EDUS332232-D
202302

DAIKIN

Engineering Data

Design Manual

RXSQ-TBVJUA

Heat Pump, 1 phase, 208 / 230 V, 60 Hz

R-410A

VRV

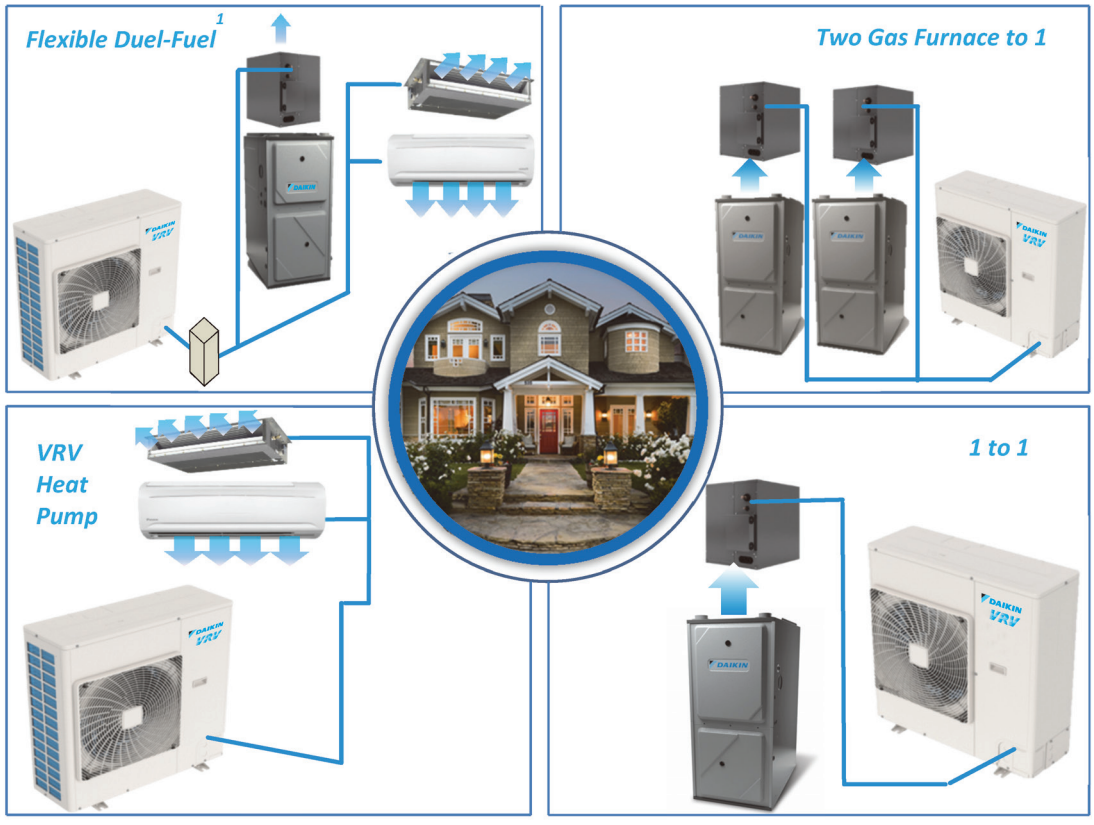
LIFE

Table of Contents

1. Features and Benefits

Re-inventing residential air-conditioning by breaking technological barriers, the Residential ***VRV*** brings inverter driven ***VRV*** to solve some of the age-old single-family HVAC challenges.

- Available in 2, 3, 4 and 5 ton models
- Superior zoning capabilities with 1 to 1 and 1 to multi connections
- Broader diversity with ability to provide cooling and heating in up to 9 zones
- Flexibility to choose heat pump or gas furnace or Duel-fuel** heating capability
- Auto and programmable modes for heat pump to gas heat switch over temperatures
- Compatible with all the 12 types and 65 models of Daikin ***VRV*** indoor fan coil units and 80 - 97% AFUE Daikin communicating gas furnaces
- Dependable heat pump operation in extreme ambient conditions down to −4°F in heating and up to 122°F in cooling
- Year round comfort and energy savings delivered by combining ***VRV*** and VRT technologies
- Quite operation with sound levels of under 58 dBA make for easy install close to Lot lines
- Space saving compact design allows up to 75% reduction in install space
- Reduced installation cost with re-use of existing refrigerant lines and uninsulated liquid line**
- Engineered with Daikin's Swing compressor technology
- Backed by 12-Year Parts Limited Warranty and 12-Year Replacement Compressor Limited Warranty*

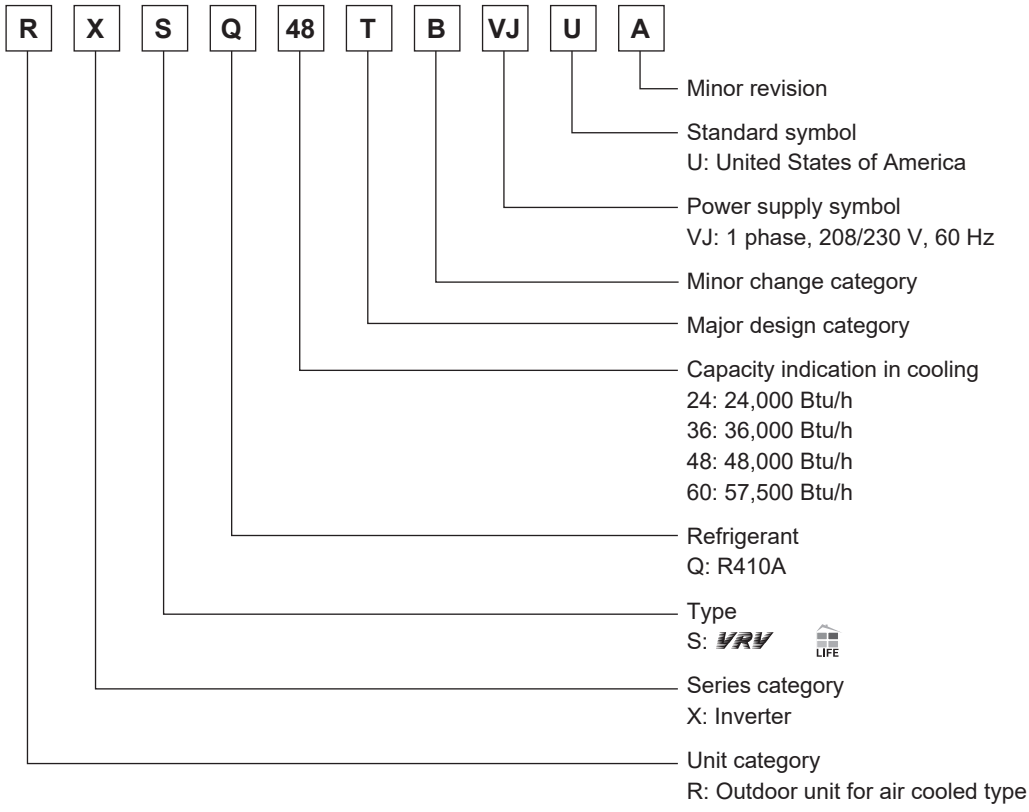


*- Complete warranty details available from your local Daikin manufacturer's representative or distributor or online at www.daikincomfort.com

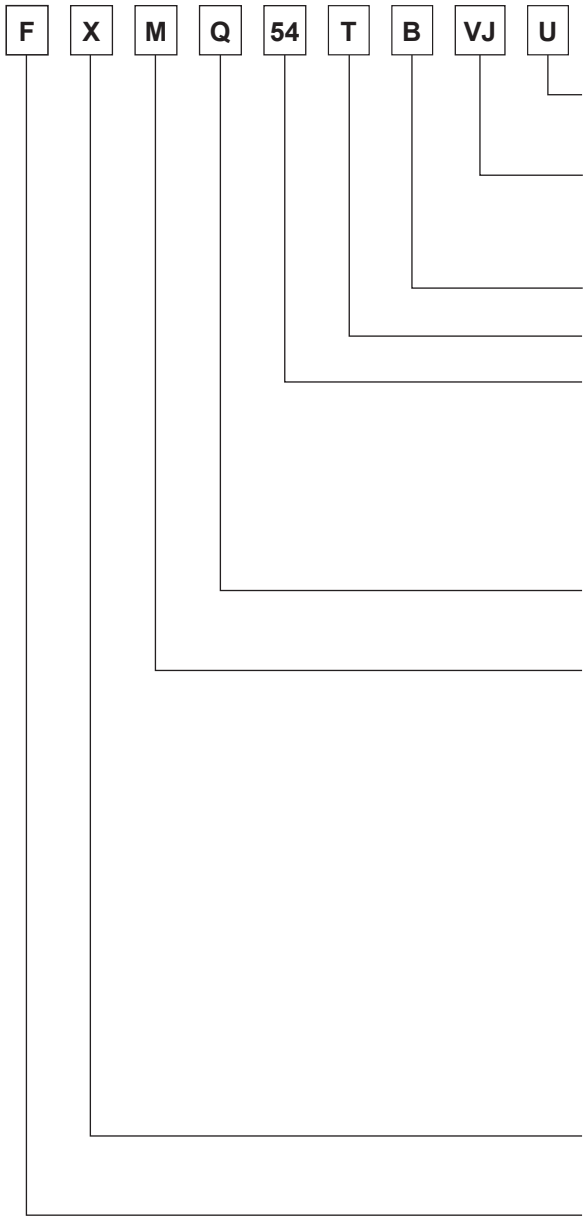
**- Model specific, refer to details for application rules

2. Nomenclature

Outdoor Unit



Indoor Unit



Standard symbol
U: United States of America

Power supply symbol
VJ: 1 phase, 208/230 V, 60 Hz
SBL: 1 phase, 120 V, 60 Hz

Minor change category

Major design category

Capacity indication in cooling

05: 5,800 Btu/h	18: 18,000 Btu/h	48: 48,000 Btu/h
07: 7,500 Btu/h	24: 24,000 Btu/h	54: 54,000 Btu/h
09: 9,500 Btu/h	30: 30,000 Btu/h	60: 60,000 Btu/h
12: 12,000 Btu/h	36: 36,000 Btu/h	
15: 15,000 Btu/h	42: 42,000 Btu/h	

Refrigerant
Q: R410A

Type
F: Ceiling mounted cassette type (Round flow with sensing)
Z: VISTA™ 2 × 2 cassette unit
U: 4-way blow ceiling-suspended type
E: One way blow cassette type
D: Slim ceiling mounted duct type
S: MSP concealed ducted unit
M: HSP concealed ducted unit
H: Ceiling suspended type
A: Wall mounted type
L: Floor standing type
N: Concealed floor standing type
T: Air handling unit (FXTQ)
Upflow/Downflow (CXTQ)

Series category
X: Inverter

Unit category
F: Indoor unit for air cooled type
C: Cased coil unit

3. Model Names

3.1 Outdoor Units

Capacity range			2 ton	3 ton	4 ton	5 ton	Power supply, Standard
Capacity index			24	36	48	57	
Heat pump	208/230 V	RXSQ	24TB	36TB	48TB	60TB	VJUA

Note:

VJ: 1 phase, 208/230 V, 60 Hz
U(VJU): Standard symbol
A: Minor revision

3.2 Indoor Units

Capacity range		0.5 ton	0.6 ton	0.8 ton	1 ton	1.25 ton	1.5 ton		2 ton	2.5 ton	3 ton	3.5 ton	4 ton	4.5 ton	5 ton	Power supply, Standard
Capacity index		5.8	7.5	9.5	12	15	18	20	24	30	36	42	48	54	60	
Ceiling mounted cassette (Round flow with sensing) type	FXFQ	—	07T	09T	12T	15T	18T	—	24T	30T	36T	—	48T	—	—	VJU
VISTA™ 2 × 2 cassette unit	FXZQ	05TB	07TB	09TB	12TB	15TB	18TB	—	—	—	—	—	—	—	—	
4-way blow ceiling-suspended type	FXUQ	—	—	—	—	—	—	18PA	24PA	30PA	36PA	—	—	—	—	
One way blow cassette type	FXEQ	—	07P	09P	12P	15P	18P	—	24P	—	—	—	—	—	—	
Slim ceiling mounted duct type	FXDQ	—	07M	09M	12M	—	18M	—	24M	—	—	—	—	—	—	
MSP concealed ducted unit	FXSQ	05TB	07TB	09TB	12TB	15TB	18TB	—	24TB	30TB	36TB	—	48TB	54TB	—	
HSP concealed ducted unit	FXMQ	—	—	—	—	15TB	18TB	—	24TB	30TB	36TB	—	48TB	54TB	—	
Ceiling suspended type	FXHQ	—	—	—	12M	—	—	—	24M	—	36M	—	—	—	—	
Wall mounted type	FXAQ	—	07P	09P	12P	—	18P	—	24P	—	—	—	—	—	—	
Floor standing type	FXLQ	—	07M	09M	12M	—	18M	—	24M	—	—	—	—	—	—	
Concealed floor standing type	FXNQ	—	07M	09M	12M	—	18M	—	24M	—	—	—	—	—	—	
Air handling unit	FXTQ	—	—	09TA	12TA	—	18TA	—	24TA	30TA	36TA	42TA	48TA	54TA	60TA	VJUA
		—	—	09TA	12TA	—	18TA	—	24TA	30TA	36TA	42TA	48TA	54TA	60TA	VJUD
Cased coil unit	CXTQ	—	—	—	—	—	—	—	24TA	—	36TA	—	48TA	—	60TA	SBLU

4. External Appearance

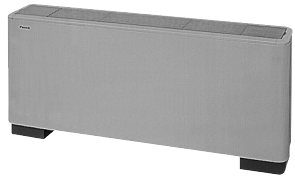
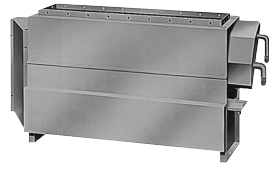
4.1 Outdoor Units

RXSQ24TBVJUA RXSQ36TBVJUA RXSQ48TBVJUA	RXSQ60TBVJUA
	
2, 3, 4 ton	5 ton

4.2 Daikin Communicating Gas Furnaces

		
80% AFUE	96% AFUE	97% AFUE

4.3 Indoor Units

Ceiling mounted cassette (Round flow with sensing) type FXFQ-T  Shown with BYCQ125B-W1	Ceiling suspended type FXHQ-M 
VISTA™ 2 × 2 cassette unit FXZQ-TB 	Wall mounted type FXAQ-P 
4-way blow ceiling-suspended type FXUQ-PA 	Floor standing type FXLQ-M 
One way blow cassette type FXEQ-P 	Concealed floor standing type FXNQ-M 
Slim ceiling mounted duct type FXDQ-M 	Air handling unit FXTQ-TA 
MSP concealed ducted unit FXSQ-TB 	Cased coil unit CXTQ-TA 
HSP concealed ducted unit FXMQ-TB 	

5. Capacity Range

5.1 Connection Ratio

Both indoor and outdoor units have a capacity index number and the connection ratio is defined as the ratio of these two numbers.

$$\text{Connection ratio} = \frac{\text{Total sum of indoor unit capacity index}}{\text{Outdoor unit capacity index number}}$$

Example:

- 2 × CXTQ36 connected to 1 × RXSQ60T = **72** / **57** = **1.26**
- Therefore the connection ratio = **126%**

Indoor unit capacity index

Indoor unit size	05	07	09	12	15	18	24	30	36	42	48	54	60
Indoor unit capacity index	5.8	7.5	9.5	12	15	18	24	30	36	42	48	54	60

Outdoor unit capacity index

Outdoor unit size	Nominal capacity index	Required minimum 50%	Allowed maximum 130%
2.0 Ton	24	12	31.2
3.0 Ton	36	18	46.8
4.0 Ton	48	24	62.4
5.0 Ton	57	28.5	74.1

Furnace compatibility

Gas furnace			CXTQ			
Type	Series	Model	CXTQ24TASBLU	CXTQ36TASBLU	CXTQ48TASBLU	CXTQ60TASBLU
Upflow furnace	DM80VC (two stage - 80% AFUE)	DM80VC0603BXA	✓	✓		
		DM80VC0604B*A	✓	✓	✓	
		DM80VC0803BXA	✓	✓		
		DM80VC0805CNA			✓	✓
		DM80VC0805CXA			✓	✓
		DM80VC1005CNA			✓	✓
		DM80VC1005CXA			✓	✓
	DM96VC (two stage - 96% AFUE)	DM96VC0403BNA	✓	✓		
		DM96VC0603BNA	✓	✓		
		DM96VC0803BNA	✓	✓		
		DM96VC0804CNA			✓	
		DM96VC1005CNA			✓	✓
		DM96VC1205DNA				✓
	DM97MC (modulating - 97% AFUE)	DM97MC0603BNA	✓	✓		
		DM97MC0803BNA	✓	✓		
		DM97MC0804CNA			✓	
		DM97MC1005CNA			✓	✓
		DM97MC1205DNA				✓
Downflow furnace	DC80VC (two stage - 80% AFUE)	DC80VC0603BXA	✓	✓		
		DC80VC0803BXA	✓	✓		
		DC80VC0805CXA			✓	✓
		DC80VC1005CXA			✓	✓
	DC96VC (two stage - 96% AFUE)	DC96VC0403BNA	✓	✓		
		DC96VC0603BNA	✓	✓		
		DC96VC0804CNA			✓	
		DC96VC1005CNA			✓	✓
		DC96VC1205DNA				✓
	DC97MC (modulating - 97% AFUE)	DC97MC0603BNA	✓	✓		
		DC97MC0803BNA	✓	✓		
		DC97MC0804CNA			✓	
		DC97MC1005CNA			✓	✓

6. Specifications

Model				RXSQ24TBVJUA	RXSQ36TBVJUA
Power supply				1 phase, 208/230 V, 60 Hz	1 phase, 208/230 V, 60 Hz
★1 Cooling capacity		Nominal	Btu/h (kW)	24,000 (7.0)	36,000 (10.6)
		Rated		Non-ducted: 23,000 (6.7)	Non-ducted: 34,200 (10.0)
				Ducted: 23,000 (6.7)	Ducted: 34,200 (10.0)
★2 Heating capacity		Nominal	Btu/h (kW)	27,000 (7.9)	40,000 (11.7)
		Rated		Non-ducted: 25,800 (7.6)	Non-ducted: 37,000 (10.8)
				Ducted: 25,000 (7.3)	Ducted: 37,000 (10.8)
Casing color				Ivory white	Ivory white
Dimensions: (H × W × D)			in. (mm)	39 × 37 × 12-5/8 (990 × 940 × 320)	39 × 37 × 12-5/8 (990 × 940 × 320)
Heat exchanger				Cross fin coil	Cross fin coil
Compressor	Type			Hermetically sealed swing type	Hermetically sealed swing type
	Motor output		kW	1.9	1.9
	Starting method			Soft start	Soft start
Fan	Type			Propeller fan	Propeller fan
	Motor output		kW	0.200	0.200
	Airflow rate		CFM (m^3/min)	2,682 (76)	2,682 (76)
	Drive			Direct drive	Direct drive
Sound pressure level (reference data)		Cooling	dBA	58	58
		Heating	dBA	61	61
Sound power level (reference data)		Cooling	dB	75	75
		Heating	dB	79	79
Connecting pipes	Liquid pipe		in. (mm)	ϕ3/8 (ϕ9.5) C1220T (flare connection)	ϕ3/8 (ϕ9.5) C1220T (flare connection)
	Gas pipe		in. (mm)	ϕ5/8 (ϕ15.9) C1220T (flare connection)	ϕ5/8 (ϕ15.9) C1220T (flare connection)
Weight			lbs (kg)	172 (78)	172 (78)
Safety devices				High pressure switch, Fan driver overload protector, Inverter overload protector, Fusible plug, Fuse	High pressure switch, Fan driver overload protector, Inverter overload protector, Fusible plug, Fuse
Defrost method				Reverse cycle defrosting	Reverse cycle defrosting
Capacity control			%	14-100	14-100
Refrigerant	Refrigerant name			R410A	R410A
	Charge		lbs (kg)	6.4 (2.9)	6.4 (2.9)
	Control			Electronic expansion valve	Electronic expansion valve
Standard accessories				Installation manual, Operation manual, Drain socket, Clamps	Installation manual, Operation manual, Drain socket, Clamps

Note:

★1. Indoor temp.: 80°FDB (26.7°CDB), 67°FWB (19.4°CWB) / outdoor temp.: 95°FDB (35.0°CDB) / Equivalent piping length: 25 ft (7.6 m), height difference: 0 ft. (0 m).

★2. Indoor temp.: 70°FDB (21.1°CDB) / outdoor temp.: 47°FDB (8.3°CDB), 43°FWB (6.1°CWB) / Equivalent piping length: 25 ft (7.6 m), height difference: 0 ft. (0 m).

C: 4D142998B

Model				RXSQ48TBVJUA
Power supply				1 phase, 208/230 V, 60 Hz
★1 Cooling capacity		Nominal	Btu/h (kW)	48,000 (14.1)
		Rated		Non-ducted: 45,500 (13.3)
				Ducted: 45,500 (13.3)
★2 Heating capacity		Nominal	Btu/h (kW)	52,000 (15.2)
		Rated		Non-ducted: 49,500 (14.5)
				Ducted: 46,000 (13.5)
Casing color				Ivory white
Dimensions: (H × W × D)			in. (mm)	39 × 37 × 12-5/8 (990 × 940 × 320)
Heat exchanger				Cross fin coil
Compressor	Type			Hermetically sealed swing type
	Motor output		kW	3.0
	Starting method			Soft start
Fan	Type			Propeller fan
	Motor output		kW	0.200
	Airflow rate		CFM (m^3/min)	2,682 (76)
	Drive			Direct drive
Sound pressure level (reference data)		Cooling	dBA	58
		Heating	dBA	61
Sound power level (reference data)		Cooling	dB	76
		Heating	dB	78
Connecting pipes	Liquid pipe		in. (mm)	ϕ3/8 (ϕ9.5) C1220T (flare connection)
	Gas pipe		in. (mm)	ϕ5/8 (ϕ15.9) C1220T (flare connection)
Weight			lbs (kg)	176 (80)
Safety devices				High pressure switch, Fan driver overload protector, Inverter overload protector, Fusible plug, Fuse
Defrost method				Reverse cycle defrosting
Capacity control			%	14-100
Refrigerant	Refrigerant name			R410A
	Charge		lbs (kg)	7.5 (3.4)
	Control			Electronic expansion valve
Standard accessories				Installation manual, Operation manual, Drain socket, Clamps

Note:

★1. Indoor temp.: 80°FDB (26.7°CDB), 67°FWB (19.4°CWB) / outdoor temp.: 95°FDB (35.0°CDB) / Equivalent piping length: 25 ft (7.6 m), height difference: 0 ft. (0 m).

★2. Indoor temp.: 70°FDB (21.1°CDB) / outdoor temp.: 47°FDB (8.3°CDB), 43°FWB (6.1°CWB) / Equivalent piping length: 25 ft (7.6 m), height difference: 0 ft. (0 m).

C: 4D142999B

Model				RXSQ60TBVJUA
Power supply				1 phase, 208/230 V, 60 Hz
★1 Cooling capacity		Nominal	Btu/h (kW)	57,500 (16.9)
		Rated		Non-ducted: 57,500 (16.9)
				Ducted: 57,500 (16.9)
★2 Heating capacity		Nominal	Btu/h (kW)	57,000 (16.7)
		Rated		Non-ducted: 57,000 (16.7)
				Ducted: 57,000 (16.7)
Casing color				Ivory white
Dimensions: (H × W × D)			in. (mm)	52-15/16 × 35-7/16 × 12-5/8 (1,345 × 900 × 320)
Heat exchanger				Cross fin coil
Compressor	Type			Hermetically sealed swing type
	Motor output		kW	3.5
	Starting method			Soft start
Fan	Type			Propeller fan
	Motor output		kW	0.070 × 2
	Airflow rate		CFM (m^3/min)	3,741 (106)
	Drive			Direct drive
Sound pressure level (reference data)		Cooling	dBA	57
		Heating	dBA	59
Sound power level (reference data)		Cooling	dB	74
		Heating	dB	77
Connecting pipes	Liquid pipe		in. (mm)	ϕ3/8 (ϕ9.5) C1220T (flare connection)
	Gas pipe		in. (mm)	ϕ3/4 (ϕ19.1) C1220T (flare connection)
Weight			lbs (kg)	225 (102)
Safety devices				High pressure switch, Fan driver overload protector, Inverter overload protector, Fusible plug, Fuse
Defrost method				Reverse cycle defrosting
Capacity control			%	14-100
Refrigerant	Refrigerant name			R410A
	Charge		lbs (kg)	7.9 (3.6)
	Control			Electronic expansion valve
Standard accessories				Installation manual, Operation manual, Drain socket, Clamps, Auxiliary piping

Note:

★1. Indoor temp.: 80°FDB (26.7°CDB), 67°FWB (19.4°CWB) / outdoor temp.: 95°FDB (35.0°CDB) / Equivalent piping length: 25 ft (7.6 m), height difference: 0 ft. (0 m).

★2. Indoor temp.: 70°FDB (21.1°CDB) / outdoor temp.: 47°FDB (8.3°CDB), 43°FWB (6.1°CWB) / Equivalent piping length: 25 ft (7.6 m), height difference: 0 ft. (0 m).

