SAMSUNG

SINGLE
Technical Data Book

Wind-Free 4Way Cassette for Africa

(R410A, HP)



Model : AC***NN*DEH/AF (Indoor Unit), AC***JX*D*H/AF (Outdoor Unit)

History

Version	Modification	Date	Remark
Ver.1.0	Released CAC Wind-Free 4Way Cassette for Africa (R410A, HP)	"18. 03. 20	
Ver.1.1	Updated "Temperature and air flow distribution" data	"18. 04. 06	

Features & Benefits

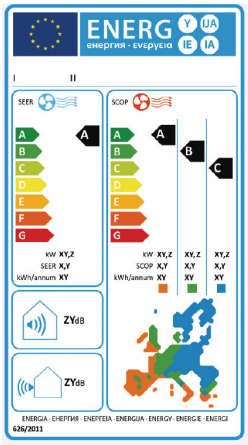
CAC - World-class energy efficiency

Maintain optimal comfort and control with energy and cost-efficient technologies

Featuring a suite of energy-optimizing technologies, Samsung CAC Single delivers top-class energy efficiency to support business in saving costs and the environment. Plus, CAC Single with its smart technologies fully complies with new European Union (EU) regulations for more efficient performance.

Small package, big performance

The Samsung Ceiling Type air conditioner boasts a slim, compact design—half the size of conventional products—with cooling power comparable to larger units.



New Energy Label

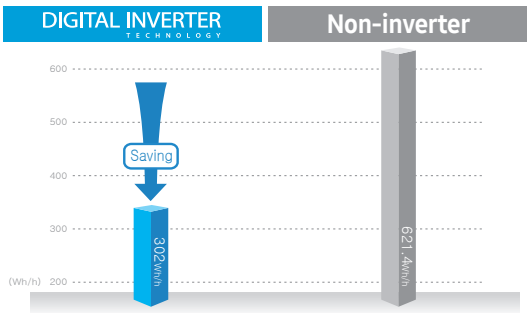
*Table 1: Introduction of revised energy consumption labelling for air conditioners as per EU Directive 2011/626/EU

Quick, efficient heating and cooling

Smart inverter technology offers powerful, quick cooling and heating with minimal electricity consumption, which means real cost savings and less energy waste. The EU has established new regulations to drastically cut the power consumption of air conditioners. Inefficient units will be gradually withdrawn from the market starting in 2013. To further support this initiative, the EU is introducing an improved energy labeling system to provide consumers a better idea of how much electricity their units consume.

Up to 50 percent less energy use

After reaching changes its operation mode to economical. By avoiding inefficient and frequent switching on and off of the compressor, the digital inverter saves up to 50 percent in energy consumption compared to non-inverter air conditioners.



Wind-Free Cooling with Micro holes

- The Wind-Free Air conditioner pushes air out through 15,000 micro holes in the panel, producing a dispersed and gentle flow of air actually defined as “still air” and the key here is all of those holes create a still, cooled air flow that infiltrates the room gently and softly.

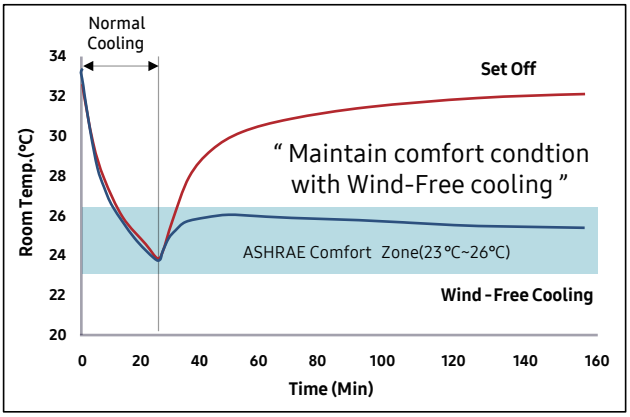
※ Still Air condition : According to ASHRAE, If velocity of wind is lower than 0.15m/s, People can not detect wind. And they define that condition is “Still Air”

No Direct Wind & Cold Draft



※ Wind-Free 4Way(600x600) : 9,000 Micro Holes

[Comparision of Room Temp.]



※ Interanal Test (14.0kW Model @ 122㎡)

Features & Benefits

CAC Single - Superior performance

Stabilize the atmosphere with broad temperature allowance and control

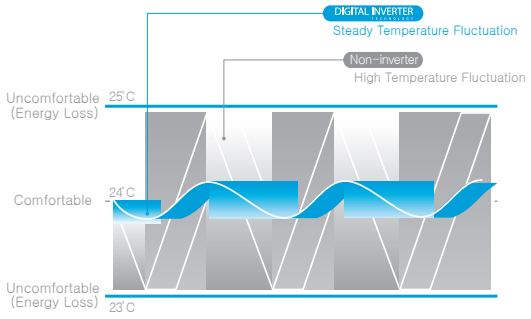
Samsung is dedicated to supporting comfortable living and working environments based on the strength of its technologies. With a single unit, CAC Single delivers reliable comfort and control over multiple areas to ensure a pleasant atmosphere in any climate.

Wide temperature performance

No matter how extreme the temperature, the high-performing CAC Single can handle the condition-without the need for an additional unit. Featuring a wide temperature allowance, it can cool in heat of up to 50 and provide warmth in the freezing cold of -20°C to ensure a constant and comfortable home environment.

Ideal comfort in minutes

The CAC Single digital inverter air conditioner works at maximum capacity at startup. As soon as the temperature reaches the desired or set temperature, CAC Single performs fine adjustments to cope with any changes. This means less temperature fluctuation and ideal comfort in a matter of minutes.



Nomenclature

Indoor Unit

Model Name

AC	026	N	N	N	D	E	H	/	AF
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		Buyer

(1) Classification

AC	CAC

(2) Capacity

x 1/10 kW (3 digits)

(3) Version

H	2014
J	2015
K	2016
M	2017
N	2018

(4) Product Type

N	Indoor Unit
X	Outdoor Unit

(5) Product Notation

1	1 Way Cassette
N	4 Way Cassette (600x600) Wind-Free 4 Way Cassette (600x600)
4	4 Way Cassette, 360 Cassette Wind-Free 4 Way Cassette
L	LSP Duct
M	MSP Duct
C	Ceiling
J	Console
A	A3050 (Wall Mounted)

(6) Feature

F	Flagship
S	Standard
D	Deluxe
P	Premium

(7) Rating Voltage

E	1Φ, 220-240V, 50Hz

(8) Mode

H	Heat Pump

Nomenclature

Outdoor Unit

Model Name

AC	035	J	X	N	D	E	H	/	AF
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		Buyer

(1) Classification

AC	SINGLE
AM	VRF

(2) Capacity

X 1/10 kW (3 digits)
X 1,000 Btu/h (3 digits)

(3) Version

F	2013
H	2014
J	2015

(4) Product Type

B	Indoor Unit
C	Outdoor Unit
N	Indoor Unit (NASA)
X	Outdoor Unit (NASA)

(5) Product Notation

A	Inv+Side+General Temp
B	Non Inv+Side+General Temp
S	Inv+Side+Low Temp
N	Non Inv+Side+Low Temp

(6) Feature

F	Standrad+Tropical+Non Module
S	Standard
D	Deluxe
P	Premium
C	Deluxe + Low Temp

(7) Rating Voltage

E	1Φ, 220~240V, 50Hz
G	3Φ, 380~415V, 50Hz
K	1Φ, 220~240V, 50/60Hz
N	3Φ, 380~415V, 50/60Hz

(8) Mode

H	Heat Pump (R410A)
C	Cooling Only (R410A)
E	Heat Pump (R22)
D	Cooling Only (R22)

Line-up

Indoor unit

Model	Capacity (kW)								
	2.6	3.5	5.2	6.0	7.1	9.0	10.0	12.0	14.0
Wind-Free 4Way CST (600x600)									
Wind-Free 4Way CST									

Outdoor Unit

Model	Capacity (kW)								
	2.6	3.5	5.2	6.0	7.1	9.0	10.0	12.0	14.0
1Phase									
3Phase									

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Wind-Free 4Way Cassette (600x600)

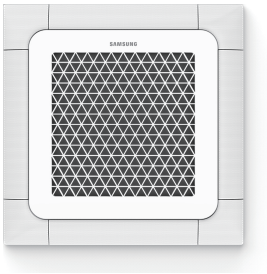
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Features & Benefits

Wind-Free 4Way Cassette (600x600)

Add chic flair to your interior design with a stylish yet powerful AC system

Samsung's advanced Wind-Free 4Way Cassette (600 x 600) builds on the aesthetic appeal and performance of the standard Wind-Free 4Way Cassette with an enhanced design. The Wind-Free 4Way Cassette (600 x 600) comes in a variety of patterns to complement any interior. The stylish cassette unit visually harmonizes with the indoor space, while efficient cooling and heating performance make it a dependable and practical air conditioning solution.



