

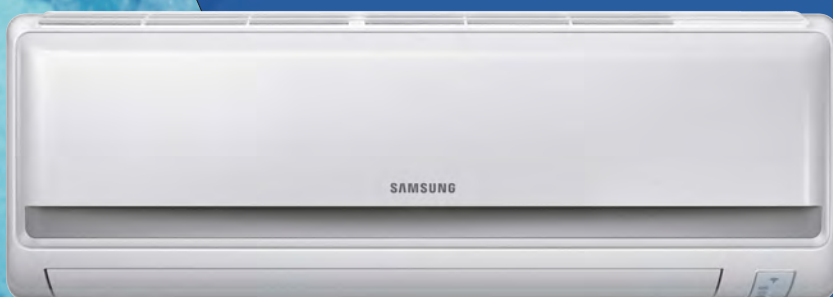
SAMSUNG

RAC

Technical

Data Book

Wall Mounted Type for America
(R410A, HP)



Model : RNS36UMB (AR36BSHUMGMNCV) + RXS36UMB (AR36BSHUMGMXCV)

History

Version	Modification	Date	Remark
Ver.1.0	Released 2022 RAC for North America	22. 01. 20	

Nomenclature

US Code

Model Name

R

N

S

36

U

M

B

(1)

(2)

(3)

(4)

(5)

(6)

(7)

(1) Classification

R	RAC
---	-----

(6) Version

A-Z (1 digit)

(2) Product Type

N	Indoor Unit
X	Outdoor Unit

(7) Version

B	2022
---	------

(3) Mode

S	Inverter HP R410A
---	-------------------

(4) Capacity

X1,000 Btu/h (2 digits)

(5) Product Notation (Indoor Unit)

U	Max RAC
---	---------

Nomenclature

Model Name

AR

36

B

S

H

U

M

GM

N

CV

(1)

(2)

(3)

(4)

(5)

(6)

(7)

(8)

(9)

Buyer

(1) Classification

AR	RAC
----	-----

(2) Capacity

x1000 Btu/h

(3) Year

B	2022
---	------

(4) Product Type

S	INVERTER HP R410A
---	-------------------

(5) Characteristics

H	-
---	---

(6) Design Segment

U	Max RAC
---	---------

(7) Version

A-Z (1 digit)

(8) Color



GM	PM Gray
----	---------

(9) Set

N	Indoor Unit
X	Outdoor Unit
/	Set

Line-up

Wall Mounted Type

Model Type		Image
Wall Mounted	Indoor Unit	
	Outdoor Unit	

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1. Specification

Wall Mounted Type

US Code		Indoor Unit			RNS36UMB	
		Outdoor Unit			RXS36UMB	
Model Name		Indoor Unit			AR36BSHUMGMNCV	
		Outdoor Unit			AR36BSHUMGMXCV	
System	Mode				-	Heat Pump
	Performance	Capacity (Min/Std/Max)	Cooling	kW	2.78 / 10.55 / 11.43	
				Btu/h	9,500 / 36,000 / 39,000	
				US RT	0.92 / 3.00 / 3.25	
			Heating	kW	2.78 / 11.72 / 13.77	
				Btu/h	9,500 / 40,000 / 47,000	
				US RT	0.79 / 3.33 / 3.92	
	Power	Power Input (Min/Std/Max)	Cooling	kW	0.90 / 3.79 / 4.30	
			Heating		0.56 / 4.51 / 5.82	
			Cooling	A	5.0 / 16.8 / 19.1	
			Heating		3.0 / 20.0 / 24.0	
		Current	MCA	A	21.4	
			MOP	A	35	
	Efficiency	EER2	Cooling	-	2.78	
			Cooling(US)	(Btu/h)/W	9.50	
		COP2	Heating	W/W	2.60	
		SEER2		-	19.2	
		HSPF2		-	8.5	
	Pipe Connections	Liquid Pipe		Type	Flare	
				Φ, mm(inch)	9.52 (3/8)	
		Gas Pipe		Type	Flare	
				Φ, mm(inch)	15.88 (5/8)	
		Heat Insulation		-	Both liquid and gas pipes	
		Pipe Length(ODU-IDU)	Standard	m (ft)	7.5 (24.6)	
			Max.	m (ft)	75 (246.0)	
			Elevation	m (ft)	30 (98.4)	
			Chargeless	m (ft)	7.5 (24.6)	
	Wiring connections	Communication	Min.	mm2	0.75	
			Remark	-	F1,F2	
	Refrigerant	Type		-	R-410A	
		Factory Charging		kg	2.9	
				lbs	6.39	
	Option Code	Standard		-	0113FF-194593-276975-371700	
		Install		-	020010-100000-200000-300000	
Indoor Unit	Power Supply			Φ,#,V,Hz	1, 2, 208-230, 60	
	Heat Exchanger	Type		-	F&T	
		Material	Fin	-	Al	
			Tube	-	Cu	
	Fin Treatment		-	Green Hydrophile		
	Fan	Type		-	Sirocco	
		Quantity		EA	2	
		Air Flow Rate	H/M/L	m3/min	23.5/21.3/19.8	
				ft³/min	830/752/699	
				l/s	392/355/330	
	External Static Pressure		Min/Std/Max	In Wg	-	
	Fan Motor	Type		-	BLDC	
		Output		W x n	58 x 1	
	Drain	Drain Pipe		Φ, mm	ID18	
Sound	Sound Pressure Level	H/M/L/Silent	dB(A)	51/48/46/38		
	Sound Power Level		dB(A)	65		

1. Specification

Wall Mounted Type

US Code		Indoor Unit		RNS36UMB	
		Outdoor Unit		RXS36UMB	
Model Name		Indoor Unit		AR36BSHUMGMNCV	
		Outdoor Unit		AR36BSHUMGMXCV	
Indoor Unit	External Dimension	Net Weight		kg(lbs)	18.5 (40.8)
		Shipping Weight		kg(lbs)	22.0 (48.5)
		Net Dimensions (WxHxD)		mm	1,280 x 253 x 345
				inch	50.39 x 9.96 x 13.58
		Shipping Dimensions (WxHxD)		mm	1,352 x 326 x 420
				inch	53.23 x 12.83 x 16.54
	Casing	Material		-	Plastic
	Control	Infrared remote control		-	DB96-24901P
	System	Wired remote control		-	MWR-WG00UN / MWR-SH11UN
	Drain Pump	Drain Pump		-	-
Additional Accessories	Max. lifting Height / Displacement		in / gal/h	-	
	Air Filter		-	Washable	
Outdoor Unit	Power Supply			Φ,#,V,Hz	1, 2, 208-230, 60
	Heat Exchanger	Type		-	Fin & Tube
		Material	Fin	-	Al
			Tube	-	Cu
		Fin Treatment		-	Anti-Corrosion
	Compressor	Model		-	UG5TK1450FJXSG
		Type		-	Twin BLDC
		Output		kW	4.19
		Oil	Type	-	PVE
			Initial Charge	cc (fl oz)	1700
	Fan	Type		-	Propellar
		Discharge direction		-	Front
		Quantity		EA	2
		Air Flow Rate	H/M/L	m3/min	100
				ft³/min	3,532
				l/s	1,667
	Fan Motor	Type		-	BLDC
		Output		W x n	125 x 2
	Sound	Sound Pressure Level	Cooling	dB(A)	52
			Heating	dB(A)	54
		Sound Power Level		dB(A)	69
	External Dimension	Net Weight		kg(lbs)	86.0 (189.6)
		Shipping Weight		kg(lbs)	95.5 (210.5)
		Net Dimensions (WxHxD)		mm	940 x 1,210 x 330
				inch	37.00 x 47.64 x 12.99
		Shipping Dimensions (WxHxD)		mm	995 x 1,388 x 426
				inch	39.17 x 54.65 x 16.77
	Casing	Material	Body	-	Steel
	Operating Temp. Range	Cooling		°C (°F)	-18~46 (0~114.8)
		Heating		°C (°F)	-20~24 (-4~75)

NOTE

- Specification may be subject to change without prior notice.

- Performances are based on the following test conditions.
 - Cooling : Indoortemperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB, Outdoortemperature : 95°F(35°C) DB, 75°F(23.9°C) WB
 - Heating : Indoortemperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB, Outdoortemperature : 47°F(8.3°C) DB, 43°F(6.1°C) WB
 - Equivalent refrigerant piping length 5m(16.4ft), Level differences : 0m(0ft)
- Select wire size based on the value of MCA
- Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A-weighted sound pressure level / Reference acoustic pressure 0 dB = 20uPa
- Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level
 - Reference power : 1pW / Measured according to ISO 3741
- These products contain R410A which is fluorinated greenhouse gas.

2. Capacity Table

Wall Mounted Type

RNS36UMB (AR36BSHUMGMNCV) + RXS36UMB (AR36BSHUMGMXCV)

Cooling

TC : Total Capacity, SHC : Sensible Heat Capacity, PI : Power Input

Outdoor Temp. (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68 / 57			72 / 61			77 / 64			80 / 67			82 / 70			86 / 72			90 / 75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0	32.5	23.5	2.32	34.2	24.2	2.37	35.6	24.9	2.41	36.7	25.7	2.46	37.5	25.4	2.49	39.3	25.2	2.51	41.3	24.7	2.56
70	33.4	24.1	1.96	35.2	24.9	2.00	36.7	25.7	2.04	37.8	26.5	2.08	38.6	26.2	2.11	40.5	25.9	2.13	42.5	25.4	2.17
95	31.8	23.0	3.57	33.5	23.7	3.64	34.9	24.4	3.71	36.0	25.2	3.79	36.7	24.9	3.83	38.6	24.7	3.87	40.5	24.2	3.94
115	27.1	20.9	3.92	28.5	21.6	4.00	29.7	22.3	4.09	30.6	23.0	4.17	31.2	22.7	4.21	32.8	22.5	4.25	34.4	22.0	4.34

Heating

TC : Total Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61		64		68		70		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4	31.9	5.44	31.6	5.39	31.3	5.33	31.0	5.28	30.7	5.23	30.4	5.17
14	37.1	5.58	36.7	5.52	36.4	5.47	36.0	5.41	35.6	5.36	35.3	5.30
32	41.2	5.34	40.8	5.29	40.4	5.24	40.0	5.19	39.6	5.13	39.2	5.08
47	41.2	4.65	40.8	4.60	40.4	4.56	40.0	4.51	39.6	4.46	39.2	4.42
75.2	47.4	4.27	46.9	4.23	46.5	4.19	46.0	4.15	45.5	4.11	45.1	4.07

NOTE

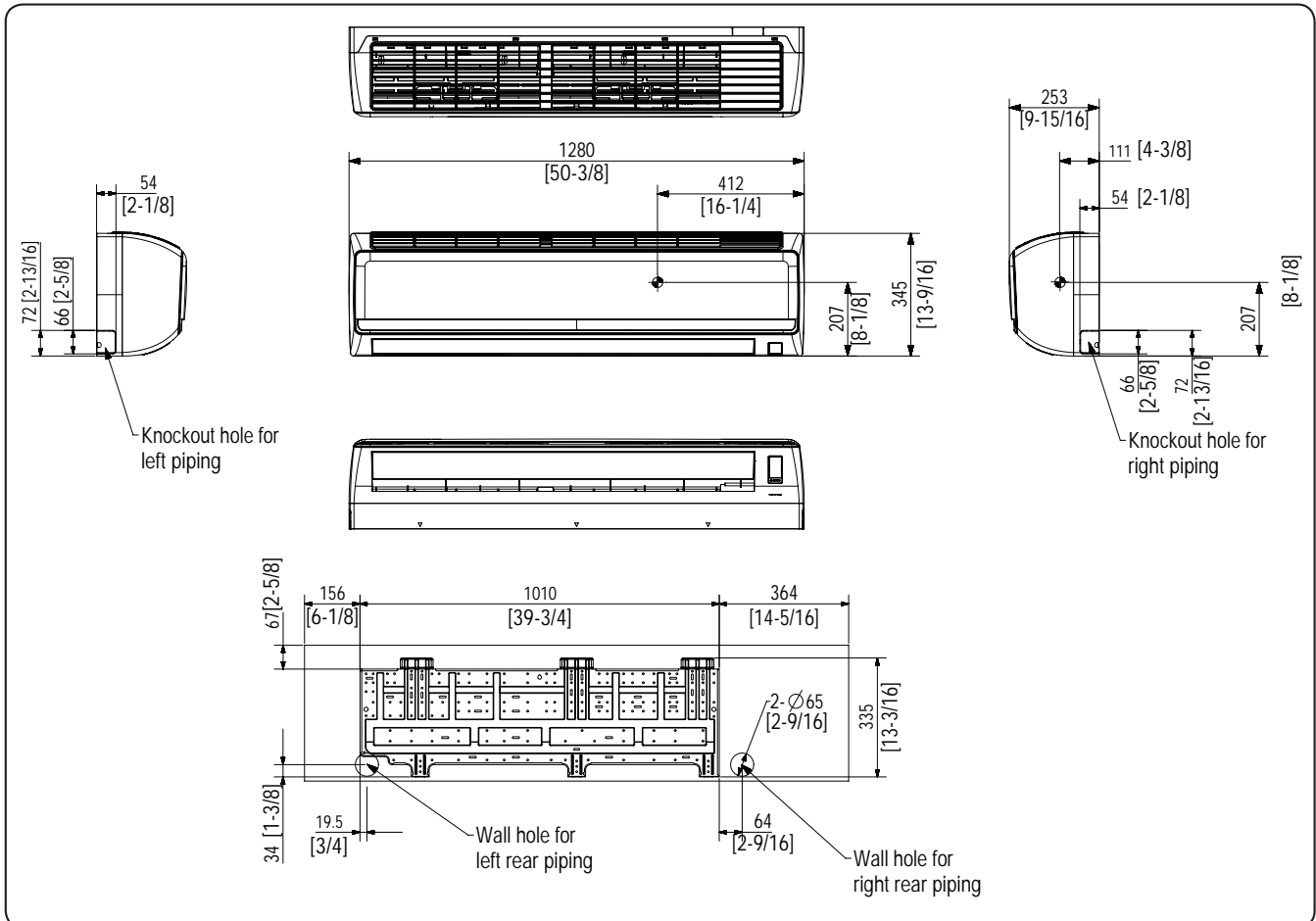
- The performance table shows the average value of each conditions.

