39.0	7.7	6.3	9.1	7.0	10.5	7.8	11.0	7.8	11.3	7.8	12.0	7.8	12.7	7.7

TC : Total capacity ; kW
SHC : Sensible heat capacity ; kW

Refer to Outdoor Unit Capacity Tables (in case of Inverter (5, 8, 10HP) : on page 380~, in case of PLUS (16~30HP) : on page 480~) for the actual performance data of each indoor and outdoor unit combination.

6.2 Heating Capacity

FXH-L

Heating Capacity

Unit Size	Outdoor air temp.		Indoor air temp.°CDB					
			16.0	18.0	20.0	21.0	22.0	24.0
	°CDB	°CWB	kW	kW	kW	kW	kW	kW
32	-13.7	-15.0	2.8	2.7	2.7	2.7	2.7	2.6
	-11.8	-13.0	2.9	2.9	2.8	2.8	2.8	2.8
	-9.8	-11.0	3.1	3.0	3.0	3.0	2.9	2.9
	-9.5	-10.0	3.1	3.1	3.1	3.0	3.0	3.0
	-8.5	-9.1	3.2	3.2	3.1	3.1	3.1	3.0
	-7.0	-7.6	3.3	3.3	3.2	3.2	3.2	3.1
	-5.0	-5.6	3.5	3.4	3.4	3.3	3.3	3.3
	-3.0	-3.7	3.6	3.5	3.5	3.5	3.5	3.4
	0.0	-0.7	3.8	3.8	3.7	3.7	3.7	3.4
	3.0	2.2	4.0	4.0	3.9	3.8	3.7	3.4
	5.0	4.1	4.2	4.1	4.0	3.8	3.7	3.4
	7.0	6.0	4.3	4.2	4.0	3.8	3.7	3.4
	9.0	7.9	4.4	4.3	4.0	3.8	3.7	3.4
	11.0	9.8	4.6	4.3	4.0	3.8	3.7	3.4
	13.0	11.8	4.6	4.3	4.0	3.8	3.7	3.4
	15.0	13.7	4.6	4.3	4.0	3.8	3.7	3.4
63	-13.7	-15.0	5.6	5.5	5.4	5.4	5.3	5.3
	-11.8	-13.0	5.8	5.8	5.7	5.6	5.6	5.5
	-9.8	-11.0	6.1	6.0	6.0	5.9	5.9	5.8
	-9.5	-10.0	6.3	6.2	6.1	6.1	6.0	5.9
	-8.5	-9.1	6.4	6.3	6.2	6.2	6.1	6.1
	-7.0	-7.6	6.6	6.5	6.5	6.4	6.4	6.3
	-5.0	-5.6	6.9	6.8	6.7	6.7	6.6	6.6
	-3.0	-3.7	7.2	7.1	7.0	7.0	6.9	6.8
	0.0	-0.7	7.6	7.5	7.4	7.4	7.3	6.8
	3.0	2.2	8.1	7.9	7.8	7.7	7.4	6.8
	5.0	4.1	8.3	8.2	8.0	7.7	7.4	6.8
	7.0	6.0	8.6	8.5	8.0	7.7	7.4	6.8
	9.0	7.9	8.9	8.6	8.0	7.7	7.4	6.8
	11.0	9.8	9.1	8.6	8.0	7.7	7.4	6.8
	13.0	11.8	9.2	8.6	8.0	7.7	7.4	6.8
	15.0	13.7	9.2	8.6	8.0	7.7	7.4	6.8
100	-13.7	-15.0	8.7	8.6	8.5	8.4	8.3	8.2
	-11.8	-13.0	9.1	9.0	8.9	8.8	8.8	8.7
	-9.8	-11.0	9.6	9.4	9.3	9.2	9.2	9.1
	-9.5	-10.0	9.8	9.7	9.6	9.5	9.4	9.3
	-8.5	-9.1	10.0	9.9	9.8	9.7	9.6	9.5
	-7.0	-7.6	10.4	10.2	10.1	10.0	10.0	9.8
	-5.0	-5.6	10.8	10.7	10.5	10.4	10.4	10.2
	-3.0	-3.7	11.2	11.1	11.0	10.9	10.8	10.6
	0.0	-0.7	11.9	11.7	11.6	11.5	11.4	10.6
	3.0	2.2	12.6	12.4	12.2	12.0	11.5	10.6
	5.0	4.1	13.0	12.8	12.5	12.0	11.5	10.6
	7.0	6.0	13.4	13.3	12.5	12.0	11.5	10.6
	9.0	7.9	13.8	13.5	12.5	12.0	11.5	10.6
	11.0	9.8	14.3	13.5	12.5	12.0	11.5	10.6
	13.0	11.8	14.4	13.5	12.5	12.0	11.5	10.6
	15.0	13.7	14.4	13.5	12.5	12.0	11.5	10.6