The Wind-Free 4Way Cassette (600 x 600) indoor air conditioning system provides high-performance heating and cooling in an elegant design with features such as:

- **Tasteful design and compact, lightweight build.** Create a polished ambiance with a discreetly sized design and a choice of attractive panel patterns.
- **Enhanced comfort control.** Optimize comfort and save energy with optional motion detection.
- **Low maintenance and powerful airflow.** Ease installation and maintenance and maximize airflow with an efficient design and robust performance.

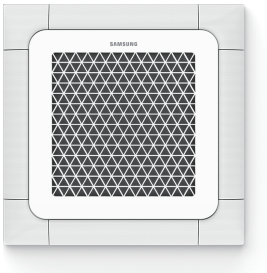
Wind-Free 4Way Cassette (600 x 600) - Tasteful design, Compact, Lightweight build

Refine the interior with an elegant, compact design

The enhanced Samsung Wind-Free 4Way Cassette (600 x 600) indoor air conditioner features a selection of simple panel patterns to blend seamlessly into any interior design. Its uniquely lightweight frame blends effortlessly and beautifully into any décor, while clever blade construction keeps the unit clean for a tidy appearance.

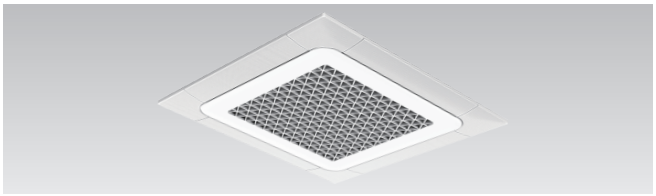
Attractive panel and display

The Wind-Free 4Way Cassette (600 x 600) features a fashionable panel with a simple, beveled corner design. The rounded panel frame promotes a neat, tidy look for an aesthetic flair that blends perfectly with any ambience.



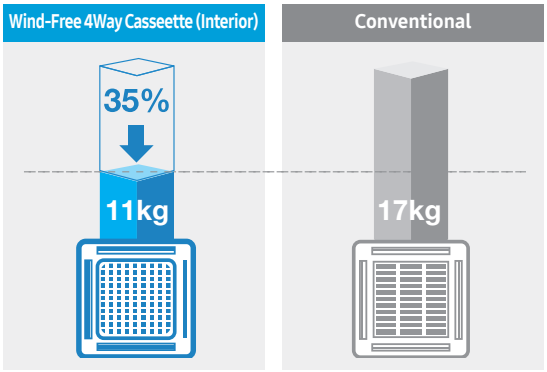
Ultra-compact size

Samsung's Wind-Free 4Way Cassette (600 x 600) air conditioner can be installed on a single standard ceiling tile (600W x 600D) which helps minimize installation time and effort.



Light, robust design

The Samsung Wind-Free 4Way Cassette (600 x 600) indoor unit is now lighter in weight at 11kg. It is the lightest indoor unit in the industry, about 35 percent lighter than our conventional products.



*Based on 3.5kW

1. Specification

Wind-Free 4Way Cassette (600x600)

Type					Wind-Free 4Way Cassette (600x600)	Wind-Free 4Way Cassette (600x600)	Wind-Free 4Way Cassette (600x600)	Wind-Free 4Way Cassette (600x600)
System	Model Name	Indoor Unit			AC026NNNDEH/AF	AC035NNNDEH/AF	AC052NNNDEH/AF	AC060NNNDEH/AF
		Outdoor Unit			AC026JXNDEH/AF	AC035JXNDEH/AF	AC052JXNDEH/AF	AC060JXNDEH/AF
	Mode			-	Heat Pump	Heat Pump	Heat Pump	Heat Pump
	Performance	Capacity (Min/Std/Max)	Cooling	kW	1.26 / 2.64 / 3.52	1.32 / 3.52 / 3.96	1.32 / 4.92 / 5.28	2.08 / 5.71 / 7.77
				Btu/h	4,300 / 9,000 / 12,000	4,500 / 12,000 / 13,500	4,500 / 16,800 / 18,000	7,100 / 19,500 / 26,500
			Heating	kW	1.08 / 3.37 / 4.25	1.17 / 3.99 / 4.40	0.94 / 4.84 / 5.86	1.44 / 5.28 / 7.91
				Btu/h	3,700 / 11,500 / 14,500	4,000 / 13,600 / 15,000	3,200 / 16,500 / 20,000	4,900 / 18,000 / 27,000
	Power	Power Input (Min/Std/Max)	Cooling	kW	0.30 / 0.68 / 1.20	0.31 / 1.09 / 1.40	0.35 / 1.60 / 1.85	0.38 / 1.88 / 3.00
			Heating	kW	0.23 / 0.87 / 1.30	0.25 / 1.16 / 1.45	0.25 / 1.38 / 2.00	0.27 / 1.50 / 2.90
		Current Input (Min/Std/Max)	Cooling	A	1.90 / 3.60 / 5.70	2.00 / 5.30 / 6.50	2.20 / 7.50 / 8.50	2.30 / 8.30 / 13.00
			Heating	A	1.50 / 4.40 / 6.80	1.50 / 5.60 / 7.00	1.80 / 6.50 / 9.00	1.70 / 6.80 / 12.60
		Current	MCA	A	9.00	9.00	11.00	21.00
			MFA	A	10.00	10.00	12.50	25.00
	Efficiency	EER	Cooling	-	3.88	3.23	3.08	3.04
		COP	Heating	-	3.87	3.44	3.50	3.52
		Energy Grade	Cooling	-	-	-	-	-
			Heating	-	-	-	-	-
	Piping Connections	Liquid Pipe		Type	Flare connection	Flare connection	Flare connection	Flare connection
				Φ, mm (inch)	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")	6.35 (1/4")
		Gas Pipe		Type	Flare connection	Flare connection	Flare connection	Flare connection
				Φ, mm (inch)	9.52 (3/8")	9.52 (3/8")	12.70 (1/2")	15.88 (5/8")
		Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
		Piping length (ODU-IDU)	Standard	m	5	5	5	5
			Max.	m	20	20	30	30
			Elevation	m	15	15	15	15
			Chargeless	m	5	5	5	5
	Wiring connections	Communication	Min.	mm	0.75	0.75	0.75	0.75
			Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
	Refrigerant	Type		-	R410A	R410A	R410A	R410A
		Factory Charging		kg	0.80	0.80	1.00	1.05

1. Specification

Wind-Free 4Way Cassette (600x600)