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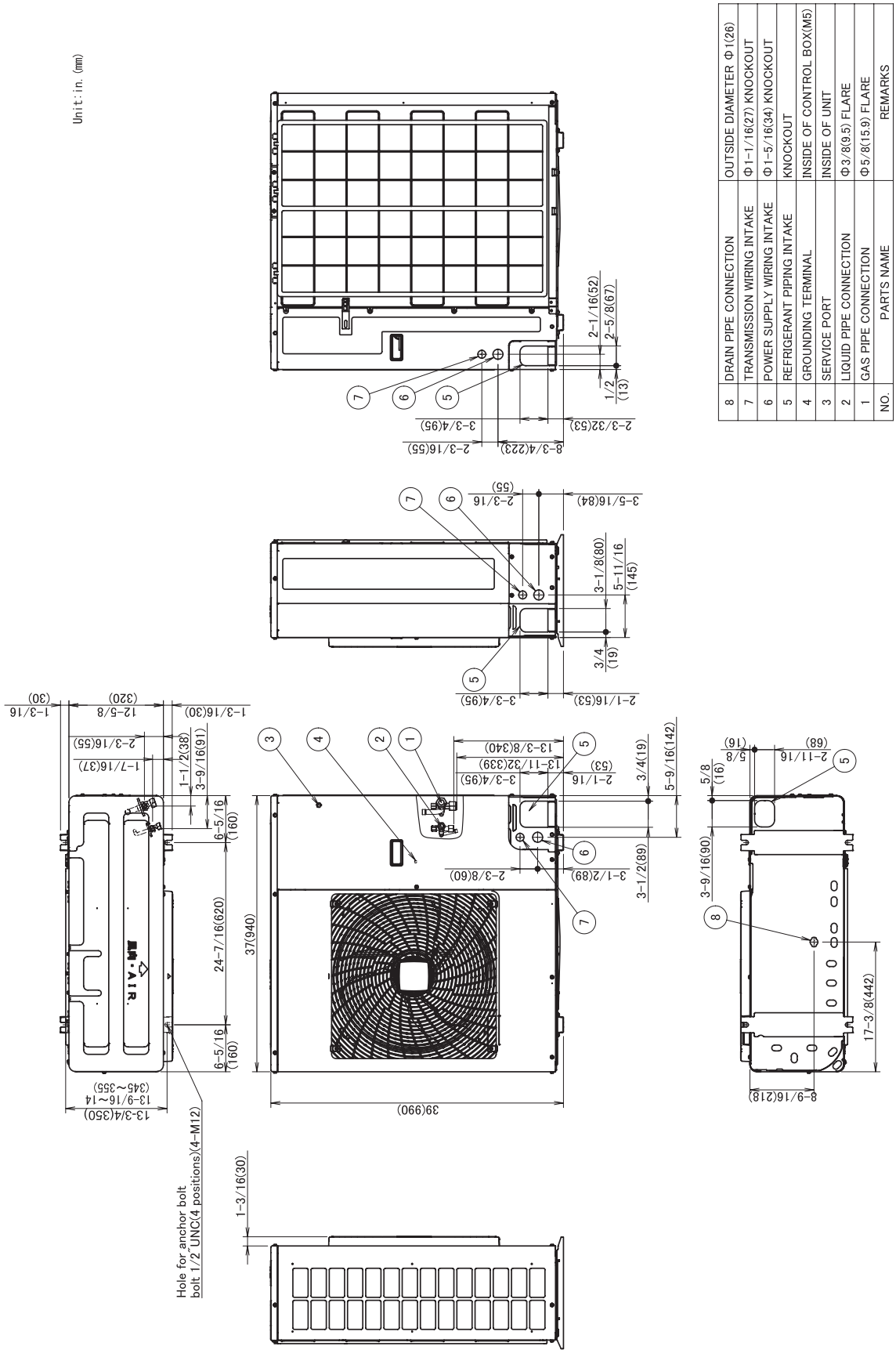
7. Dimensions

RXSQ24 - 36TBVJUA



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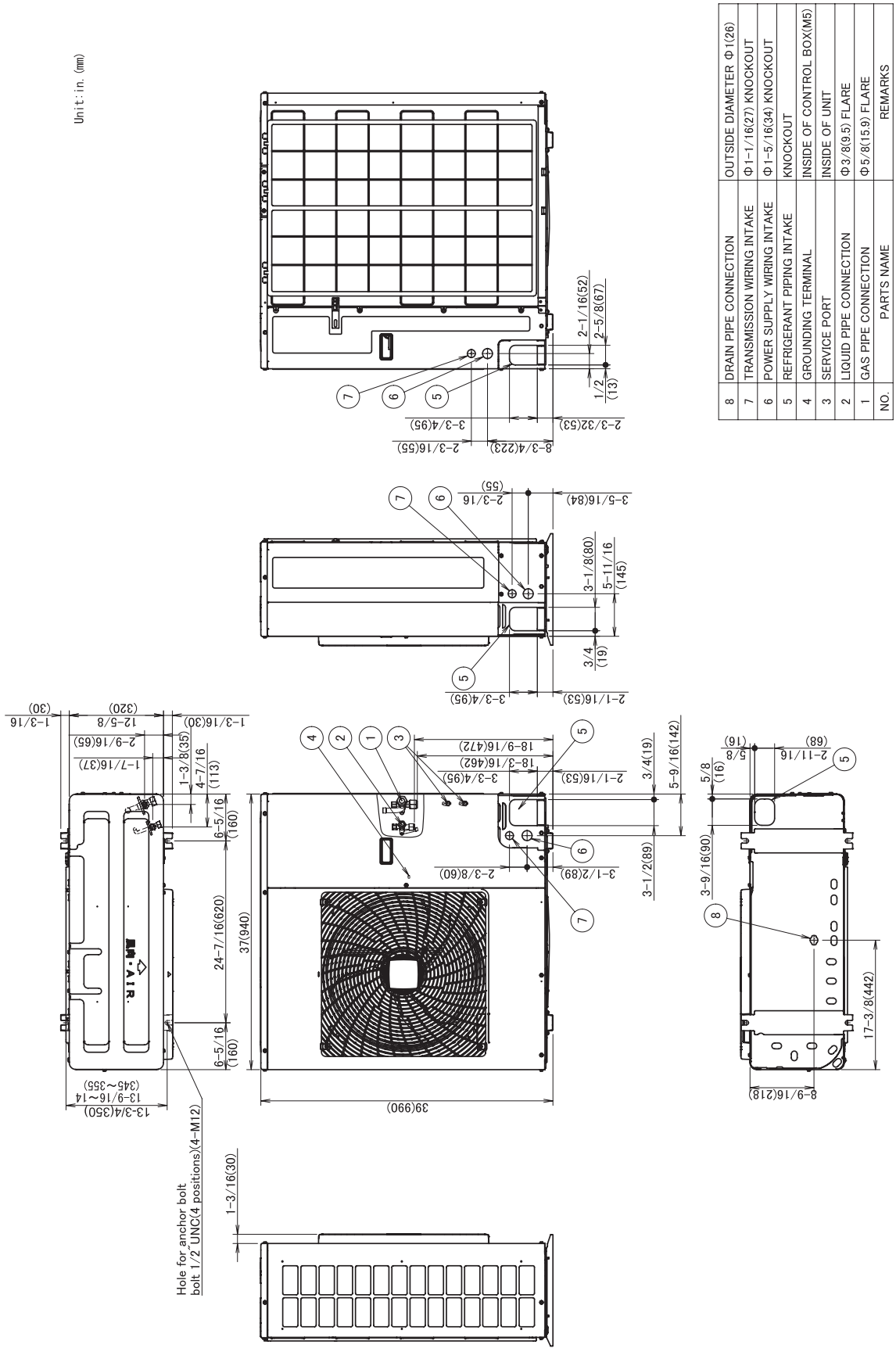
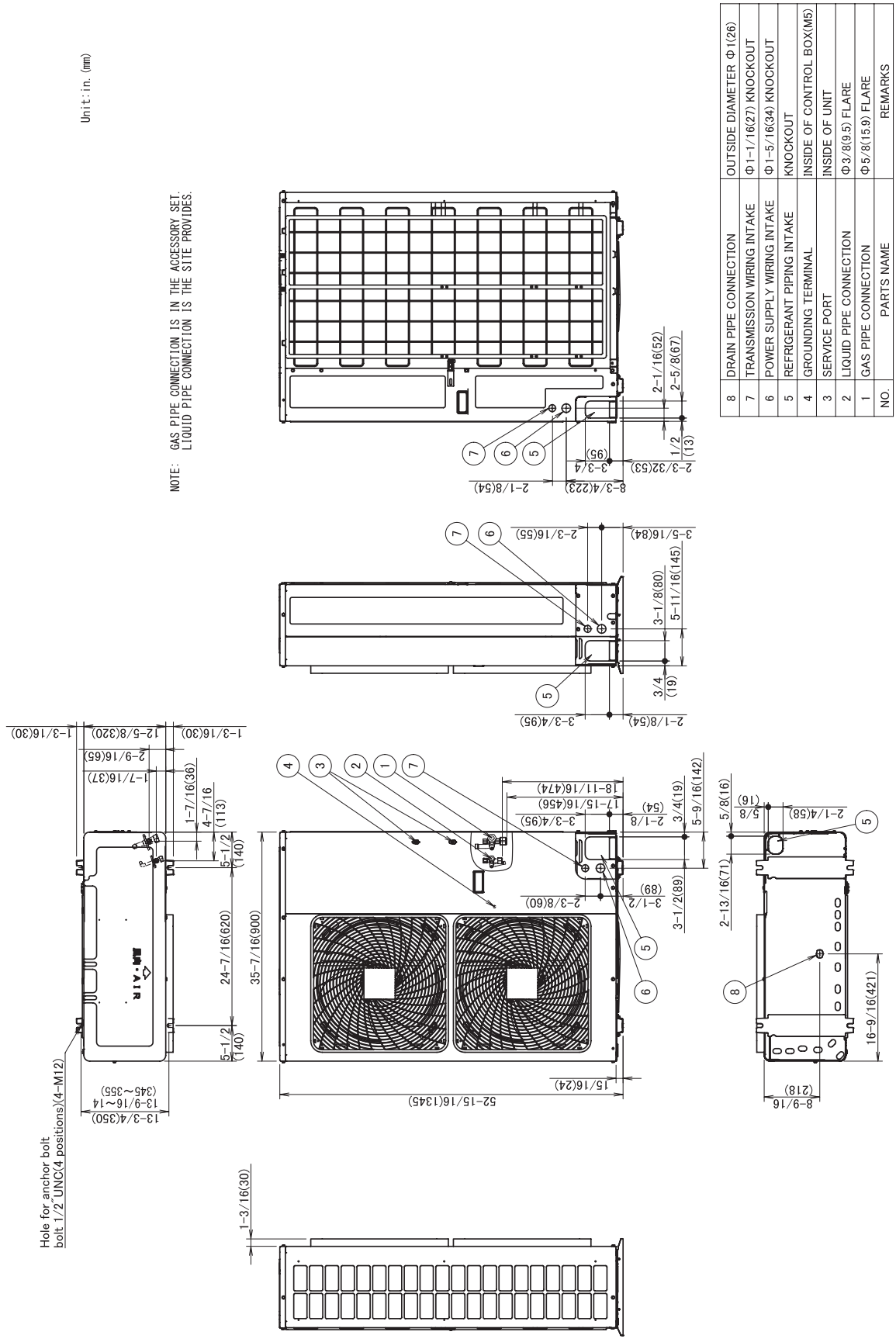


RXSQ60TBVJUA



8. Service Space

RXSQ24 - 48TBVJUA

REQUIRED INSTALLATION SPACE

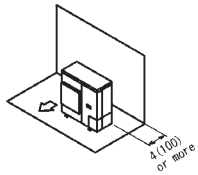
The unit of the balues is inch(mm).

1. Where there is an obstacle on the suction side:

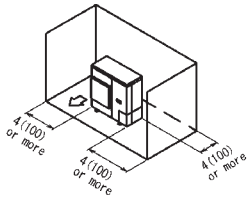
(a) No obstacle above

(1) Stand-alone installation

·Obstacle on the suction side only

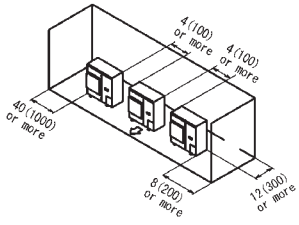


·Obstacle on both sides



(2) Series installation (2 or more)

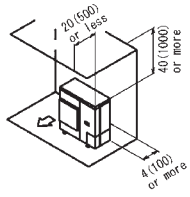
·Obstacle on both sides



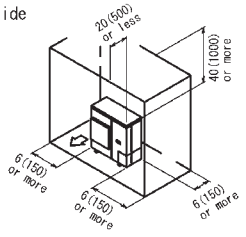
(b) Obstacle above, too

(1) Stand-alone installation

·Obstacle on the suction side, too

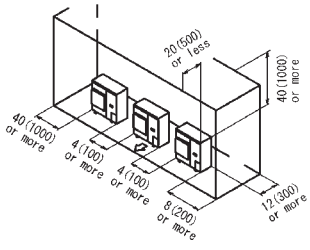


·Obstacle on the suction side and both sides



(2) Series installation (2 or more)

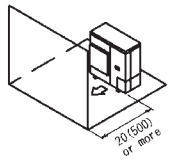
·Obstacle on the suction side and both sides



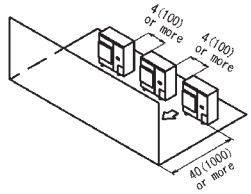
2. Where there is an obstacle on the discharge side:

(a) No obstacle above

(1) Stand-alone installation

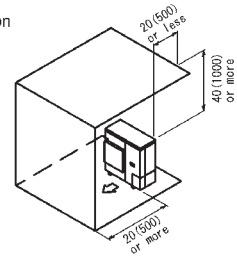


(2) Series installation (2 or more)

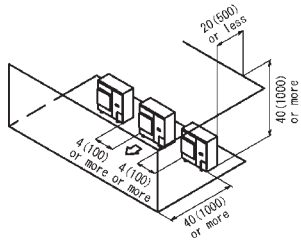


(b) Obstacle above, too

(1) Stand-alone installation



(2) Series installation (2 or more)



3. Where there are obstacles on both suction side and discharge sides:

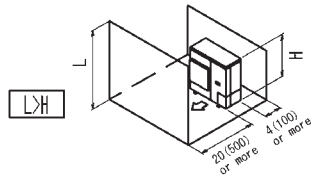
Pattern 1

Where the obstacles on the discharge side is higher than the unit:

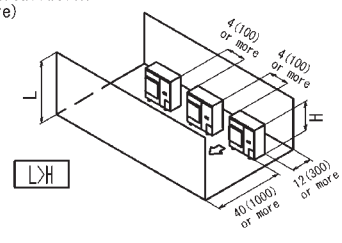
(There is no height limit for obstructions on the intake side.)

(a) No obstacle above

(1) Stand-alone installation



(2) Series installation (2 or more)



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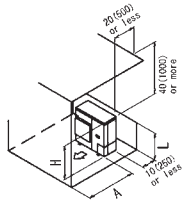
(b) Obstacle above, too

(1) Stand-alone installation

The relations between H, A and L are as follows:

	L	A
L≦H	0<L≦1/2H	30 (750)
	1/2H<L≦H	40 (1000)
H<L	Set the stand as:	L≦H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.



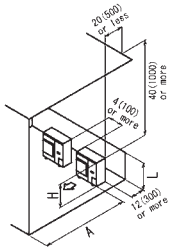
(2) Series installation
(2 or more)

The relations between H, A and L are as follows:

	L	A
L≦H	0<L≦1/2H	40 (1000)
	1/2H<L≦H	50 (1250)
H<L	Set the stand as:	L≦H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

Only two units can be installed for this series.



Pattern 2

Where the obstacles on the discharge side is lower than the unit:

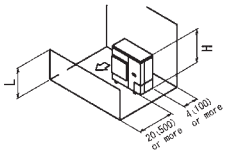
(There is no height limit for obstructions on the intake side.)

(a) No obstacle above

(1) Stand-alone installation

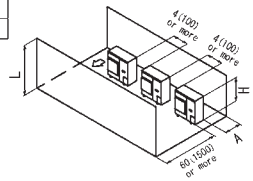
L>H

(2) Series installation
(2 or more)



The relations between H, A and L are as follows:

L	A
0<L≦1/2H	10 (250)
1/2H<L≦H	12 (300)



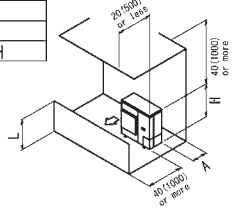
(b) Obstacle above, too

(1) Stand-alone installation

The relations between H, A and L are as follows:

	L	A
L≦H	0<L≦1/2H	4 (100)
	1/2H<L≦H	8 (200)
H<L	Set the stand as:	L≦H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.



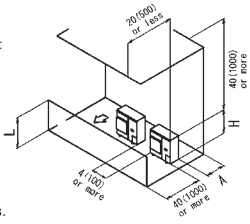
(2) Series installation

The relations between H, A and L are as follows:

	L	A
L≦H	0<L≦1/2H	10 (250)
	1/2H<L≦H	12 (300)
H<L	Set the stand as:	L≦H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

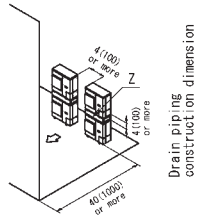
Only two units can be installed for this series.



4. Double-decker installation

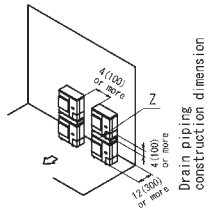
(a) Obstacle on the discharge side
Close the gap Z (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed.

Do not stack more than two unit.



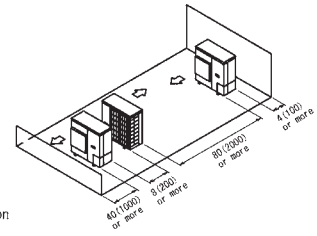
(b) Obstacle on the suction side
Close the gap Z (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed.

Do not stack more than two unit.



5. Multiple rows of series installation (on the rooftop, etc.)

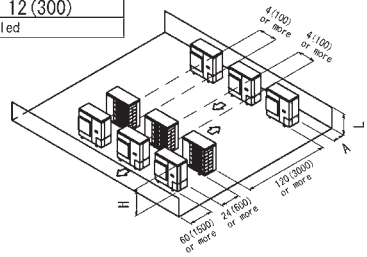
(a) One row of stand-alone installation



(b) Rows of series installation
(2 or more)

The relations between H, A and L are as follows:

	L	A
L≦H	0<L≦1/2H	10 (250)
	1/2H<L≦H	12 (300)
H<L	Cannot be installed	



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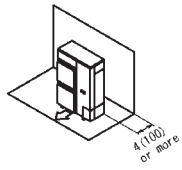
REQUIRED INSTALLATION SPACE

The unit of the balues is inch(mm).

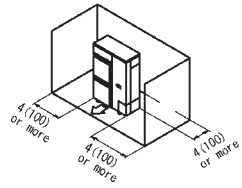
1. Where there is an obstacle on the suction side:

(a) No obstacle above

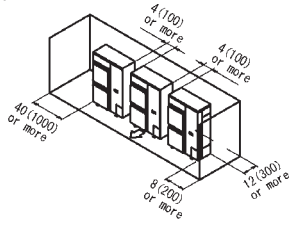
(1) Stand-alone installation
·Obstacle on the suction side only



·Obstacle on both sides

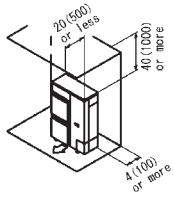


(2) Series installation (2 or more)
·Obstacle on both sides

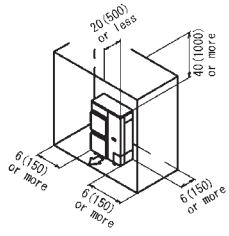


(b) Obstacle above, too

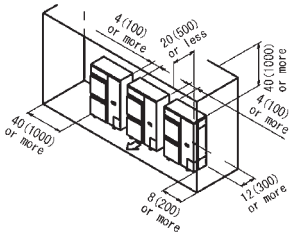
(1) Stand-alone installation
·Obstacle on the suction side, too



·Obstacle on the suction side and both sides



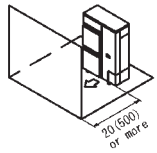
(2) Series installation (2 or more) (NOTE)
·Obstacle on the suction side and both sides



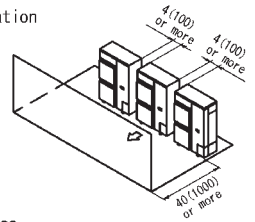
2. Where there is an obstacle on the discharge side:

(a) No obstacle above

(1) Stand-alone installation

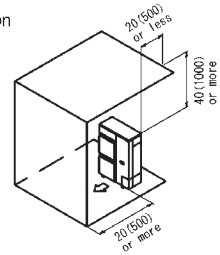


(2) Series installation (2 or more)

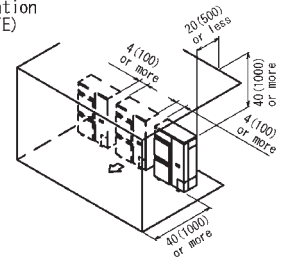


(b) Obstacle above, too

(1) Stand-alone installation



(2) Series installation (2 or more) (NOTE)



3. Where there are obstacles on both suction side and discharge sides:

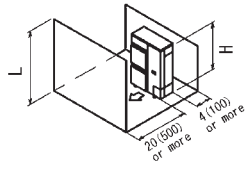
Pattern 1

Where the obstacles on the discharge side is higher than the unit:
(There is no height limit for obstructions on the intake side.)

(a) No obstacle above

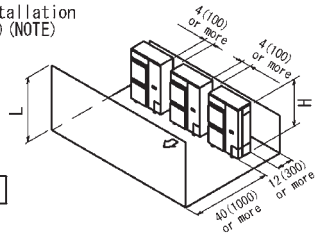
(1) Stand-alone installation

L>H



(2) Series installation (2 or more) (NOTE)

L>H



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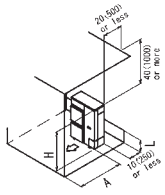
(b) Obstacle above, too

(1) Stand-alone installation

The relations between H, A and L are as follows:

	L	A
L≦H	0<L≦1/2H	30 (750)
	1/2H<L≦H	40 (1000)
H<L	Set the stand as:	L≦H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

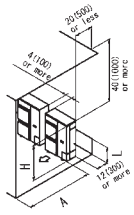


The relations between H, A and L are as follows:

	L	A
L≦H	0<L≦1/2H	40 (1000)
	1/2H<L≦H	50 (1250)
H<L	Set the stand as:	L≦H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

Only two units can be installed for this series.



Pattern 2

Where the obstacles on the discharge side is lower than the unit:

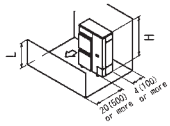
(There is no height limit for obstructions on the intake side.)

(a) No obstacle above

(1) Stand-alone installation

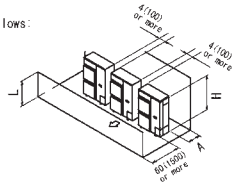
L≦H

(2) Series installation (2 or more) (NOTE)



The relations between H, A and L are as follows:

L	A
0<L≦1/2H	10 (250)
1/2H<L≦H	12 (300)



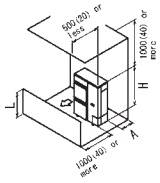
(b) Obstacle above, too

(1) Stand-alone installation

The relations between H, A and L are as follows:

	L	A
L≦H	0<L≦1/2H	4 (100)
	1/2H<L≦H	8 (200)
H<L	Set the stand as:	L≦H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.



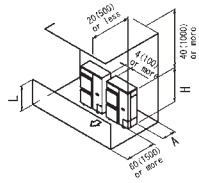
(2) Series installation (NOTE)

The relations between H, A and L are as follows:

	L	A
L≦H	0<L≦1/2H	10 (250)
	1/2H<L≦H	12 (300)
H<L	Set the stand as:	L≦H

Close the bottom of the installation frame to prevent the discharged air from being bypassed.

Only two units can be installed for this series.



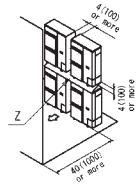
4. Double-decker installation

(a) Obstacle on the discharge side (NOTE)
Close the gap Z (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed.

Do not stack more than two unit.

Set the board (field supply) as the detail A between two units to prevent the drainage rom frozing.

Leave the enough space between the layer one and the board.

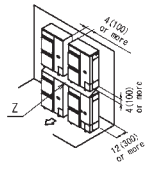


(b) Obstacle on the suction side (NOTE)
Close the gap Z (the gap between the upper and lower outdoor units) to prevent the discharged air from being bypassed.

Do not stack more than two unit.

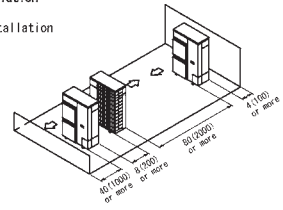
Set the board (field supply) as the detail A between two units to prevent the drainage rom frozing.

Leave the enough space between the layer one and the board.



5. Multiple rows of series installation (on the rooftop, etc.)

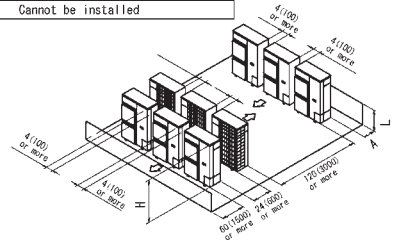
(a) One row of stand-alone installation



(b) Rows of series installation (2 or more)

The relations between H, A and L are as follows:

	L	A
L≦H	0<L≦1/2H	10 (250)
	1/2H<L≦H	12 (300)
H<L	Cannot be installed	



(NOTE) When install the units in a line, have to leave the distance over 4 (100) between the two units.