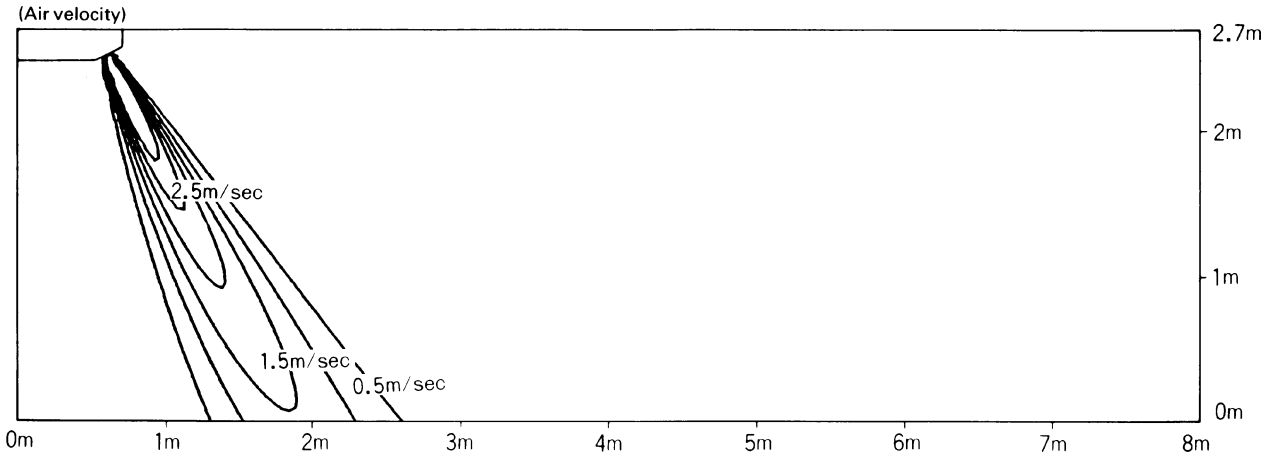
TC : Total capacity ; kW
SHC : Sensible heat capacity ; kW

Refer to Outdoor Unit Capacity Tables (in case of Inverter (5, 8, 10HP) : on page 380~, in case of PLUS (16~30HP) : on page 480~) for the actual performance data of each indoor and outdoor unit combination.

7. Air Velocity and Temperature Distributions (Reference Data)

FXH100L

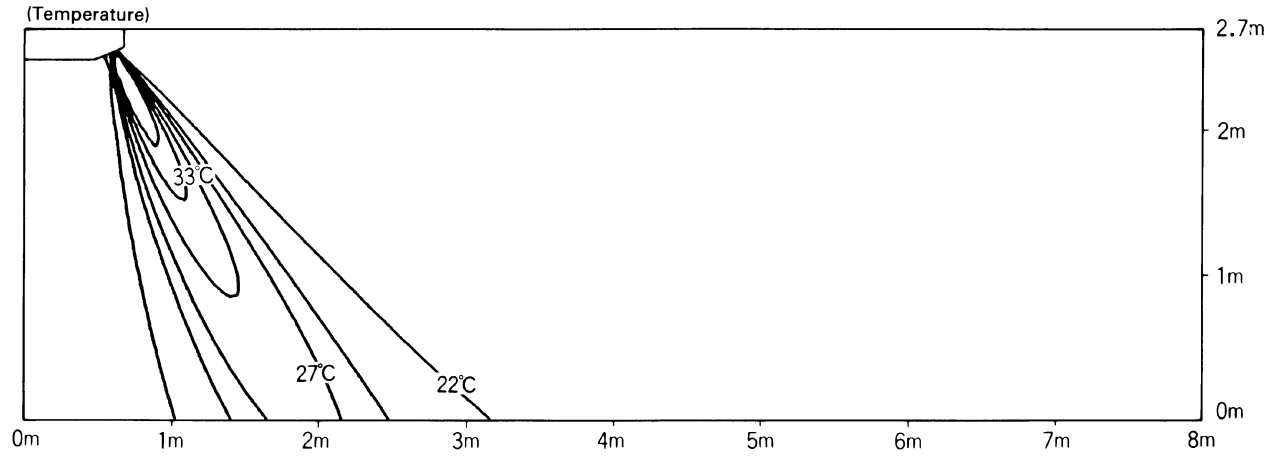
(Heating·Air Velocity Distribution)
Center Air Flow