Type					Wind-Free 4Way Cassette (600x600)	Wind-Free 4Way Cassette (600x600)	Wind-Free 4Way Cassette (600x600)	Wind-Free 4Way Cassette (600x600)
Indoor Unit	Model Name	Indoor Unit			AC026NNNDEH/AF	AC035NNNDEH/AF	AC052NNNDEH/AF	AC060NNNDEH/AF
		Outdoor Unit			AC026JXNDEH/AF	AC035JXNDEH/AF	AC052JXNDEH/AF	AC060JXNDEH/AF
	Power Supply			Ø, #, V, Hz	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50
	Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube	Fin & Tube
		Material	Fin	-	Al	Al	Al	Al
			Tube	-	Cu	Cu	Cu	Cu
		Fin Treatment		-	Green Hydrophile	Green Hydrophile	Green Hydrophile	Green Hydrophile
	Fan	Type		-	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
		Quantity		EA	1	1	1	1
		Air Flow Rate	H/M/L	m³/min	8.00 / 7.10 / 6.30	9.30 / 8.00 / 6.70	12.70 / 11.00 / 9.30	13.80 / 12.00 / 10.50
				l/s	133.33 / 118.33 / 105.00	155.00 / 133.33 / 111.67	211.67 / 183.33 / 155.50	230.00 / 200.00 / 175.00
		External Static Pressure	Min/Std/ Max	mmAq	-	-	-	-
				Pa	-	-	-	-
	Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
		Output		W x n	65 x 1	65 x 1	65 x 1	65 x 1
	Drain	Drain Pipe		Φ, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
	Sound	Sound Pressure Level	H/M/L/ (Silent)	dB(A)	33 / 31 / 27	35 / 33/ 29	39 / 37 / 34	41 / 38 / 35
		Sound Power Level		dB(A)	-	-	-	-
	External Dimension	Net Weight		kg	11.2	11.2	11.8	11.8
		Shipping Weight		kg	13.4	13.4	14.0	14.0
		Net Dimensions (WxHxD)		mm	575 x 250 x 575	575 x 250 x 575	575 x 250 x 575	575 x 250 x 575
		Shipping Dimensions (WxHxD)		mm	623 x 298 x 653	623 x 298 x 653	623 x 298 x 653	623 x 298 x 653
	Casing	Material		-	Polypropylene	Polypropylene	Polypropylene	Polypropylene
	Panel	Model Name		-	PC4SUFMAN	PC4SUFMAN	PC4SUFMAN	PC4SUFMAN
		Type		-	Wind-Free Type	Wind-Free Type	Wind-Free Type	Wind-Free Type
		Material		-	HIPS	HIPS	HIPS	HIPS
		Color		-	DA White	DA White	DA White	DA White
		Net Weight		kg	2.7	2.7	2.7	2.7
		Shipping Weight		kg	3.9	3.9	3.9	3.9
		Net Dimensions (WxHxD)		mm	620 x 57 x 620	620 x 57 x 620	620 x 57 x 620	620 x 57 x 620
		Shipping Dimensions (WxHxD)		mm	670 x 120 x 655	670 x 120 x 655	670 x 120 x 655	670 x 120 x 655
	Control System	Infrared remote control		-	AR-EH03E	AR-EH03E	AR-EH03E	AR-EH03E
		Wired remote control		-	MWR-WE13N	MWR-WE13N	MWR-WE13N	MWR-WE13N
	Drain Pump	Drain Pump		-	Included	Included	Included	Included
		Max. lifting Height / Displacement		mm / Liter/h	750/24	750/24	750/24	750/24
	Additional Accessories	Air Filter		-	Removable / Washable	Removable / Washable	Removable / Washable	Removable / Washable
		Virus Doctor		-	Option	Option	Option	Option

1. Specification

Wind-Free 4Way Cassette (600x600)

Type					Wind-Free 4Way Cassette (600x600)	Wind-Free 4Way Cassette (600x600)	Wind-Free 4Way Cassette (600x600)	Wind-Free 4Way Cassette (600x600)
Outdoor Unit	Model Name	Indoor Unit			AC026NNNDEH/AF	AC035NNNDEH/AF	AC052NNNDEH/AF	AC060NNNDEH/AF
		Outdoor Unit			AC026JXNDEH/AF	AC035JXNDEH/AF	AC052JXNDEH/AF	AC060JXNDEH/AF
	Power Supply			Ø, #, V, Hz	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50
	Heat Exchanger	Type		-	FMC	FMC	FMC	FMC
		Material	Fin	-	Al	Al	Al	Al
			Tube	-	Al	Al	Al	Al
		Fin Treatment		-	Hybrid Coating	Hybrid Coating	Hybrid Coating	Hybrid Coating
	Compressor	Model Name			UG9A090FUAER	UG9A090FUAER	UG4T150LNBEQ	UG4T200FUAE4
		Type		-	BLDC Rotary	BLDC Rotary	BLDC Rotary	BLDC Rotary
		Output		kW	0.84	0.84	1.42	1.79
		Oil	Type	-	POE	POE	POE	POE
			Initial charge	cc	320	320	500	650
	Fan	Type		-	Propeller	Propeller	Propeller	Propeller
		Discharge direction		-	Front	Front	Front	Front
		Quantity		EA	1	1	1	1
		Air Flow Rate		m³/min	37.00	37.00	40.00	41.00
				l/s	616.67	616.67	666.67	683.33
	Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
		Output		W x n	39 x 1	39 x 1	39 x 1	39 x 1
	Sound	Sound Pressure Level	Cooling	dB(A)	46	47	47	49
			Heating	dB(A)	47	48	48	51
		Sound Power Level		dB(A)	-	-	-	-
	External Dimension	Net Weight		kg	29.5	29.5	36.0	45.0
		Shipping Weight		kg	32.0	32.0	39.0	48.0
		Net Dimensions (WxHxD)		mm	720 x 548 x 265	720 x 548 x 265	790 x 548 x 285	880 x 638 x 310
		Shipping Dimensions (WxHxD)		mm	844 x 622 x 353	844 x 622 x 353	913 x 622 x 371	1,023 x 730 x 413
	Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate
	Operating Temp. Range	Cooling		℃	-5.0 ~ 48.0	-5.0 ~ 48.0	-5.0 ~ 48.0	-5.0 ~ 48.0
		Heating		℃	-15.0 ~ 24.0	-15.0 ~ 24.0	-15.0 ~ 24.0	-15.0 ~ 24.0

NOTE

- Specification may be subject to change without prior notice.

1) Performances are based on the following test conditions.
   - Cooling : Indoor temperature 27°C DB, 19°C WB, Outdoor temperature 35°C DB, 24°C WB
   - Heating : Indoor temperature 20°C DB, 15°C WB, Outdoor temperature 7°C DB, 6°C WB
   - Equivalent refrigerant pipe length 5m, Level differences 0m
2) Select wire size based on the value of MCA
3) 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
4) 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
5) These products contain R410A which is fluorinated greenhouse gas.

2. Summary Table

Wind-Free 4Way Cassette (600x600)

Performance Characteristics

Model Code	Net Weight (kg)		Capacity		Fan Speed	Airflow (Cooling/Heating) (CMM)	Sound Pressure Level (dBA)
			Cooling (Btu/h)	Heating (Btu/h)			
AC026NNNDEH	11.2	Max.	12,000	14,500	High	8.0 / 8.0	33
		Std.	9,000	11,500	Mid	7.1 / 7.1	31
		Min.	4,300	3,700	Low	6.3 / 6.3	27
AC035NNNDEH	11.2	Max.	13,500	15,000	High	9.3 / 9.3	35
		Std.	12,000	13,600	Mid	8.0 / 8.0	33
		Min.	4,500	4,000	Low	6.7 / 6.7	29
AC052NNNDEH	11.8	Max.	18,000	20,000	High	12.7 / 12.7	39
		Std.	16,800	16,500	Mid	11.9 / 11.9	37
		Min.	4,500	3,200	Low	9.3 / 9.3	34
AC060NNNDEH	11.8	Max.	26,500	27,000	High	13.8 / 13.8	41
		Std.	19,500	18,000	Mid	12.0 / 12.0	38
		Min.	7,100	4,900	Low	10.5 / 10.5	35

NOTE

- Sound data is based on cooling operation.

Electric Characteristics

Model		Outdoor Unit				Input Current (Amperes)				Power Supply	
Indoor Unit	Outdoor Unit	Rated	Voltage range			Outdoor Unit		Indoor Unit	Total	MCA(A)	MFA(A)
		Hz	Volts	Min.	Max.	Cooling	Heating				
AC026NNNDEH	AC026JXNDEH	50	220 to 240	198	264	8.0	8.0	1.0	9.0	9.0	10.0
AC035NNNDEH	AC035JXNDEH	50	220 to 240	198	264	7.0	7.0	1.0	9.0	9.0	10.0
AC052NNNDEH	AC052JXNDEH	50	220 to 240	198	264	10.0	10.0	1.0	11.0	11.0	12.5
AC060NNNDEH	AC060JXNDEH	50	220 to 240	198	264	20.0	20.0	1.0	21.0	21.0	25.0

NOTE

- MCA : Minimum circuit amperes
- MFA : Maximum fuse amperes
- Select wire size based on the value of MCA

3. Capacity Table

Wind-Free 4Way Cassette (600x600)