3. Dimensional Drawing

Indoor unit

RNS36UMB (AR36BSHUMGMNCV)

Units : mm [inches]



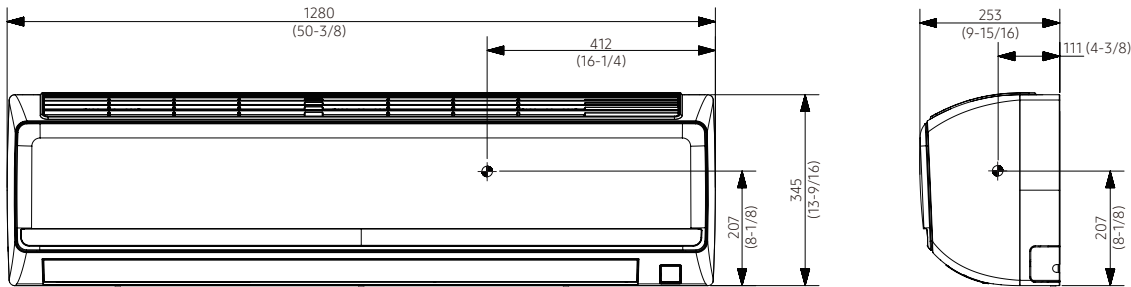
Outdoor Unit

4. Center of Gravity

Indoor unit

RNS36UMB (AR36BSHUMGMNCV)

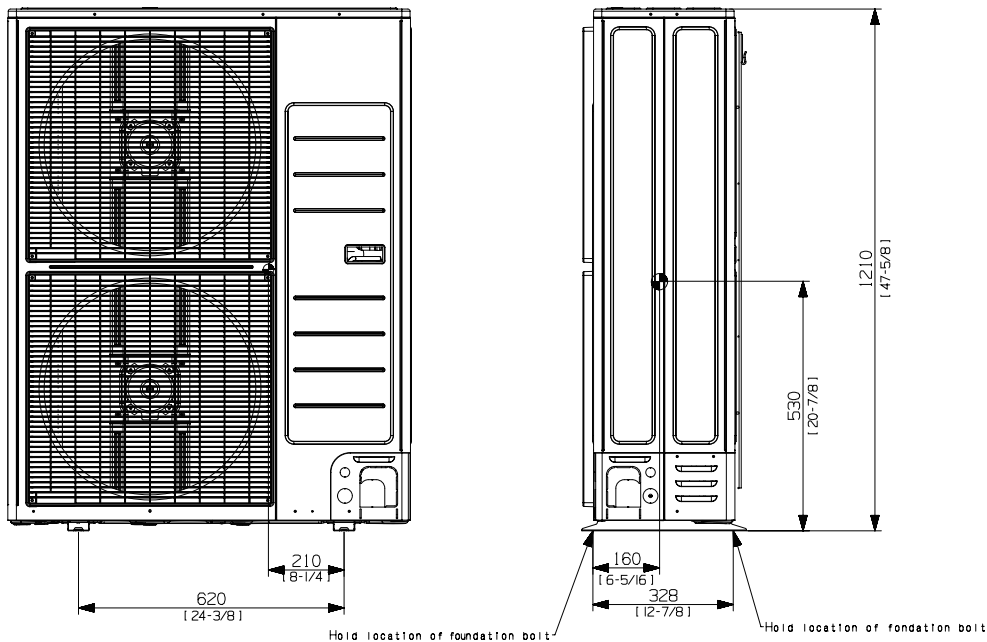
Units : mm [inches]



Outdoor units

RXS36UMB (AR36BSHUMGMXCV)

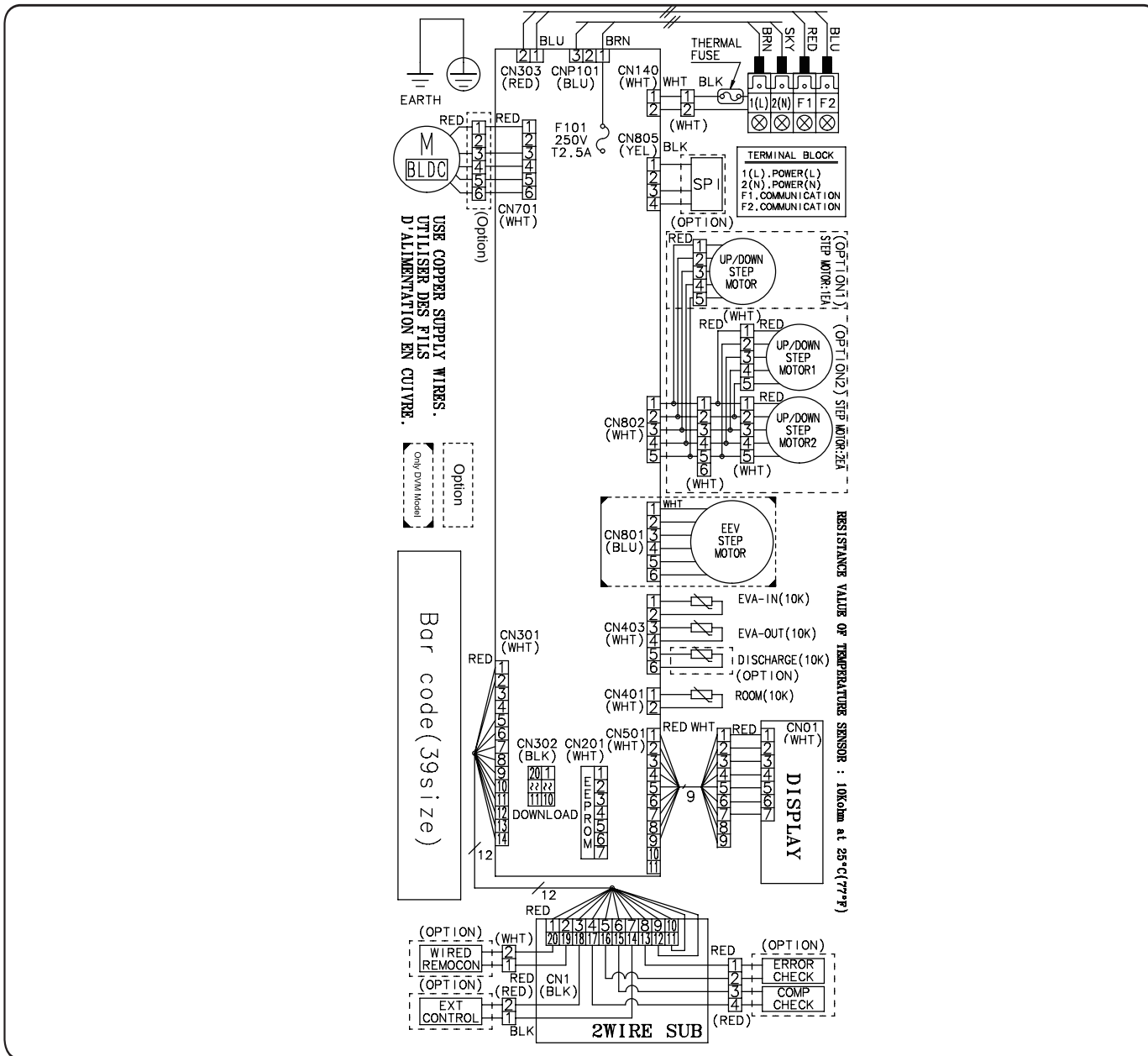
Units : mm [inches]



5. Electrical Wiring Diagram

Indoor unit

RNS36UMB (AR36BSHUMGMNCV)



SPI	S-Plasma ion	EEV	Electronic Expansion Valve	ROOM	Thermistor ROOM in (10K)
M-BLDC	BLDC Motor	EVA-IN	Thermistor EVA IN(10K)	EVA-OUT	Thermistor EVA OUT(10K)

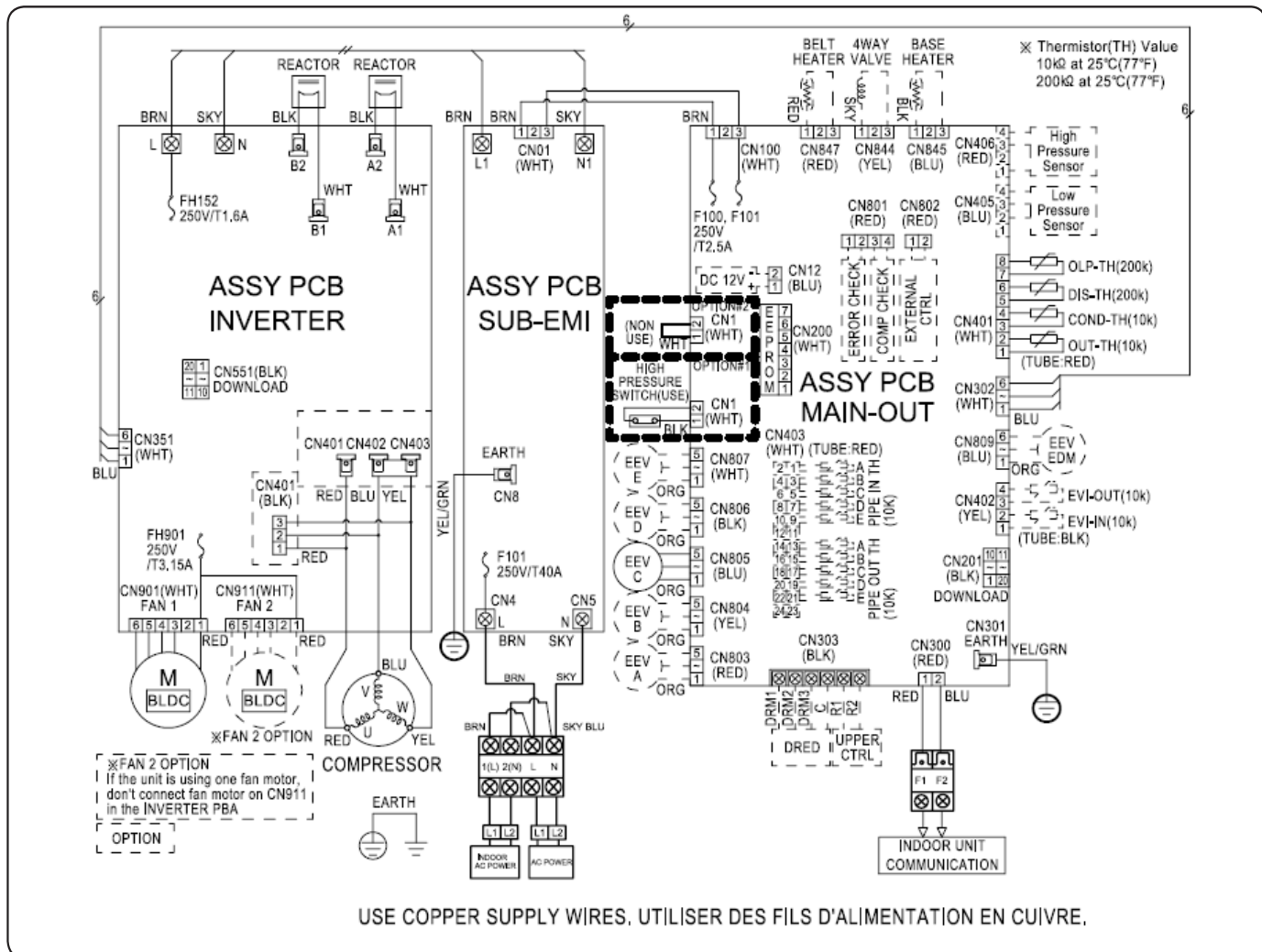
NOTE

- This wiring diagram applies only to the Indoor unit.
- Symbols show as follow : BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue, GRN: green
- Protective earth(screw)