(V0466)

FXH100L

(Heating·Temperature Distribution)
Center Air Flow



(V0467)

8. Electric Characteristics

Units				Power supply		IFM		Input(W)	
Model	Hz	Volts	Voltage range	MCA	MFA	KW	FLA	Cooling	Heating
FXH32LVE	50	220-240	MAX. 264 Min. 198	0.8	15	0.062	0.6	111	111
FXH63LVE				0.8	15	0.062	0.6	115	115
FXH100LVE				0.9	15	0.130	0.7	135	135
FXH32LVE	60	220	MAX. 242 Min. 198	0.9	15	0.062	0.7	142	142
FXH63LVE				0.9	15	0.062	0.7	145	145
FXH100LVE				1.3	15	0.130	1.0	199	199

Symbols:

MCA : Min. Circuit Amps (A)
MFA : Max. Fuse Amps (See note 5)
KW : Fan Motor Rated Output(KW)
FLA : Full Load Amps(A)
IFM : Indoor Fan Motor

Note:

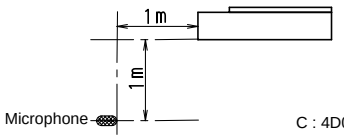
1. Voltage range
   Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits.
2. Maximum allowable voltage unbalance between phases is 2%.
3. MCA/MFA
   MCA = 1.25 X FLA
   MFA ≦ 4 X FLA
   (Next lower standard fuse rating. Min. 15A)
4. Select wire size based on the MCA.
5. Instead of fuse, use Circuit Breaker.

4D035304

9. Sound Levels

Overall

■ **Ceiling Suspended Type**



C : 4D035301

dBA

Model	50/60Hz	
	H	L
FXH32L	36	31
FXH63L	39	34
FXH100L	45	37

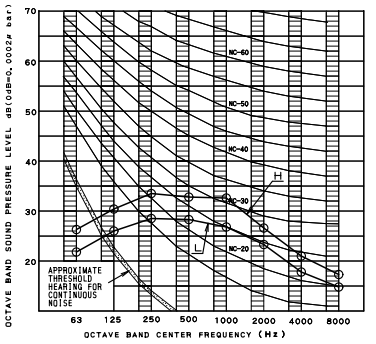
Notes:

1. The operating conditions are assumed to be standard (JIS conditions).
2. These operating values were obtained in a dead room (conversion values).
   Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of the particular room in which the equipments installed.

Octave Band Level

220, 240V

FXH32LVE



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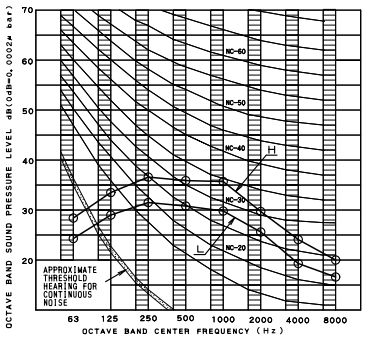
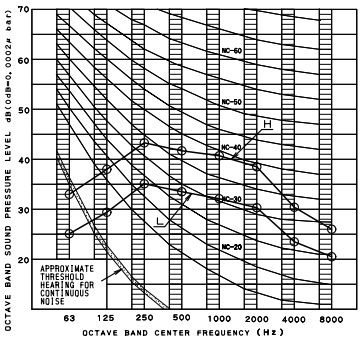
FXH63LVE