(1) AC026NNNDEH/AF+ AC026JXNDEH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	10.38	8.30	0.42	10.63	8.50	0.43	10.89	8.71	0.44	11.16	8.93	0.46	11.34	9.07	0.46	11.43	9.14	0.47	11.70	9.36	0.48
21.0	10.04	8.03	0.49	10.29	8.23	0.50	10.54	8.43	0.51	10.80	8.64	0.52	10.97	8.78	0.53	11.06	8.85	0.54	11.32	9.06	0.55
35.0	8.37	6.69	0.63	8.57	6.86	0.65	8.78	7.03	0.66	9.00	7.20	0.68	9.14	7.32	0.69	9.22	7.37	0.70	9.44	7.55	0.71
46.0	7.20	5.76	0.80	7.37	5.90	0.82	7.55	6.04	0.84	7.74	6.19	0.86	7.86	6.29	0.87	7.93	6.34	0.88	8.12	6.49	0.90
48.0	6.11	4.89	0.61	6.26	5.01	0.62	6.41	5.13	0.64	6.57	5.26	0.65	6.68	5.34	0.66	6.73	5.38	0.67	6.89	5.51	0.68

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	7.04	0.75	6.97	0.75	6.90	0.74	6.83	0.73	6.76	0.72	6.70	0.72
-10.0	8.56	0.90	8.48	0.89	8.40	0.88	8.31	0.87	8.23	0.86	8.15	0.85
0.0	9.97	0.84	9.87	0.83	9.78	0.83	9.68	0.82	9.58	0.81	9.48	0.80
7.0	11.73	0.89	11.62	0.88	11.50	0.87	11.39	0.86	11.27	0.85	11.16	0.84
24.0	14.55	0.91	14.40	0.90	14.26	0.89	14.12	0.88	13.98	0.87	13.84	0.86

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette (600x600)

(2) AC035NNNDEH/AF + AC035JXNDEH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	13.83	11.07	0.69	14.17	11.34	0.70	14.52	11.62	0.72	14.88	11.90	0.74	15.12	12.09	0.75	15.24	12.19	0.75	15.60	12.48	0.77
21.0	13.39	10.71	0.79	13.72	10.97	0.81	14.05	11.24	0.83	14.40	11.52	0.85	14.63	11.70	0.86	14.75	11.80	0.87	15.10	12.08	0.89
35.0	11.16	8.93	1.02	11.43	9.14	1.05	11.71	9.37	1.07	12.00	9.60	1.10	12.19	9.75	1.12	12.29	9.83	1.13	12.58	10.07	1.15
46.0	9.59	7.68	1.29	9.83	7.86	1.32	10.07	8.06	1.35	10.32	8.26	1.39	10.49	8.39	1.41	10.57	8.45	1.42	10.82	8.66	1.45
48.0	8.14	6.52	0.98	8.34	6.68	1.01	8.55	6.84	1.03	8.76	7.01	1.06	8.90	7.12	1.07	8.97	7.18	1.08	9.19	7.35	1.11

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	8.32	1.01	8.24	1.00	8.16	0.99	8.08	0.98	8.00	0.97	7.92	0.96
-10.0	10.13	1.20	10.03	1.18	9.93	1.17	9.83	1.16	9.73	1.15	9.63	1.14
0.0	11.79	1.12	11.68	1.11	11.56	1.10	11.44	1.09	11.33	1.08	11.22	1.07
7.0	13.87	1.18	13.74	1.17	13.60	1.16	13.46	1.15	13.33	1.14	13.20	1.13
24.0	17.20	1.21	17.03	1.20	16.86	1.18	16.70	1.17	16.53	1.16	16.36	1.15

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette (600x600)

(3) AC052NNNDEH/AF + AC052JXNDEH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	14.88	11.91	0.60	15.25	12.20	0.61	15.63	12.50	0.62	16.01	12.81	0.64	16.27	13.01	0.65	16.39	13.12	0.66	16.79	13.43	0.67
21.0	15.15	12.12	0.86	15.52	12.41	0.89	15.90	12.72	0.91	16.29	13.03	0.93	16.55	13.24	0.94	16.68	13.34	0.95	17.08	13.67	0.98
35.0	15.62	12.50	1.49	16.00	12.80	1.52	16.40	13.12	1.56	16.80	13.44	1.60	17.07	13.66	1.63	17.20	13.76	1.64	17.62	14.09	1.68
46.0	12.72	10.17	1.63	13.03	10.42	1.67	13.35	10.68	1.71	13.68	10.94	1.75	13.90	11.12	1.78	14.01	11.21	1.79	14.34	11.48	1.84
48.0	11.97	9.58	1.65	12.27	9.82	1.69	12.57	10.06	1.73	12.88	10.30	1.77	13.09	10.47	1.80	13.19	10.55	1.81	13.51	10.80	1.86

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	13.46	2.09	13.33	2.07	13.20	2.05	13.06	2.03	12.93	2.01	12.80	1.99
-10.0	14.38	1.97	14.24	1.95	14.10	1.93	13.95	1.91	13.82	1.89	13.68	1.87
0.0	16.23	1.72	16.07	1.71	15.91	1.69	15.75	1.67	15.59	1.65	15.43	1.64
7.0	16.83	1.41	16.67	1.39	16.50	1.38	16.34	1.37	16.17	1.35	16.01	1.34
24.0	21.31	1.45	21.10	1.44	20.89	1.42	20.68	1.41	20.48	1.40	20.27	1.38

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette (600x600)

(4) AC060NNNDEH/AF + AC060JXNDEH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	22.48	17.98	1.17	23.03	18.43	1.20	23.60	18.88	1.23	24.18	19.34	1.26	24.57	19.65	1.28	24.76	19.81	1.29	25.35	20.28	1.32
21.0	21.76	17.40	1.35	22.29	17.83	1.38	22.84	18.27	1.41	23.40	18.72	1.45	23.77	19.02	1.47	23.96	19.17	1.48	24.54	19.63	1.52
35.0	18.13	14.50	1.75	18.58	14.86	1.79	19.03	15.23	1.83	19.50	15.60	1.88	19.81	15.85	1.91	19.97	15.97	1.93	20.45	16.36	1.97
46.0	15.59	12.47	2.20	15.97	12.78	2.26	16.37	13.09	2.31	16.77	13.42	2.37	17.04	13.63	2.41	17.17	13.74	2.43	17.58	14.07	2.48
48.0	13.23	10.59	1.68	13.56	10.85	1.72	13.89	11.11	1.76	14.24	11.39	1.80	14.46	11.57	1.83	14.58	11.66	1.85	14.93	11.94	1.89

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	11.02	1.30	10.91	1.29	10.80	1.28	10.69	1.26	10.59	1.25	10.48	1.24
-10.0	13.40	1.55	13.27	1.53	13.14	1.52	13.01	1.50	12.88	1.48	12.75	1.47
0.0	15.61	1.45	15.45	1.44	15.30	1.43	15.15	1.41	15.00	1.40	14.85	1.38
7.0	18.36	1.53	18.18	1.52	18.00	1.50	17.82	1.49	17.64	1.47	17.47	1.46
24.0	22.77	1.56	22.54	1.55	22.32	1.53	22.10	1.51	21.88	1.50	21.66	1.48