5. Electrical Wiring Diagram

Outdoor Units

RXS36UMB (AR36BSHUMGMXCV)



BLDC	BLDC Motor	COMP CHECK	Outdoor COMP Operating Check
4WAY	4way Valve	ERROR CHECK	Outdoor Error Check

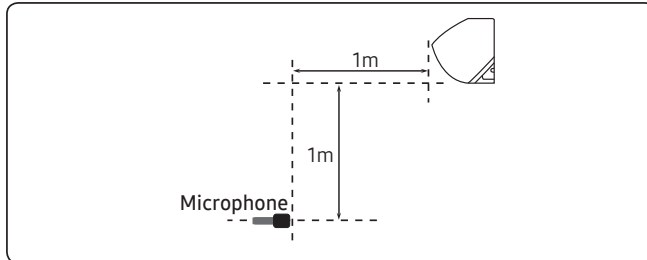
NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: skyblue
- When operating, don't shortcircuit the protection device (High Pressure switch)
- ⏏ Protective earth(screw), □ : connector, $\frac{1}{2}$: The wire quantity

6. Sound Data

Wall Mounted Type

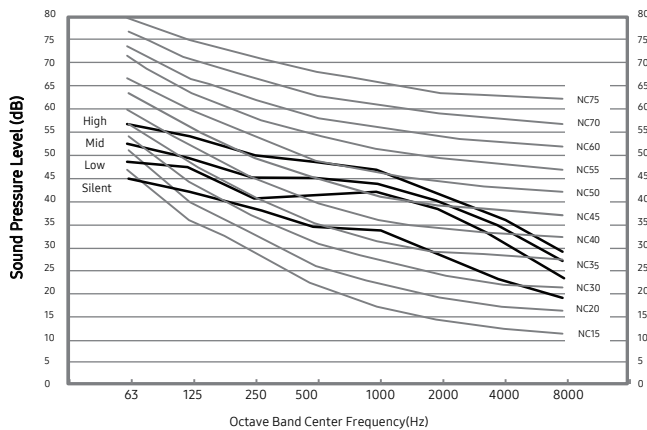
Sound Pressure level



Unit: dB(A)

Model	High	Mid	Low	Silence
RNS36UMB (AR36BSHUMGMNCV)	51	48	46	38

- NC Curve
RNS36UMB (AR36BSHUMGMNCV)



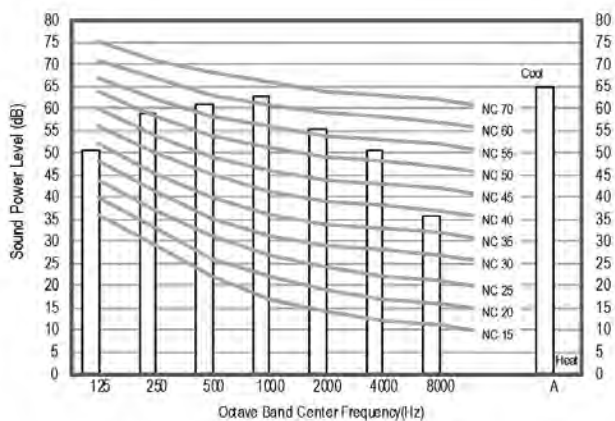
NOTE

- Specifications may be subject to change without prior notice.
 - Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20μPa

Sound Power level

- NC Curve
RNS36UMB (AR36BSHUMGMNCV)

Unit: dB(A)



Model	Cooling
RNS36UMB (AR36BSHUMGMNCV)	65

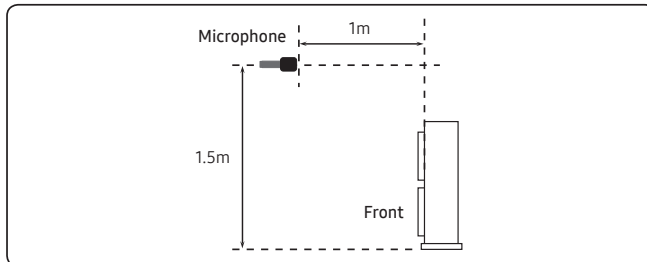
NOTE

- Specifications may be subject to change without prior notice
 - Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level.
 - Reference power : 1pW.
 - Measured according to ISO 3741.

6. Sound Data

Outdoor Units

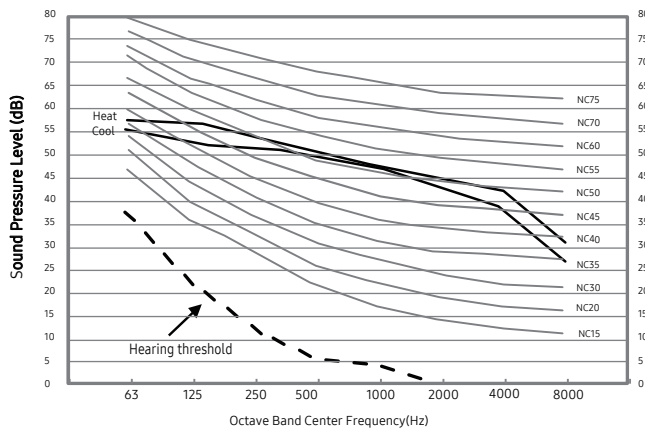
Sound Pressure level



Unit: dB(A)

Model	Cooling	Heating
RXS36UMB (AR36BSHUMGMXCV)	52	54

- NC Curve
RXS36UMB (AR36BSHUMGMXCV)



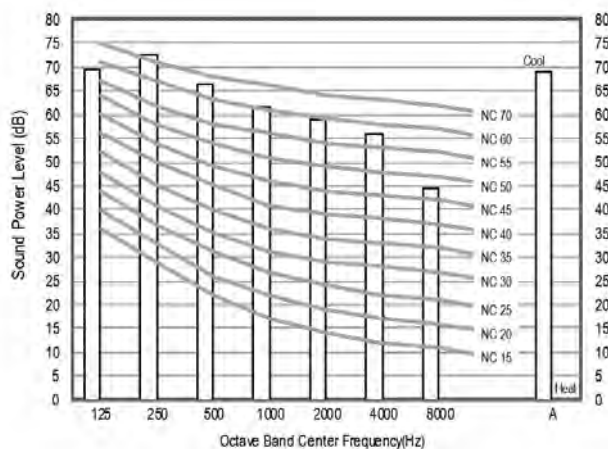
NOTE

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 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20μPa

Sound Power level

- NC Curve
RXS36UMB (AR36BSHUMGMXCV)

Unit: dB(A)



Model	Cooling
RXS36UMB (AR36BSHUMGMXCV)	69

NOTE

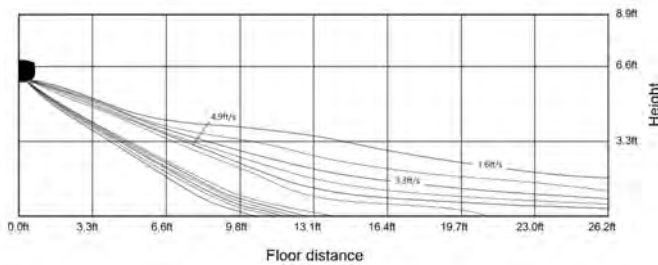
- Specifications may be subject to change without prior notice
 - Sound power level is an absolute value that a sound source generates.
 - dBA = A-weighted sound power level.
 - Reference power : 1pW.
 - Measured according to ISO 3741.

7. Temperature and air flow distribution

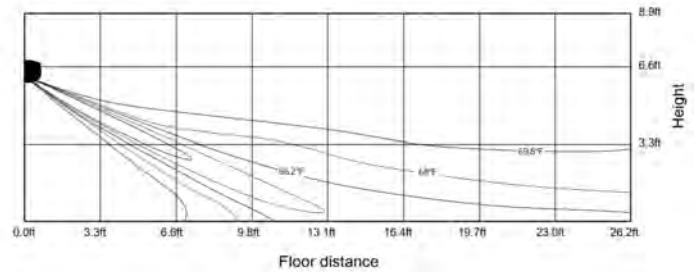
Wall Mounted Type

RNS36UMB (AR36BSHUMGMNCV) + RXS36UMB (AR36BSHUMGMXCV)

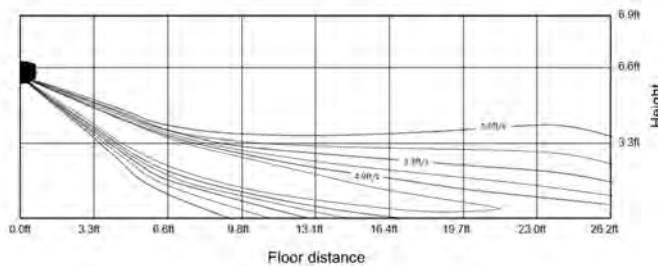
- Cooling Air Velocity distribution
(Discharge angle : 20 degree)



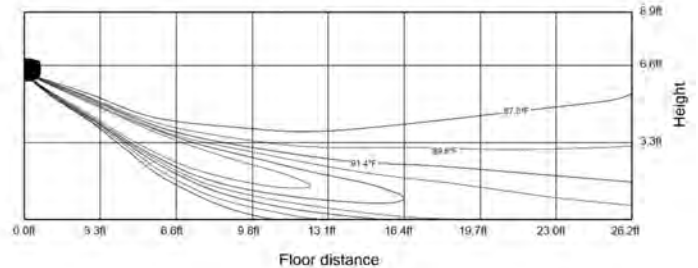
- Cooling temperature distribution
(Discharge angle : 20 degree)



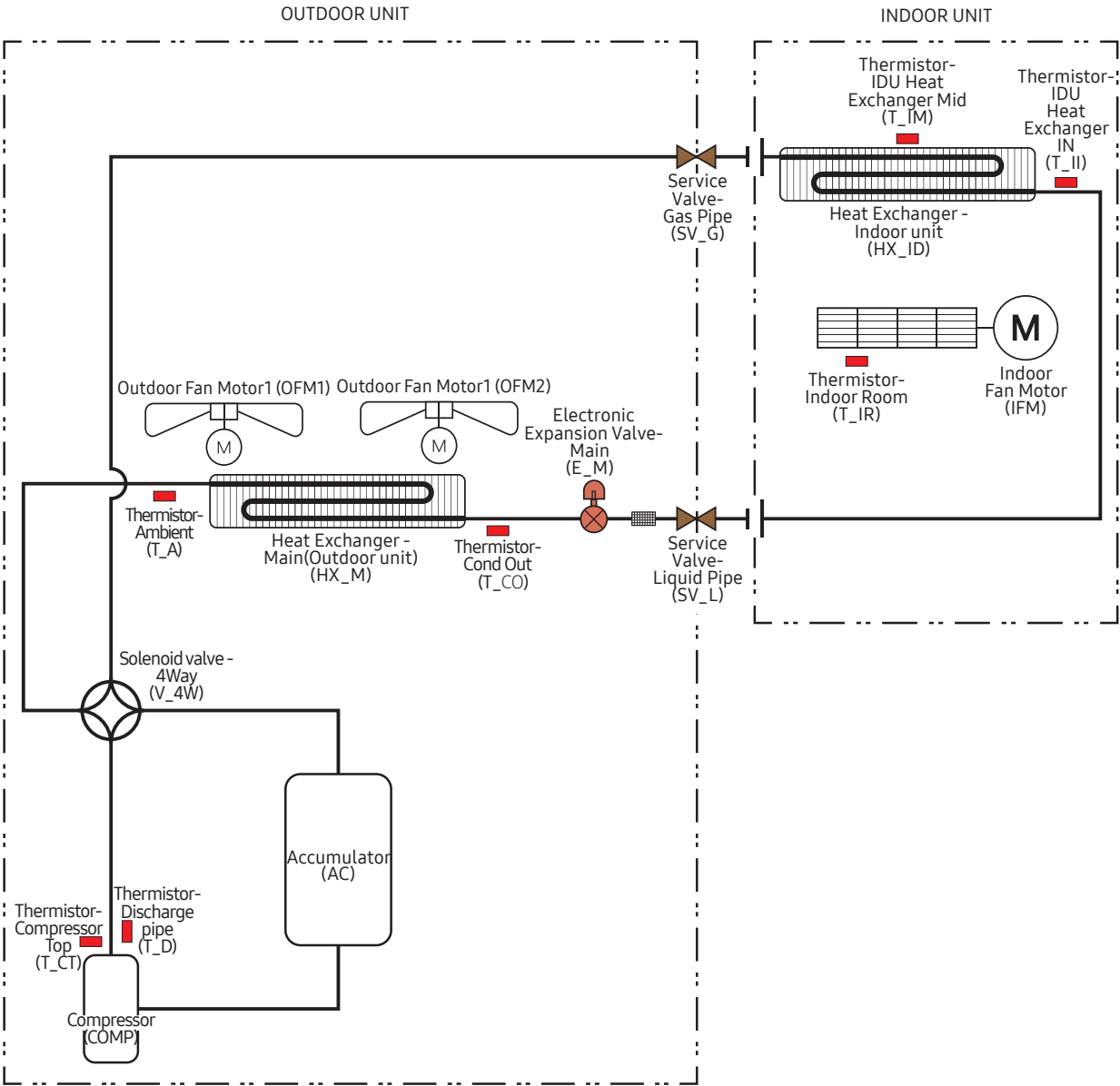
- Heating Air Velocity distribution
(Discharge angle : 30 degree)



- Heating temperature distribution
(Discharge angle : 30 degree)



8. Piping Diagram



9. Operation Limit

Mode		Indoor temperature	Outdoor temperature	Indoor humidity
Cooling		18°C to 32°C (64°F to 90°F)	-18°C to 46°C (0°F to 114.8°F)	80% or less
Drying		18°C to 32°C (64°F to 90°F)	-18°C to 46°C (0°F to 114.8°F)	-
Heating	~ 24kBtu/h	30°C(86°F) or less	-25°C to 24°C (-13°F to 75°F)	-
	30 ~ 48kBtu/h		-20°C to 24°C (-4°F to 75°F)	-

NOTE

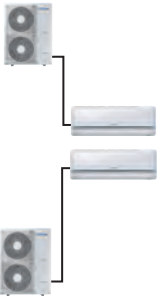
- The assumed installation conditions are follows
 - The pipe length(including elbow) is 7.5m(24.6ft).
 - The level difference is 0 m.