4D035302

FXH100LVE



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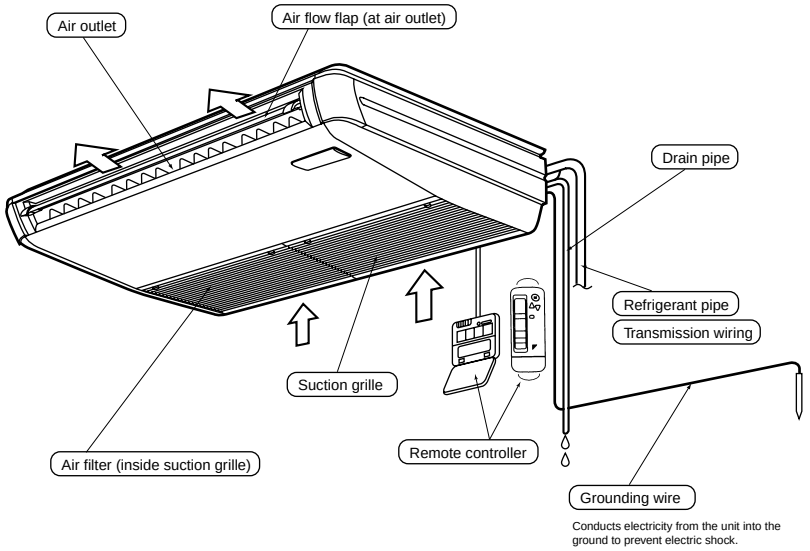
7

10. Installation

Installation Example



3PN02401-4F

Service Space (Selecting Installation Site)

(1) Select an installation site where the following conditions are fulfilled and that meets your customer's approval.

- Where optimum air distribution can be ensured.
- Where nothing blocks air passage.
- Where condensate can be properly drained.
- If supporting structural members are not strong enough to take the unit's weight, the unit could fall out of place and cause serious injury.
- Where the false ceiling is not noticeably on an incline.
- Where sufficient clearance for maintenance and service can be ensured. **(Refer to Fig. 1)**
  If sufficient clearance could be ensured at*, leave a space of 200 mm or more between the unit and it's surroundings easier maintenance and service.
- Where piping between indoor and outdoor units is possible within the allowable limit. (Refer to the installation manual for the outdoor unit.)
- Keep the indoor and outdoor units, power cable and transmission wiring, at least 1 m from TVs and radios, to prevent distorted pictures and static. (Depending on the type and source of the electrical waves, static may be heard even when more than 1 m away.)

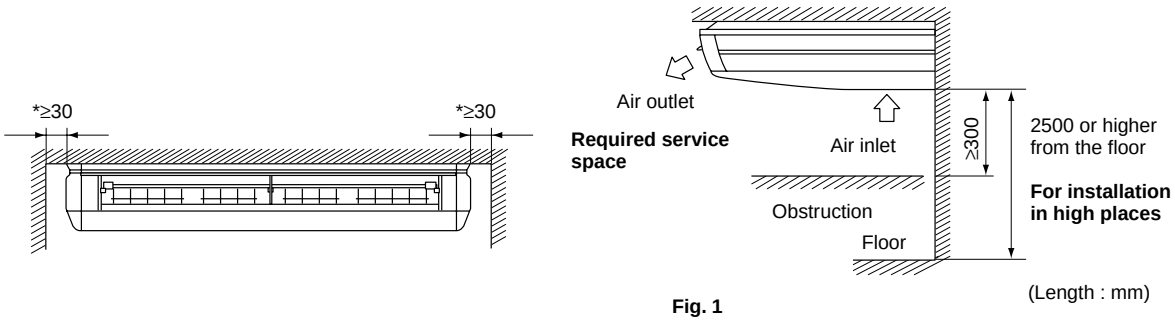


Fig. 1

(2) Use suspension bolts for installation. Check whether the ceiling is strong enough to support the weight of the unit or not. If there is a risk, reinforce the ceiling before installing the unit.
(Installation pitch is marked on the paper pattern for installation. Refer to it to check for points requiring reinforcing.)

(3) This indoor unit may be installed on ceilings up to 3.5 m in height. However, if the ceiling is higher than 2.7m, the remote control will have to be set locally.

3PN01417-5K-4

Bolt Pitch

Preparations Before Installation

(1) Relative positions of indoor unit, suspension bolt, piping hole, drain piping hole, and electric wire hole position. (Refer to Fig. 2)