NOTE

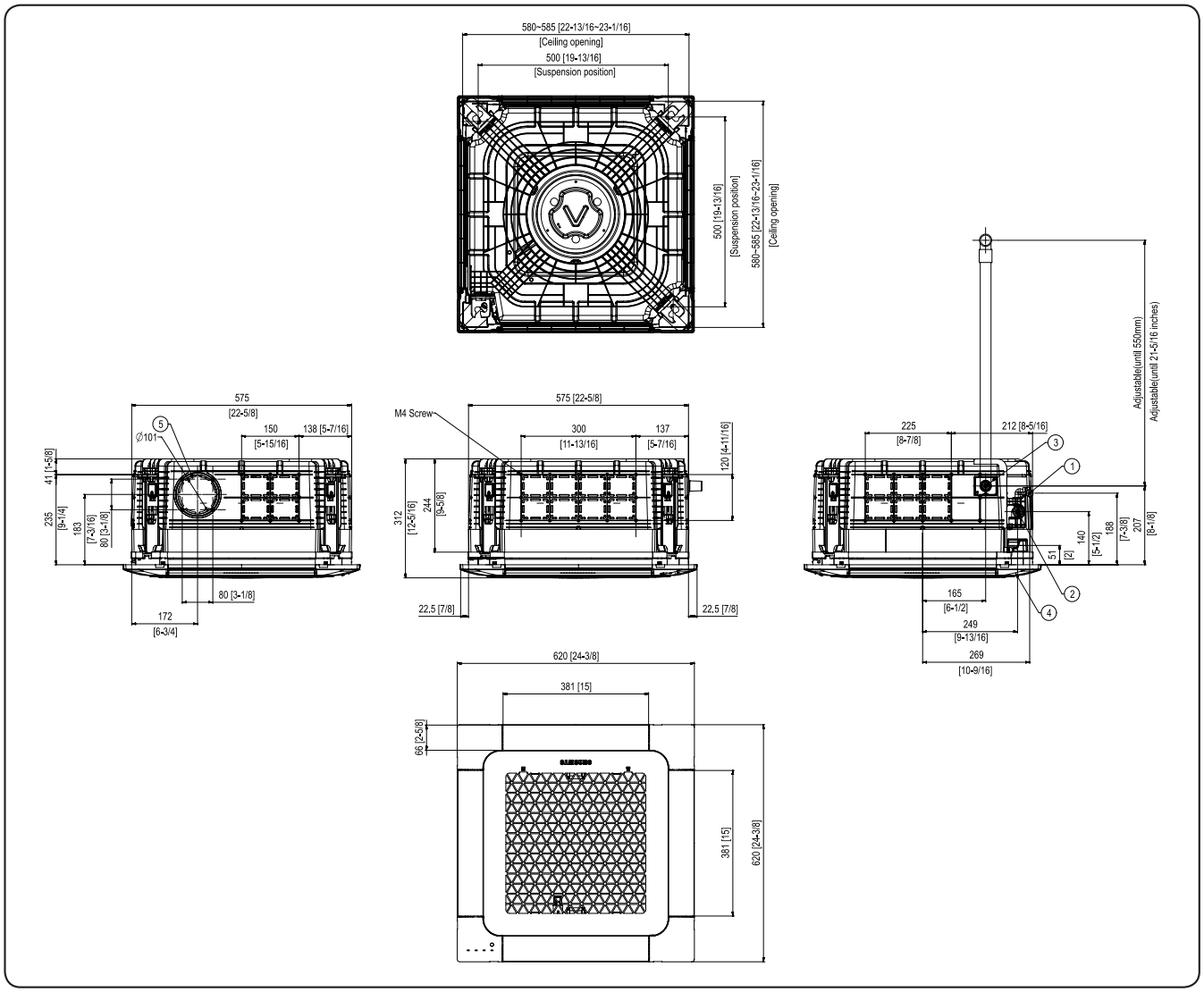
- The performance table shows the average value of each conditions.

4. Dimensional Drawing

Wind-Free 4Way Cassette (600x600)

AC026/035/052/060NNNDEH/AF

Units : mm [inches]



No.	Name	Description		
		AC026NNNDEH/AF AC035NNNDEH/AF	AC052NNNDEH/AF	AC060NNNDEH/AF
1	Liquid pipe connection	Φ6.35(1/4)		
2	Gas pipe connection	Φ9.52(3/8)	Φ12.7(1/2)	Φ15.88(3/8)
3	Drain pipe connection	VP-25(OD32, ID25)		
4	Power supply & Communication wiring conduit			
5	Fresh air intake knockout hole	Φ10[4] , Use M4 Screw		

NOTE

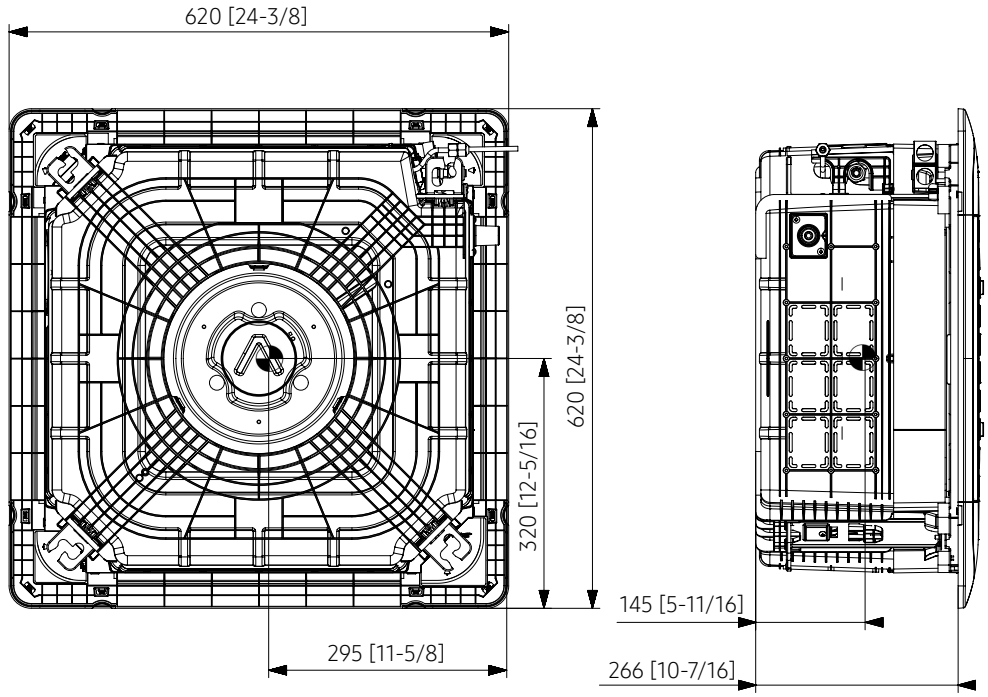
- As for suspension bolt, please use M8 ~ M10.
  (Procured at local site)

5. Center of Gravity

Wind-Free 4Way Cassette (600x600)

AC026/035/052/060NNNDEH/AF

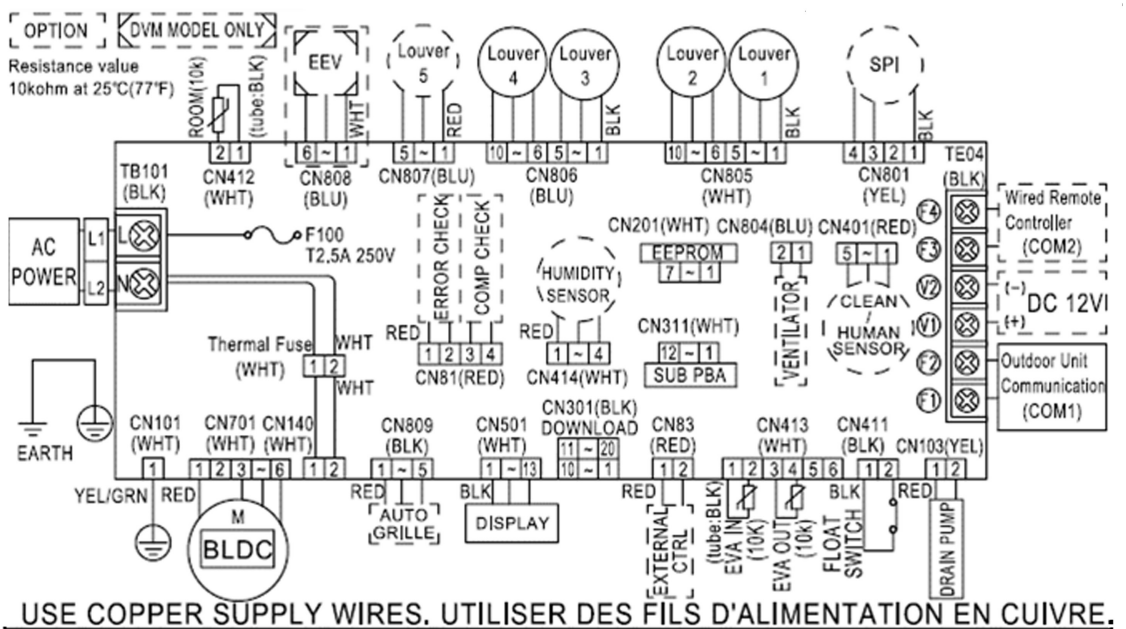
Units : mm [inches]



6. Electrical Wiring Diagram

Wind-Free 4Way Cassette (600x600)

AC026/035/052/060NNNDEH/AF



USE COPPER SUPPLY WIRES. UTILISER DES FILS D'ALIMENTATION EN CUIVRE.