10. Capacity Correction

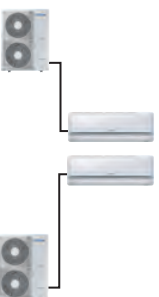
Outdoor Units

RNS36UMB (AR36BSHUMGMNCV) + RXS36UMB (AR36BSHUMGMXCV)

Cooling

		Pipe Length (ft)														
		16.4	32.8	49.2	65.6	82.0	98.4	114.8	131.2	147.6	164.0	180.4	196.9	213.3	229.7	246.1
	Level Difference (ft)	98.4	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		82.0	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		65.6	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		49.2	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		32.8	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		16.4	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		0.0	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		-16.4	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.87
		-32.8	0.98	0.98	0.97	0.96	0.95	0.94	0.93	0.93	0.92	0.91	0.90	0.89	0.87	0.85
		-49.2	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.84
		-65.6	-	-	0.96	0.95	0.95	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.83
		-82.0	-	-	-	0.95	0.94	0.93	0.93	0.92	0.91	0.90	0.88	0.87	0.85	0.81
		-98.4	-	-	-	-	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.86	0.84	0.80

Heating

		Pipe Length (ft)														
		16.4	32.8	49.2	65.6	82.0	98.4	114.8	131.2	147.6	164.0	180.4	196.9	213.3	229.7	246.1
	Level Difference (ft)	98.4	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		82.0	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		65.6	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		49.2	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		32.8	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		16.4	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		0.0	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		-16.4	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		-32.8	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		-49.2	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		-65.6	-	-	0.97	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		-82.0	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88
		-98.4	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.91	0.91	0.90	0.89	0.88

11. Installation

Indoor Units

Choosing the installation location

Installation location requirements

- There must be no obstacles near the air inlet and outlet.
- Install the indoor unit on a ceiling that can support its weight.
- Maintain sufficient clearance around the indoor unit.
- Before installing the indoor unit, be sure to check whether the chosen location is well-drained.

⚠ WARNING

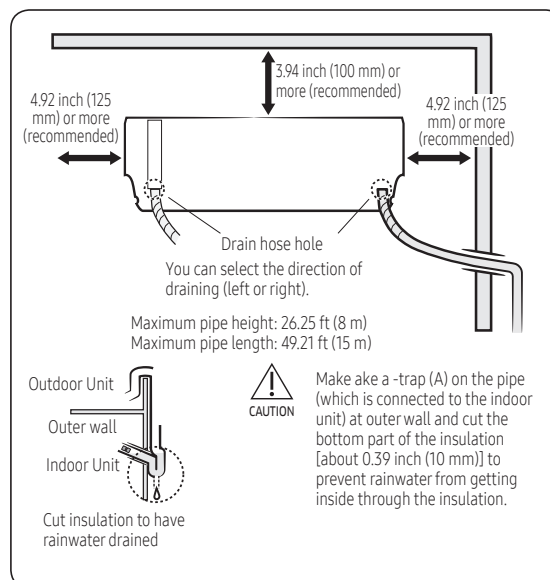
- Minimum installation height of indoor unit is 0.6 m for floor mounted, 1.8 m for wall, 2.2 m for ceiling.

⚠ CAUTION

Connecting the power and communication cables

- The place where there is mineral oil or arsenic acid. Resin parts flame and the accessories may drop or water may leak.
- The capacity of the heat exchanger may reduce or the air conditioner may be out of order.
- The place where corrosive gas such as sulfurous acid gas generates from the vent pipe or air outlet. The copper pipe or connection pipe may corrode and refrigerant may leak.
- The place where there is a machine that generates electromagnetic waves. The air conditioner may not operate normally due to control system.
- The place where there is a danger of existing combustible gas, carbon fiber or flammable dust.
- The place where thinner or gasoline is handled. Gas may leak and it may cause fire.
- The place where animals may urinate on the product. Ammonia may be generated.
- The place where is close to heat sources.

Overview of installation location requirements



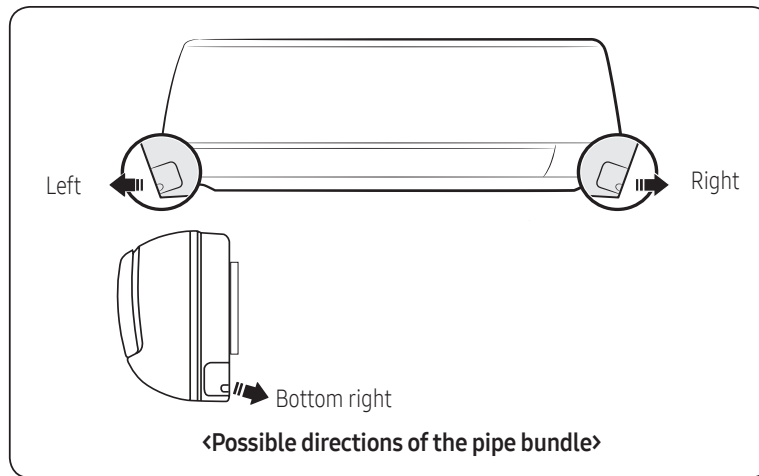
11. Installation

Indoor Units

Drilling a hole through the wall

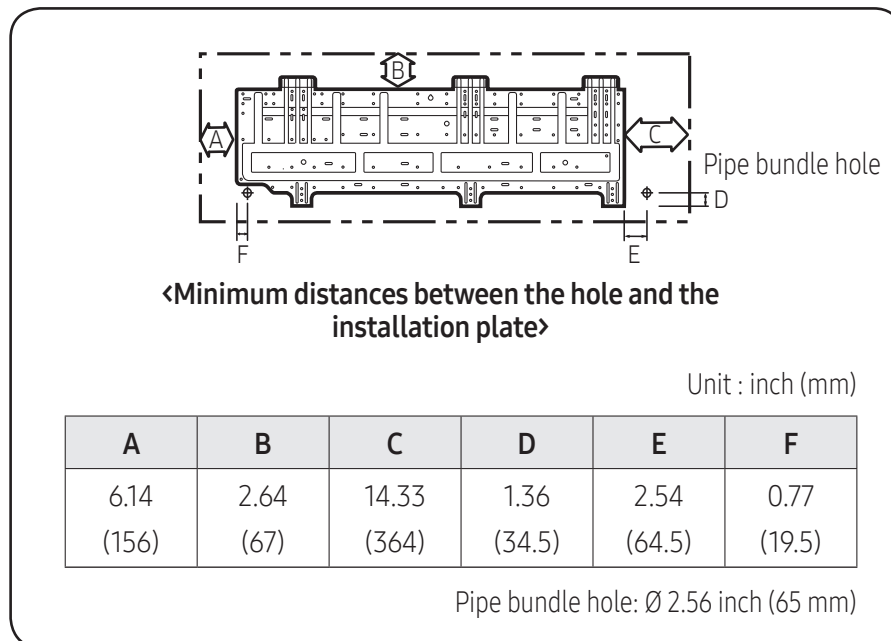
Before fixing the installation plate to a wall and then fixing the indoor unit to the installation plate, a window frame, or a gypsum board, you must determine the position of a hole [with 2.56 inch (65 mm) inner diameter] through which the pipe bundle (consisting of power and communication cables, refrigerant pipes, and drain hose) will pass and then drill that hole

- 1 Determine the position of a 2.56 inch (65 mm) hole in consideration of the possible directions of the pipe bundle and the minimum distances between the hole and the installation plate



CAUTION

- If changing the pipe direction from left to right, do not drastically bent it but slowly turn it in the opposite direction as shown. Otherwise, the pipe may be damaged in the process.



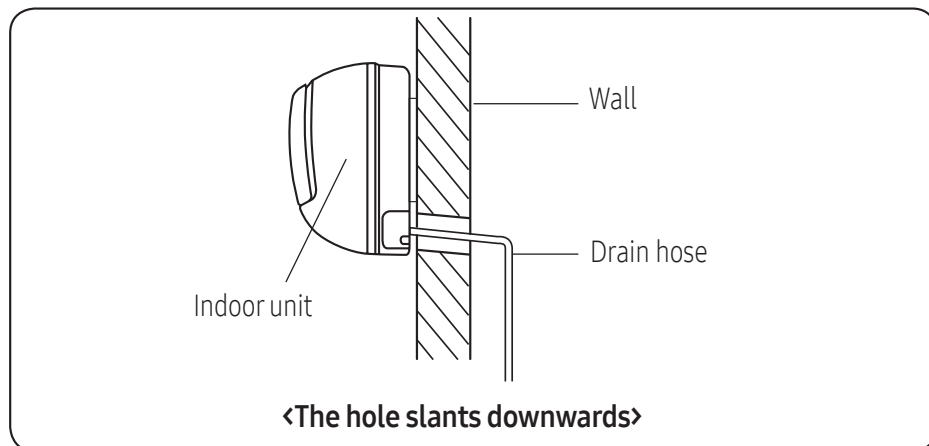
11. Installation

Indoor Units

2 Drill the hole.

⚠ CAUTION

- Be sure to drill only one hole.
- Make sure that the hole slants downwards so that the drain hose slants downwards to drain water well.

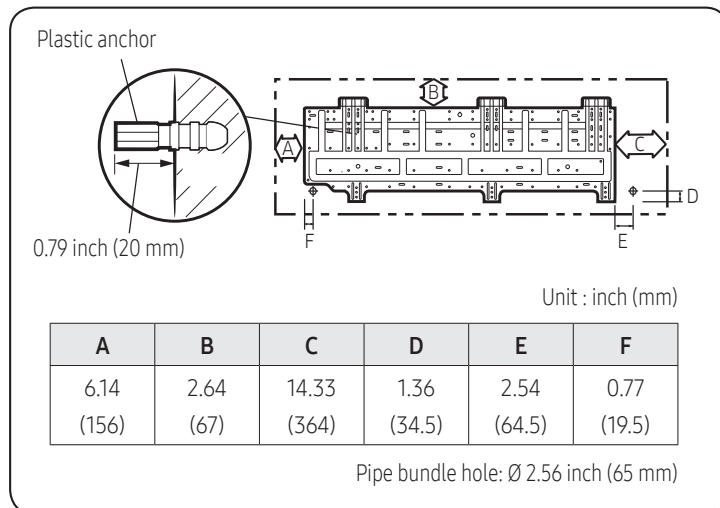


Fixing the installation plate

You can install the indoor unit on a wall, window frame, or gypsum board.

⚠ WARNING

- Make sure that the wall, window frame, or gypsum board can withstand the weight of the indoor unit. If you install the indoor unit in a place where it is not strong enough to withstand the unit's weight, the unit could fall and cause injury. Make sure that the hole slants downwards so that the drain hose slants downwards to drain water well.



📄 NOTE

- If you mount the plate to a concrete wall using plastic anchors, make sure that gaps between the wall and the plate, created by projected anchor, is less than 0.79 inch (20 mm)

11. Installation

Indoor Units

When fixing the indoor unit on a window frame

- 1 Determine the positions of the wooden uprights to be attached to the window frame.
- 2 Attach the wooden uprights to the window frame giving attention to the weight of the indoor unit.
- 3 Attach the installation plate to the wooden upright using tapping screws.

When fixing the indoor unit on a gypsum board

- 1 Use stud finder to find out locations of the studs.
- 2 Fix the plate hanger on two studs.

CAUTION

- If you fix the indoor unit on a gypsum board, use only specified anchor bolts on reference positions. Otherwise, the gypsum surrounding the joints may crumble over time and cause the screws to be loosened and stripped. This may lead to physical injury or equipment damage.
- Search for other spots if there are less than two studs, or the distance between the studs are different from the plate hanger.
- Fix the installation plate without inclining to one side.