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9. Center of Gravity

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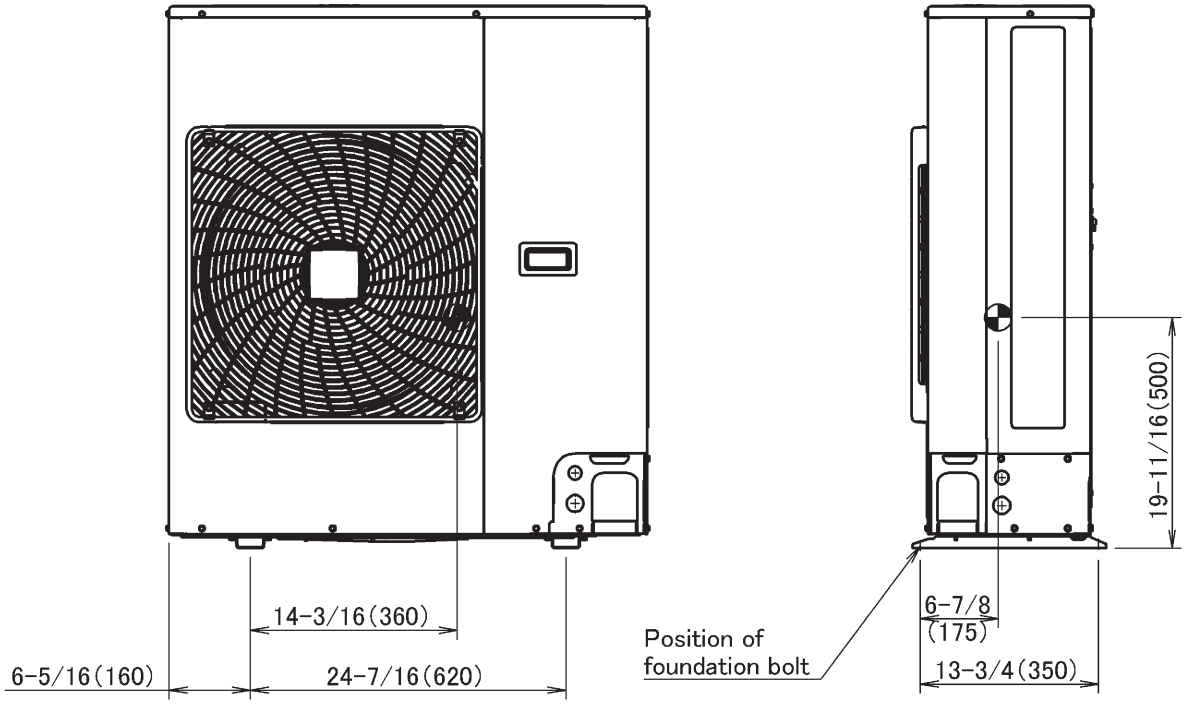
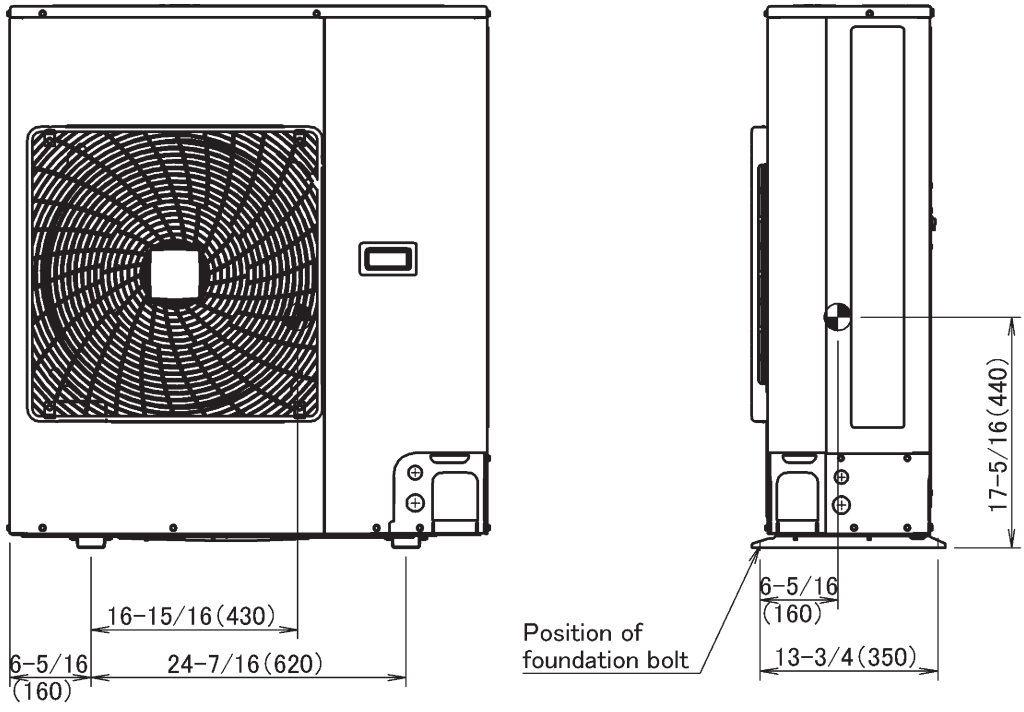
Unit: in. (mm)



4D101439A

RXSQ48TBVJUA

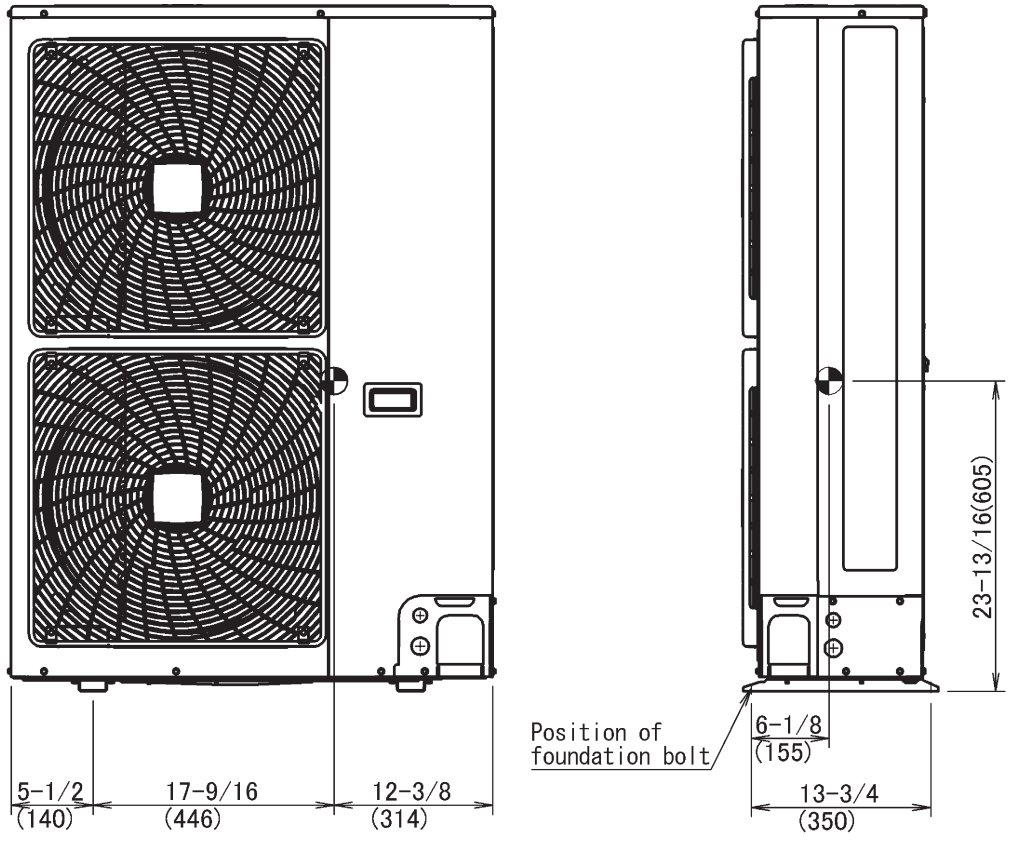
Unit: in. (mm)



4D101440A

RXSQ60TBVJUA

Unit: in. (mm)



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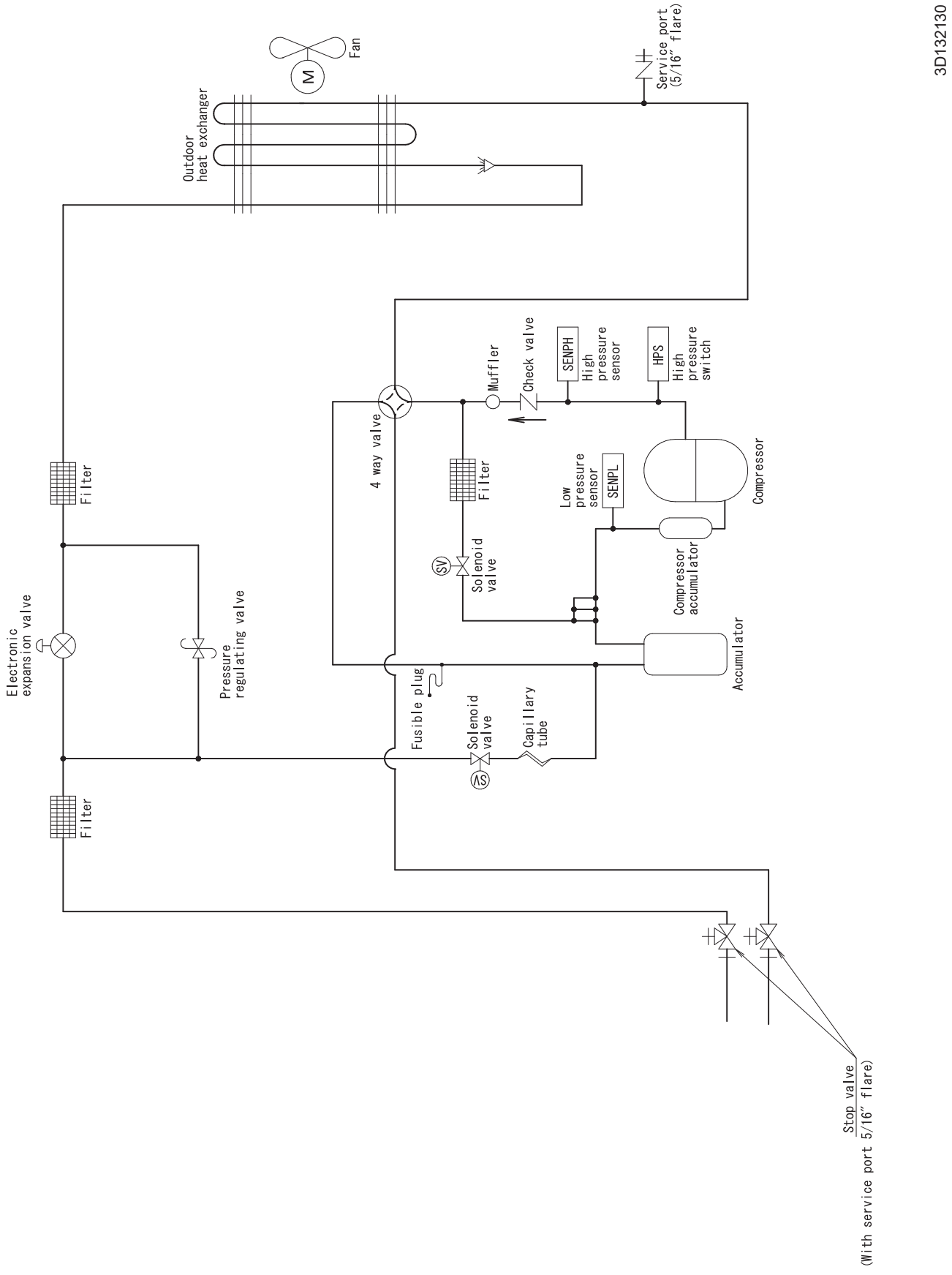
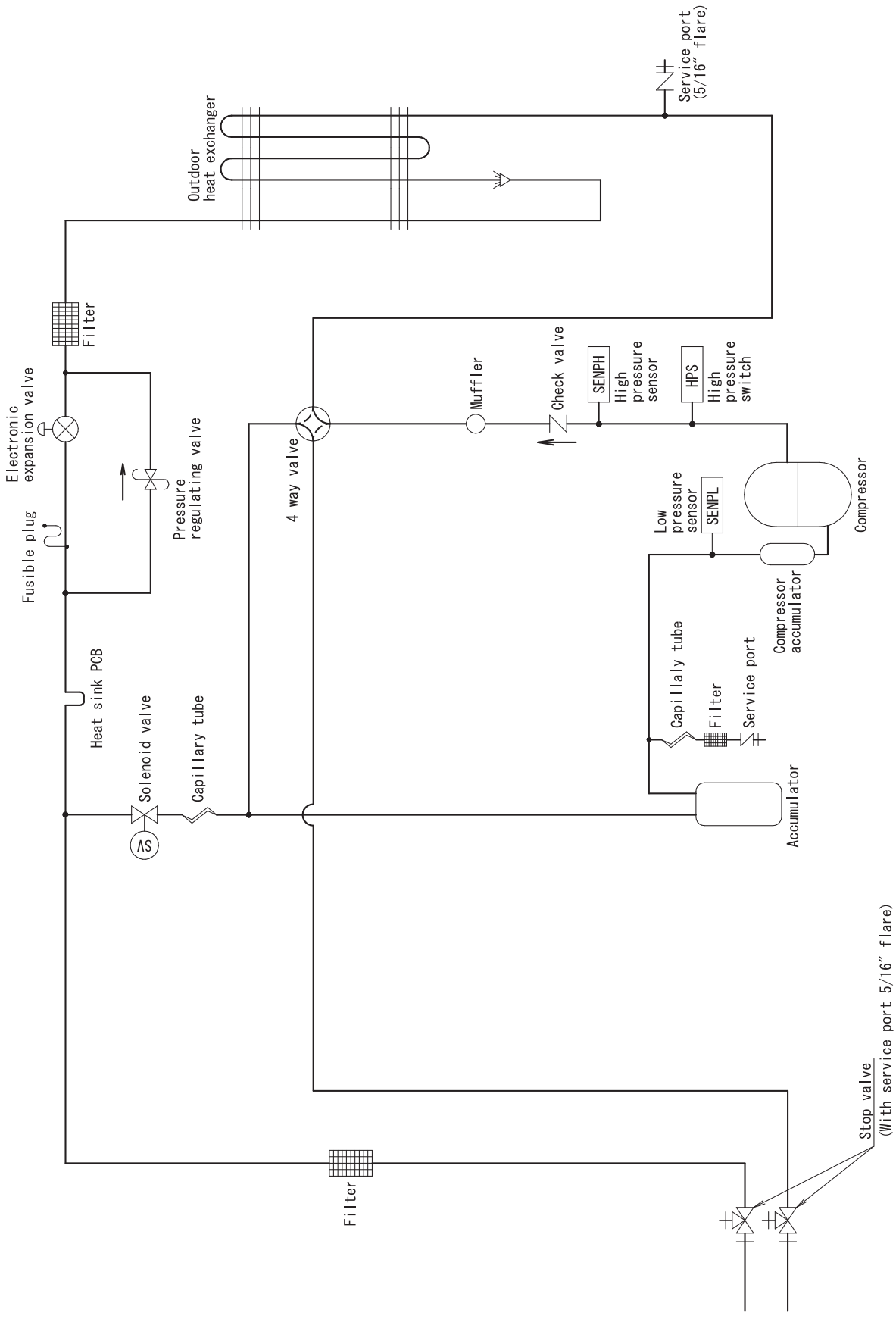
10.Piping Diagrams