LED LAMP DISPLAY				LED DISPLAY FOR ERROR DETECTION
OPERATION	DEFROST	TIMER	FILTER	● ON ◑ FLICKERING × OFF
×	◑	×	×	Error of room temperature sensor in the indoor unit(open/short)
◑	◑	×	×	Error of eva in,out temperature sensor in the indoor unit(open/short)
×	×	◑	×	Error of fan motor in the indoor unit
◑	×	◑	×	Error of outdoor sensor(Outdoor temperature/cond/discharge)
×	◑	◑	×	No communication for 2 minutes between indoor and outdoor unit
×	◑	◑	◑	Error of outdoor unit/Self-diagnosis (Check error code at outdoor unit's or solution display)
×	×	◑	◑	Detection of the float switch
◑	◑	◑	◑	EEPROM error/EEPROM option error
◑	×	×	◑	MDS (Motion Detecting Sensor) Error
◑	◑	×	◑	No match between outdoor and indoor unit
◑	×	◑	◑	High Pressure Blockage Error (Only CAC Model)

SUB PBA	Printed Circuit Board(SUB)	SPI	S-Plasma ion	ROOM(10K)	Thermistor ROOM OUT(10K)
M-BLDC	BLDC Motor	EEV	Electronic Expansion Valve	EVA-IN(10K)	Thermistor EVA IN(10K)
		EXT_CONTROL	EXTERNAL_CONTROL	EVA-OUT(10K)	Thermistor EVA OUT(10K)

NOTE

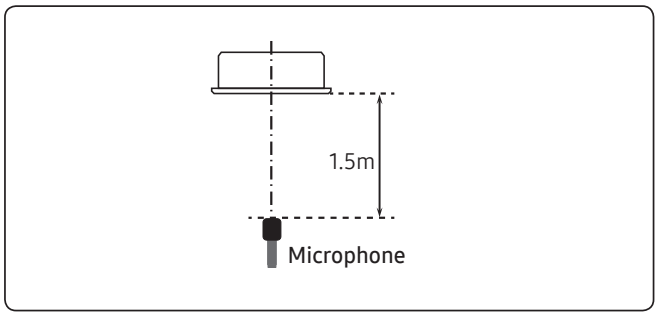
- This wiring diagram applies only to the Indoor unit.
- Symbols show as follow :
  blk: black, red: red, blu: blue, wht: white, yel: yellow, brn: brown, sky: skyblue: grn: green
- For connection wiring indoor-outdoor transmission F1-F2, indoor-wired remote controller transmission F3-F4.
- ⏚ Protective earth(screw), ⊏⊐⊏⊐ : connector, N : The wire quantity

7. Sound Data

Wind-Free 4Way Cassette (600x600)

Sound Pressure level

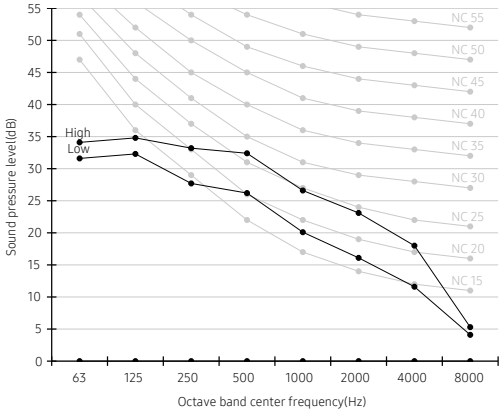
Unit: dB(A)



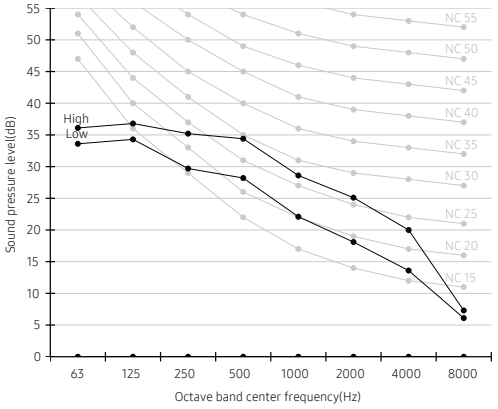
Model	High	LOW
AC026NNNDEH/AF	33	27
AC035NNNDEH/AF	35	29
AC052NNNDEH/AF	39	34
AC060NNNDEH/AF	41	35

- NC Curve

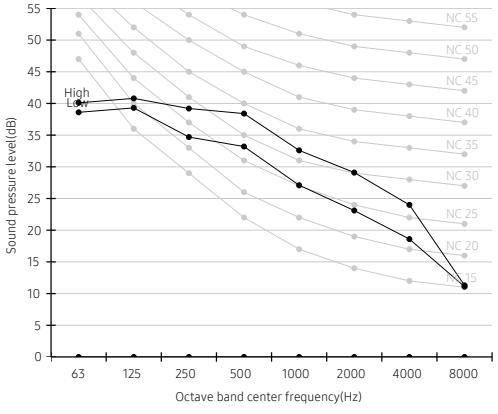
1) AC026NNNDEH/AF



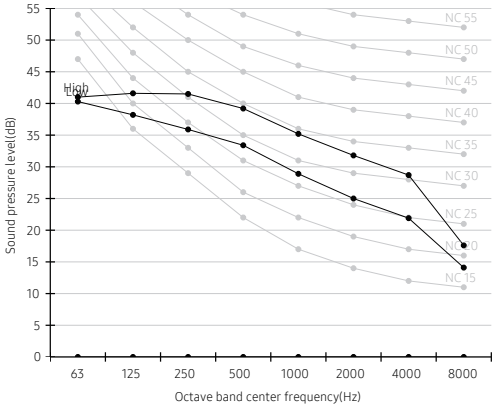
2) AC035NNNDEH/AF



3) AC052NNNDEH/AF



4) AC060NNNDEH/AF



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

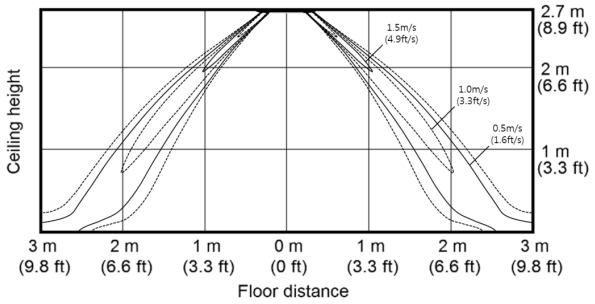
8. Temperature and air flow distribution

Wind-Free 4Way Cassette (600x600)

AC026NNNDEH/AF

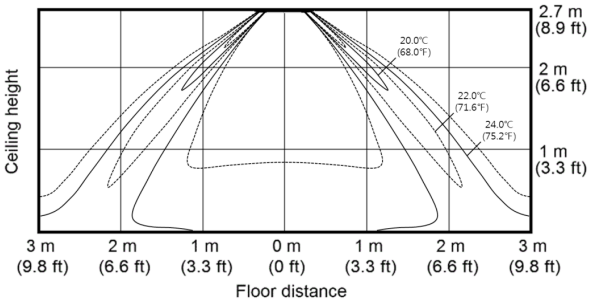
- Cooling Air Velocity distribution

  (Discharge angle : 41 degree)



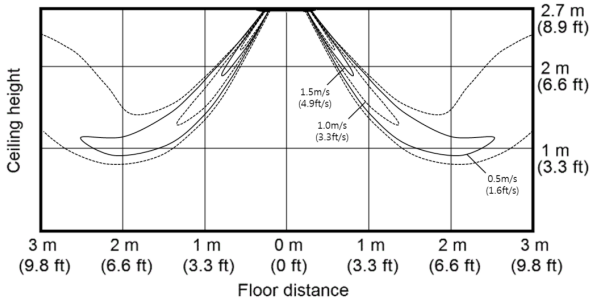
- Cooling temperature distribution

  (Discharge angle : 41 degree)



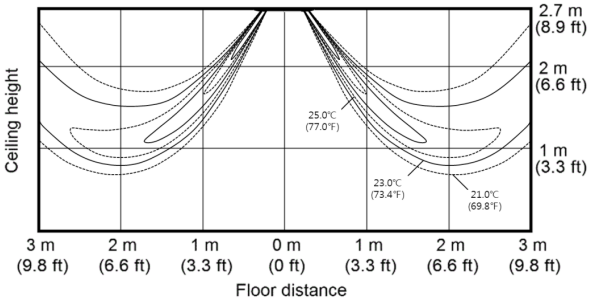
- Heating Air Velocity distribution

  (Discharge angle : 56 degree)