Connecting the refrigerant pipe

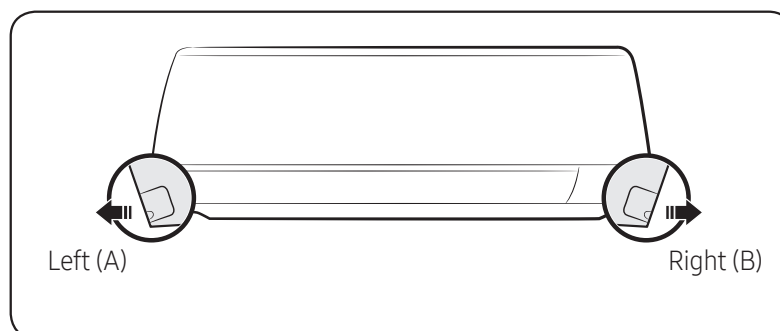
Connect indoor and outdoor units with field-supplied copper pipes by means of flare connections. Use insulated seamless refrigeration grade pipe only, (Cu DHP type according to ISO1337), degreased and deoxidized, suitable for operating pressures of at least 4200 kPa and for burst pressure of at least 20700 kPa. Under no circumstances must sanitary type copper pipe be used.

There are 2 refrigerant pipes of different diameters:

- The smaller one is for the liquid refrigerant
- The larger one is for the gas refrigerant

A short pipe is already fitted to the air conditioner. You may need to extend the pipe using the assembly pipe. (optional)
The connection procedure for the refrigerant pipe varies according to the exit position of the pipe when facing the wall:

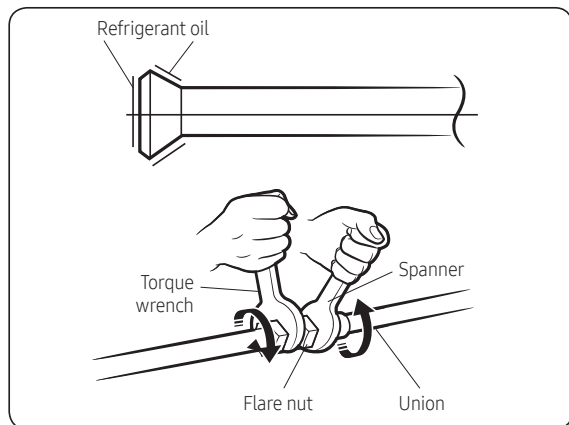
- Left(A)
- Right(B)
- Rear



11. Installation

Indoor Units

- 1 Cut out the appropriate knock-out piece on the rear of the indoor unit unless you connect the pipe directly from the rear.
- 2 Smooth the cut edges
- 3 Remove the protection caps of the pipes and connect the assembly pipe to each pipe. Tighten the nuts first with your hands, and then with a torque wrench, applying the following torque:



Outer diameter (inch (mm))	Torque (lbf•ft (N•m))	Torque (kgf•cm)
Ø 1/4 (6.35)	10.3 to 13.3 (14 to 18)	140~180
Ø 3/8 (9.52)	25.1 to 31.0 (34 to 42)	350~430
Ø 1/2 (12.70)	36.1 to 45.0 (49 to 61)	500~620
Ø 5/8 (15.88)	50.2 to 60.5 (68 to 82)	690~830

NOTE

- If you want to shorten or extend pipes, refer to Cutting or flaring the pipes.

- 4 Cut off the remaining foam insulation.
- 5 If necessary, bend the pipe to fit along the bottom of the indoor unit. Then pull it out through the appropriate hole.
 - The pipe should not project from the rear of the indoor unit.
 - The bending radius should be 3.94 inch (100 mm) or more.
- 6 Pass the pipe through the hole in the wall.
- 7 If necessary, bend the pipe to fit along the bottom of the indoor unit. Then pull it out through the appropriate hole.

NOTE

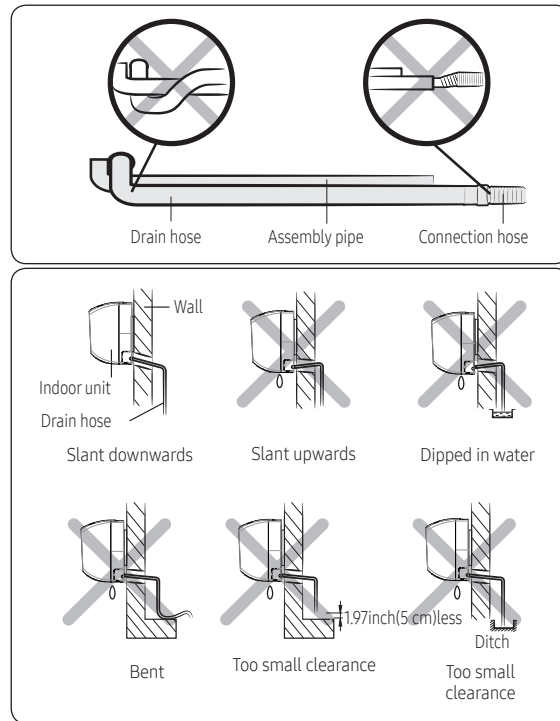
- The pipe will be insulated and fixed permanently into position after finishing the installation and the gas leak test; refer to page 10 for further details.
- DO NOT WALL UP THE PIPE CONNECTION!
- All refrigerant pipe connection must be easy accessible and erviceable.

11. Installation

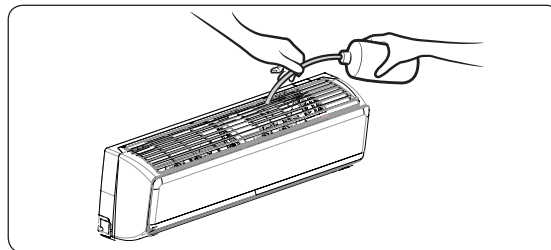
Indoor Units

Installing and connecting the drain hose

1 Install the drain hose.



2 Pour water into the drain pan. Check whether the hose is well drained.



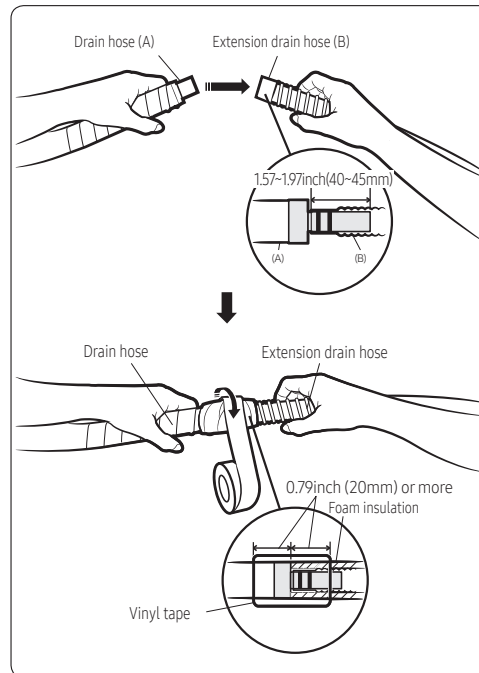
CAUTION

- Make sure that the indoor unit is in upright position when you pour water to check for leakage. Make sure that the water does not overflow onto the electrical part.
- If the diameter of the connection hose is smaller than the product's drain hose, water leakage may occur.
- Inadequate installation may cause water leakage.
- If the drain hose is routed inside the room, insulate the hose so that dripping condensation does not damage the furniture or floors.
- Do not box in or cover the drain hose connection. Drain hose connection must be easily accessible and serviceable.

11. Installation

Indoor Units

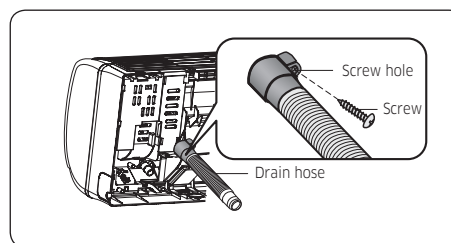
Optional: Extending the drain hose



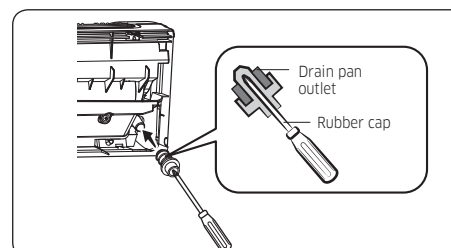
Optional: Changing the direction of the drain hose

Change the direction only when it is necessary.

- 1 Detach the rubber cap with the flyer.



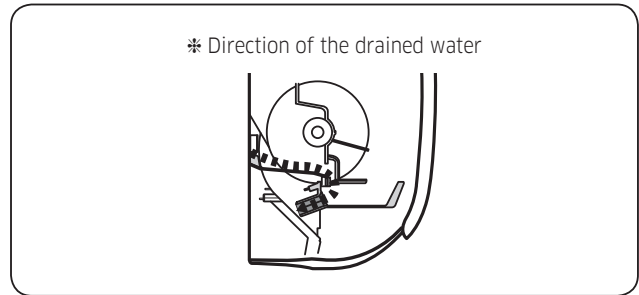
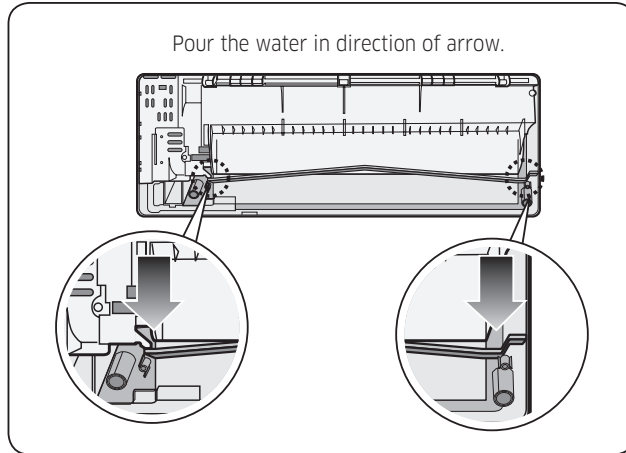
- 2 Detach the drain hose by pulling it and turning to the left.
- 3 Insert the drain hose by fixing it into the groove of the drain hose and the outlet of the drain pan.



11. Installation

Indoor Units

- 4 Attach the rubber cap with a screwdriver by turning it to the right until it fixes to the end of the groove.
- 5 Insert the drain hose by fixing it into the groove of the drain hose and the outlet of the drain pan.



⚠ CAUTION

- Make sure that the indoor unit is in upright position when you pour water to check for leakage. Make sure that the water does not overflow onto the electrical part.

Connecting the power and communication cables

⚠ CAUTION

- Always remember to connect the refrigerant pipes before performing the electric connections. When disconnecting the system, always disconnect the electric cables before disconnecting the refrigerant pipes.
- Always remember to connect the air conditioner to the grounding system before performing the electric connections. Use a crimp ring terminal at the end of each wire.

The indoor unit is powered through the outdoor unit by means of a H05 RN-F connection cable (or a more power model), with insulation in synthetic rubber and a jacket in polychloroprene (neoprene), in accordance with the requirements specified in the standard EN60335-2-40.

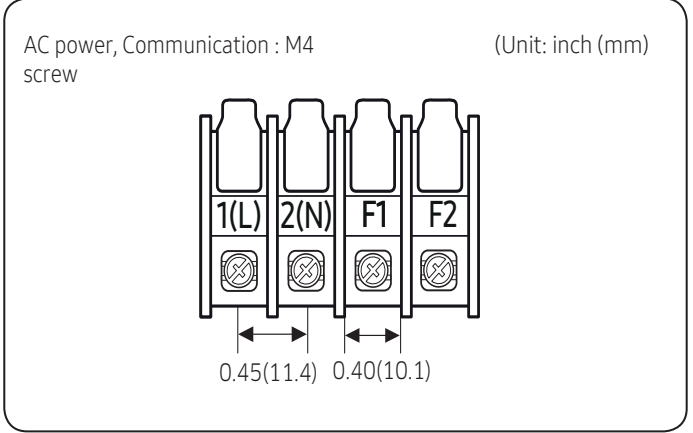
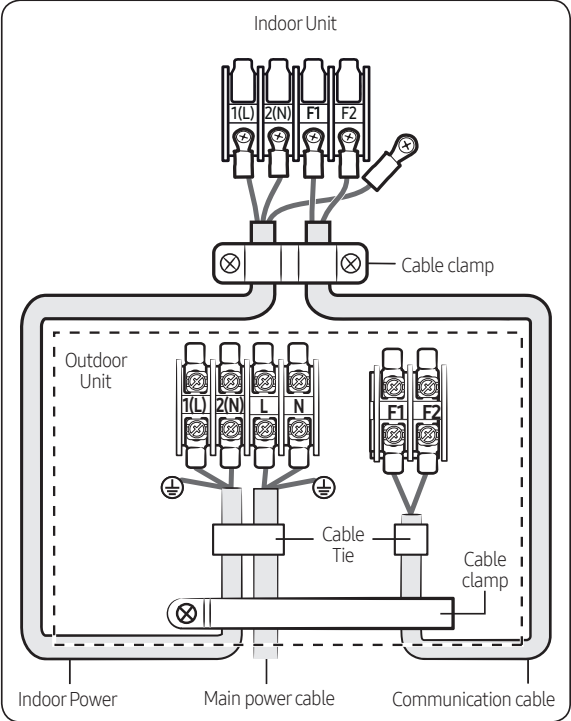
- 1 Remove the screw on the electrical component box and remove the cover plate.
- 2 Route the connection cord through the side of the indoor unit and connect the cable to the terminals refer to the figure below.
- 3 Route the other end of the cable to the outdoor unit through the ceiling & the hole on the wall.
- 4 Reassemble the electrical component box cover, carefully tightening the screw.