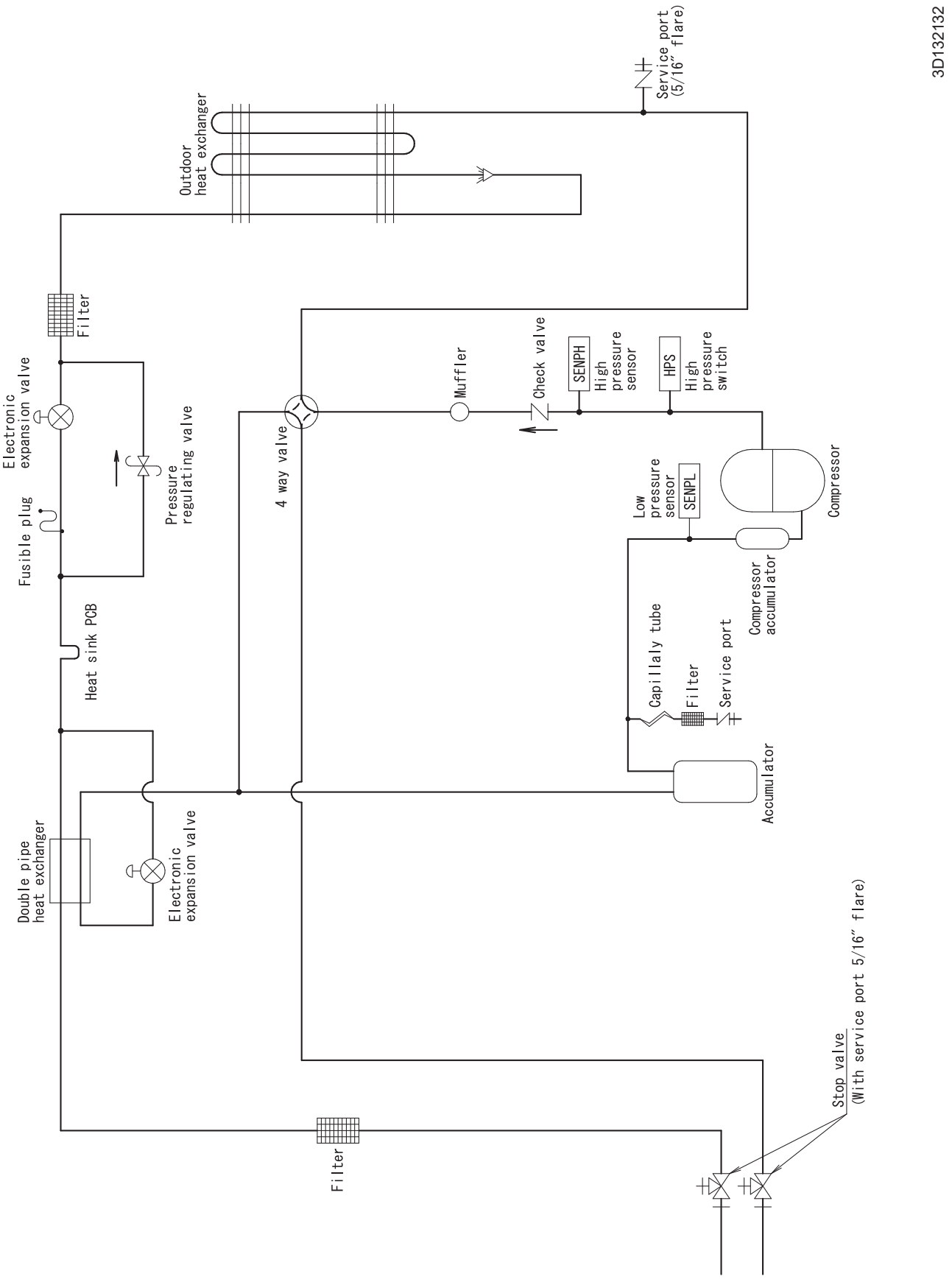
RXSQ24 - 36TBVJUA



RXSQ48TBVJUA

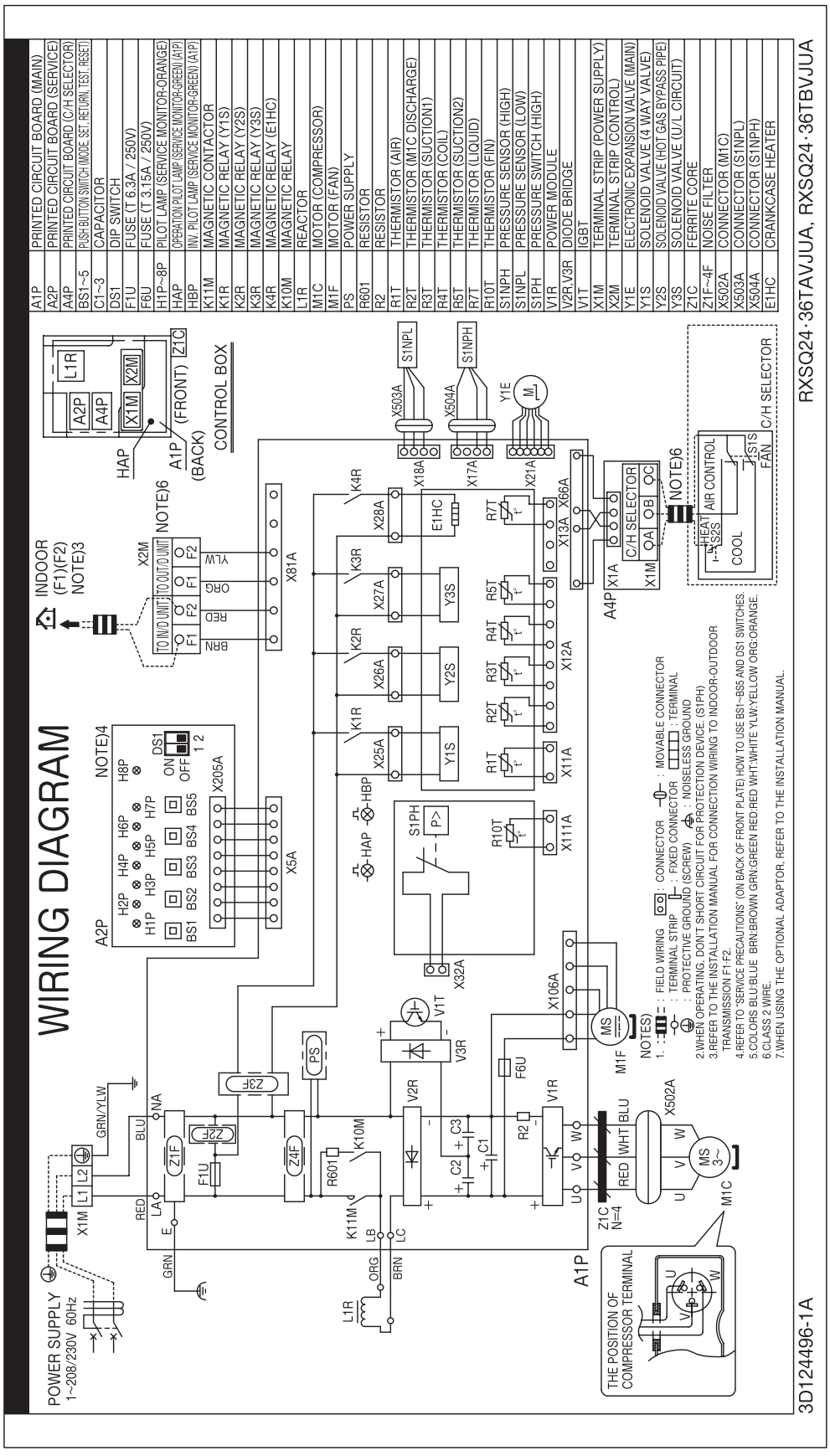


RXSQ60TBVJUA

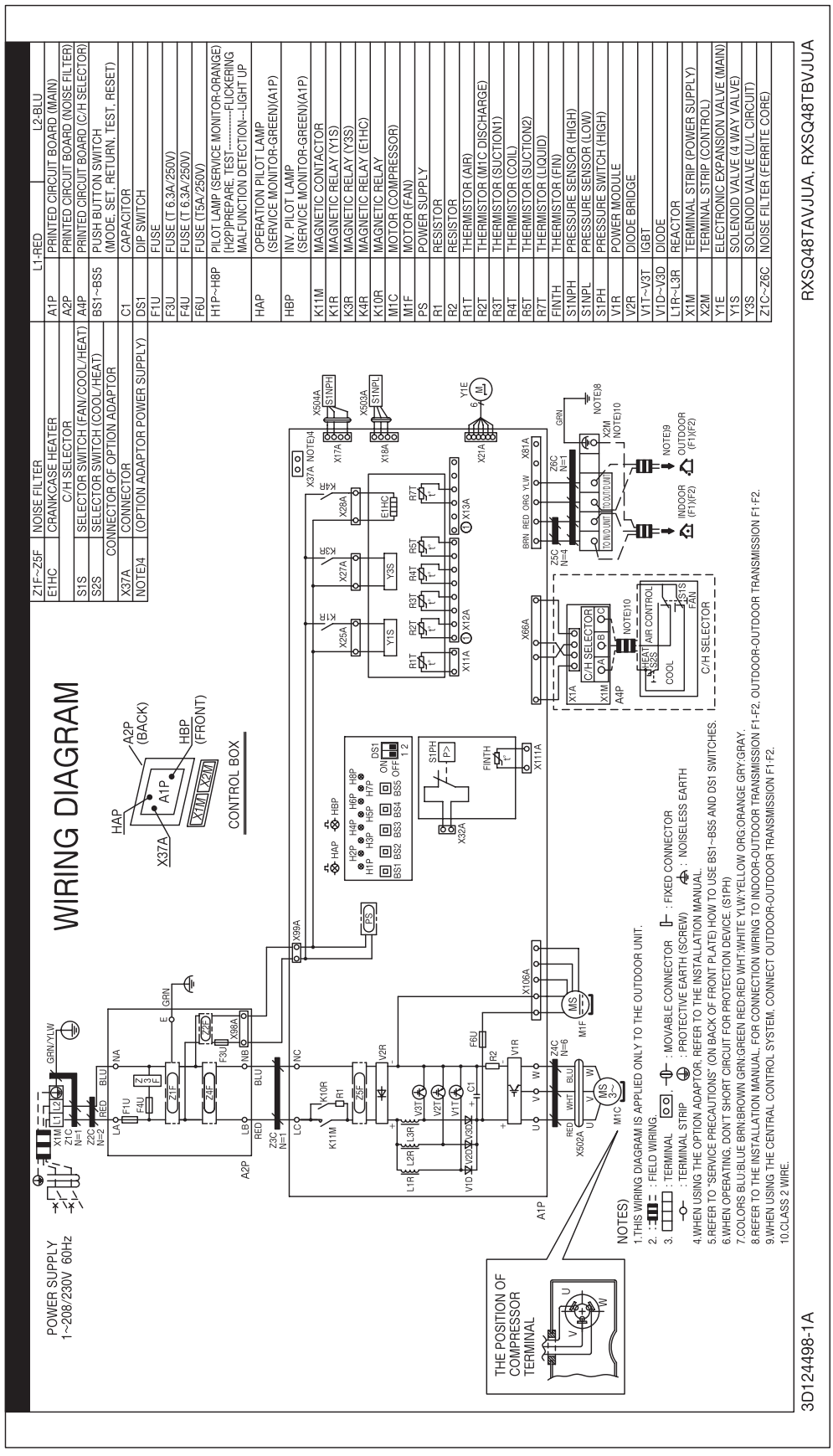


11. Wiring Diagrams

RXSQ24 - 36TBVJUA

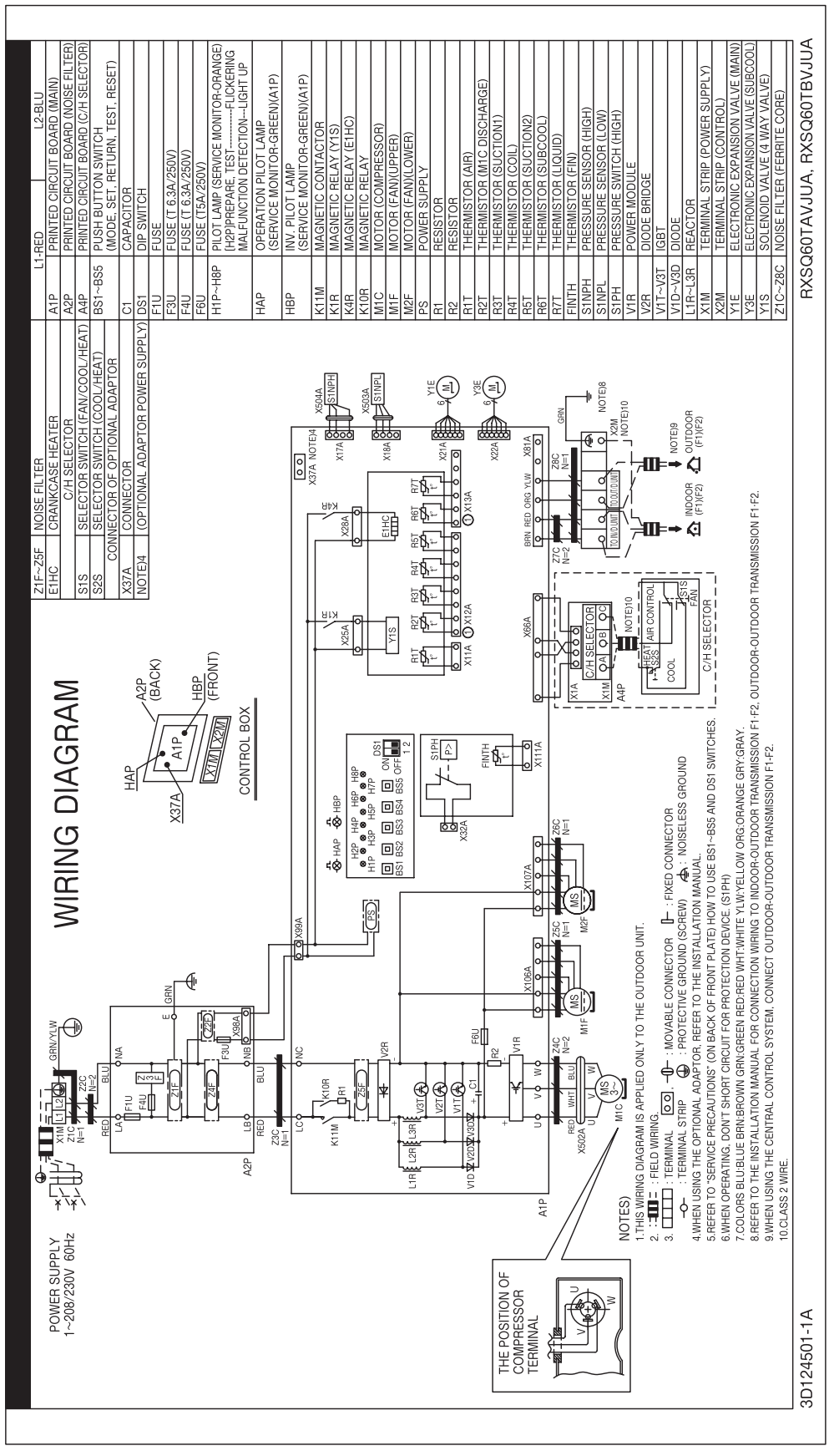


RXSQ48TBVJUA



C: 3D124498B

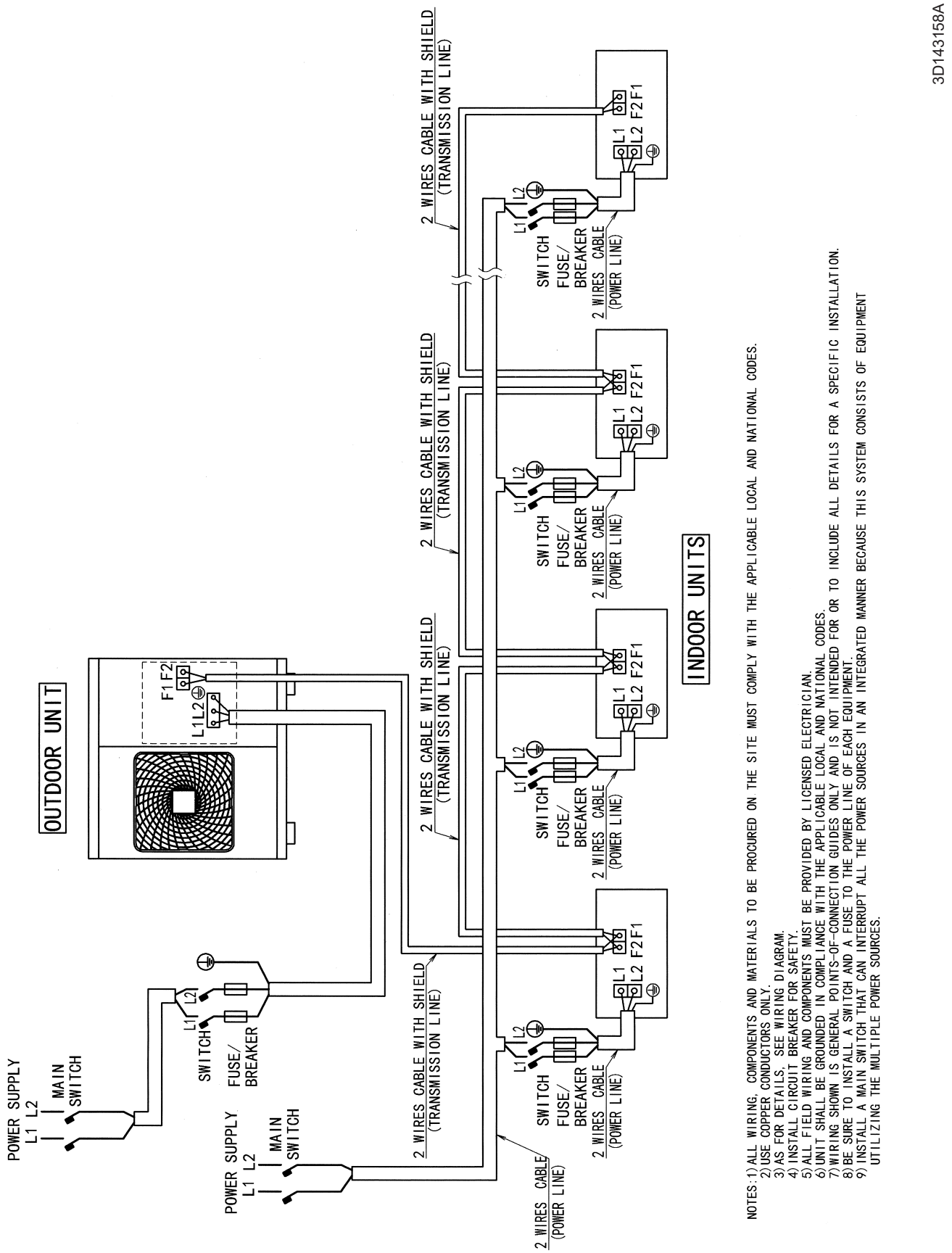
RXSQ60TBVJUA



C: 3D124501B

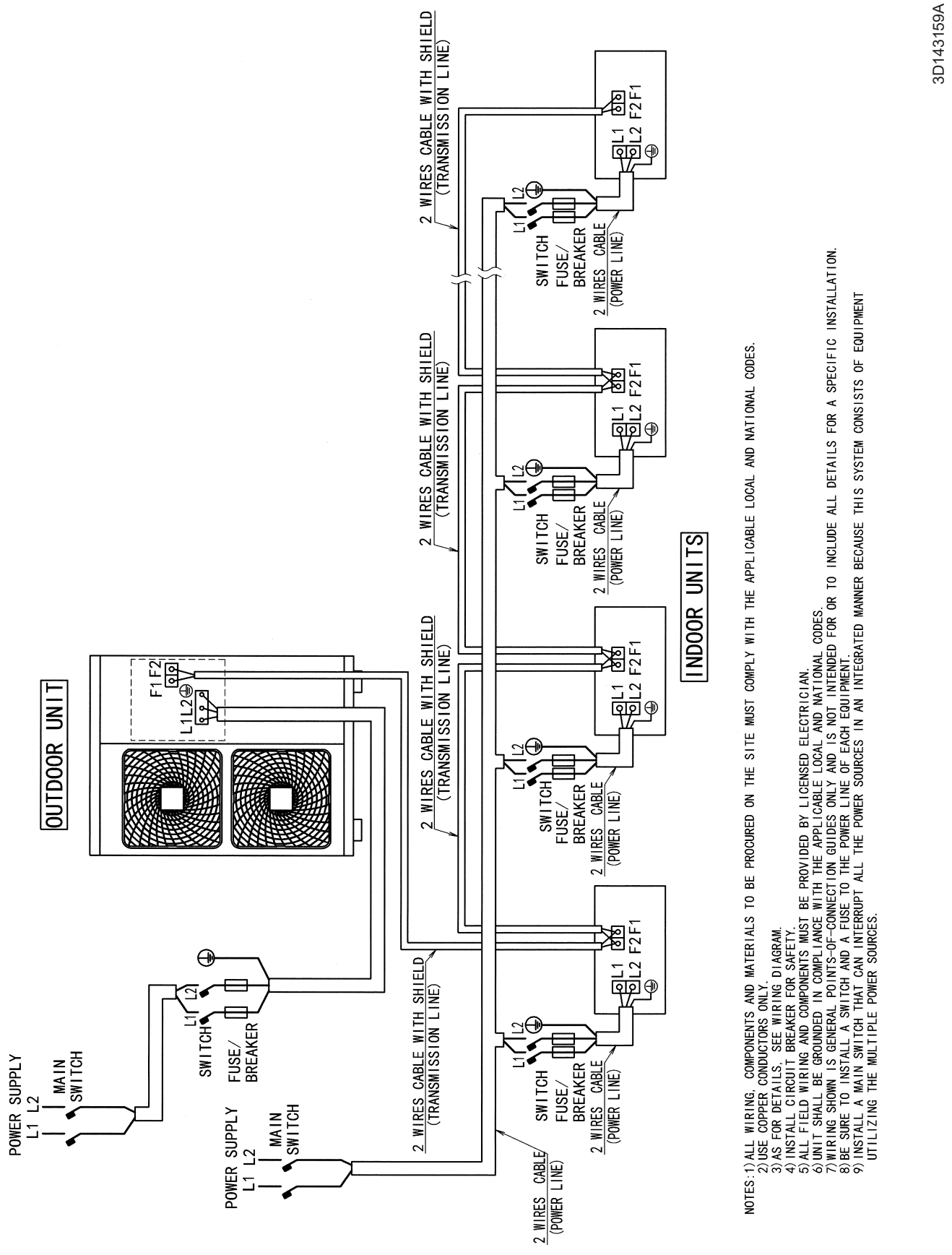
12.Field Wiring

RXSQ24 - 48TBVJUA



NOTES: 1) ALL WIRING, COMPONENTS AND MATERIALS TO BE PROCURED ON THE SITE MUST COMPLY WITH THE APPLICABLE LOCAL AND NATIONAL CODES.
2) USE COPPER CONDUCTORS ONLY.
3) AS FOR DETAILS, SEE WIRING DIAGRAM.
4) INSTALL CIRCUIT BREAKER FOR SAFETY.
5) ALL FIELD WIRING AND COMPONENTS MUST BE PROVIDED BY LICENSED ELECTRICIAN.
6) UNIT SHALL BE GROUNDED IN COMPLIANCE WITH THE APPLICABLE LOCAL AND NATIONAL CODES.
7) WIRING SHOWN IS GENERAL POINTS-OF-CONNECTION GUIDES ONLY AND IS NOT INTENDED FOR OR TO INCLUDE ALL DETAILS FOR A SPECIFIC INSTALLATION.
8) BE SURE TO INSTALL A SWITCH AND A FUSE TO THE POWER LINE OF EACH EQUIPMENT.
9) INSTALL A MAIN SWITCH THAT CAN INTERRUPT ALL THE POWER SOURCES IN AN INTEGRATED MANNER BECAUSE THIS SYSTEM CONSISTS OF EQUIPMENT UTILIZING THE MULTIPLE POWER SOURCES.

RXSQ60TBVJUA



NOTES: 1) ALL WIRING, COMPONENTS AND MATERIALS TO BE PROCURED ON THE SITE MUST COMPLY WITH THE APPLICABLE LOCAL AND NATIONAL CODES.
2) USE COPPER CONDUCTORS ONLY.
3) AS FOR DETAILS, SEE WIRING DIAGRAM.
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13. Electrical Characteristics

RXSQ24 - 60TBVJUA

Model	Units				Power supply		Comp.	OFM	
	Hz	Volts	Min.	Max.	MCA	MOP	RLA	KW	FLA
RXSQ24TBVJUA	60	208/230	187	253	16.5	20	15.3	0.2	0.6
RXSQ36TBVJUA	60	208/230	187	253	16.5	20	15.3	0.2	0.6
RXSQ48TBVJUA	60	208/230	187	253	29.1	35	19.0	0.2	0.6
RXSQ60TBVJUA	60	208/230	187	253	29.1	35	23.2	0.070 + 0.070	0.3 + 0.3

Symbol:

MCA: Minimum Circuit Ampacity (A)
MOP: Maximum Overcurrent Protective Device (See note 7) (A)
RLA: Rated Load Ampere (A)
OFM: Outdoor Fan Motor (A)
FLA: Full Load Ampere (A)
KW: Fan Motor Rated Output (kW)

Note:

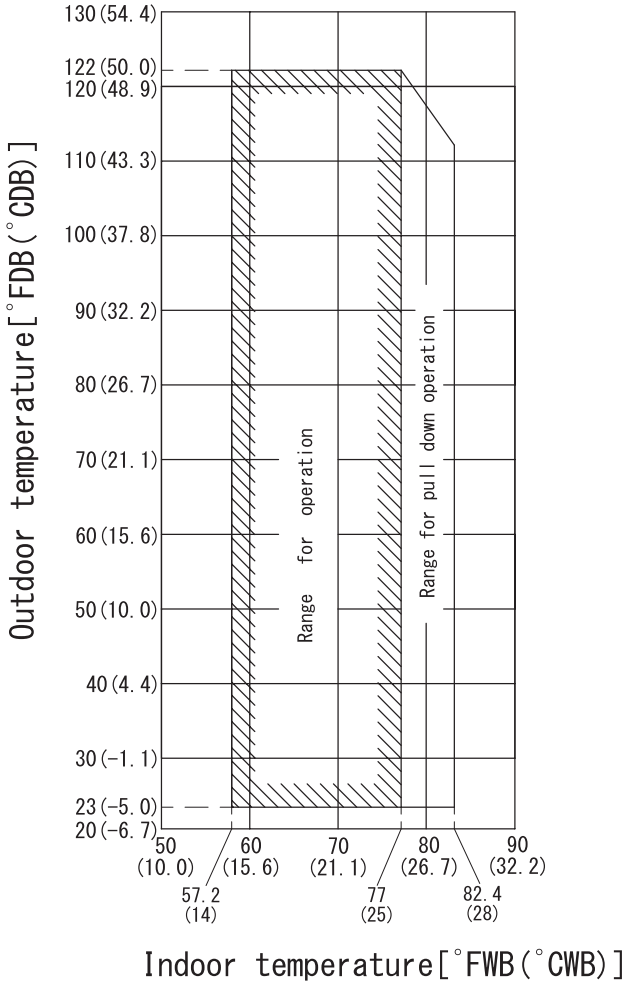
1. RLA is based on the following conditions.
   Power supply: 60 Hz 208/230 V
   Cooling
   Indoor temp. 80.0°FDB (26.7°CDB) / 67.0°FWB (19.4°CWB)
   Outdoor temp. 95.0°FDB (35.0°CDB)
   Heating
   Indoor temp. 70.0°FDB (21.1°CDB)
   Outdoor temp. 47.0°FDB (8.3°CDB) / 43.0°FWB (6.1°CWB)
2. Voltage range
   Units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.
3. Maximum allowable voltage variation between phases is 2%.
4. MCA represents maximum input current.
5. MOP represents capacity which may accept MCA.
6. Select wiring size based on the MCA.
7. MOP is used to select a fuse, circuit breaker, or ground fault circuit interrupter.

C: 3D143220A

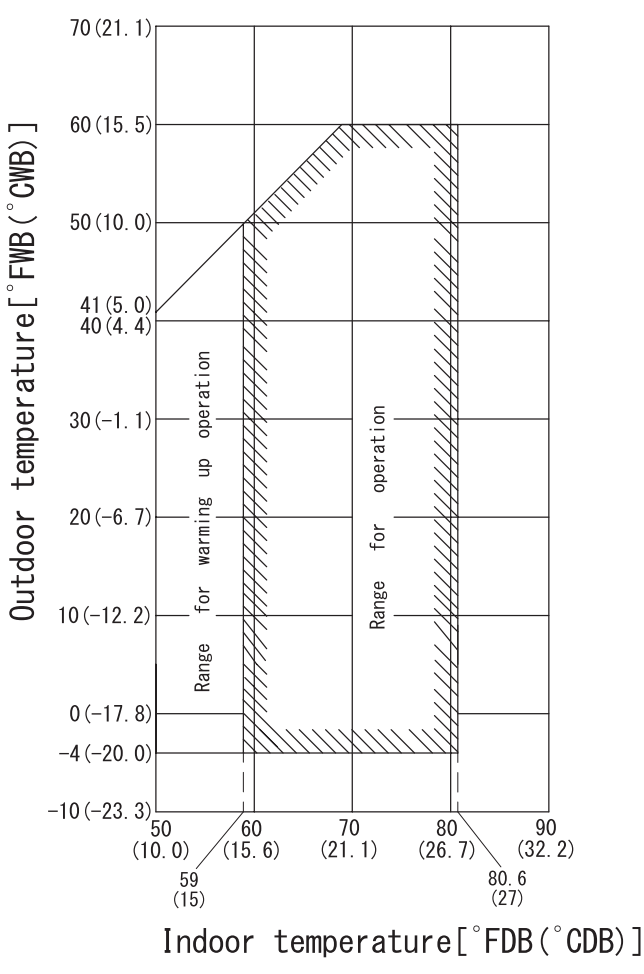
14.Operation Limits

RXSQ24 - 60TBVJUA

Cooling



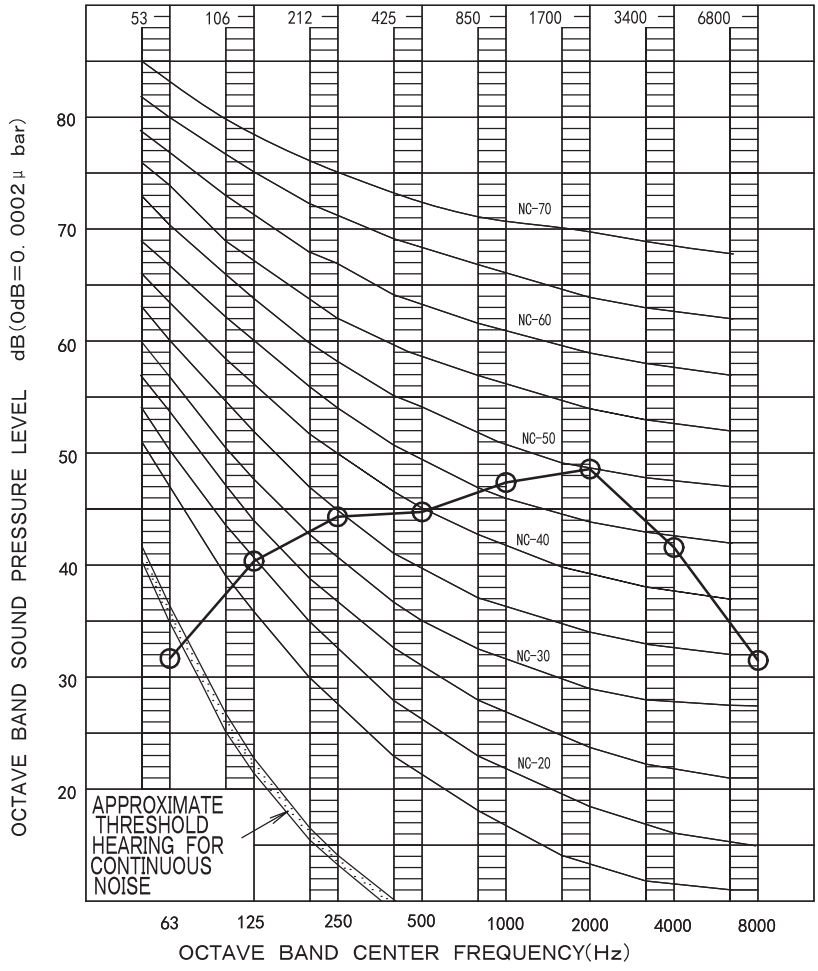
Heating



3D115457

15.Sound Levels (Reference Data)

RXSQ24TBVJUA (cooling)



OVER ALL (dB)

SCALE A	58

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

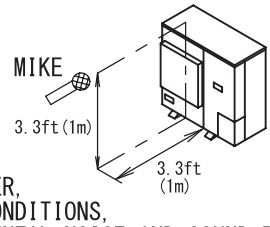
POWER SOURCE 208/230V 60Hz

COOLING RETURN AIR TEMPERATURE:80.0°FDB(26.7°CDB), 67.0°FWB(19.4°CWB)
OUTDOOR TEMPEARATURE:95.0°FDB(35.0°CDB), 75.0°FWB(23.9°CWB)

MEASURING PLACE

ANECHOIC CHAMBER

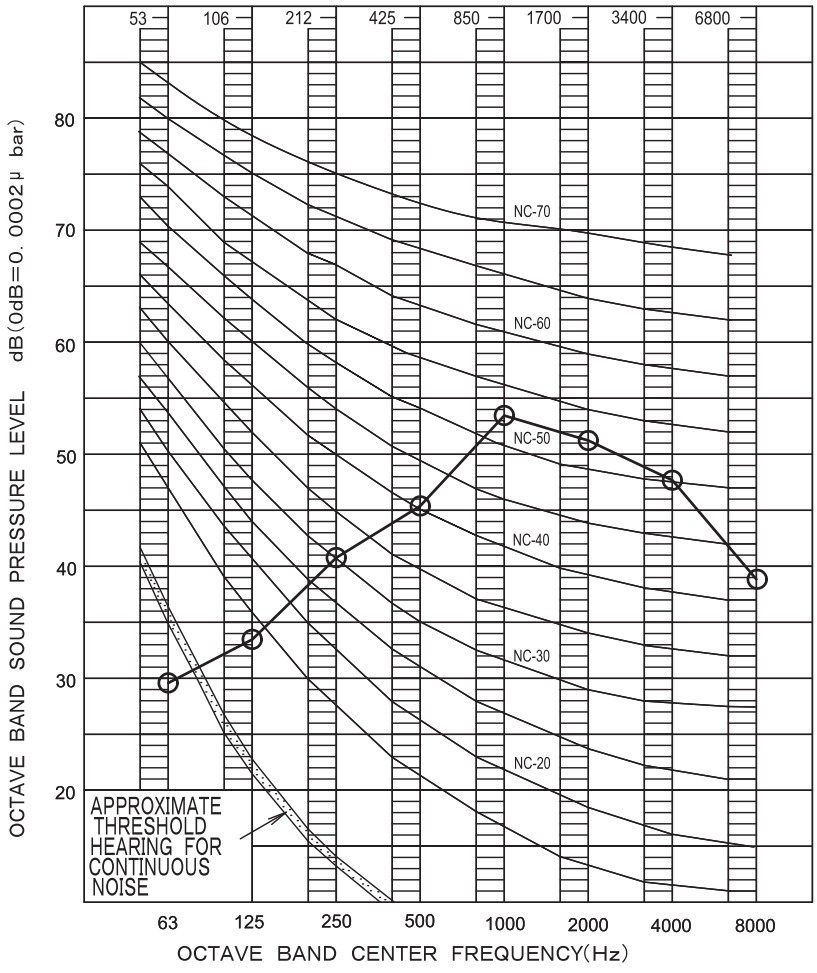
LOCATION OF MICROPHONE



NOTE:THE OPERATING SOUND IS MEASURED IN ANECHOIC CHAMBER,
IF IT IS MEASURED UNDER THE ACTUAL INSTALLATION CONDITIONS,
IT IS NORMALLY OVER THE SET VALUE DUE TO ENVIRONMENTAL NOISE AND SOUND REFLECTION.

4D109800

RXSQ24TBVJUA (heating)



OVER ALL (dB)

SCALE A	61

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

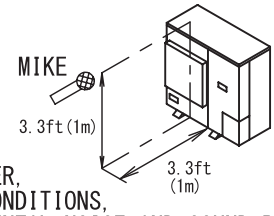
POWER SOURCE 208/230V 60Hz

HEATING RETURN AIR TEMPERATURE:70.0°FDB(21.1°CDB)
OUTDOOR TEMPEARATURE:47.0°FDB(8.3°CDB), 43.0°FWB(6.1°CWB)

MEASURING PLACE

ANECHOIC CHAMBER

LOCATION OF MICROPHONE



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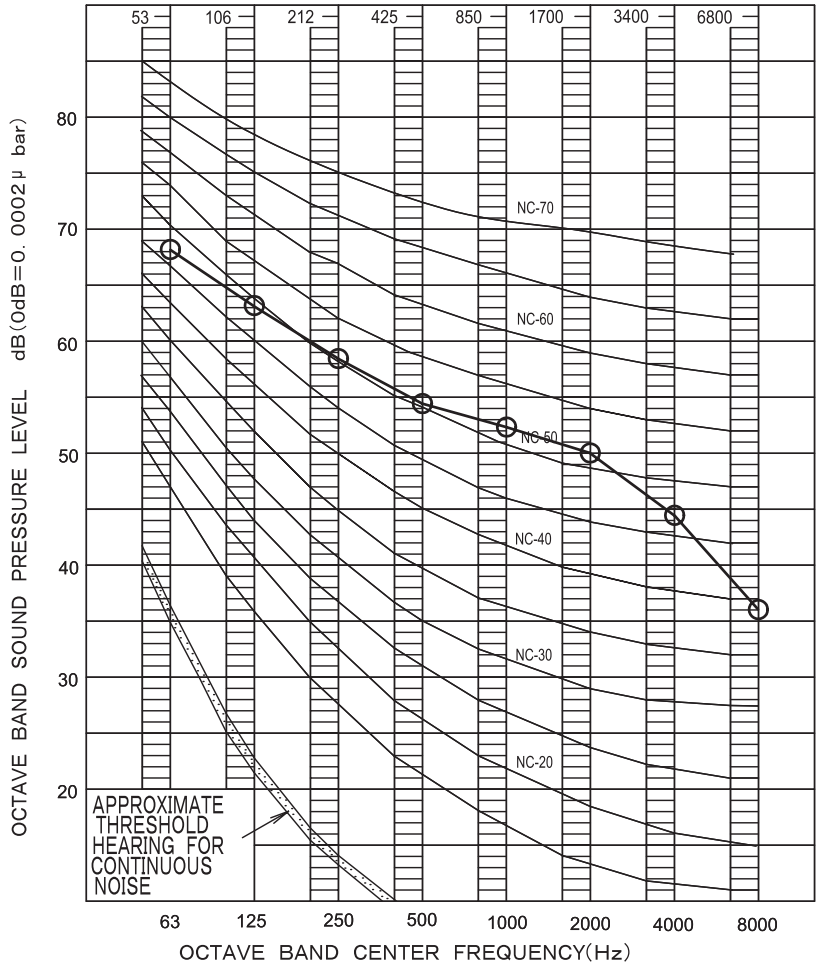
IF IT IS MEASURED UNDER THE ACTUAL INSTALLATION CONDITIONS,
IT IS NORMALLY OVER THE SET VALUE DUE TO ENVIRONMENTAL NOISE AND SOUND REFLECTION.
WHEN FROSTING ON COIL,OPERATING SOUND MAY BECOME LARGER THAN THE ABOVE VALUE.