- Heating temperature distribution

  (Discharge angle : 56 degree)



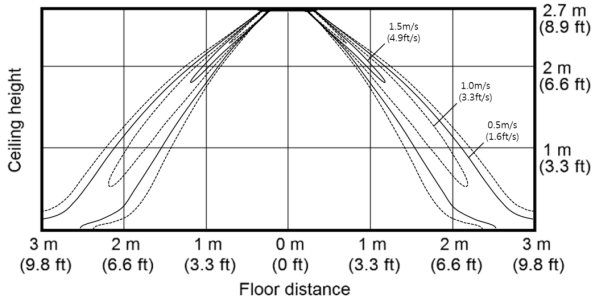
8. Temperature and air flow distribution

Wind-Free 4Way Cassette (600x600)

AC035NNNDEH/AF

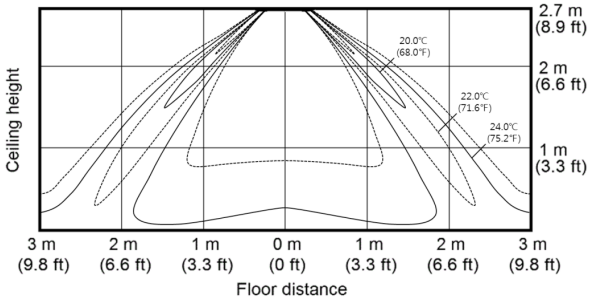
- Cooling Air Velocity distribution

  (Discharge angle : 41 degree)



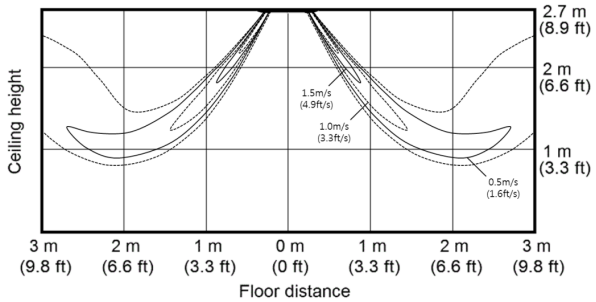
- Cooling temperature distribution

  (Discharge angle : 41 degree)



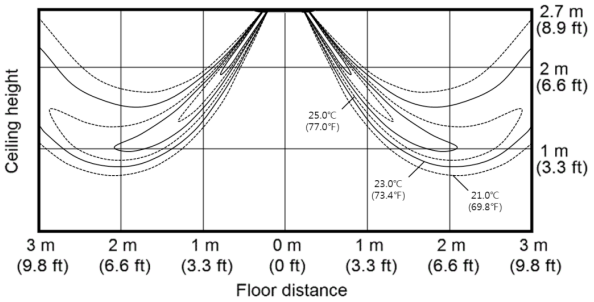
- Heating Air Velocity distribution

  (Discharge angle : 56 degree)



- Heating temperature distribution

  (Discharge angle : 56 degree)



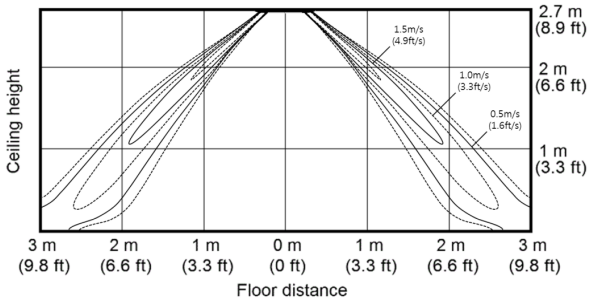
8. Temperature and air flow distribution

Wind-Free 4Way Cassette (600x600)

AC052NNNDEH/AF

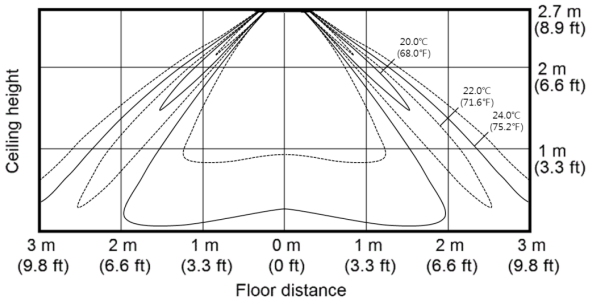
- Cooling Air Velocity distribution

  (Discharge angle : 41 degree)



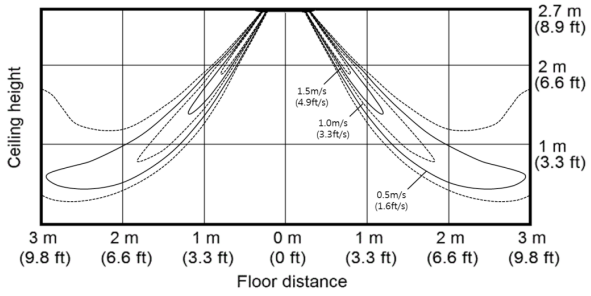
- Cooling temperature distribution

  (Discharge angle : 41 degree)



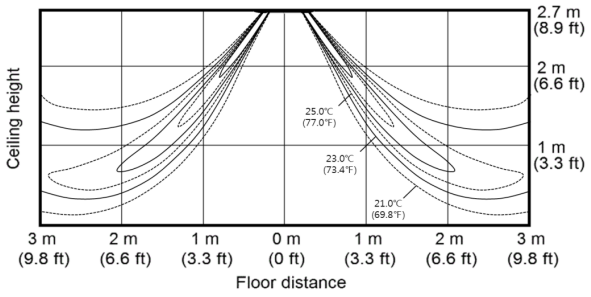
- Heating Air Velocity distribution

  (Discharge angle : 56 degree)



- Heating temperature distribution

  (Discharge angle : 56 degree)



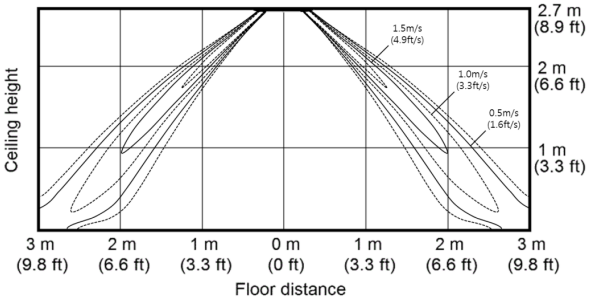
8. Temperature and air flow distribution

Wind-Free 4Way Cassette (600x600)

AC060NNNDEH/AF

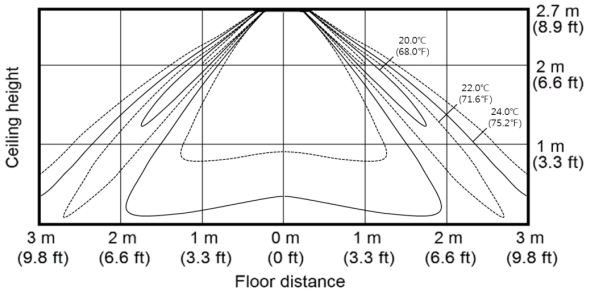
- Cooling Air Velocity distribution

  (Discharge angle : 41 degree)



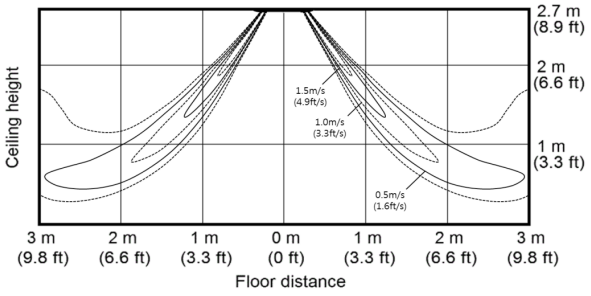
- Cooling temperature distribution

  (Discharge angle : 41 degree)



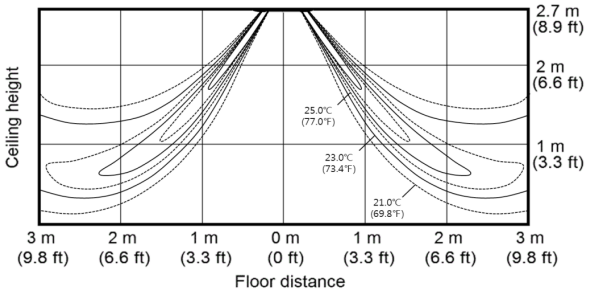
- Heating Air Velocity distribution

  (Discharge angle : 56 degree)



- Heating temperature distribution

  (Discharge angle : 56 degree)



Wind-Free 4Way Cassette

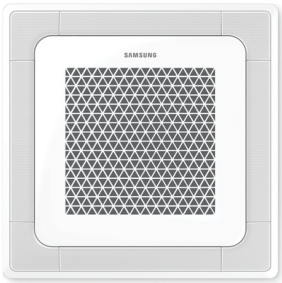
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Features & Benefits

Wind-Free 4Way Cassette

Stage a beautiful yet comfortable environment

With its newly improved design, Wind-Free 4Way Cassette supports a clean, aesthetically appealing atmosphere and adds a sense of sophistication to work and living spaces. Not only is this unit attractively designed, but it also uses advanced technologies to optimize comfort in any environment.