⚠ CAUTION

- When installing the indoor unit in a computer room or network room, use the double shielded communication cable (tape aluminum / polyester braid + copper) of FROHH2R type.

11. Installation

Indoor Units

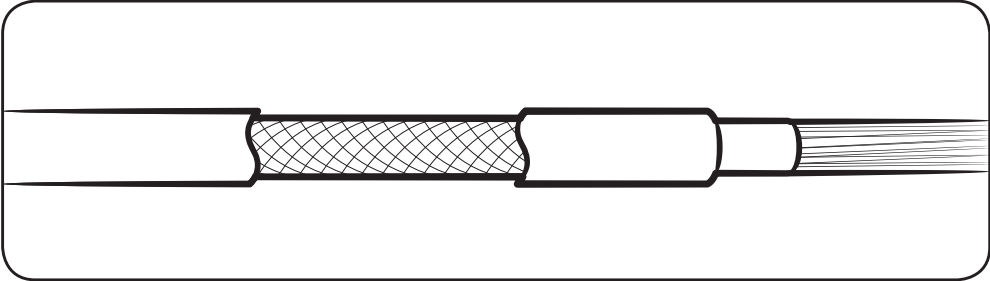


	Tightening torque	
	N·m	lbf.ft
M3.5	0.8 to 1.2	0.59 to 0.89
M4	1.2 to 1.8	0.89 to 1.1

Indoor power supply		
Power supply	Max/Min(V)	Indoor power cable
208 to 230V, 60Hz	±±10%%	0.0012inch ² ↑(0.75mm ² ↑), 3 wires
Communication cable		
0.0012inch ² ↑(0.75mm ² ↑), 2 wires		

(1N·m=10kgf·cm)

- over supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord.(Code designation IEC:60245 IEC 57 / CENELEC: H05RN-F)
- Since it has the external power supply, refer to the outdoor unit installation manual for MAIN POWER.



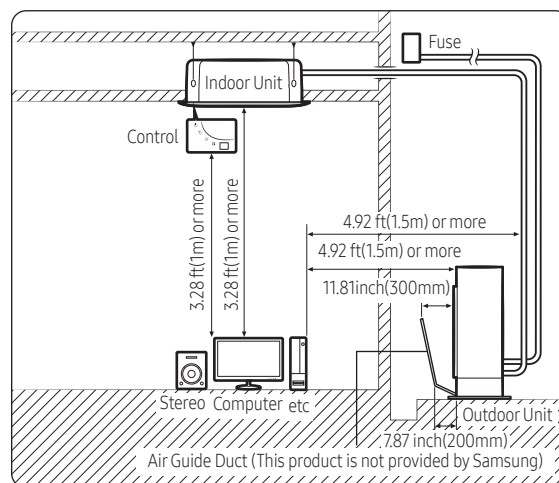
11. Installation

Outdoor Units

Connecting the power and communication cables

Installation location requirements

- Do not place the outdoor unit on its side or upside down. Failing to do so may cause the compressor lubrication oil to run into the cooling circuit and lead to serious damage to the unit.
- Install the unit in a well-ventilated location away from direct sunlight or strong winds.
- Install the unit in a location that would not obstruct any passageways or thoroughfares.
- Install the unit in a location that would not inconvenience or disturb your neighbors, as they could be affected by the noise or the airflow coming from the unit.
- Install the unit in a location where the pipes and the cables can be easily connected to the indoor unit.
- Install the unit on a flat, stable surface that can withstand the weight of the unit. Otherwise, the unit can generate noise and vibration during operation.
- Install the unit so that the air flow is directed towards the open area.
- Maintain sufficient clearance around the outdoor unit, especially from a radio, computer, stereo system, etc.



CAUTION

- You have just purchased a system air conditioner and it has been installed by your installation specialist.
- This device must be installed according to the national electrical rules.
- If your outdoor unit exceeds a net weight of 132.2 lb(60 kg), do not install it on a suspended wall, but stand it on a floor.
- The reliability of our product cannot be guaranteed under conditions of "A" or less.

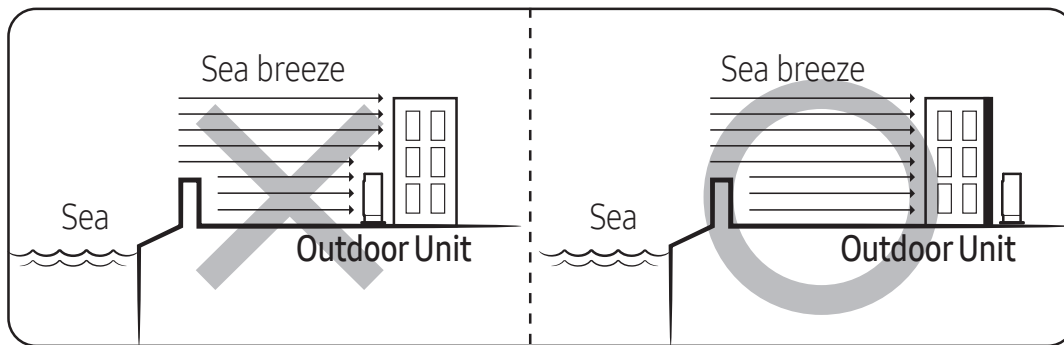
Outdoor Model	"A"
RXS36UMB (AR36BSHUMGMXCV)	-4°F(-20°C)

- When installing the outdoor unit at the seaside, make sure that it is not directly exposed to sea breeze. If you cannot find an adequate place free from direct sea breeze, construct a protection wall or a protective fence.
 - Install the outdoor unit in a place (such as near buildings etc.) where it can be prevented from sea breeze. Failure to do so may cause a damage to the outdoor unit.

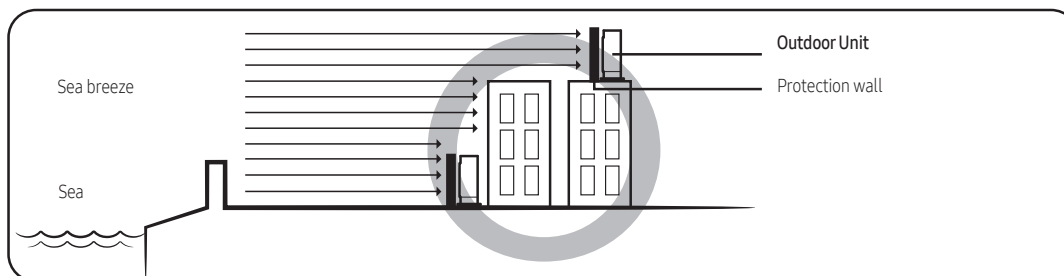
11. Installation

Outdoor Units

- When installing the outdoor unit at the seaside, make sure that it is not directly exposed to sea breeze. If you cannot find an adequate place free from direct sea breeze, construct a protection wall or a protective fence.
 - Install the outdoor unit in a place (such as near buildings etc.) where it can be prevented from sea breeze. Failure to do so may cause a damage to the outdoor unit.



- If you cannot avoid installing the outdoor unit at the seaside, construct a protection wall around to block the sea breeze.
- Construct a protection wall with a solid material such as concrete to block the sea breeze. Make sure that the height and the width of the wall are 1.5 times larger than the size of the outdoor unit. Also, secure a space larger than 27.6 inch(700mm) between the protection wall and the outdoor unit for exhausted air to ventilate.



CAUTION

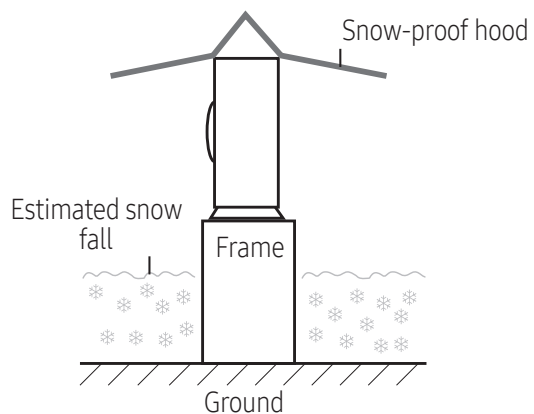
- Depending on the condition of the power supply, unstable power or voltage may cause malfunction of parts or control system (example: on a boat or places using power supplied from electric generator, etc.).
- Install the unit in a place where water can drain smoothly.
- If you have any difficulty finding installation location as prescribed above, contact your manufacturer for details.
- Consider that the salinity particles clinging to the external panels should be sufficiently washed out. Be sure to clean sea water and dust from the outdoor unit heat exchanger and apply a corrosion inhibitor on it at least once a year.
- Because the residual water at the bottom of the outdoor unit significantly promotes corrosion, make sure that the slope does not disturb drainage.
 - Keep the floor level so that rain does not accumulate
 - Be careful not to block the drain hole due to foreign substance
- Check the condition of the product periodically.
 - Check the installation site every 3 months and perform anti-corrosion treatment such as R-Pro supplied by SAMSUNG (Code : MOK-220SA) or commercial water repellent grease and wax, etc., based on the product condition.
 - When the product is to be shut down for a long period of time, such as off-peak hours, take appropriate measures like covering the product.
- If the product installed within 1640.4 ft of seashore, special anti-corrosion treatment is required.
 - ※ Please contact your local SAMSUNG representative for further details

11. Installation

Outdoor Units

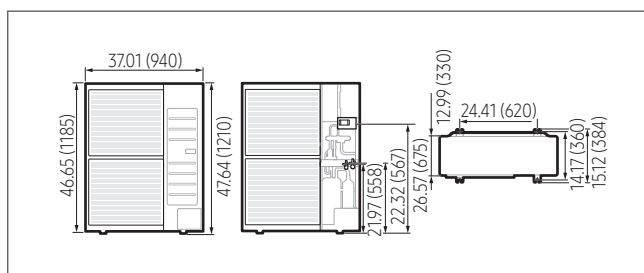
⚠ CAUTION

- In areas with heavy snow fall, piled snow could block the air intake. To avoid this incident, install a frame that is higher than estimated snow fall. In addition, install a snow-proof hood to avoid snow from piling on the outdoor unit.



Outdoor unit dimensions

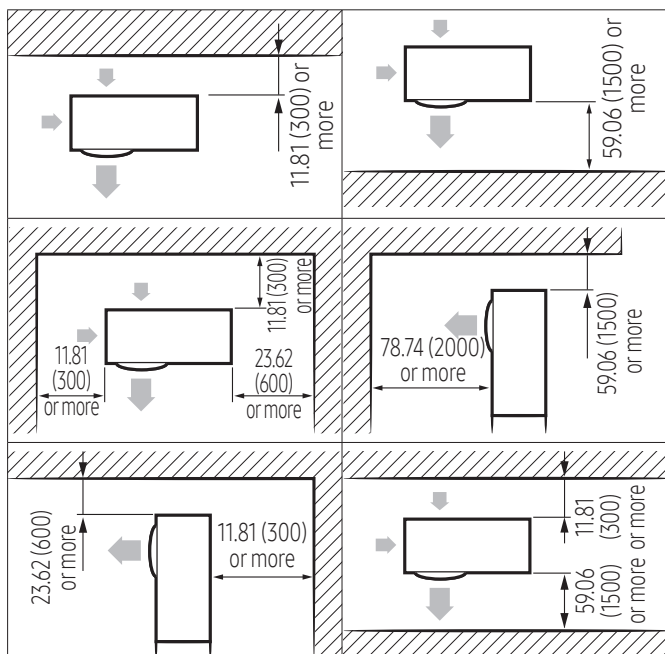
Unit : inch (mm)