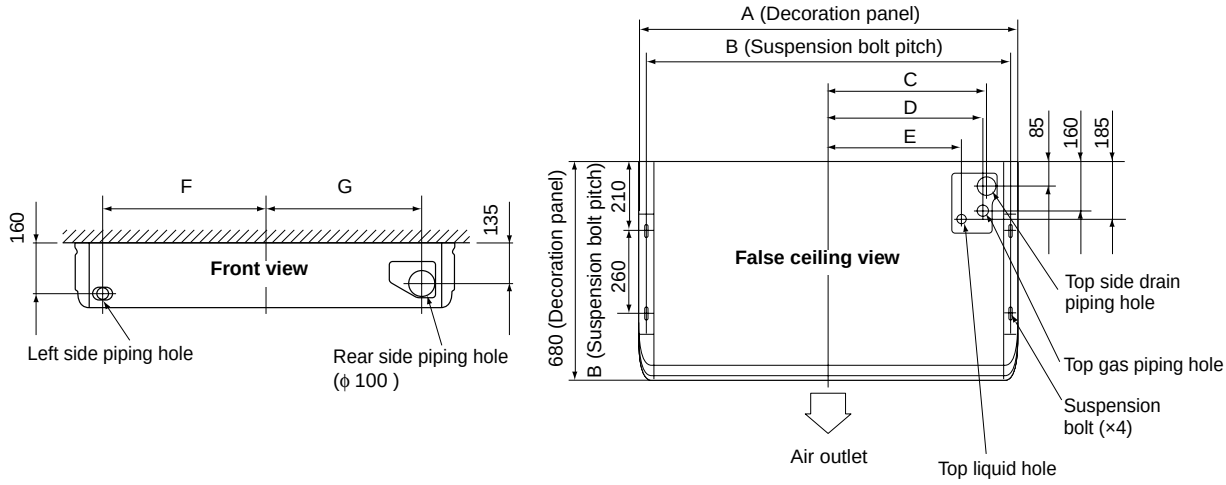


Fig. 2

Model	A	B	C	D	E	F	G
FXH32L	960	920	390	375	310	400	375
FXH63L	1160	1120	490	475	410	500	475
FXH100L	1400	1360	610	595	530	620	595

(2) Make the suspension bolt hole, piping hole, drain piping hole.

- Refer to the paper pattern for installation for hole positions.
- Fix the positions for suspension bolt, piping hole, drain piping hole, and electric wire hole, and make the openings.

3PN01417-5K-5

Drain Piping Work

Rig the drain pipe as shown below and take measures against condensation. Improperly rigged piping could lead to leaks and eventually wet furniture and belongings.

(1) Rig drain piping

- For drain work, rig the pipes so that they drain reliably.
- The drain pipe outlet direction can be chosen from the right rear, right, left rear, and left. Refer to “REFRIGERANT PIPING WORK” for right rear and right direction, and refer to Fig. 20 for left rear and left direction.

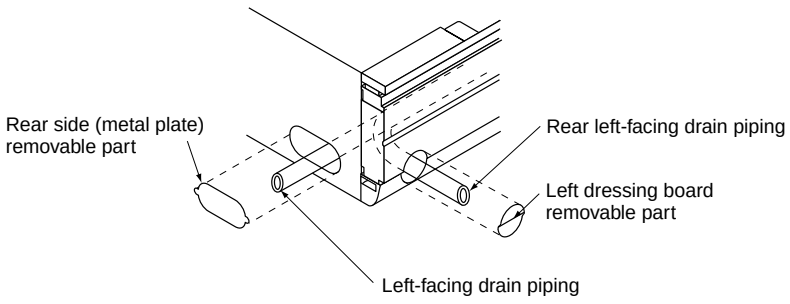


Fig. 20

- For left drain pipe outlet, remove the rubber plug and the insulation on the drain pipe connecting opening on the left side of the unit and change the position to the right side.

3PN01417-5K-1C

- Insert the rubber stopper securely, all the way to the base, in order to prevent water leakage.
- The diameter of the drain pipe should be greater than or equal to the diameter of the connecting pipe. (Vinyl tube; pipe size: 20 mm; outer dimension: 26 mm)
- Keep the drain pipe short and sloping downwards at a gradient of at least 1/100 to prevent air pockets from forming. **(Refer to Fig. 21)**
- Use the attached drain hose (1) and clamp (2).
  Insert the drain hose into the drain socket, up to the gray tape.**(Refer to Fig. 22)**
  Tighten the clamp until the screw head is less than 4 mm from the hose. **(Refer to Fig. 23)**
  (Be careful of the installation direction. Install so that the clamp metal does not contact the intake grill.)
- Wrap the attached sealing pad (8) over the clamp and drain hose to insulate. **(Refer to Fig. 23)**
- No folding of drain hose inside the indoor unit. **(Refer to Fig. 24)**
  (If there is slack in the drain hose, it may cause damage to the intake grill.)