4D109818A

RXSQ36TBVJUA (cooling)



OVER ALL (dB)

SCALE A	58

OPERATING CONDITIONS

POWER SOURCE 208/230V 60Hz

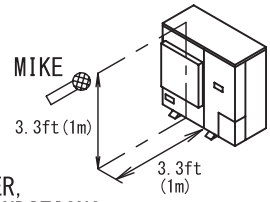
COOLING RETURN AIR TEMPERATURE:80.0°FDB(26.7°CDB), 67.0°FWB(19.4°CWB)
OUTDOOR TEMPEARATURE:95.0°FDB(35.0°CDB), 75.0°FWB(23.9°CWB)

(B.G.N IS ALREADY RECTIFIED)

MEASURING PLACE

ANECHOIC CHAMBER

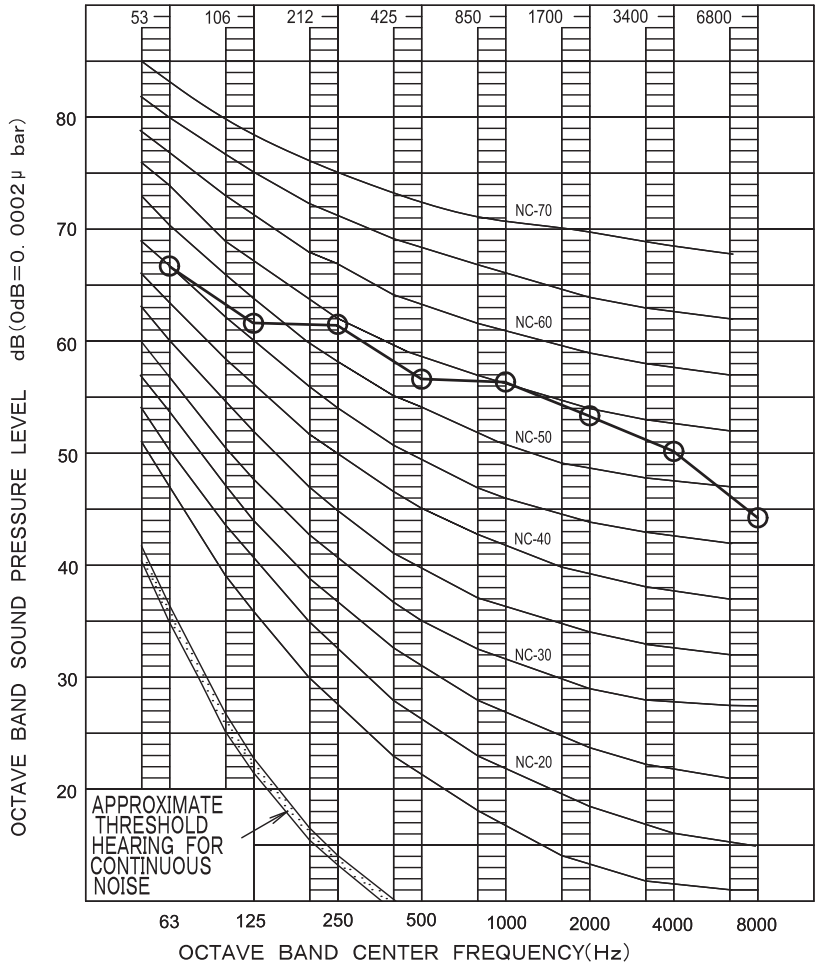
LOCATION OF MICROPHONE



NOTE:THE OPERATING SOUND IS MEASURED IN ANECHOIC CHAMBER,
IF IT IS MEASURED UNDER THE ACTUAL INSTALLATION CONDITIONS,
IT IS NORMALLY OVER THE SET VALUE DUE TO ENVIRONMENTAL NOISE AND SOUND REFLECTION.

4D101947D

RXSQ36TBVJUA (heating)



OVER ALL (dB)

SCALE A	61

(B. G. N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

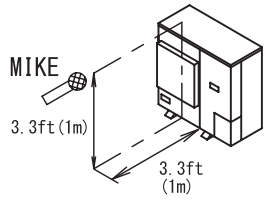
POWER SOURCE 208/230V 60Hz

HEATING RETURN AIR TEMPERATURE:70.0°FDB(21.1°CDB)
OUTDOOR TEMPEARATURE:47.0°FDB(8.3°CDB), 43.0°FWB(6.1°CWB)

MEASURING PLACE

ANECHOIC CHAMBER

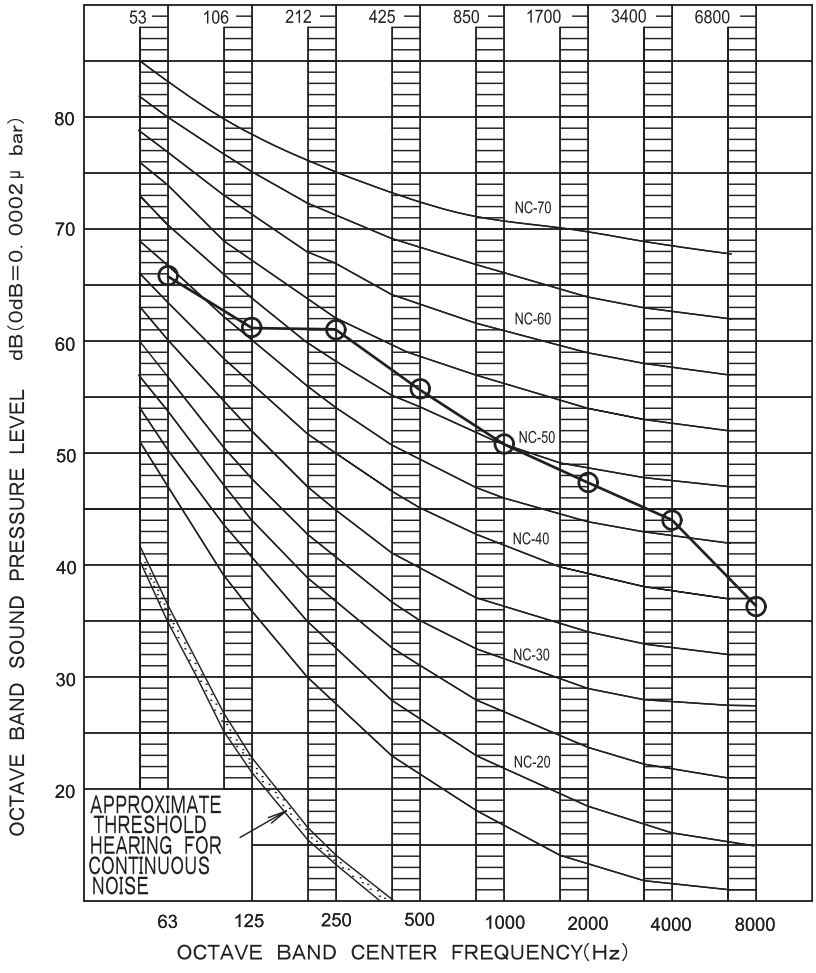
LOCATION OF MICROPHONE



NOTE:THE OPERATING SOUND IS MEASURED IN ANECHOIC CHAMBER,
IF IT IS MEASURED UNDER THE ACTUAL INSTALLATION CONDITIONS,
IT IS NORMALLY OVER THE SET VALUE DUE TO ENVIRONMENTAL NOISE AND SOUND REFLECTION.
WHEN FROSTING ON COIL,OPERATING SOUND MAY BECOME LARGER THAN THE ABOVE VALUE.

4D101948E

RXSQ48TBVJUA (cooling)



OVER ALL (dB)

SCALE A	58

(B.G.N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

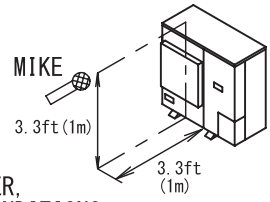
POWER SOURCE 208/230V 60Hz

COOLING RETURN AIR TEMPERATURE:80.0°FDB(26.7°CDB), 67.0°FWB(19.4°CWB)
OUTDOOR TEMPEARATURE:95.0°FDB(35.0°CDB), 75.0°FWB(23.9°CWB)

MEASURING PLACE

ANECHOIC CHAMBER

LOCATION OF MICROPHONE



NOTE:THE OPERATING SOUND IS MEASURED IN ANECHOIC CHAMBER,
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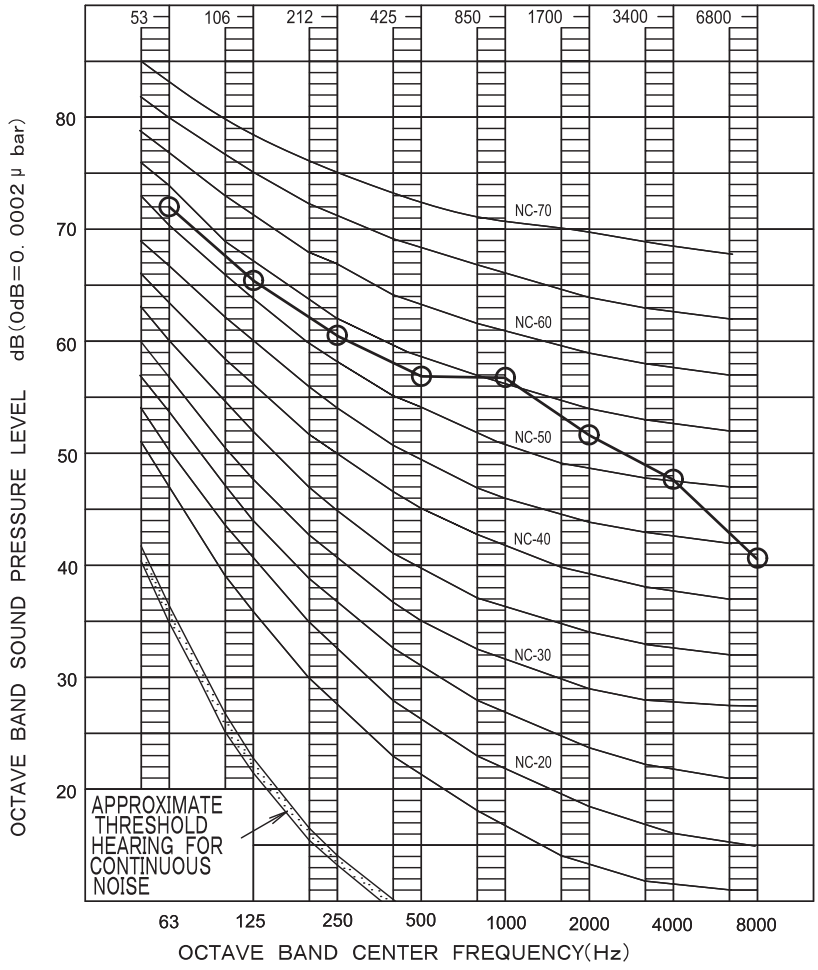
IT IS NORMALLY OVER THE SET VALUE DUE TO ENVIRONMENTAL NOISE AND SOUND REFLECTION.

4D102719C

RXSQ48TBVJUA (heating)



OVER ALL (dB)

SCALE A	61

(B. G. N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

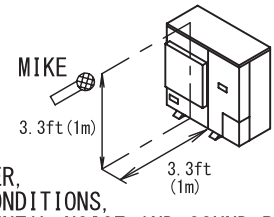
POWER SOURCE 208/230V 60Hz

HEATING RETURN AIR TEMPERATURE:70.0°FDB(21.1°CDB)
OUTDOOR TEMPEARATURE:47.0°FDB(8.3°CDB),43.0°FWB(6.1°CWB)

MEASURING PLACE

ANECHOIC CHAMBER

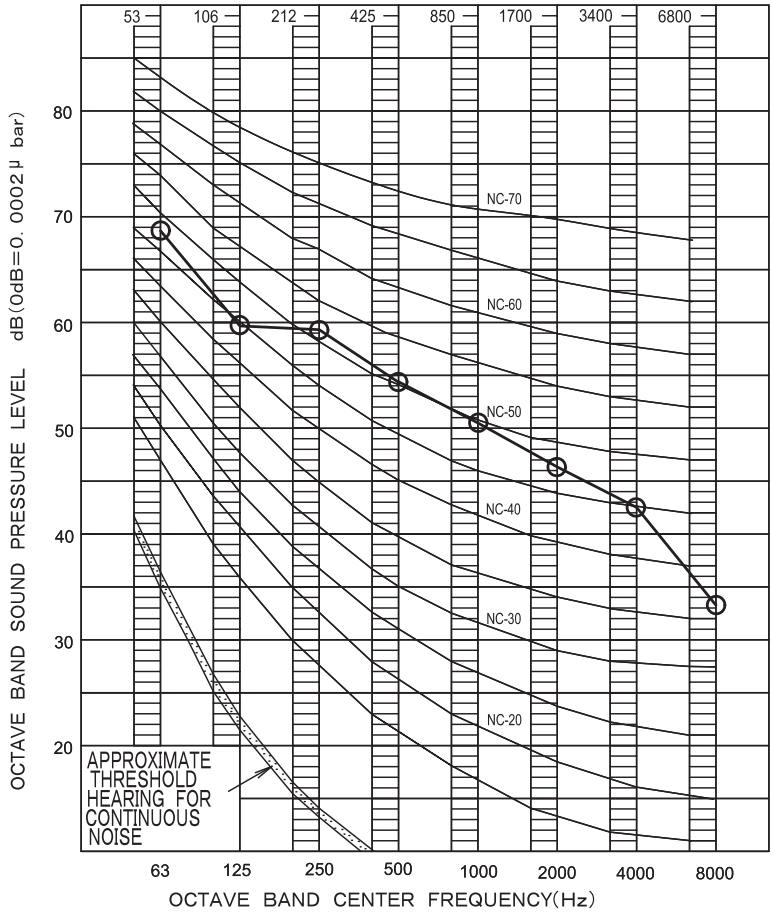
LOCATION OF MICROPHONE



NOTE:THE OPERATING SOUND IS MEASURED IN ANECHOIC CHAMBER,
IF IT IS MEASURED UNDER THE ACTUAL INSTALLATION CONDITIONS,
IT IS NORMALLY OVER THE SET VALUE DUE TO ENVIRONMENTAL NOISE AND SOUND REFLECTION.
WHEN FROSTING ON COIL,OPERATING SOUND MAY BECOME LARGER THAN THE ABOVE VALUE.

4D102720D

RXSQ60TBVJUA (cooling)



OVER ALL (dB)

SCALE A	57

(B. G. N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

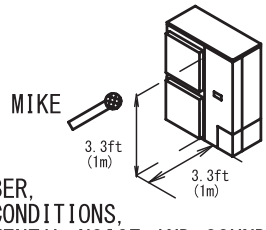
POWER SOURCE 208/230V 60Hz

COOLING RETURN AIR TEMPERATURE:80.0°FDB(26.7°CDB), 67.0°FWB(19.4°CWB)
OUTDOOR TEMPEARATURE:95.0°FDB(35.0°CDB), 75.0°FWB(23.9°CWB)

MEASURING PLACE

ANECHOIC CHAMBER

LOCATION OF MICROPHONE



NOTE:THE OPERATING SOUND IS MEASURED IN ANECHOIC CHAMBER,
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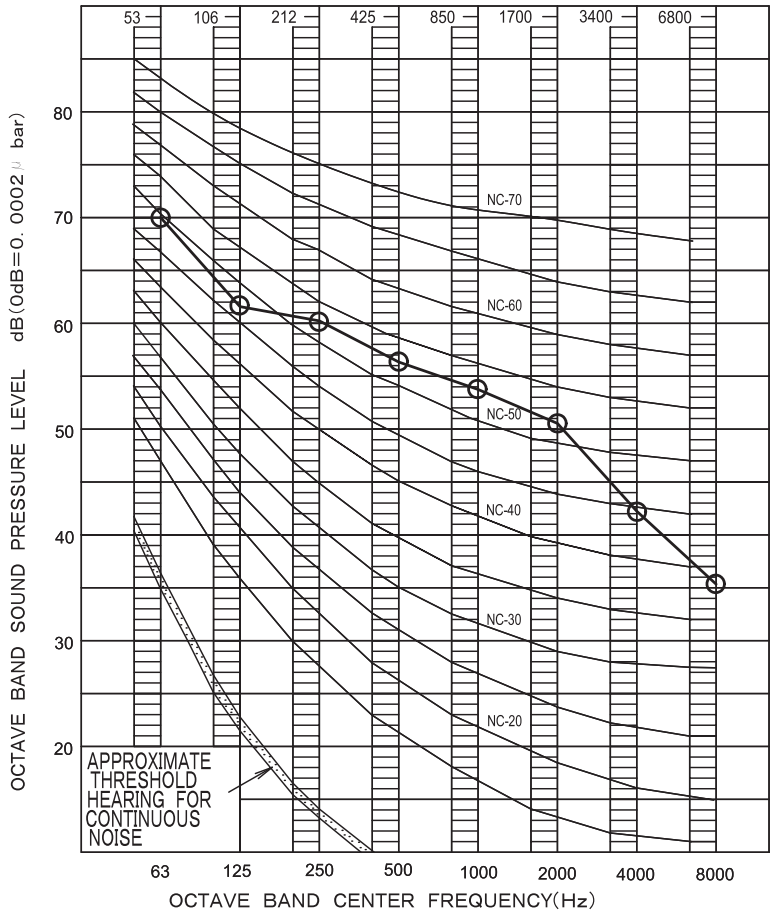
IT IS NORMALLY OVER THE SET VALUE DUE TO ENVIRONMENTAL NOISE AND SOUND REFLECTION.

4D101949D

RXSQ60TBVJUA (heating)



OVER ALL (dB)

SCALE A	59

(B. G. N IS ALREADY RECTIFIED)

OPERATING CONDITIONS

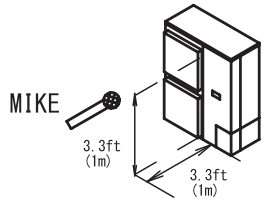
POWER SOURCE 208/230V 60Hz

HEATING RETURN AIR TEMPERATURE: 70.0°FDB (21.1°CDB)
OUTDOOR TEMPEARATURE: 47.0°FDB (8.3°CDB), 43.0°FWB (6.1°CWB)

MEASURING PLACE

ANECHOIC CHAMBER

LOCATION OF MICROPHONE



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WHEN FROSTING ON COIL, OPERATING SOUND MAY BECOME LARGER THAN THE ABOVE VALUE.

4D101950E

16.Accessories

16.1 Optional Accessories

RXSQ24 - 60TBVJUA

Optional accessories		RXSQ24TBVJUA RXSQ36TBVJUA	RXSQ48TBVJUA	RXSQ60TBVJUA
ABC I/P printed circuit board kit		—	BRP2A82	
Distributive piping	REFNET header	KHRP26M22H9 / KHRP26M22HA (Max. 4 branch), KHRP26M33H9 / KHRP26M33HA (Max. 8 branch)		
	REFNET joint	KHRP26A22T9 / KHRP26A22TA		

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17.Selection Procedure

17.1 Selection Procedure

17.1.1 Flowchart

[1] Given conditions

Given conditions:
- Indoor unit design temperature and humidity
- Outside ambient design conditions for heat pump operation (if necessary)
- Outside ambient design conditions for gas furnace heating (if necessary)
- Required cooling and heating load of each zone
- Required total system load (if necessary)
- Refrigerant piping lengths, vertical piping length differences
- Desired indoor unit types (type and number of indoor units)

Define the allowable tolerance or safety factor for the indoor units and the outdoor units.

[2] Select indoor unit(s) and gas furnace(s)

For CXTQ cased coil units:
- Select CXTQ with capacity that meets the required cooling load
- Select gas furnace with High Fire output capacity that meets the required heating load
- Ensure the selected gas furnace is compatible with the CXTQ cased coil units

For ***VRV*** indoor units:
- Select indoor unit with capacity that meets the required cooling and heating loads

Indoor unit cooling / heating capacity at operating indoor temperature (DB/WB) ≥ (required cooling / heating load) × (tolerance / safety factor)

Gas furnace High Fire output ≥ (required heating load) × (tolerance / safety factor)

[3] Select of outdoor unit

Define required total cooling load to outdoor unit
Define required total heat pump heating load to outdoor unit from ***VRV*** indoor units

1a) Use the sum total of cooling loads for all zones.
1b) Use the sum total of heating loads for ***VRV*** indoor units

2a) Use the system total (block) cooling load.
2b) Use the system total (block) heating load.

Provisionally select the outdoor unit size based on the design's allowable connection ratio.

Confirm that the number of indoor units connected to the outdoor unit is within the allowable number of indoor units.

Make corrections to adjust the capacity of the outdoor unit for the following items:
- Longest refrigerant piping distance
- Piping vertical separation distances (height from outdoor units to indoor units)
- Connection ratio
- Design cooling / heating ambient operating temperatures
- Defrost factor (for heating capacity)
- Outdoor unit tolerance / safety factor

Is the corrected cooling (heating) capacity of the outdoor unit ≥ required total cooling (heating) capacity of the outdoor unit?

No

Yes

Is the design heating ambient temperature below –4°F?

No

Yes

Design a secondary source of heat for spaces served by only ***VRV*** indoor units if the home will require heating operation below –4°F. Select appropriate KRP accessory to allow the ***VRV*** unit to turn out the heat source.

VRV LIFE™ system selection is complete

17.1.2 Selection Example 1 - CXTQ & *VRV* Indoor Units

The following is a selection example for a ***VRV*** LIFE system incorporating a CXTQ & gas furnace and other ***VRV*** indoor units.

[1] Given conditions

-System arrangement

- The home will use a CXTQ & gas furnace as a Central Zone to supply air to most of the home.
- There is a Bonus Room upstairs that has historically been uncomfortable. This room will use an FXEQ one-way-blow cassette to give independent temperature control to the room.
- The outdoor unit will be located on the ground level.
- The CXTQ & gas furnace will be installed in the basement, 10 ft. below ground level.
- The FXEQ will be installed in the Bonus Room upstairs 18 ft. above ground level.
- The equivalent piping length for the system is 45 feet.

-Design conditions

- Indoor air temperature — cooling: 77°FDB / 64°FWB
- Indoor air temperature — heating: 70°FDB
- Outdoor ambient air temperature for cooling: 95°FDB
- Outdoor ambient air temperature for heating operation: 13°FDB / 7°FWB

-Determine the required cooling and heating capacities using an industry accepted load calculation method (i.e. ACCA Manual J or similar).

Zone	Cooling load	Heat pump heating load	Gas furnace heating load
Central Zone	42,350 Btu/h	—	95,000 Btu/h
Bonus Room	8,000 Btu/h	10,000 Btu/h	—

-Safety factor

For this example, no safety factor will be used. (i.e. safety factor = 1.0)

[2] Selection of indoor unit(s) and gas furnace(s)

To select the CXTQ & gas furnace:

- Determine the corrected total cooling capacity of the CXTQ at the defined indoor air temperature by referencing the capacity table in the CXTQ Engineering Data manual.
- If the design indoor air temperature falls between temperatures listed in the capacity table, calculate the capacity by interpolation.
- The corrected total cooling capacity should meet the required cooling load of the zone.
- The selected gas furnace should have a High Fire output that meets or exceeds the required heating load of the zone. Check a gas furnace spec sheet to see the high fire output.
- The selected gas furnace should also be confirmed to be a compatible furnace combination with the selected CXTQ. Check AHRI website whether the combination is in there.

To select the ***VRV*** indoor unit:

- Determine the corrected cooling capacity and the corrected heating capacity of the unit at the defined indoor air temperatures by referencing the capacity table in the indoor unit's Engineering Data manual.
- If the design indoor air temperature falls between temperatures listed in the capacity table, calculate the capacity by interpolation.
- The selected indoor unit's corrected cooling capacity and corrected heating capacity should meet or exceed the zone's cooling and heating loads, respectively.