Minimum clearances for the outdoor unit

When installing 1 outdoor unit

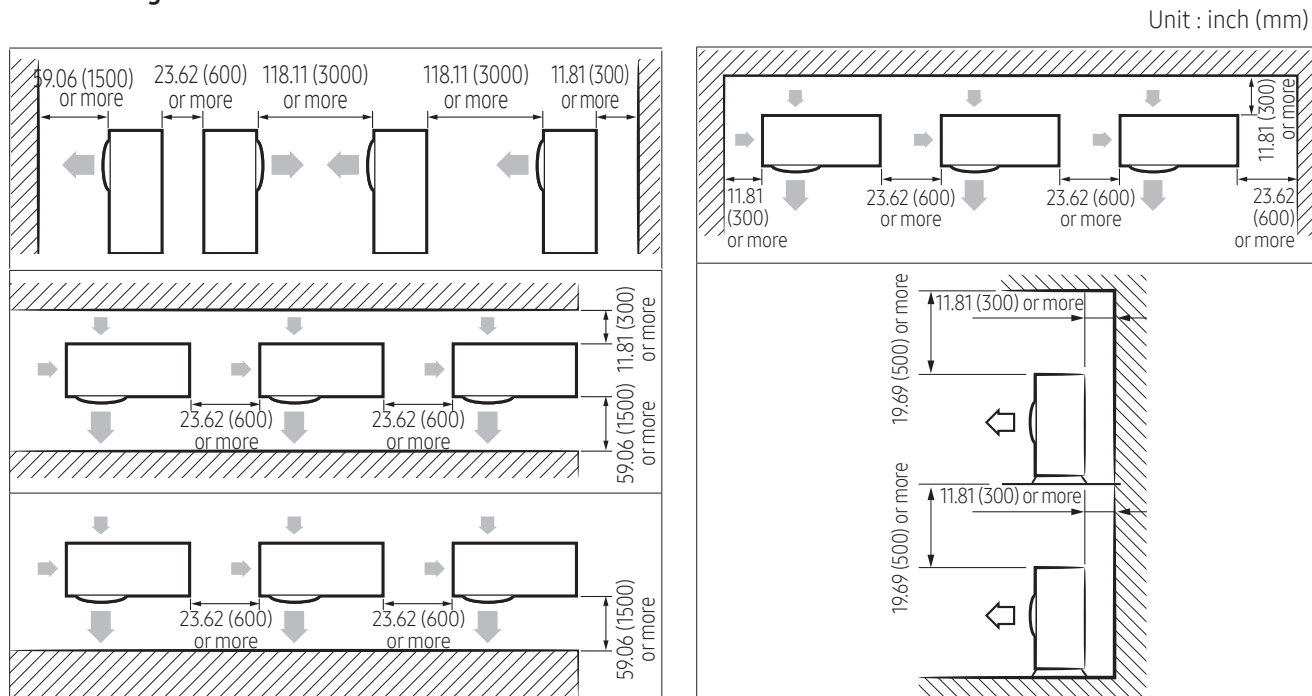
Unit : inch (mm)



11. Installation

Outdoor Units

When installing more than 1 outdoor unit

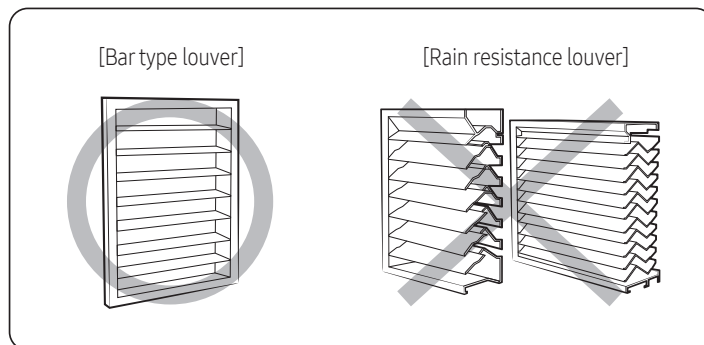


⚠ CAUTION

- The outdoor unit must be installed according to the specified distances in order to permit accessibility from each side, to guarantee correct operation, maintenance, and repair of the unit. The components of the outdoor unit must be reachable and removable under safe conditions for people and the unit.

⚠ WARNING

- Should adopt bar type louver. Don't use a type of rain resistance louver.



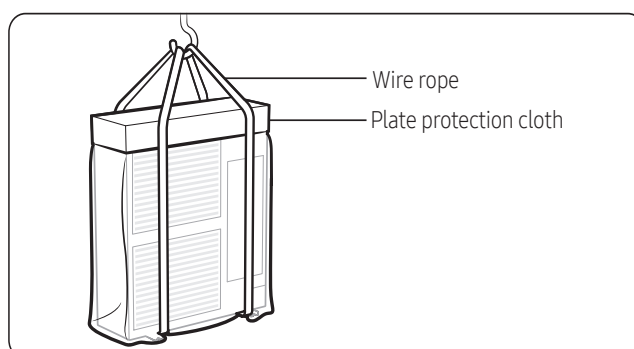
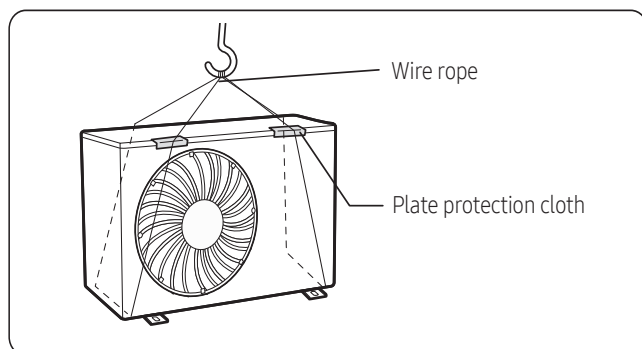
- Louver specifications.
 - Angle criteria : less than 20
 - Opening ratio criteria : greater than 80

11. Installation

Outdoor Units

Minimum clearances for the outdoor unit

- 1 Before carrying the outdoor unit, fasten two wire ropes of 26.25 ft (8m) or longer, as shown in the figure.
- 2 To prevent damages or scratches effectively, insert a piece of cloth between the outdoor unit and the ropes.
- 3 Move the outdoor unit.



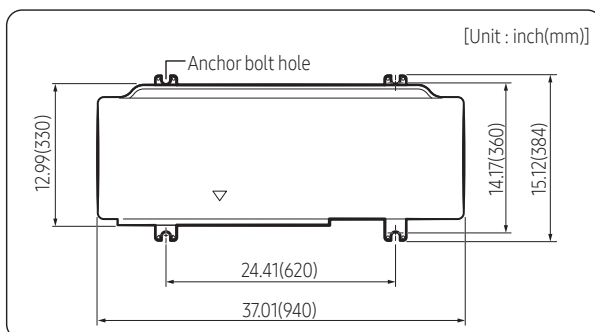
Fixing the outdoor unit in place

Install the outdoor unit on a rigid and stable base to prevent disturbance from any noise caused by vibration. When installing the unit on tall stands or in a location exposed to strong winds, fix the unit securely to the ground or structure.

- 1 Position the outdoor unit so that the air flow is directed towards the outside, as indicated by the arrows on the top of the unit.
- 2 Attach the outdoor unit to the appropriate support using anchor bolts.
 - The ground wire for the telephone line cannot be used to ground the air conditioner.
- 3 If the outdoor unit is exposed to strong winds, install shield plates around the outdoor unit, so that the fan can operate correctly.

NOTE

- Install provided rubber legs to prevent vibration and noise.

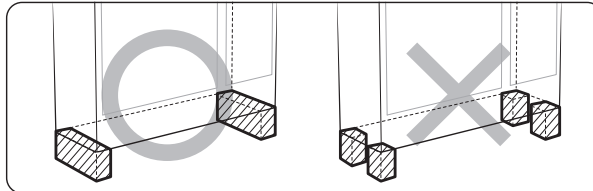


11. Installation

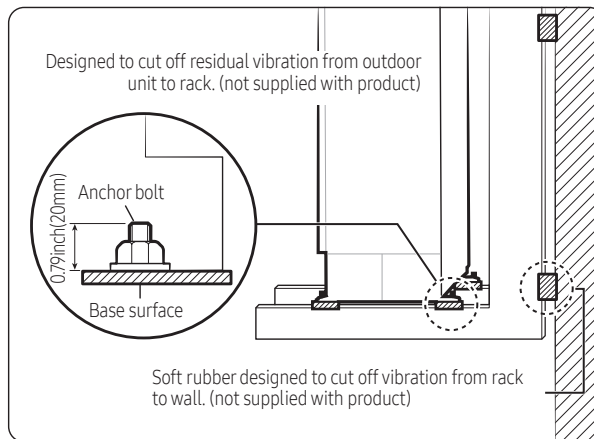
Outdoor Units

⚠ CAUTION

- Install a drain outlet at the lowest end around the base for outdoor unit drainage
- When installing the outdoor unit on the roof, waterproof the unit and check the ceiling strength.



Minimum clearances for the outdoor unit



Install a proper grommet in order to reduce noise and residual vibration transferred by the outdoor unit towards the wall.

⚠ CAUTION

- Make sure that the wall can support the weights of the rack and the outdoor unit.
- Install the rack close to the column as much as possible.
- When installing an air guide duct, be sure to check the following:
 - The screws do not damage the copper pipe.
 - The air guide duct is fixed firmly on the guard fan.

Connecting the power cables, communication cable, and controllers

You must connect the following three electrical cables to the outdoor unit:

- The main power cable between the auxiliary circuit breaker and the outdoor unit.
- The outdoor-to-indoor power cable between the outdoor unit and the indoor unit.
- The communication cable between the outdoor unit and the indoor unit.

⚠ CAUTION

- During installation, make first the refrigerant connections and then the electrical connections. If the unit is being removed, first disconnect the electrical cables and then the refrigerant connections.
- Connect the air conditioner to the earthing system before making the electrical connections.

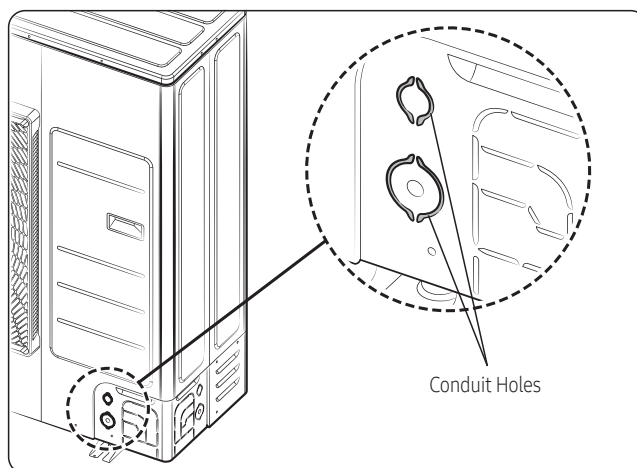
11. Installation

Outdoor Units

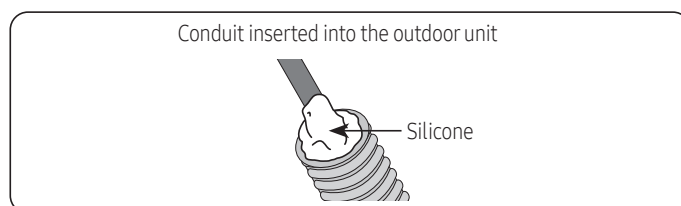
Connecting wire conduits

When connecting cables between the indoor unit and the outdoor unit, use conduits to protect the cables.

- 1 Drill holes on the conduit plate in accordance with their use and quantity.
 - Use a nipper to remove conduit holes from the lower part of the cabinet. (Do not remove it by hammering.)



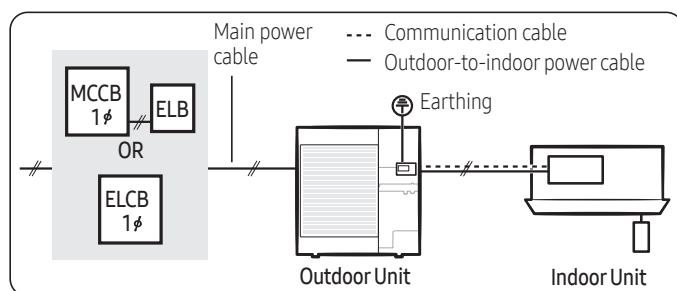
- 2 Insert the cables through the conduits, and then fix the conduits to the conduit plate with the lock nuts.
- 3 Apply silicone to the end of the hose to prevent rain from entering the hose.



- 4 Connect the cables to the outdoor units. For how to connect the cables, refer to the next page.
- 5 Attach the conduit plate to the product.