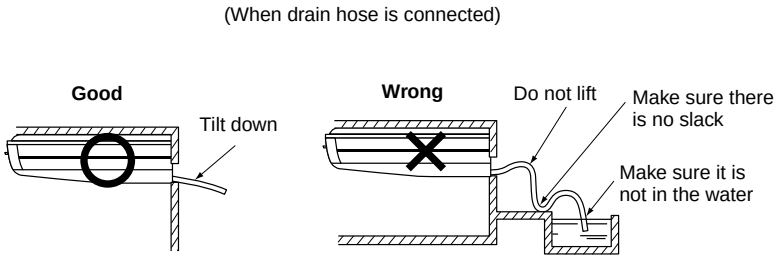


Fig. 21

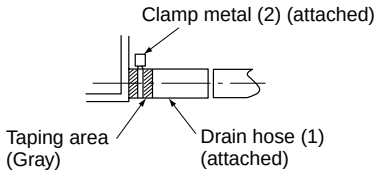


Fig. 22

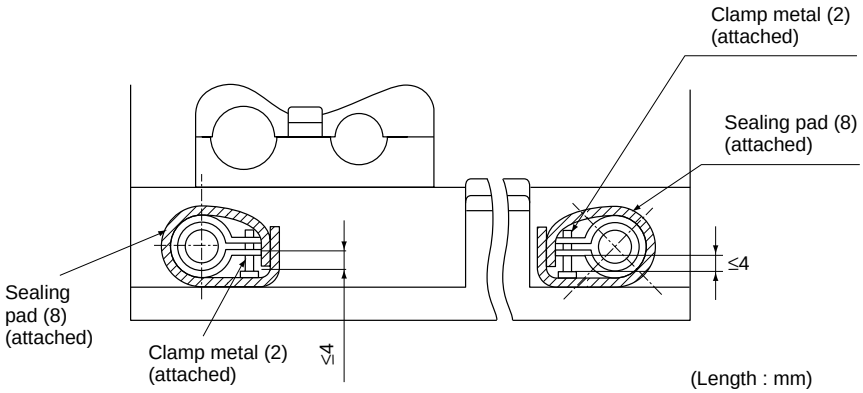


Fig. 23

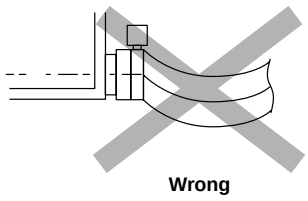


Fig. 24

(2) Confirm that smooth drainage is achieved after the piping work.

- Add 600 cc of water in the drain pan from the air outlet for confirming drainage. **(Refer to Fig. 25)**

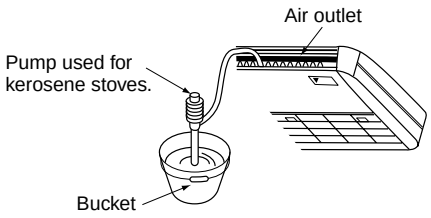


Fig. 25

⚠ CAUTION

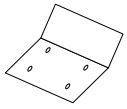
Drain piping connections
Do not connect the drain piping directly to sewage pipes that smell of ammonia. The ammonia in the sewage might enter the indoor unit through the drain pipes and corrode the heat exchanger.

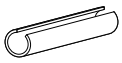
3PN01417-5K-11

11. Accessories

Standard Accessories

FXH32L~100L

Name	(1) Drain hose	(2) Clamp metal	(3) Washer for hanging bracket	(4) Clamp	(5) Paper pattern for installation
Quantity	1 pc.	1 pc.	8 pcs.	6 pcs.	1 pc.
Shape					

Name	Insulation for fitting	Sealing pad	
Quantity	1 each	1 each	(Other) • Operation manual • Installation manual
Shape	(6)For gas pipe  (7)For liquid pipe 	(8) Large  (9) Small 	