Cooling capacity — CXTQ

MODEL	Indoor Air Temp. °FWB											
	61		64		67		70		72		75	
	Tc	SHC	Tc	SHC	Tc	SHC	Tc	SHC	Tc	SHC	Tc	SHC
	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH
CXTQ24	19.0	14.9	21.5	15.6	24.0	16.0	24.5	15.6	24.8	15.6	25.3	15.1
CXTQ36	28.4	20.6	32.2	20.2	36.0	20.7	36.7	21.1	37.2	21.1	37.9	20.0
CXTQ48	37.9	29.4	43.0	30.6	48.0	31.1	49.0	29.5	49.6	29.5	50.5	27.4
CXTQ60	47.4	37.4	53.6	38.8	60.0	40.0	61.2	39.5	62.0	39.5	63.2	38.4

Cooling capacity — FXEQ One way blow cassette

Model	Indoor air temp. °FWB (Te: 43°F (6°C))											
	61		64		67		70		72		75	
	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH	MBH
FXEQ07PVJU	5.9	4.9	6.7	5.4	7.5	5.8	7.6	5.9	7.8	5.4	7.9	5.1
FXEQ09PVJU	7.5	6.2	8.5	6.9	9.5	7.1	9.7	7.3	9.8	6.8	10.0	6.3
FXEQ12PVJU	9.5	7.5	10.7	8.2	12.0	8.3	12.2	8.8	12.4	8.4	12.6	8.0
FXEQ15PVJU	11.8	9.2	13.4	9.9	15.0	10.7	15.3	10.5	15.5	10.2	15.8	9.5
FXEQ18PVJU	14.2	11.1	16.1	12.1	18.0	12.9	18.4	12.9	18.6	12.2	18.9	11.9
FXEQ24PVJU	19.0	14.7	21.5	15.9	24.0	16.9	24.5	16.7	24.8	16.1	25.3	15.5

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

Heating capacity — FXEQ One way blow cassette

Model	Indoor air temp. °FDB (Tc: 115°F (46°C))					
	62	65	68	70	72	75
	TC	TC	TC	TC	TC	TC
	MBH	MBH	MBH	MBH	MBH	MBH
FXEQ07PVJU	9.9	9.3	8.8	8.5	8.2	7.7
FXEQ09PVJU	12.3	11.5	10.9	10.5	10.1	9.5
FXEQ12PVJU	15.8	14.8	14.0	13.5	13.0	12.3
FXEQ15PVJU	19.2	18.0	17.1	16.5	15.9	15.0
FXEQ18PVJU	23.3	21.9	20.7	20.0	19.3	18.1
FXEQ24PVJU	31.5	29.5	28.0	27.0	26.0	24.5

TC: Total capacity: MBH

Selection results of indoor units:

- Required cooling capacity for Central Zone = 42,350 Btu/h → **CXTQ48TASBLU**
- Required gas furnace capacity for Central Zone = 95,000 Btu/h → **DM97MC1005CNA**

- Required cooling capacity for Bonus Room = 8,000 Btu/h → **FXEQ09PVJU**
- Required heat pump heating capacity for Bonus Room = 10,000 Btu/h

In the case of a selection based on Total Cooling Load and Sensible Cooling Load, select the indoor unit(s) which will satisfy not only the Total Cooling Load (TC) but also the Sensible Cooling Load (SHC) of each zone. The sensible capacity of the unit should also be corrected for indoor air temperature.

[3] Selection of outdoor unit

[3] –1 Define the total cooling and heating load from the indoor units to the outdoor unit

Define the total required cooling load (A) and heating load (B) for the system according to:

- (1a) Sum total of cooling loads for all zones
- (1b) Sum total of heat pump heating loads for all zones
  Or
- (2a) Total system cooling load
- (2b) Total system heat pump heating load

Note:

Using the sum-total load approach results in selecting an outdoor unit that will provide full capacity to all zones simultaneously. This approach is more conservative but may result in an oversized unit, depending on the actual diversity of the cooling and heating loads in each zone.

Using the Total-system approach allows the outdoor unit size to be optimized to meet the total system load. For example, it is assumed the Bonus Room will not require full capacity at the same time the Central Zone is requiring full capacity. The ***VRV*** LIFE system can manage refrigerant flow to each CXTQ and/or ***VRV*** indoor unit to independently control the capacity of each unit.

When selecting the ***VRV*** LIFE outdoor unit for **heating capacity**, typically only the spaces served by ***VRV*** indoor units are considered. Zones served by a gas furnace will not require heat pump heating on the coldest days of the year, so the ***VRV*** LIFE outdoor unit should be selected to ensure that heat pump heating can be provided to the ***VRV*** indoor units.

In this example, select an outdoor unit using method (2a/2b). It is assumed that the total home cooling and heating loads have been calculated as:

(A) = (2a) = 48,250 Btu/h cooling load

(B) = (2b) = 10,000 Btu/h heat pump heating load

[3] –2 Provisionally select the outdoor unit

(1) Calculate the Capacity Index (CI) of the selected indoor units

CI of ***VRV*** indoor units and CXTQ cased coil units

CI of FXEQ09PVJU = 9.5

CI of CXTQ48TASBLU = 48

Model	FXEQ07P	FXEQ09P	FXEQ12P	FXEQ15P	FXEQ18P	FXEQ24P
Capacity Index	7.5	9.5	12	15	18	24

Model	CXTQ24T	CXTQ36T	CXTQ48T	CXTQ60T
Capacity Index	24	36	48	60

Calculate the total CI of the indoor units and CXTQ cased coil units.

Total CI = 48 + 9.5 = 57.5

(2) Provisionally select an outdoor unit based on the total CI of the indoor units

The connection ratio of RXSQ-TB shall be between 50% and 130%.

As the total CI of the indoor units is 57.5, 4-ton and 5-ton outdoor units are connectable.

Start from the 4-ton unit, which is smallest.

Model	Ton	Capacity Index	Total capacity index of connectable indoor units	Maximum number of connectable indoor units
RXSQ24TB	2	24	12 - 31.2	4
RXSQ36TB	3	36	18 - 46.8	6
RXSQ48TB	4	48	24 - 62.4	8
RXSQ60TB	5	57	28.5 - 74.1	9

(3) Confirm that the number of connected indoor units is within the limitation.

The CXTQ should be treated as an indoor unit for purposes of counting the total number of indoor units.

- The number of connected indoor units = 2
- The maximum number of connectable indoor units to the 4-ton unit = 8

[3] -3 Calculate the corrected capacity of the outdoor unit.

Calculate the connection ratio of the system. The connection ratio is the ratio of indoor unit capacity to outdoor unit capacity.

- Total CI of indoor units = 57.5
- CI of RXSQ48TBVJUA = 48
- Connection ratio = 57.5 / 48 = 120%

Using the capacity table of the outdoor unit, determine the corrected outdoor unit capacity using the outside ambient temperature, indoor air temperature, and connection ratio.

When calculating the heat pump heating capacity of the system, it is important to consider the gas furnace use. Typically the gas furnace will be providing the heating capacity to the zone served by the CXTQ & gas furnace, therefore it is only necessary to ensure the outdoor unit can provide the heat pump heating capacity required for only the ***VRV*** indoor units at the design outside ambient air temperature.

Note:

In the case that the outdoor temperature, indoor temperature, or connection ratio falls between the temperatures or connection ratios listed in the tables, calculate the capacity by interpolation.

RXSQ48TBVJUA Cooling Capacity for Standard Condition (Te: 43°F)

Connection ratio	Outdoor air temp.	Indoor air temp. (°FWB)													
		57		61		64		67		70		72		75	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
%	°FDB	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
130	23	44.6	2.09	51.7	2.48	57.1	2.78	62.4	3.08	67.3	3.35	68.0	3.30	69.0	3.22
	30	44.6	2.16	51.7	2.56	57.1	2.87	62.4	3.18	65.8	3.32	66.5	3.27	67.5	3.18
	40	44.6	2.27	51.7	2.69	57.1	3.01	62.4	3.34	63.6	3.28	64.3	3.22	65.3	3.13
	50	44.6	2.38	51.7	2.83	57.1	3.17	60.5	3.32	61.5	3.23	62.1	3.17	63.1	3.08
	54	44.6	2.43	51.7	2.88	57.1	3.23	59.6	3.30	60.6	3.21	61.3	3.15	62.3	3.05
	58	44.6	2.48	51.7	2.95	57.1	3.30	58.7	3.28	59.7	3.20	60.4	3.21	61.4	3.23
	62	44.6	2.54	51.7	3.01	56.9	3.35	57.9	3.37	58.9	3.39	59.5	3.40	60.5	3.43
	66	44.6	2.59	51.7	3.15	56.0	3.53	57.0	3.56	58.0	3.58	58.7	3.59	59.7	3.62
	70	44.6	2.75	51.7	3.41	55.1	3.72	56.1	3.75	57.1	3.77	57.8	3.79	58.8	3.81
	72	44.6	2.85	51.7	3.55	54.7	3.81	55.7	3.84	56.7	3.87	57.4	3.88	58.4	3.91
	75	44.6	3.02	51.7	3.76	54.0	3.96	55.0	3.98	56.0	4.01	56.7	4.03	57.7	4.05
	79	44.6	3.25	51.7	4.05	53.2	4.14	54.2	4.17	55.2	4.20	55.8	4.22	56.8	4.25
	83	44.6	3.50	51.3	4.30	52.3	4.33	53.3	4.37	54.3	4.40	55.0	4.42	56.0	4.45
	87	44.6	3.76	50.4	4.49	51.4	4.53	52.4	4.56	53.4	4.59	54.1	4.61	54.6	4.63
	91	44.6	4.04	49.6	4.68	50.6	4.72	51.6	4.75	52.5	4.78	52.5	4.78	52.5	4.79
	93	44.6	4.19	49.1	4.78	50.1	4.81	51.1	4.85	51.5	4.86	51.5	4.86	51.5	4.86
	95	44.6	4.34	48.7	4.87	49.7	4.91	50.5	4.94	50.5	4.94	50.5	4.94	50.5	4.94
	99	44.6	4.65	47.8	5.06	48.4	5.09	48.4	5.09	48.4	5.09	48.4	5.09	48.5	5.09
	103	44.6	4.99	46.3	5.23	46.4	5.23	46.4	5.23	46.4	5.23	46.4	5.23	46.4	5.23
	106	43.6	4.94	43.7	4.95	43.8	4.96	43.8	4.97	43.9	4.97	44.0	4.98	44.1	4.98
	110	37.3	4.24	37.4	4.25	37.5	4.26	37.5	4.27	37.6	4.27	37.7	4.28	37.8	4.28
	115	29.4	3.37	29.5	3.38	29.6	3.38	29.7	3.39	29.8	3.40	29.8	3.40	29.9	3.41
	118	24.7	2.84	24.8	2.85	24.9	2.86	25.0	2.87	25.0	2.87	25.1	2.88	25.2	2.88
	122	18.4	2.14	18.5	2.15	18.6	2.16	18.7	2.17	18.7	2.17	18.8	2.18	18.9	2.18
120	23	41.1	1.91	47.7	2.26	52.7	2.53	57.6	2.81	62.5	3.09	65.8	3.28	67.9	3.30
	30	41.1	1.98	47.7	2.34	52.7	2.62	57.6	2.90	62.5	3.19	65.4	3.35	66.4	3.27
	40	41.1	2.07	47.7	2.45	52.7	2.74	57.6	3.04	62.5	3.35	63.3	3.31	64.2	3.23
	50	41.1	2.17	47.7	2.58	52.7	2.89	57.6	3.20	60.5	3.32	61.1	3.26	62.0	3.18
	54	41.1	2.22	47.7	2.63	52.7	2.95	57.6	3.27	59.6	3.30	60.2	3.24	61.2	3.16
	58	41.1	2.26	47.7	2.69	52.7	3.01	57.6	3.34	58.7	3.28	59.4	3.22	60.3	3.21
	62	41.1	2.31	47.7	2.74	52.7	3.08	57.0	3.35	57.9	3.37	58.5	3.38	59.4	3.40
	66	41.1	2.36	47.7	2.80	52.7	3.24	56.1	3.54	57.0	3.56	57.6	3.57	58.5	3.59
	70	41.1	2.45	47.7	3.03	52.7	3.51	55.2	3.72	56.1	3.75	56.8	3.76	57.7	3.78
	72	41.1	2.55	47.7	3.15	52.7	3.65	54.8	3.82	55.7	3.84	56.3	3.86	57.2	3.88
	75	41.1	2.69	47.7	3.34	52.7	3.86	54.1	3.96	55.1	3.98	55.7	4.00	56.6	4.02
	79	41.1	2.90	47.7	3.59	52.3	4.12	53.3	4.15	54.2	4.17	54.8	4.19	55.7	4.22
	83	41.1	3.12	47.7	3.87	51.5	4.31	52.4	4.34	53.3	4.37	53.9	4.38	54.9	4.41
	87	41.1	3.35	47.7	4.16	50.6	4.50	51.5	4.53	52.5	4.56	53.1	4.58	54.0	4.61
	91	41.1	3.59	47.7	4.47	49.7	4.69	50.7	4.72	51.6	4.75	52.2	4.77	52.5	4.79
	93	41.1	3.72	47.7	4.64	49.3	4.78	50.2	4.82	51.2	4.85	51.5	4.86	51.5	4.86
	95	41.1	3.86	47.7	4.8	48.9	4.88	49.8	4.91	50.5	4.94	50.5	4.94	50.5	4.94
	99	41.1	4.13	47.1	5.03	48.0	5.07	48.4	5.09	48.4	5.09	48.4	5.09	48.5	5.09
	103	41.1	4.43	46.2	5.23	46.4	5.23	46.4	5.23	46.4	5.23	46.4	5.23	46.4	5.23
	106	41.1	4.67	43.7	4.95	43.8	4.96	43.8	4.97	43.9	4.97	44.0	4.98	44.1	4.98
	110	37.3	4.24	37.4	4.25	37.5	4.26	37.5	4.27	37.6	4.27	37.7	4.28	37.8	4.28
	115	29.4	3.37	29.5	3.38	29.6	3.38	29.7	3.39	29.8	3.40	29.8	3.40	29.9	3.41
	118	24.7	2.84	24.8	2.85	24.9	2.86	25.0	2.87	25.0	2.87	25.1	2.88	25.2	2.88
	122	18.4	2.14	18.5	2.15	18.6	2.16	18.7	2.17	18.7	2.17	18.8	2.18	18.9	2.18

RXSQ48TBVJUA Heating Capacity

In this example, heat pump heating is only required for the FXEQ09PVJU at the 13°F. The gas furnace will handle the heating capacity for the zone served by the CXTQ. Determine the capacity available to ***VRV*** indoor units by considering the connection ratio of the ***VRV*** indoor unit capacity index vs. ***VRV*** outdoor unit capacity index. If the ratio is less than 50%, assume a 50% connection ratio for reference.

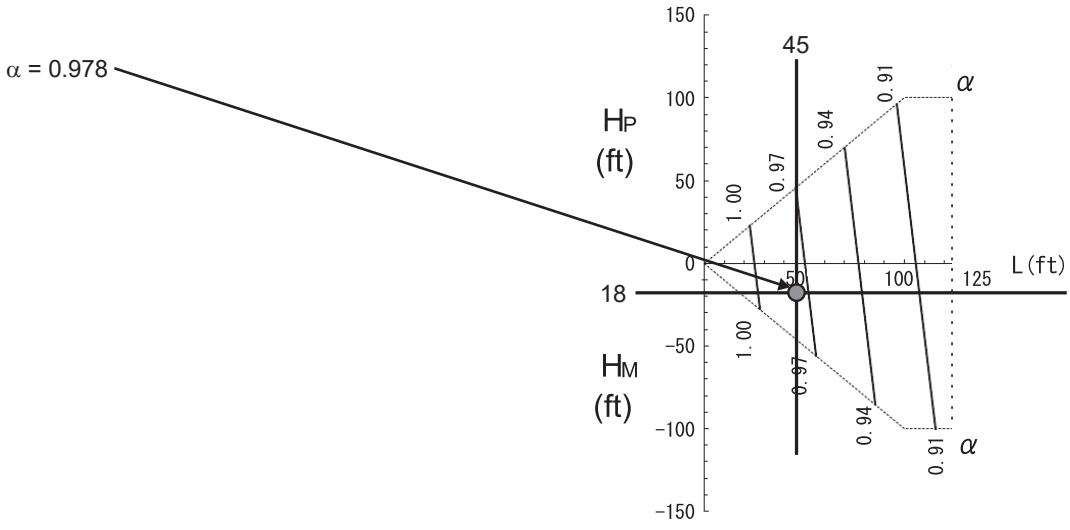
RXSQ48TBVJUA Heating Capacity for Standard Condition (Tc: 115°F)

Connection ratio	Outdoor air temp.		Indoor air temp. (°FDB)											
			61		65		68		70		72		75	
			TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
%	°FDB	°FWB	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
50	-3.64	-4.0	31.2	4.43	28.9	4.04	27.2	3.75	26.0	3.56	24.8	3.38	23.1	3.11
	-1.84	-2.2	31.2	4.27	28.9	3.89	27.2	3.61	26.0	3.43	24.8	3.26	23.1	3.00
	5.5	5.0	31.2	3.72	28.9	3.40	27.2	3.17	26.0	3.01	24.8	2.86	23.1	2.64
	9.5	8.5	31.2	3.51	28.9	3.21	27.2	2.99	26.0	2.85	24.8	2.71	23.1	2.50
	13.0	12.0	31.2	3.31	28.9	3.03	27.2	2.82	26.0	2.70	24.8	2.57	23.1	2.37
	15.0	14.0	31.2	3.21	28.9	2.95	27.2	2.75	26.0	2.62	24.8	2.49	23.1	2.31
	17.0	15.5	31.2	3.14	28.9	2.88	27.2	2.69	26.0	2.57	24.8	2.44	23.1	2.26
	19.0	18.0	31.2	3.03	28.9	2.78	27.2	2.60	26.0	2.48	24.8	2.36	23.1	2.19
	22.0	20.0	31.2	2.95	28.9	2.71	27.2	2.53	26.0	2.42	24.8	2.30	23.1	2.13
	26.0	24.0	31.2	2.80	28.9	2.57	27.2	2.41	26.0	2.30	24.8	2.19	23.1	2.03
	30.0	28.0	31.2	2.66	28.9	2.45	27.2	2.29	26.0	2.19	24.8	2.09	23.1	1.94
	35.0	32.0	31.2	2.54	28.9	2.34	27.2	2.19	26.0	2.10	24.8	2.00	23.1	1.86
	39.0	36.0	31.2	2.43	28.9	2.24	27.2	2.10	26.0	2.01	24.8	1.92	23.1	1.79
	44.0	40.0	31.2	2.33	28.9	2.15	27.2	2.02	26.0	1.93	24.8	1.84	23.1	1.72
	47.0	43.0	31.2	2.26	28.9	2.09	27.2	1.96	26.0	1.88	24.8	1.79	23.1	1.67
	51.0	47.0	31.2	2.18	28.9	2.01	27.2	1.89	26.0	1.81	24.8	1.73	23.1	1.61
	54.0	50.0	31.2	2.12	28.9	1.96	27.2	1.84	26.0	1.76	24.8	1.69	23.1	1.57
	57.0	53.0	31.2	2.06	28.9	1.91	27.2	1.79	26.0	1.72	24.8	1.64	23.1	1.54
	60.0	56.0	31.2	2.01	28.9	1.86	27.2	1.75	26.0	1.68	24.8	1.61	23.1	1.50

Determine the cooling and capacity correction factor from the refrigerant piping length and vertical piping differences. Heating capacity is not affected by refrigerant piping lengths.

- Cooling capacity correction factor calculation
  - ♦ System equivalent piping length: 45 feet
  - ♦ Piping vertical height separation: 18 feet from outdoor unit

1. Rate of change in cooling capacity



CC = Cooling capacity from capacity table = 48.9 MBH
α = Cooling capacity correction factor = 0.978

Corrected cooling capacity = CC × α = 48.9 MBH × 0.978 = **47.82 MBH**

Determine the heating capacity correction factor for frost building during heating operation.

Inlet air temperature to the outdoor unit heat exchanger (ºFDB/RH85%)	≤19.5	23.0	26.5	32.0	37.5	41.0	44.5
Correction factor for frost accumulation	0.95	0.93	0.88	0.84	0.85	0.90	1.00

In this example, the design ambient condition for heat pump heating operation is 13°FDB, so defrost correction factor for frost accumulation is 0.95.

HH = Heating capacity from capacity table = 26.0 MBH
β = Defrost correction factor for frost accumulation = 0.95

Corrected heating capacity = HH × β = 26.0 MBH × 0.95 = **24.7 MBH**

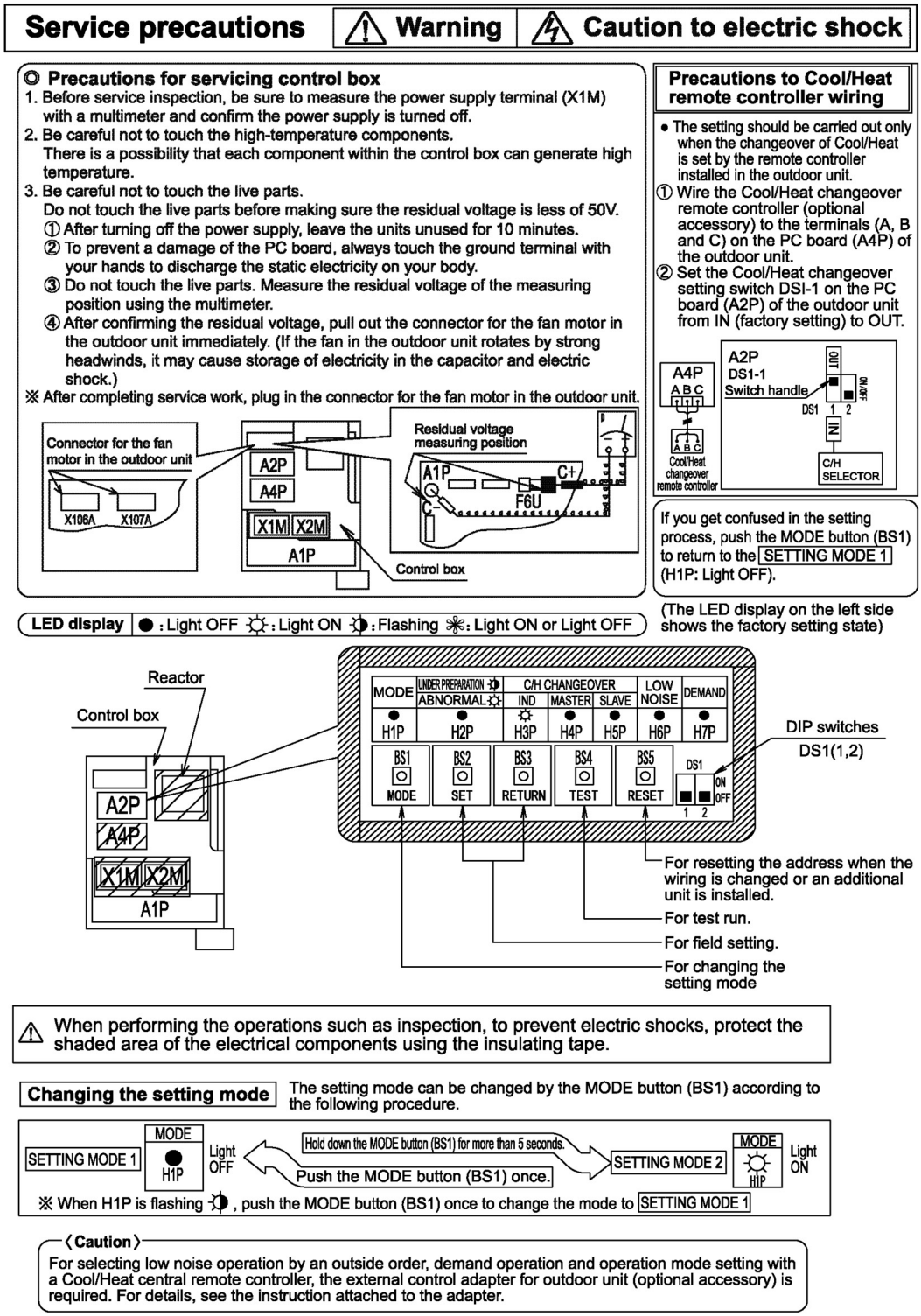
[4] Select an auxiliary heat source, if necessary

For ***VRV*** LIFE systems designed to operate in extreme cold climates (lower than –4°F, the minimum heat pump operating range for ***VRV*** LIFE) by running the gas furnace, it may be necessary to select a third part auxiliary heat source to provide heating capacity to zones served only by ***VRV*** indoor units.

In this example, the winter design ambient temperature condition is 13°F and the heat pump heating capacity of the ***VRV*** LIFE system can provide enough heating capacity to the Bonus Room, so there is no need to select any auxiliary heat source.

18. Caution Label

18.1 RXSQ24 - 36TBVJUA



2P491817-1

Make settings (Cool/Heat selection setting) in the SETTING MODE 1 (H1P: Light OFF)

Setting procedure	Description	Example of LED display and its position H1P H2P H3P H4P H5P H6P H7P
① Push the SET button (BS2) and adjust the LED display to the example shown on the right.	When setting Cool/Heat selection for each outdoor system individually (factory setting)	● ● ◑ ● ● ● ●
	For the master unit, when setting Cool/Heat selection for multiple outdoor systems together ※	● ● ● ◑ ● ● ●
	For the slave unit, when setting Cool/Heat selection for multiple outdoor systems together ※	● ● ● ● ◑ ● ●
② Push the RETURN button (BS3) to define the setting.		

Items marked "※" mean the external control adapter (optional accessory) for the outdoor unit should be configured separately. See the operation manual of the adapter for details.

Make settings in the SETTING MODE 2 (H1P: Light ON)

Settings of the following items Ⓐ ~ Ⓕ can be carried out.

Setting procedure	Details of setting		Example of LED display and its position H1P H2P H3P H4P H5P H6P H7P
① Push the SET button (BS2) and adjust the LED display to the example shown on the right according to the required setting (Ⓐ ~ Ⓕ).	Ⓐ Additional refrigerant charging operation setting		☼ ● ☼ ● ☼ ● ●
	Ⓑ Refrigerant recovery/Evacuation mode setting		☼ ● ☼ ● ☼ ● ☼
	Ⓒ Night-time automatic low noise setting		☼ ● ☼ ● ☼ ☼ ●
	Ⓓ External low noise standard setting		☼ ● ☼ ☼ ● ● ☼
	Ⓔ Demand standard setting		☼ ● ☼ ☼ ☼ ☼ ●
	Ⓕ External low noise demand setting		☼ ● ● ☼ ☼ ● ●
② Push the RETURN button (BS3) to indicate the present setting. (Refer to ③)			
③ Setting values For Ⓐ Ⓑ Ⓕ -- ON and OFF For Ⓒ -- OFF, Level 1~3 For Ⓓ Ⓔ -- Level 1~3 Push the SET button (BS2) and adjust the LED display to the example shown on the right according to the above required setting. ※ For Ⓒ and Ⓓ, operation noise: Level 1 > Level 2 > Level 3 For Ⓔ, power consumption: Level 1 < Level 2 < Level 3 (See the service manual for details.)	Ⓐ Ⓑ Ⓕ	ON	☼ ● ● ● ● ◑ ●
		OFF (Factory setting)	☼ ● ● ● ● ● ◑
	Ⓒ	OFF (Factory setting)	☼ ● ● ● ● ● ●
		Level 1	☼ ● ● ● ● ● ◑
		Level 2	☼ ● ● ● ● ◑ ●
		Level 3	☼ ● ● ● ● ◑ ◑
	Ⓓ Ⓔ	Level 1	☼ ● ● ● ◑ ● ◑
		Level 2 (Factory setting)	☼ ● ● ● ◑ ◑ ●
		Level 3	☼ ● ● ● ◑ ● ●
④ Push the RETURN button (BS3) to define the setting. (Light ON instead of flashing for H1P.)			
⑤ Push the RETURN button (BS3) again to start the operation according to the setting.			☼ ● ● ● ● ● ●

※ For settings other than the above, see the service manual.