Air conditioning system examples

When using earth leakage circuit breaker (ELCB) for a single phase



※ The appearance of the unit may be different from the picture depending on the model

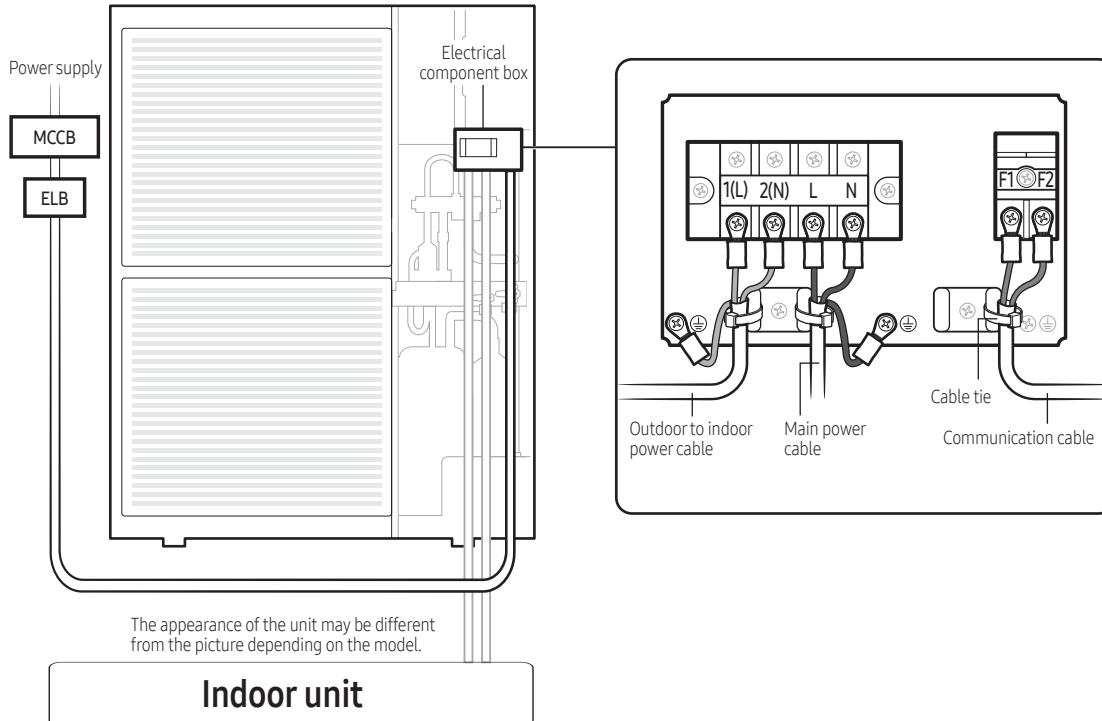
CAUTION

- If the outdoor unit is installed in a location vulnerable to an electric leak or submergence, make sure to install an ELCB.

11. Installation

Outdoor Units

Connecting the main power cable

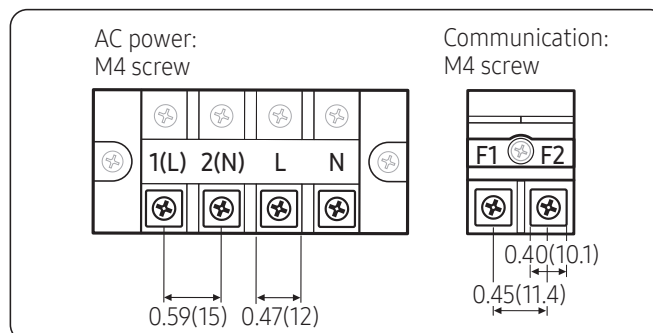


⚠ CAUTION

- You should connect the power cable into the power cable terminal and fasten it with a clamp.
- The unbalanced power must be maintained within 2% of supply rating.
- If the power is unbalanced greatly, it may shorten the life of the condenser. If the unbalanced power is exceeded over 4% of supply rating, the indoor unit is protected, stopped and the error mode indicates.
- To protect the product from water and possible shock, you should keep the power cable and the connection cord of the indoor and outdoor units within ducts. (with appropriate IP rating and material selection for your application)
- Ensure that main supply connection is made through a switch that disconnects all poles, with contact gap of a least 0.12 inch(3mm).
- Devices disconnected from the power supply should be completely disconnected in the condition of overvoltage category.
- Keep distances of 1.97 inch(50mm) or more between power cable and communication cable.

Main power terminal block specifications

[Unit : inch(mm)]



11. Installation

Outdoor Units

Main power cable specifications

The power cable is not supplied with air conditioner.

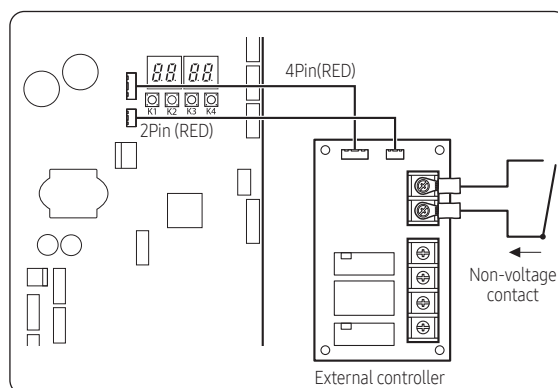
- Select the power supply cable in accordance with relevant local and national regulations.
- Wire size must comply with the applicable local and national code.
- Specifications for local wiring power cord and branch wiring are in compliance with local cord.

Model		Power Source	RLA (A)	Outdoor		Indoor	MCA (A)	MOP (A)
Indoor	Outdoor			MOC		Rated input current of the power conversion equipment		
						FAN1(A)		
RNS36UMB (AR36BSHUMGMNCV)	RXS36UMB (AR36BSHUMGMXCV)	208~230V/ 60Hz	14.7	1.25	1.25	0.51	21.4	35.0

NOTE

- RLA is based on AHRI 210/240 cooling standard condition [Indoor temp. : 26.7 °C / 80 °F(DB) / 19.46 °C / 67 °F(WB), Outdoor temp. : 35 °C / 95 °F(DB)]
- Voltage tolerance is $\pm 10\%$.
- Maximum allowable voltage between phases is 2 %.
- **Symbols**
 - RLA: Rated Load Ampere (A)
 - MOC: Maximum Operating Current (A)
 - MCA: Minimum Circuit Ampere (A)
 - MOP: Maximum Overcurrent Protective Device (A)
- Voltage range
 - Units are suitable for use on electrical systems where voltage supplied to unit terminal is not below or above listed range limits.
- Maximum allowable voltage variation between phases is 2%.
- Wire size & type must comply with the applicable local and national code.
- Wire size: Based on the value of MCA.
- Wire type:
 - 1-phase: 60245 IEC57(IEC) or H05RN-F(CENELEC) grade or more

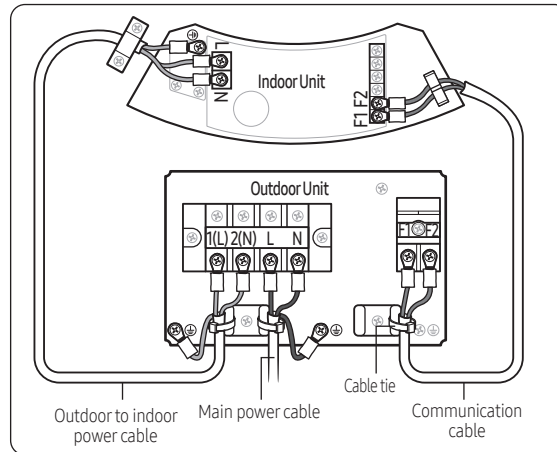
Main power terminal block specifications



11. Installation

Outdoor Units

Connecting the outdoor-to-indoor power cable and the communication cable

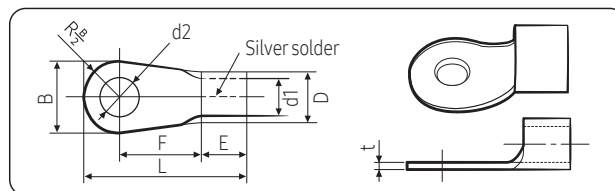


NOTE

- Lay the electrical wiring so that the front cover does not rise up when doing wiring work and attach the front cover securely.
- Ground wire for the indoor unit and outdoor unit connection cable must be clamped to a soft copper tin-plated eyelet terminal with M4 screw hole (NOT SUPPLIED WITH UNIT ACCESSORIES).
- The appearance of the unit may be different from the picture depending on the model.

Outdoor-to-indoor power terminal specifications

- Connect the cables to the terminal board using the compressed ring terminal.
- Cover a solderless ring terminal and a connector part of the power cable and then connect it.



11. Installation

Outdoor Units

Nominal dimensions for cable [mm2(inch2)]	Nominal dimensions for screw [mm(inch)]	B		D		d1		E	F	L	d2		t
		Standard dimension [mm(inch)]	Allowance [mm(inch)]	Standard dimension [mm(inch)]	Allowance [mm(inch)]	Standard dimension [mm(inch)]	Allowance [mm(inch)]	Min. [mm (inch)]	Min. [mm (inch)]	Max. [mm (inch)]	Standard dimension [mm(inch)]	Allowance [mm(inch)]	Min. [mm (inch)]
4/6 (0.006/ 0.009)	4(3/8)	9.5(3/8)	±0.2 (±0.007)	5.6(1/4)	+0.3(+0.011) -0.2(-0.007)	3.4(1/8)	±0.2 (±0.007)	6 (1/4)	5 (3/16)	20 (3/4)	4.3 (3/16)	+0.2 (+0.007) 0(0)	0.9 (0.03)
	8(3/16)	15(9/16)							9 (3/8)	28.5 (1-1/8)	8.4 (1-3/16)	+0.4 (+0.015) 0(0)	
10(0.01)	8(3/16)	15(9/16)	±0.2 (±0.007)	7.1(1/4)	+0.3(+0.011) -0.2(-0.007)	4.5(3/16)	±0.2 (±0.007)	7.9 (5/16)	9 (3/8)	30 (1-3/16)	8.4 (1-3/16)	+0.4 (+0.015) 0(0)	1.15 (0.04)
16(0.02)	8(3/16)	16(10/16)	±0.2 (±0.007)	9(3/8)	+0.3(+0.011) -0.2(-0.007)	5.8(1/4)	±0.2 (±0.007)	9.5 (5/16)	13 (1/2)	33 (1-5/16)	8.4 (1-3/16)	+0.4 (+0.015) 0(0)	1.45 (0.05)
25(0.03)	8(3/16)	12(1/2)	±0.3 (±0.011)	11.5(7/16)	+0.5(+0.019) -0.2(-0.007)	7.7(5/16)	±0.2 (±0.007)	11 (3/8)	15 (5/8)	34 (1-3/8)	8.4 (1-3/16)	+0.4 (+0.015) 0(0)	1.7 (0.06)
	8(3/16)	16.5(10/16)							13 (1/2)	34 (1-3/8)	8.4 (1-3/16)	+0.4 (+0.015) 0(0)	
35(0.05)	8(3/16)	16(10/16)	±0.3 (±0.011)	13.3(1/2)	+0.5(+0.019) -0.2(-0.007)	9.4(3/8)	±0.2 (±0.007)	12.5 (1/2)	13 (1/2)	38 (1-1/2)	8.4 (1-3/16)	+0.4 (+0.015) 0(0)	1.8 (0.07)
	8(3/16)	22(7/8)							13 (1/2)	43 (1-11/16)	8.4 (1-3/16)	+0.4 (+0.015) 0(0)	
50(0.07)	8(3/16)	22(7/8)	±0.3 (±0.011)	13.5(1/2)	+0.5(+0.019) -0.2(-0.007)	11.4(7/16)	±0.3 (±0.011)	17.5 (11/16)	14 (9/16)	50 (2)	8.4 (1-3/16)	+ 0.4(+0.015) 0(0)	1.8 (0.07)
70(0.10)	8(3/16)	24(1)	±0.4 (±0.015)	17.5(11/16)	+0.5(+0.019) -0.4(-0.015)	13.3(1/2)	±0.4 (±0.015)	18.5 (3/4)	20 (3/4)	51 (2)	8.4 (1-3/16)	+ 0.4(+0.015) 0(0)	2.0 (0.078)

- Connect the rated cables only.
- Connect using a driver which is able to apply the rated torque to the screws.
- If the terminal is loose, fire may occur caused by arc. If the terminal is connected too firmly, the terminal may be damaged.

	Tightening torque	
	lbf•ft	N•m
M4	0.87 to 1.30	0.8 to 1.2
M5	1.45 to 2.17	2.0 to 3.0

CAUTION

- When connecting cables, you can connect the cables to the electrical part or connect them through the holes below depending on the spot.
- Connect the communication cable between the indoor and outdoor units through a conduit to protect against external forces, and feed the conduit through the wall together with refrigerant piping.
- Remove all burrs at the edge of the knock-out hole and secure the cable to the outdoor knock-out using lining and bushing with an electrical insulation such as rubber and so on.
- Must keep the cable in a protection tube.
- Keep distances of 1.97 inch(50mm) or more between power cable and communication cable.
- When the cables are connected through the hole, remove the Plate bottom.

11. Installation

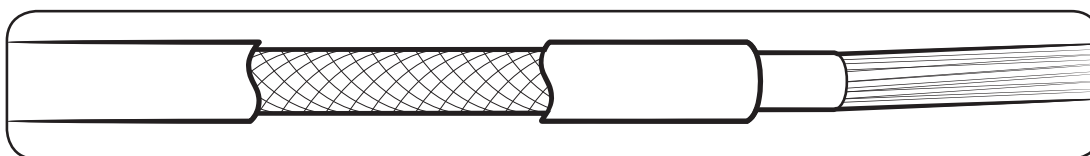
Outdoor Units

Outdoor-to-indoor power and communication cables specifications

- Indoor unit

Indoor power supply		
Power supply	Max/Min (V)	Indoor power cable
1Φ, 208-230V~, 60Hz	±10%	0.0012 inch ² ↑ 0.75mm ² ↑), 3 wires
Communication cable		
0.0012 inch ² ↑ (0.75mm ² ↑), 2 wires		

- Power supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord. (Code designation IEC:60245 IEC 57 / CENELEC: H05RN-F)
- When installing the indoor unit in a computer room or network room, use the double shielded (tape aluminum / polyester braid + copper) cable of FROHH2R type.





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