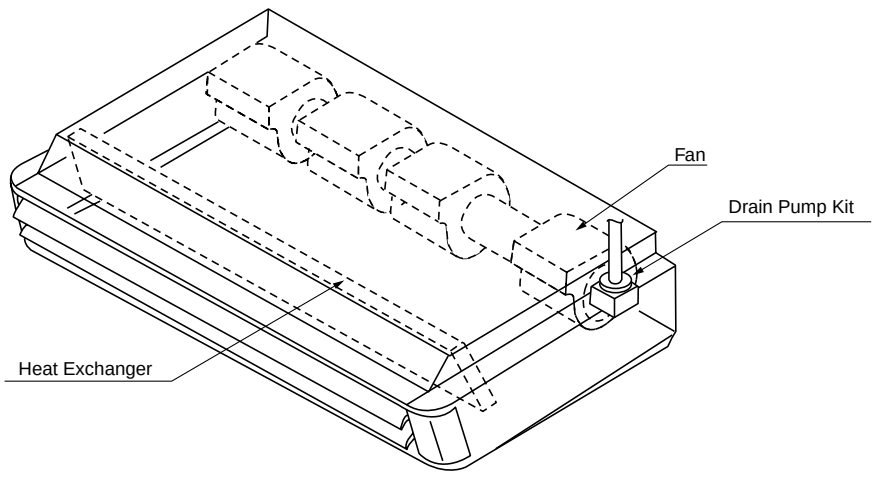
3PN01417-5K-3

Optional Accessories (For Unit)

No.	Type / Item	FXH32L	FXH63L	FXH100L
1	Drain pump kit	KDU50B50VE	KDU50B71VE	KDU50B125VE
2	Replacement long-life filter (Resin net)	KAFJ501D56	KAFJ501D80	KAFJ501D112
3	L-type piping kit (for upward direction)	KHFJ5F50	KHFJ5F80	KHFJ5F160

4D029907A

Optional Accessories (For Controls) Refer to P.640



(V0681)

Drain Pump Kit

Specifications

Items \ Model		KDU50B50VE	KDU50B71VE	KDU50B125VE
Drain-up Lift (mm)		600		
Drain Con. Diameter		VP20 (Ex. dia. ϕ26, Int. dia. ϕ20)		
Pump	Power Supply	Single phase 220-240V/220V 50/60Hz (from Indoor Unit PC Board)		
	Power Consumption (W)	13.5/12 (50/60Hz)		
Applicable Models		32 class	63 class	100 class

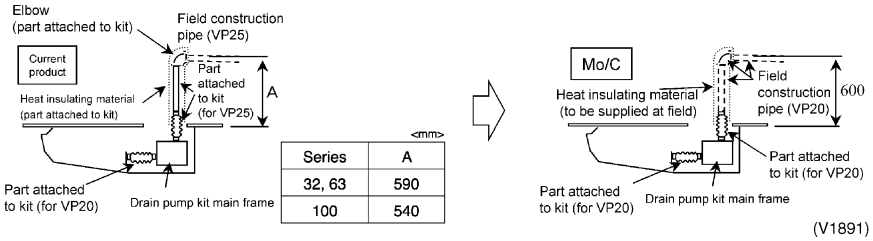
Precaution at use

1. Don't turn off the power within 5 minutes after cooling operation stops.
2. The liquid crystal display blinks to inform us that safety device actuated.
3. When cooling operation's season is over, extract drain water.

Installation guide of the drain pump kit

<Changes in drain pump kit>

- Exit drain pipe has been changed from VP25 to VP20 (to meet the drain diameter of main frame).
- Attached drain pipe (450 mm chloride vinyl straight pipe bellow, elbow) -> only bellow hose for VP20
- All units of drain up height was unified to 600mm (From the bottom of the ceiling)

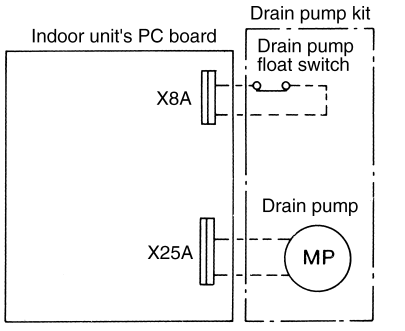


<mm>

Series	A
32, 63	590
100	540

(V1891)

Wiring diagram



Remove the X8A short circuit connector when the float switch will be connected.

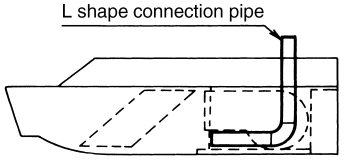
(V0761)

L Shape Connection Pipe Kit

Application purpose

This kit must be bent inside the unit as shown below, when the refrigerant piping is carried out in a ceiling space. This L shape kit is an optional accessory which has been developed for improving the work of the processing on site.

Installation



(V0762)