Confirmation of setting items The following items can be confirmed in the SETTING MODE 1.

Confirming items	Example of LED display	Example of LED display and its position H1P H2P H3P H4P H5P H6P H7P
The present operating state	●:Normal ☼:Abnormal ◑:Under preparation or check operation	● ● ☼ ● ● ● ●
Cool/Heat selection setting	When setting Cool/Heat selection for each outdoor system individually (factory setting)	● ● ☼ ● ● ● ●
	For the master unit, when setting Cool/Heat selection for multiple outdoor systems together	● ● ● ☼ ● ● ●
	For the slave unit, when setting Cool/Heat selection for multiple outdoor systems together	● ● ● ● ☼ ● ●
Low noise operating state	●Under normal operation (factory setting) ☼:Under low noise operation	● ● ☼ ● ● ◑ ●
Demand operating state	●Under normal operation (factory setting) ☼:Under demand operation	● ● ☼ ● ● ● ◑

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Precautions for test run

※ After the power supply is turned on, do not operate the air conditioner before the UNDER PREPARATION (H2P) indicator is OFF (maximum for 12 minutes).

- Check the stop valves. Make sure to completely open the stop valve on the gas side and the stop valve on the liquid side.
- Make sure to carry out test run after the first installation. Otherwise, the malfunction code "U3" will be displayed and normal operation cannot be carried out.

① To protect the compressor, make sure to turn on the power supply for 6 hours before starting operation.
② Enter the SETTING MODE 1 (H1P: Light OFF).
③ In the stopped status, hold down the TEST button (BS4) for more than 5 seconds to start test run.

H2P will flash up and "Test operation" and "Under centralized control" will be displayed in the remote controller.
It may take about 10 minutes to bring the state of refrigerant stable before the compressor starts, but this is not malfunction.

Test run is automatically carried out in the cooling mode.
(※ The refrigerant running sound or the magnetic sound of a solenoid valve may become loud during this operation.)
Following items can be automatically checked.

● Incorrect wiring checking ● Unopened stop valve checking ● Piping length auto determination

To discontinue the operation, push the RETURN button (BS3). The system will stop after operation for 30 seconds around.
(During the test run, it is impossible to stop the unit from the remote controller.)
④ Close the front panel.
⑤ The system will stop automatically after running 30 minutes around (maximum 1 hour). Check the operation results by the outdoor unit LED display.

<See the table shown below>

	H1P	H2P	H3P	H4P	H5P	H6P	H7P
Normal	●	●	☼	●	●	●	●
Abnormal	●	☼	☼	●	●	●	●

〈 Caution 〉
- Do not simply check the abnormality of one indoor unit. After the operation is finished, start the normal operation from the remote controller and check.
- The LED display will change during this operation, but this is not malfunction.
- To prevent electric shock during this operation, install the front panel firmly.

[Measures for abnormal finish]
1. Confirm the malfunction code by the remote controller.
2. Correct the abnormality. (See the installation manual, operation manual or service manual, or contact your dealer.)
3. After correcting the abnormality, push the RETURN button (BS3) to reset the malfunction code.
4. Carry out the test run again and confirm the abnormality is properly corrected.

※ If there is no malfunction code displayed in the remote controller, the system will carry out normal operation after about 5 minutes.

Precautions to service mode operation

※ After turning on the power supply, the unit can not start service mode until H2P goes off (maximum for 12 minutes around).

• **For internal evacuation** (At the first installation, this internal evacuation is not required. It is only required for service.)

① When the unit is at standstill, set Ⓑ Refrigerant recovery/Evacuation mode to ON in the SETTING MODE 2.
(After the setting is defined, do not reset the SETTING MODE 2 until the evacuation is completed.)
(If "Test operation" and "Under centralized control" are displayed in the remote controller, the operation will be rejected.)
② Evacuate the system with a vacuum pump.
③ Push the MODE button (BS1) to reset the SETTING MODE 2.

• **For refrigerant recovery by refrigerant reclaimer**

① When the unit is at standstill, set Ⓑ Refrigerant recovery/Evacuation mode to ON in the SETTING MODE 2.
(The expansion valves in the indoor and outdoor units will be opened completely. Some of the solenoid valves are ON.)
(If "Test operation" and "Under centralized control" displayed in the remote controller, the operation will be rejected.)
② Recover the refrigerant by a refrigerant reclaimer in accordance with the local laws and regulations.
③ Push the MODE button (BS1) to reset the SETTING MODE 2.

Caution Do not shut off the power supply of the outdoor unit when recovering the refrigerant.
(Otherwise, the solenoid valves will be closed and the refrigerant of the outdoor unit can not be recovered.)

Precautions for charging additional refrigerant

※ When the outdoor unit is stopped and the entire quantity of refrigerant can not be charged, make sure to charge the remaining quantity of refrigerant using this procedure. Otherwise, the unit may malfunction.

① Turn on the power supply of the indoor unit and outdoor unit.
② Completely open the stop valve on the gas side and the stop valve on the liquid side.
③ Connect the service port to the charge hose(gas stop valve).
④ When the unit is at standstill and under the SETTING MODE 2 (H1P: Light ON), set Ⓐ "Additional refrigerant charging mode" to "ON".
⑤ The operation is automatically started. (H2P flickers, and "Test operation" and "Under centralized control" are displayed in the remote controller.)
⑥ After charging the specified quantity of refrigerant, push the RETURN button (BS3) to stop the operation.
The operation is stopped within 30 minutes around.
If refrigerant charging is not completed within 30 minutes, set Ⓐ "Additional refrigerant charging mode" to ON and perform this operation again.
If this operation is stopped soon after restarting, the refrigerant may be overcharged. Stop charging extra refrigerant.
⑦ Disconnect the refrigerant charge hose.

1. Record of setting details

After performing settings to Ⓒ ~ Ⓔ in the SETTING MODE 2, make a record by marking ○ in the table below.

ⓒNight-time automatic low noise setting	ⓓExternal low noise standard setting	ⓔDemand standard setting
OFF Level 1 Level 2 Level 3	Level 1 Level 2 Level 3	Level 1 Level 2 Level 3

(Be sure to fill in the table by the after-sales service staff.)

2. Record of additional refrigerant charging amount

Calculate the refrigerant charging amount based on the following formula. Refer to Installation manual for more details.

Additional charge amount	=	1)Liquid Refrigerant amount for field piping	+	2)Main Gas Refrigerant amount for field piping	+	3) ODU Capacity	+	4) Indoor unit type
lbs		Total lbs		Total lbs		lbs		Total lbs

3. Record of indoor unit model name and installation location

No.	1	2	3	4	5	6	7	8	9
Model name									
Installation location									

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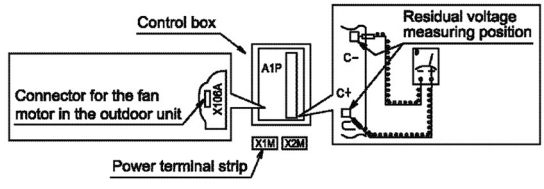
18.2 RXSQ48TBVJUA

Service precautions | ⚠ Warning | ⚠ Caution to electric shock

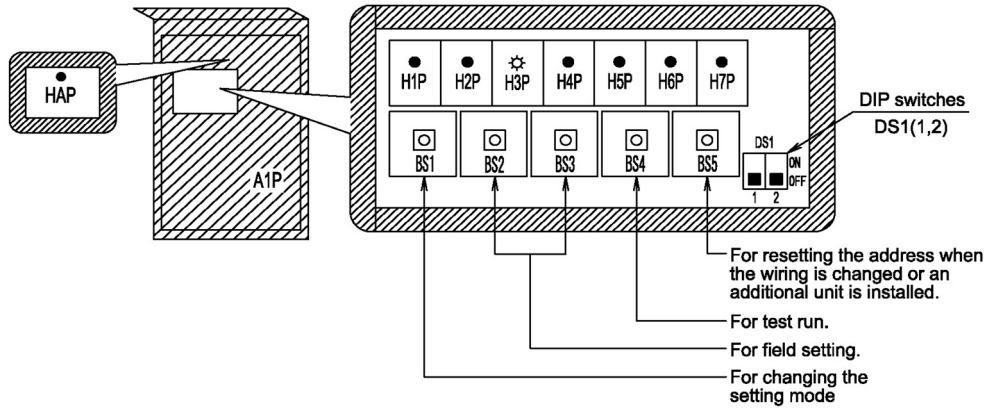
◎ Precautions for servicing control box

1. Before service inspection, be sure to measure the power supply terminal (X1M) with a multimeter and confirm the power supply is turned off.
2. Be careful not to touch the high-temperature components.
   There is a possibility that each component within the control box can generate high temperature.
3. Be careful not to touch the live parts.
   Do not touch the live parts before making sure the residual voltage is less of 50V.
   ① After turning off the power supply, leave the units unused for 10 minutes.
   ② To prevent a damage of the PC board, always touch the ground terminal with your hands to discharge the static electricity on your body.
   ③ Do not touch the live parts. Measure the residual voltage of the measuring position using the multimeter.
   ④ After confirming the residual voltage, pull out the connector for the fan motor in the outdoor unit immediately. (If the fan in the outdoor unit rotates by strong headwinds, it may cause storage of electricity in the capacitor and electric shock.)

※ After completing service work, plug in the connector for the fan motor in the outdoor unit, then restore the insulating film to its state as delivered.

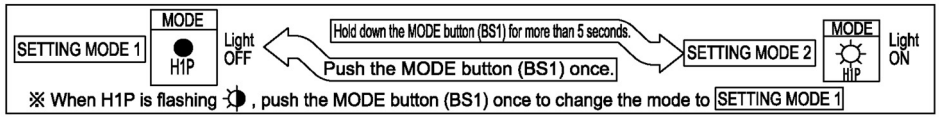


LED display ● : Light OFF ☼ : Light ON ◑ : Flashing ✻ : Light ON or Light OFF



⚠ While performing check and other operations, do not uncover the insulating film or remove the P board protective cover to avoid electric shock and injury!

Changing the setting mode The setting mode can be changed by the MODE button (BS1) according to the following procedure.



〈Caution〉

For selecting low noise operation by an outside order, demand operation and operation mode setting with a Cool/Heat central remote controller, the external control adapter for outdoor unit (optional accessory) is required. For details, see the instruction attached to the adapter.

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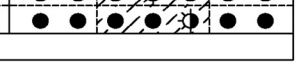
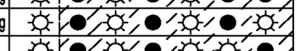
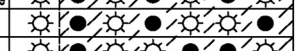
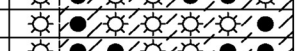
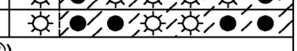
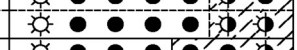
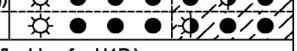
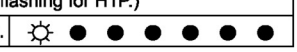
Make settings (Cool/Heat selection setting) in the SETTING MODE 1 (H1P: Light OFF)

Setting procedure	Description	Example of LED display and its position H1P H2P H3P H4P H5P H6P H7P
① Push the SET button (BS2) and adjust the LED display to the example shown on the right.	When setting Cool/Heat selection for each outdoor system individually (factory setting)	
	For the master unit, when setting Cool/Heat selection for multiple outdoor systems together ※	
	For the slave unit, when setting Cool/Heat selection for multiple outdoor systems together ※	
② Push the RETURN button (BS3) to define the setting.		

Items marked "※" mean the external control adapter (optional accessory) for the outdoor unit should be configured separately. See the operation manual of the adapter for details.

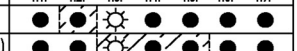
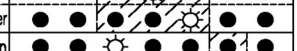
Make settings in the SETTING MODE 2 (H1P: Light ON)

Settings of the following items Ⓐ ~ Ⓕ can be carried out.

Setting procedure	Details of setting		Example of LED display and its position H1P H2P H3P H4P H5P H6P H7P
① Push the SET button (BS2) and adjust the LED display to the example shown on the right according to the required setting (Ⓐ ~ Ⓕ).	Ⓐ Additional refrigerant charging operation setting		
	Ⓑ Refrigerant recovery/Evacuation mode setting		
	Ⓒ Night-time automatic low noise setting		
	Ⓓ External low noise standard setting		
	Ⓔ Demand standard setting		
	Ⓕ External low noise demand setting		
② Push the RETURN button (BS3) to indicate the present setting. (Refer to ③)			
③ Setting values For Ⓐ Ⓑ Ⓕ -- ON and OFF For Ⓒ -- OFF, Level 1~3 For Ⓓ Ⓔ -- Level 1~3 Push the SET button (BS2) and adjust the LED display to the example shown on the right according to the above required setting. ※ For Ⓒ and Ⓓ, operation noise: Level 1 > Level 2 > Level 3 For Ⓔ, power consumption: Level 1 < Level 2 < Level 3 (See the service manual for details.)	Ⓐ Ⓑ Ⓕ	ON	
		OFF (Factory setting)	
	Ⓒ	OFF (Factory setting)	
		Level 1	
		Level 2	
		Level 3	
	Ⓓ Ⓔ	Level 1	
		Level 2 (Factory setting)	
		Level 3	
④ Push the RETURN button (BS3) to define the setting. (Light ON instead of flashing for H1P.)			
⑤ Push the RETURN button (BS3) again to start the operation according to the setting.			

※ For settings other than the above, see the service manual.

Confirmation of setting items The following items can be confirmed in the SETTING MODE 1.

Confirming items	Example of LED display	Example of LED display and its position H1P H2P H3P H4P H5P H6P H7P
The present operating state	●:Normal ☼:Abnormal ◑:Under preparation or check operation	
Cool/Heat selection setting	When setting Cool/Heat selection for each outdoor system individually (factory setting)	
	For the master unit, when setting Cool/Heat selection for multiple outdoor systems together	
	For the slave unit, when setting Cool/Heat selection for multiple outdoor systems together	
Low noise operating state	●Under normal operation (factory setting) ☼:Under low noise operation	
Demand operating state	●Under normal operation (factory setting) ☼:Under demand operation	

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Precautions for test run

※ After the power supply is turned on, do not operate the air conditioner before the UNDER PREPARATION (H2P) indicator is OFF (maximum for 12 minutes).

- Check the stop valves. Make sure to completely open the stop valve on the gas side and the stop valve on the liquid side.
- Make sure to carry out test run after the first installation. Otherwise, the malfunction code "U3" will be displayed and normal operation cannot be carried out.

① To protect the compressor, make sure to turn on the power supply for 6 hours before starting operation.
② Enter the SETTING MODE 1 (H1P: Light OFF).
③ In the stopped status, hold down the TEST button (BS4) for more than 5 seconds to start test run.

(H2P will flash up and "Test operation" and "Under centralized control" will be displayed in the remote controller.
It may take about 10 minutes to bring the state of refrigerant stable before the compressor starts, but this is not malfunction.)

Test run is automatically carried out in the cooling mode.
(※ The refrigerant running sound or the magnetic sound of a solenoid valve may become loud during this operation.)
Following items can be automatically checked.

● Incorrect wiring checking ● Unopened stop valve checking ● Piping length auto determination

To discontinue the operation, push the RETURN button (BS3). The system will stop after operation for 30 seconds around.
(During the test run, it is impossible to stop the unit from the remote controller.)
④ Close the front panel.
⑤ The system will stop automatically after running 30 minutes around (maximum 1 hour). Check the operation results by the outdoor unit LED display.

<See the table shown below>

	H1P	H2P	H3P	H4P	H5P	H6P	H7P
Normal	●	●	☼	●	●	●	●
Abnormal	●	☼	☼	●	●	●	●

〈 Caution 〉
- Do not simply check the abnormality of one indoor unit. After the operation is finished, start the normal operation from the remote controller and check.
- The LED display will change during this operation, but this is not malfunction.
- To prevent electric shock during this operation, install the front panel firmly.

[Measures for abnormal finish]
1. Confirm the malfunction code by the remote controller.
2. Correct the abnormality. (See the installation manual, operation manual or service manual, or contact your dealer.)
3. After correcting the abnormality, push the RETURN button (BS3) to reset the malfunction code.
4. Carry out the test run again and confirm the abnormality is properly corrected.

※ If there is no malfunction code displayed in the remote controller, the system will carry out normal operation after about 5 minutes.

Precautions to service mode operation

※ After turning on the power supply, the unit can not start service mode until H2P goes off (maximum for 12 minutes around).

● **For internal evacuation** (At the first installation, this internal evacuation is not required. It is only required for service.)

① When the unit is at standstill, set Ⓑ Refrigerant recovery/Evacuation mode to ON in the SETTING MODE 2.
(After the setting is defined, do not reset the SETTING MODE 2 until the evacuation is completed.)
(If "Test operation" and "Under centralized control" are displayed in the remote controller, the operation will be rejected.)
② Evacuate the system with a vacuum pump.
③ Push the MODE button (BS1) to reset the SETTING MODE 2.

● **For refrigerant recovery by refrigerant reclaimer**

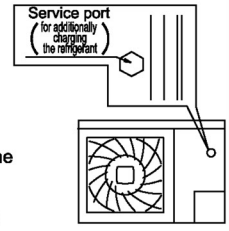
① When the unit is at standstill, set Ⓑ Refrigerant recovery/Evacuation mode to ON in the SETTING MODE 2.
(The expansion valves in the indoor and outdoor units will be opened completely. Some of the solenoid valves are ON.)
(If "Test operation" and "Under centralized control" displayed in the remote controller, the operation will be rejected.)
② Recover the refrigerant by a refrigerant reclaimer in accordance with the local laws and regulations.
③ Push the MODE button (BS1) to reset the SETTING MODE 2.

Caution Do not shut off the power supply of the outdoor unit when recovering the refrigerant.
(Otherwise, the solenoid valves will be closed and the refrigerant of the outdoor unit can not be recovered.)

Precautions for charging additional refrigerant

※ When the outdoor unit is stopped and the entire quantity of refrigerant can not be charged, make sure to charge the remaining quantity of refrigerant using this procedure. Otherwise, the unit may malfunction.

① Turn on the power supply of the indoor unit and outdoor unit.
② Completely open the stop valve on the gas side and the stop valve on the liquid side.
③ Connect the service port (for additionally charging the refrigerant) to the charge hose.
④ When the unit is at standstill and under the SETTING MODE 2 (H1P: Light ON), set Ⓐ "Additional refrigerant charging mode" to "ON".
⑤ The operation is automatically started. (H2P flickers, and "Test operation" and "Under centralized control" are displayed in the remote controller.)
⑥ After charging the specified quantity of refrigerant, push the RETURN button (BS3) to stop the operation.
(The operation is stopped within 30 minutes around.
If refrigerant charging is not completed within 30 minutes, set Ⓐ "Additional refrigerant charging mode" to ON and perform this operation again.
If this operation is stopped soon after restarting, the refrigerant may be overcharged. Stop charging extra refrigerant.)
⑦ Disconnect the refrigerant charge hose.



1. Record of setting details

After performing settings to Ⓒ ~ Ⓔ in the SETTING MODE 2, make a record by marking O in the table below.

ⓒNight-time automatic low noise setting	ⒹExternal low noise standard setting	ⒺDemand standard setting
OFF Level 1 Level 2 Level 3	Level 1 Level 2 Level 3	Level 1 Level 2 Level 3

(Be sure to fill in the table by the after-sales service staff.)

2. Record of additional refrigerant charging amount

Calculate the refrigerant charging amount based on the following formula. Refer to Installation manual for more details.

Additional charge amount	=	1)Liquid Refrigerant amount for field piping	+	2)Main Gas Refrigerant amount for field piping	+	3) ODU Capacity	+	4) Indoor unit type
lbs		Total lbs		Total lbs		lbs		Total lbs

3. Record of indoor unit model name and installation location

No.	1	2	3	4	5	6	7	8	9
Model name									
Installation location									

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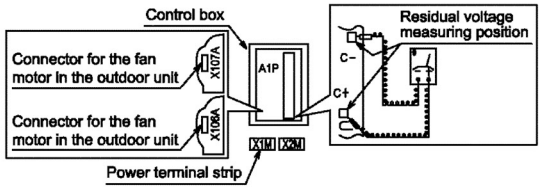
18.3 RXSQ60TBVJUA

Service precautions | ⚠ Warning | ⚠ Caution to electric shock

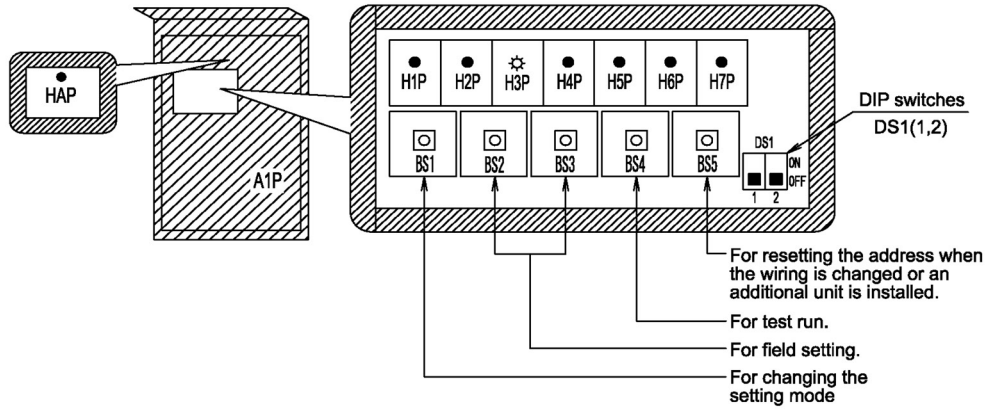
◎ Precautions for servicing control box

1. Before service inspection, be sure to measure the power supply terminal (X1M) with a multimeter and confirm the power supply is turned off.
2. Be careful not to touch the high-temperature components.
   There is a possibility that each component within the control box can generate high temperature.
3. Be careful not to touch the live parts.
   Do not touch the live parts before making sure the residual voltage is less of 50V.
   ① After turning off the power supply, leave the units unused for 10 minutes.
   ② To prevent a damage of the PC board, always touch the ground terminal with your hands to discharge the static electricity on your body.
   ③ Do not touch the live parts. Measure the residual voltage of the measuring position using the multimeter.
   ④ After confirming the residual voltage, pull out the connector for the fan motor in the outdoor unit immediately. (If the fan in the outdoor unit rotates by strong headwinds, it may cause storage of electricity in the capacitor and electric shock.)

※ After completing service work, plug in the connector for the fan motor in the outdoor unit, then restore the insulating film to its state as delivered.

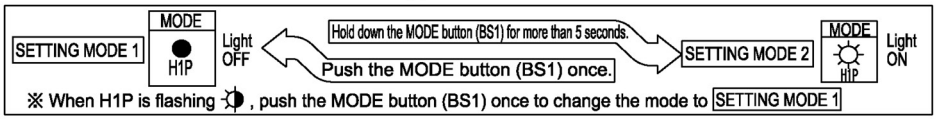


LED display ● : Light OFF ☼ : Light ON ◑ : Flashing ✻ : Light ON or Light OFF



⚠ While performing check and other operations, do not uncover the insulating film or remove the P board protective cover to avoid electric shock and injury!

Changing the setting mode The setting mode can be changed by the MODE button (BS1) according to the following procedure.

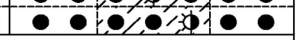


〈Caution〉

For selecting low noise operation by an outside order, demand operation and operation mode setting with a Cool/Heat central remote controller, the external control adapter for outdoor unit (optional accessory) is required. For details, see the instruction attached to the adapter.

2P491830-1

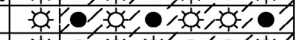
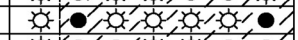
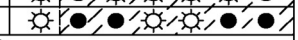
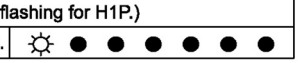
Make settings (Cool/Heat selection setting) in the SETTING MODE 1 (H1P: Light OFF)

Setting procedure	Description	Example of LED display and its position H1P H2P H3P H4P H5P H6P H7P
① Push the SET button (BS2) and adjust the LED display to the example shown on the right.	When setting Cool/Heat selection for each outdoor system individually (factory setting)	
	For the master unit, when setting Cool/Heat selection for multiple outdoor systems together ※	
	For the slave unit, when setting Cool/Heat selection for multiple outdoor systems together ※	
② Push the RETURN button (BS3) to define the setting.		

Items marked "※" mean the external control adapter (optional accessory) for the outdoor unit should be configured separately. See the operation manual of the adapter for details.

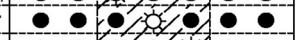
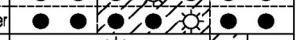
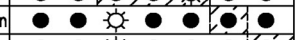
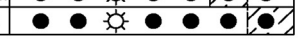
Make settings in the SETTING MODE 2 (H1P: Light ON)

Settings of the following items Ⓐ ~ Ⓕ can be carried out.

Setting procedure	Details of setting		Example of LED display and its position H1P H2P H3P H4P H5P H6P H7P
① Push the SET button (BS2) and adjust the LED display to the example shown on the right according to the required setting (Ⓐ ~ Ⓕ).	Ⓐ Additional refrigerant charging operation setting		
	Ⓑ Refrigerant recovery/Evacuation mode setting		
	Ⓒ Night-time automatic low noise setting		
	Ⓓ External low noise standard setting		
	Ⓔ Demand standard setting		
	Ⓕ External low noise demand setting		
② Push the RETURN button (BS3) to indicate the present setting. (Refer to ③)			
③ Setting values For Ⓐ Ⓑ Ⓕ -- ON and OFF For Ⓒ -- OFF, Level 1~3 For Ⓓ Ⓔ -- Level 1~3 Push the SET button (BS2) and adjust the LED display to the example shown on the right according to the above required setting. ※ For Ⓒ and Ⓓ, operation noise: Level 1 > Level 2 > Level 3 For Ⓔ, power consumption: Level 1 < Level 2 < Level 3 (See the service manual for details.)	Ⓐ Ⓑ Ⓕ	ON	
		OFF (Factory setting)	
	Ⓒ	OFF (Factory setting)	
		Level 1	
		Level 2	
		Level 3	
	Ⓓ Ⓔ	Level 1	
		Level 2 (Factory setting)	
		Level 3	
④ Push the RETURN button (BS3) to define the setting. (Light ON instead of flashing for H1P.)			
⑤ Push the RETURN button (BS3) again to start the operation according to the setting.			

※ For settings other than the above, see the service manual.

Confirmation of setting items The following items can be confirmed in the SETTING MODE 1.

Confirming items	Example of LED display	Example of LED display and its position H1P H2P H3P H4P H5P H6P H7P
The present operating state	●:Normal ☼:Abnormal ◑:Under preparation or check operation	
Cool/Heat selection setting	When setting Cool/Heat selection for each outdoor system individually (factory setting)	
	For the master unit, when setting Cool/Heat selection for multiple outdoor systems together	
	For the slave unit, when setting Cool/Heat selection for multiple outdoor systems together	
Low noise operating state	●Under normal operation (factory setting) ☼:Under low noise operation	
Demand operating state	●Under normal operation (factory setting) ☼:Under demand operation	

2P491830-1

Precautions for test run

※ After the power supply is turned on, do not operate the air conditioner before the UNDER PREPARATION (H2P) indicator is OFF (maximum for 12 minutes).

- Check the stop valves. Make sure to completely open the stop valve on the gas side and the stop valve on the liquid side.
- Make sure to carry out test run after the first installation. Otherwise, the malfunction code "U3" will be displayed and normal operation cannot be carried out.

① To protect the compressor, make sure to turn on the power supply for 6 hours before starting operation.
② Enter the SETTING MODE 1 (H1P: Light OFF).
③ In the stopped status, hold down the TEST button (BS4) for more than 5 seconds to start test run.

(H2P will flash up and "Test operation" and "Under centralized control" will be displayed in the remote controller.
It may take about 10 minutes to bring the state of refrigerant stable before the compressor starts, but this is not malfunction.)

Test run is automatically carried out in the cooling mode.
(※ The refrigerant running sound or the magnetic sound of a solenoid valve may become loud during this operation.)
Following items can be automatically checked.

● Incorrect wiring checking ● Unopened stop valve checking ● Piping length auto determination

To discontinue the operation, push the RETURN button (BS3). The system will stop after operation for 30 seconds around.
(During the test run, it is impossible to stop the unit from the remote controller.)
④ Close the front panel.
⑤ The system will stop automatically after running 30 minutes around (maximum 1 hour). Check the operation results by the outdoor unit LED display.

<See the table shown below>

	H1P	H2P	H3P	H4P	H5P	H6P	H7P
Normal	●	●	☼	●	●	●	●
Abnormal	●	☼	☼	●	●	●	●

〈 Caution 〉
- Do not simply check the abnormality of one indoor unit. After the operation is finished, start the normal operation from the remote controller and check.
- The LED display will change during this operation, but this is not malfunction.
- To prevent electric shock during this operation, install the front panel firmly.

[Measures for abnormal finish]
1. Confirm the malfunction code by the remote controller.
2. Correct the abnormality. (See the installation manual, operation manual or service manual, or contact your dealer.)
3. After correcting the abnormality, push the RETURN button (BS3) to reset the malfunction code.
4. Carry out the test run again and confirm the abnormality is properly corrected.

※ If there is no malfunction code displayed in the remote controller, the system will carry out normal operation after about 5 minutes.

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Precautions to service mode operation

※ After turning on the power supply, the unit can not start service mode until H2P goes off (maximum for 12 minutes around).

• **For internal evacuation** (At the first installation, this internal evacuation is not required. It is only required for service.)

① When the unit is at standstill, set Ⓑ Refrigerant recovery/Evacuation mode to ON in the SETTING MODE 2.
(After the setting is defined, do not reset the SETTING MODE 2 until the evacuation is completed.)
(If "Test operation" and "Under centralized control" are displayed in the remote controller, the operation will be rejected.)
② Evacuate the system with a vacuum pump.
③ Push the MODE button (BS1) to reset the SETTING MODE 2.

• **For refrigerant recovery by refrigerant reclaimer**

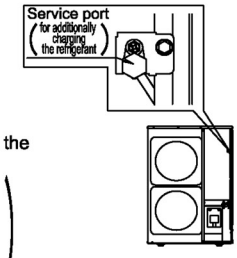
① When the unit is at standstill, set Ⓑ Refrigerant recovery/Evacuation mode to ON in the SETTING MODE 2.
(The expansion valves in the indoor and outdoor units will be opened completely. Some of the solenoid valves are ON.)
(If "Test operation" and "Under centralized control" displayed in the remote controller, the operation will be rejected.)
② Recover the refrigerant by a refrigerant reclaimer in accordance with the local laws and regulations.
③ Push the MODE button (BS1) to reset the SETTING MODE 2.

Caution Do not shut off the power supply of the outdoor unit when recovering the refrigerant.
(Otherwise, the solenoid valves will be closed and the refrigerant of the outdoor unit can not be recovered.)

Precautions for charging additional refrigerant

※ When the outdoor unit is stopped and the entire quantity of refrigerant can not be charged, make sure to charge the remaining quantity of refrigerant using this procedure. Otherwise, the unit may malfunction.

① Turn on the power supply of the indoor unit and outdoor unit.
② Completely open the stop valve on the gas side and the stop valve on the liquid side.
③ Connect the service port (for additionally charging the refrigerant) to the charge hose.
④ When the unit is at standstill and under the SETTING MODE 2 (H1P: Light ON), set Ⓐ "Additional refrigerant charging mode" to "ON".
⑤ The operation is automatically started. (H2P flickers, and "Test operation" and "Under centralized control" are displayed in the remote controller.)
⑥ After charging the specified quantity of refrigerant, push the RETURN button (BS3) to stop the operation.
(The operation is stopped within 30 minutes around.
If refrigerant charging is not completed within 30 minutes, set Ⓐ "Additional refrigerant charging mode" to ON and perform this operation again.
If this operation is stopped soon after restarting, the refrigerant may be overcharged. Stop charging extra refrigerant.)
⑦ Disconnect the refrigerant charge hose.



1. Record of setting details

After performing settings to Ⓒ ~ Ⓔ in the SETTING MODE 2, make a record by marking O in the table below.

ⓒNight-time automatic low noise setting	ⓓExternal low noise standard setting	ⓔDemand standard setting
OFF Level 1 Level 2 Level 3	Level 1 Level 2 Level 3	Level 1 Level 2 Level 3

(Be sure to fill in the table by the after-sales service staff.)

2. Record of additional refrigerant charging amount

Calculate the refrigerant charging amount based on the following formula. Refer to Installation manual for more details.

Additional charge amount	=	1)Liquid Refrigerant amount for field piping	+	2)Main Gas Refrigerant amount for field piping	+	3) ODU Capacity	+	4) Indoor unit type
lbs		Total lbs		Total lbs		lbs		Total lbs

3. Record of indoor unit model name and installation location

No.	1	2	3	4	5	6	7	8	9
Model name									
Installation location									

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19. Caution for Refrigerant Leaks

19.1 Introduction

Points to note in connection with refrigerant leaks

The installer and system specialist shall secure safety against leakage according to local regulations or standards. The following standards may be applicable if local regulations are not available.

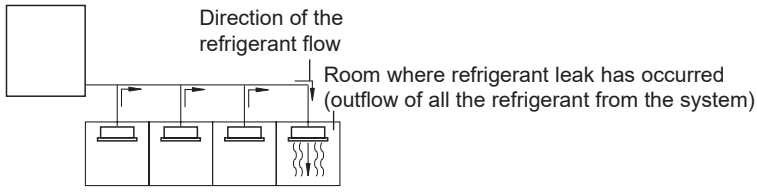
The ***VRV*** System, like other air conditioning systems, uses R410A as refrigerant. R410A itself is an entirely safe non-toxic, non-combustible refrigerant. Nevertheless care must be taken to ensure that air conditioning facilities are installed in a room which is sufficiently large. This assures that the maximum concentration level of refrigerant gas is not exceeded, in the unlikely event of major leak in the system and this in accordance to the local applicable regulations and standards.

Maximum concentration level

The maximum charge of refrigerant and the calculation of the maximum concentration of refrigerant is directly related to the humanly occupied space in to which it could leak.

The unit of measurement of the concentration is lb./1000 ft.^{3} (the weight in lbs. of the refrigerant gas in 1 ft.^{3} volume of the occupied space).

Compliance to the local applicable regulations and standards for the maximum allowable concentration level is required.



Pay special attention to places, such as basements, etc. where refrigerant can stay, since refrigerant is heavier than air.

19.2 Procedure for Checking Maximum Concentration

Check the maximum concentration level in accordance with steps 1 to 4 below and take whatever action is necessary to comply.

Step1: Calculate the amount of refrigerant (lbs.) charged to each system separately.

Amount of refrigerant in a single unit system (amount of refrigerant with which the system is charged before leaving the factory)	+	Additional charging amount (amount of refrigerant added locally in accordance with the length or diameter of the refrigerant piping)	=	Total amount of refrigerant (lbs.) in the system

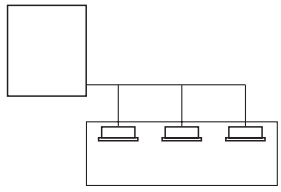
Note:

Where a single refrigerant facility is divided into 2 entirely independent refrigerant systems then use the amount of refrigerant with which each separate system is charged.

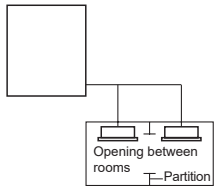
Step 2: Calculate the smallest room volume (ft.^{3})

In case like the following, calculate the volume of (a), (b) as a single room or as the smallest room.

(a) Where there are no smaller room divisions.

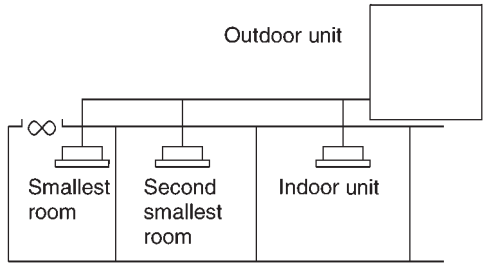


(b) Where there is a room division but there is an opening between the rooms sufficiently large to permit a free flow of air back and forth.



(Where there is an opening without a door or where there are openings above and below the door which are each equivalent in size to 0.15% or more of the floor area.)

(c) Where there is a gas leak detection alarm device linked to a mechanical ventilator in the smallest room then the next smallest room will become the measurement target.



Step 3: Calculating the refrigerant density using the results of the calculations in steps 1 and 2 above.

$$\frac{\text{Total volume of refrigerant in the refrigerant system}}{\text{Size (ft.}^3\text{) of the smallest room in which there is an indoor unit installed}} \leq \text{Maximum concentration level (lbs./ft.}^3\text{)}$$

If the result of the above calculation exceeds the maximum concentration level then make similar calculations for the second then third smallest room and so until the result falls short of the maximum concentration.

Step 4: Dealing with the situations where the result exceeds the maximum concentration level.

Where the installation of a facility results in a concentration in excess of the maximum concentration level then it will be necessary to revise the system.

Please consult your Daikin supplier.

20.Safety Devices Setting

20.1 FXFQ-T

Model		FXFQ07TVJU	FXFQ09TVJU	FXFQ12TVJU	FXFQ15TVJU	FXFQ18TVJU
Printed circuit board fuse		250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Drain pump thermal fuse	°F (°C)	–	–	–	–	–
Fan motor thermal protector	°F (°C)	–	–	–	–	–
Fan motor thermal fuse	°F (°C)	–	–	–	–	–

Model		FXFQ24TVJU	FXFQ30TVJU	FXFQ36TVJU	FXFQ48TVJU
Printed circuit board fuse		250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Drain pump thermal fuse	°F (°C)	–	–	–	–
Fan motor thermal protector	°F (°C)	–	–	–	–
Fan motor thermal fuse	°F (°C)	–	–	–	–

C: 3D086932C

20.2 FXZQ-TB

Model		FXZQ05TBVJU	FXZQ07TBVJU	FXZQ09TBVJU	FXZQ12TBVJU	FXZQ15TBVJU	FXZQ18TBVJU
Printed circuit board fuse		250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Fan motor thermal fuse	°F (°C)	–	–	–	–	–	–
Fan motor thermal protector	°F (°C)	–	–	–	–	–	–
Drain pump fuse	°F (°C)	–	–	–	–	–	–

C: 4D137360

20.3 FXUQ-PA

Model		FXUQ18PAVJU	FXUQ24PAVJU	FXUQ30PAVJU	FXUQ36PAVJU
Printed circuit board fuse		250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Drain pump thermal fuse	°F (°C)	–	–	–	–
Fan motor thermal protector	°F (°C)	–	–	–	–
Fan motor thermal fuse	°F (°C)	–	–	–	–

C: 3D133254

20.4 FXEQ-P

Model		FXEQ07PVJU	FXEQ09PVJU	FXEQ12PVJU	FXEQ15PVJU	FXEQ18PVJU	FXEQ24PVJU
Printed circuit board fuse	A1P	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Fan motor thermal protector	°F (°C)	OFF: 223±9 (106±5) ON: 205±27 (96±15)	OFF: 223±9 (106±5) ON: 205±27 (96±15)	OFF: 223±9 (106±5) ON: 205±27 (96±15)	OFF: 223±9 (106±5) ON: 205±27 (96±15)	OFF: 223±9 (106±5) ON: 205±27 (96±15)	OFF: 223±9 (106±5) ON: 205±27 (96±15)

C: 4D098709

20.5 FXDQ-M

Model		FXDQ07MVJU	FXDQ09MVJU	FXDQ12MVJU	FXDQ18MVJU	FXDQ24MVJU
Printed circuit board fuse	A1P	250 V, 5 A	250 V, 5 A	250 V, 5 A	250 V, 5 A	250 V, 5 A
Fan motor thermal protector	°F	OFF: 266±9 ON: 181±27	OFF: 266±9 ON: 181±27	OFF: 266±9 ON: 181±27	OFF: 266±9 ON: 181±27	OFF: 266±9 ON: 181±27

C: 3D051758

20.6 FXSQ-TB

Model		FXSQ05TBVJU	FXSQ07TBVJU	FXSQ09TBVJU	FXSQ12TBVJU	FXSQ15TBVJU	FXSQ18TBVJU
Printed circuit board fuse		250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Printed circuit board fuse (fan driver)		250 V, 6.3 A	250 V, 6.3 A	250 V, 6.3 A	250 V, 6.3 A	250 V, 6.3 A	250 V, 6.3 A
Drain pump thermal fuse	°F (°C)	—	—	—	—	—	—

Model		FXSQ24TBVJU	FXSQ30TBVJU	FXSQ36TBVJU	FXSQ48TBVJU	FXSQ54TBVJU
Printed circuit board fuse		250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Printed circuit board fuse (fan driver)		250 V, 6.3 A	250 V, 6.3 A	250 V, 6.3 A	250 V, 6.3 A	250 V, 6.3 A
Drain pump thermal fuse	°F (°C)	—	—	—	—	—

C: 3D140708

20.7 FXMQ-TB

Model		FXMQ15TBVJU	FXMQ18TBVJU	FXMQ24TBVJU	FXMQ30TBVJU
Printed circuit board fuse		250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Printed circuit board fuse (fan driver)		250 V, 6.3 A	250 V, 6.3 A	250 V, 6.3 A	250 V, 6.3 A
Drain pump thermal fuse	°F (°C)	—	—	—	—

Model		FXMQ36TBVJU	FXMQ48TBVJU	FXMQ54TBVJU
Printed circuit board fuse		250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Printed circuit board fuse (fan driver)		250 V, 6.3 A	250 V, 6.3 A	250 V, 6.3 A
Drain pump thermal fuse	°F (°C)	—	—	—

C: 3D140811

20.8 FXHQ-M

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

C: 3D049334A

20.9 FXAQ-P

Model		FXAQ07PVJU	FXAQ09PVJU	FXAQ12PVJU	FXAQ18PVJU	FXAQ24PVJU
Printed circuit board fuse		250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Fan motor thermal fuse	°F	–	–	–	–	–
Fan motor thermal protector	°F	–	–	–	–	–

C: 4D047085D

20.10 FXLQ-M, FXNQ-M

Model		FXLQ07MVJU FXNQ07MVJU	FXLQ09MVJU FXNQ09MVJU	FXLQ12MVJU FXNQ12MVJU	FXLQ18MVJU FXNQ18MVJU	FXLQ24MVJU FXNQ24MVJU
Printed circuit board fuse		250 V, 5 A	250 V, 5 A	250 V, 5 A	250 V, 5 A	250 V, 5 A
Fan motor thermal protector	°F (°C)	OFF: 275±18 (135±10) ON: 248 (120) or less	OFF: 275±18 (135±10) ON: 248 (120) or less	OFF: 275±18 (135±10) ON: 248 (120) or less	OFF: 275±18 (135±10) ON: 248 (120) or less	OFF: 275±18 (135±10) ON: 248 (120) or less

C: 3D045646B

20.11 FXTQ-TA

Model	FXTQ09TAVJUA	FXTQ12TAVJUA	FXTQ18TAVJUA	FXTQ24TAVJUA	FXTQ30TAVJUA
Model (with factory disconnect)	FXTQ09TAVJUD	FXTQ12TAVJUD	FXTQ18TAVJUD	FXTQ24TAVJUD	FXTQ30TAVJUD
Printed circuit board fuse (F1U)	32 V, 3 A	32 V, 3 A	32 V, 3 A	32 V, 3 A	32 V, 3 A
Printed circuit board fuse (F2U)	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Others	Blower motor, Fan driver overload protector				

Model	FXTQ36TAVJUA	FXTQ42TAVJUA	FXTQ48TAVJUA	FXTQ54TAVJUA	FXTQ60TAVJUA
Model (with factory disconnect)	FXTQ36TAVJUD	FXTQ42TAVJUD	FXTQ48TAVJUD	FXTQ54TAVJUD	FXTQ60TAVJUD
Printed circuit board fuse (F1U)	32 V, 3 A	32 V, 3 A	32 V, 3 A	32 V, 3 A	32 V, 3 A
Printed circuit board fuse (F2U)	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A
Others	Blower motor, Fan driver overload protector				

20.12 CXTQ-TA

Model	CXTQ24TASBLU	CXTQ36TASBLU	CXTQ48TASBLU	CXTQ60TASBLU
Printed circuit board fuse (F1U)	32 V, 3 A	32 V, 3 A	32 V, 3 A	32 V, 3 A
Printed circuit board fuse (F2U)	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A	250 V, 3.15 A

Appendix

1. Introduction

1.1 ED Book List

Design Manual ..... RXSQ-TBVJUA ..... **EDUS332232-D (This booklet)**

Capacity Table Book

Heat Pump ..... RXSQ-TBVJUA **EDUS332232-C**

Installation

Heat Pump, Heat Recovery ..... RXYQ REYQ **EDUS371848A-N**

Indoor Units

Ceiling Mounted Cassette Type (Round Flow with Sensing) ..... FXFQ-T **EDUS391400B-F14**

VISTA™ 2 × 2 Cassette Unit ..... FXZQ-TB **EDUS392209-F9**

4-Way Blow Ceiling-Suspended Type ..... FXUQ-PA **EDUS392109-F15**

One Way Blow Cassette Type ..... FXEQ-P **EDUS391533A-F16**

Slim Ceiling Mounted Duct Type ..... FXDQ-M **EDUS39-600A-F2**

MSP Concealed Ducted Unit ..... FXSQ-TB **EDUS392235-F17**

HSP Concealed Ducted Unit ..... FXMQ-TB **EDUS392236-F4**

Ceiling Suspended Type ..... FXHQ-M **EDUS39-600A-F5**

Wall Mounted Type ..... FXAQ-P **EDUS391100A-F6**

Floor Standing Type / Concealed Floor Standing Type ..... FXLQ-M FXNQ-M **EDUS391502A-F7**

Air Handling Unit ..... FXTQ-TA ..... **Engineering Data FXTQ-TA**

Cased Coil Unit ..... CXTQ-TA ..... **Engineering Data CXTQ-TA**

Controls **EDUS721909A-T**

Remote Controller

Navigation Remote Controller ..... BRC1E73 ..... **EDUS721438**

1.2 Publication List of Engineering Data for *VRV* Products

Shaded sections indicate Engineering Data Book/s published for this series.
Timing of publication is subject to change without notice.

Outdoor Unit

Refrigerant	Category	Product series	Type	Volts	Model name	Area	Book category	Book No.	Published in
R410A	Air cooled	***VRV EMERION***	H/R	208/230 V 460 V	REYQ-AATJA, AAYDA	USA Canada	Design manual	EDUS372119A-D	Jun.2022
							Capacity table	EDUS372119A-C	
		VRV IV-X	H/R	208/230 V 460 V 575 V	REYQ-XATJA, XAYDA, XAYCA	USA Canada	Design manual	EDUS371848D-D	Apr.2022
							Capacity table	EDUS371848B-C	Mar.2022
			H/P	208/230 V 460 V	RXYQ-XATJA, XAYDA	USA Canada	Design manual	EDUS341923A-D	Oct.2020
							Capacity table	EDUS341923-C	Nov.2019
				575 V	RXYQ-XAYCA	Canada	Design manual	EDUS341928A-D	Oct.2020
							Capacity table	EDUS341928-C	Nov.2019
		VRV IV	H/R	208/230 V 460 V	REYQ-TATJA, TAYDA	USA Canada	Design manual	EDUS371704C-D	Feb.2020
							Capacity table	EDUS371704C-C	
				575 V	REYQ-TAYCA	Canada	Design manual	EDUS371706C-D	
							Capacity table	EDUS371706C-C	
			H/P	208/230 V 460 V	RXYQ-TATJA, TAYDA	USA Canada	Design manual	EDUS341703B-D	Jan.2020
							Capacity table	EDUS341703B-C	
				575 V	RXYQ-TAYCA	Canada	Design manual	EDUS341824A-D	
							Capacity table	EDUS341824A-C	
		VRV Aurora	H/R	208/230 V 460 V 575 V	RELQ-TATJA, TAYDA, TAYCA	USA Canada	Design manual	EDUS371705E-D	Mar.2022
							Capacity table	EDUS371705C-C	Feb.2020
			H/P	208/230 V 460 V 575 V	RXLQ-TATJA, TAYDA, TAYCA	USA Canada	Design manual	EDUS341819A-D	Jan.2020
							Capacity table	EDUS341819A-C	
		VRV IV-S	H/P	208/230 V	RXTQ-TBVJUA	USA Canada	Design manual	EDUS332231-D	Feb.2023
							Capacity table	EDUS332231-C	
		VRV LIFE	H/P	208/230 V	RXSQ-TBVJUA	USA Canada	Design manual	EDUS332232-D	Feb.2023
							Capacity table	EDUS332232-C	
		Installation for all ***VRV*** air cooled type					Installation	EDUS371848A-N	Dec.2021
	Water cooled	***VRV-W***	H/P H/R	208/230 V 460 V 575 V	RWEQ-TATJU, TAYDU, TAYCU RWEQ-TATJA, TAYDA	USA Canada	Design manual	EDUS301864C-D	Mar.2022
							Capacity table	EDUS301864A-C	Jan.2020
		Installation for all ***VRV*** water cooled type					Installation	EDUS301864-N	Aug.2019

Note:
C/O: Cooling only, H/P: Heat pump, H/R: Heat recovery

Indoor Unit and Other Products

Refrigerant	Product category	Product type	Model name	Area	Book No.	Published in
R410A	***VRV*** Indoor units	Ceiling Mounted Cassette Type (Round Flow with Sensing)	FXFQ07-48TVJU	USA	EDUS391400B-F14	Jun.2020
		VISTA™ 2 x 2 Cassette Unit	FXZQ05-18TBVJU	USA	EDUS392209-F9	Feb.2022
		4-Way Blow Ceiling- Suspended Type	FXUQ18-36PAVJU	USA	EDUS392109-F15	Jul.2021
		One Way Blow Cassette Type	FXEQ07-24PVJU	USA	EDUS391533A-F16	Jan.2021
		Slim Ceiling Mounted Duct Type	FXDQ07-24MVJU	USA	EDUS39-600A-F2	Mar.2021
		MSP Concealed Ducted Unit	FXSQ05-54TBVJU	USA	EDUS392235-F17	Oct.2022
		HSP Concealed Ducted Unit	FXMQ15-54TBVJU	USA	EDUS392236-F4	Oct.2022
		Ceiling Mounted Duct Type	FXMQ72/96MVJU	USA	EDUS39-900B-F11	Mar.2021
		Ceiling Suspended Type	FXHQ12-36MVJU	USA	EDUS39-600A-F5	Mar.2021
		Wall Mounted Type	FXAQ07-24PVJU	USA	EDUS391100A-F6	Jan.2021
		Floor Standing Type Concealed Floor Standing Type	FXLQ07-24MVJU FXNQ07-24MVJU	USA	EDUS391502A-F7	Jan.2021
		Low-temperature hydrobox	HXY48TAVJU	USA	EDUS392021-F18	Sep.2020
		AHU Integration Kit—Re-Heat	EKEQDCBAV3-US	USA	EDUS392125-F19	Mar.2022
		Cased Coil Unit	CXTQ24-60TASBLU	USA	Engineering Data CXTQ-TA	—
		Air Handling Unit	FXTQ09-60TAVJUA FXTQ09-60TAVJUD	USA	Engineering Data FXTQ-TA	Sep.2016
		Outdoor Air Processing Unit	FXMQ48-96MFVJU	USA	EDUS39-900B-F10	Mar.2021
		Branch Selector Unit	BSQ-TAVJ BSF-Q54TVJ BS-Q54TAVJ	USA	EDUS392110-B	Jun.2021
	Controls and networks	Control systems Control devices Adaptors	Please refer to ED Book with No. on the right for applicable models.	USA	EDUS721909A-T	Oct.2020
		Navigation remote controller	BRC1E73	USA	EDUS721438	Apr.2015
		intelligent Touch Manager	DCM601A71, DCM601A72	USA	EDUS721212A	Mar.2022
		intelligent Touch Controller	DCS601C71	USA	EDUS72-608	Dec.2006
		Interface for use in BACnet®	DMS502B71	USA	EDUS72-749	Oct.2007
Option for all type			Please refer to ED Book with No. on the right for applicable models.	USA	OHUS07-1	Nov.2007
Energy Recovery Ventilator (VAM)			VAM300-1200GVJU	USA	EDUS711116B	Dec.2020

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 enquiries, 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.

●Specifications, designs and other content appearing in this brochure are current as of February 2023 but subject to change without notice.