The Samsung Wind-Free 4Way Cassette indoor air conditioning system delivers polish, comfort and efficiency with features such as:

- **Stylishly clean design.** Add panache to interior spaces with a choice of clean, streamlined panel patterns in a lightweight build.
- **Robust operation.** Control the atmosphere perfectly with an advanced design for superior air flow and cooling/heating performance.
- **Low maintenance and simple installation.** Ease installation and minimize maintenance with a detachable, no-drip design.

Wind-Free 4Way Cassette - Stylishly clean design

Aesthetic panel and display

Wind-Free 4Way Cassette offers two different pattern designs forthe panel. The simple display design with rounded corners adds a chic sophistication to the interior.

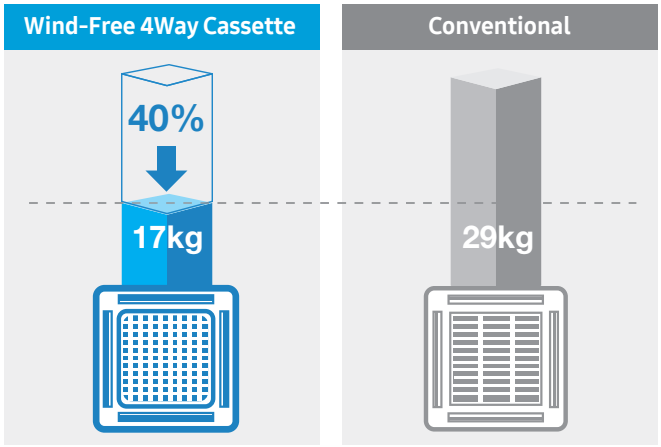


Neat and clean design

The indoor Wind-Free 4Way Cassette boasts a smart design that promotes a neat and clean look. The completely hermetic blade structure keeps the indoor unit clean by preventing dust or other foreign substances from entering it. The internal parts of the indoor unit are also out of sight when the blade is shut, thus improving the unit's appearance.

Lightweight build

The Samsung Wind-Free 4Way Cassette indoor unit is now lighter in weight at 17 kg. It is one of the lightest indoor units in the industry, about 40 percent lighter than conventional products.



*Based on 10kW

1. Specification

Wind-Free 4Way Cassette

Type					Wind-Free 4Way Cassette	Wind-Free 4Way Cassette	Wind-Free 4Way Cassette	Wind-Free 4Way Cassette
	Model Name	Indoor Unit			AC052NN4DEH/AF	AC071NN4DEH/AF	AC090NN4DEH/AF	AC100NN4DEH/AF
		Outdoor Unit			AC052JX4DEH/AF	AC071JX4DEH/AF	AC090JX4DEH/AF	AC100JX4DGH/AF
System	Mode			-	Heat Pump	Heat Pump	Heat Pump	Heat Pump
	Performance	Capacity (Min/Std/Max)	Cooling	kW	1.47 / 4.98 / 5.28	2.08 / 7.18 / 7.77	2.93 / 8.79 / 9.96	3.22 / 10.26 / 10.99
				Btu/h	5,000 / 17,000 / 18,000	7,100 / 24,500 / 26,500	10,000 / 30,000 / 34,000	11,000 / 35,000 / 37,500
			Heating	kW	0.73 / 4.98 / 6.45	1.44 / 7.18 / 8.03	1.29 / 9.23 / 10.26	2.17 / 10.26 / 11.58
				Btu/h	2,500 / 17,000 / 22,000	4,900 / 24,500 / 27,400	4,400 / 31,500 / 35,000	7,400 / 35,000 / 39,500
	Power	Power Input (Min/Std/Max)	Cooling	kW	0.35 / 1.60 / 1.70	0.38 / 2.60 / 3.00	0.87 / 2.80 / 4.50	0.70 / 3.55 / 4.80
			Heating	kW	0.26 / 1.23 / 2.20	0.27 / 2.07 / 2.90	0.60 / 2.45 / 4.10	0.45 / 2.75 / 4.26
		Current Input (Min/Std/Max)	Cooling	A	2.20 / 7.20 / 8.00	2.30 / 11.00 / 13.00	4.70 / 12.50 / 20.00	2.00 / 5.70 / 9.10
			Heating	A	1.60 / 5.70 / 9.00	1.70 / 9.00 / 12.60	3.50 / 11.00 / 18.00	1.50 / 4.50 / 7.90
		Current	MCA	A	10.80	20.80	23.70	13.70
			MFA	A	12.50	25.00	27.50	15.10
	Efficiency	EER	Cooling	-	3.11	2.76	3.14	2.89
		COP	Heating	-	4.05	3.47	3.77	3.73
		Energy Grade	Cooling	-	-	-	-	-
			Heating	-	-	-	-	-
	Piping Connections	Liquid Pipe		Type	Flare connection	Flare connection	Flare connection	Flare connection
				Φ, mm (inch)	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")	9.52 (3/8")
		Gas Pipe		Type	Flare connection	Flare connection	Flare connection	Flare connection
				Φ, mm (inch)	12.70 (1/2")	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
		Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
		Piping length (ODU-IDU)	Standard	m	5	5	5	5
			Max.	m	30	30	50	50
			Elevation	m	15	15	30	30
			Chargeless	m	5	5	5	5
	Wiring connections	Communication	Min.	mm	0.75	0.75	0.75	0.75
			Remark	-	F1, F2	F1, F2	F1, F2	F1, F2
	Refrigerant	Type		-	R410A	R410A	R410A	R410A
		Factory Charging		kg	1.10	1.30	2.50	2.50

1. Specification

Wind-Free 4Way Cassette

Type					Wind-Free 4Way Cassette	Wind-Free 4Way Cassette	Wind-Free 4Way Cassette	Wind-Free 4Way Cassette
	Model Name	Indoor Unit			AC052NN4DEH/AF	AC071NN4DEH/AF	AC090NN4DEH/AF	AC100NN4DEH/AF
		Outdoor Unit			AC052JX4DEH/AF	AC071JX4DEH/AF	AC090JX4DEH/AF	AC100JX4DGH/AF
Indoor Unit	Power Supply			Ø, #, V, Hz	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50
	Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube	Fin & Tube
		Material	Fin	-	Al	Al	Al	Al
			Tube	-	Cu	Cu	Cu	Cu
		Fin Treatment		-	Green Hydrophile	Green Hydrophile	Green Hydrophile	Green Hydrophile
	Fan	Type		-	Turbo Fan	Turbo Fan	Turbo Fan	Turbo Fan
		Quantity		EA	1	1	1	1
		Air Flow Rate	H/M/L	m^3/min	18.00 / 15.00 / 13.00	21.00 / 18.00 / 16.00	29.00 / 24.00 / 19.00	33.00 / 26.00 / 19.00
				l/s	300.00 / 250.00 / 216.67	350.00 / 300.00 / 266.67	483.33 / 400.00 / 316.67	550.00 / 433.33 / 316.67
		External Static Pressure	Min/Std/ Max	mmAq	-	-	-	-
				Pa	-	-	-	-
	Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
		Output		W x n	65 x 1	65 x 1	97 x 1	97 x 1
	Drain	Drain Pipe		Φ, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
	Sound	Sound Pressure Level	H/M/L/ (Silent)	dB(A)	37 / 34/ 31	43 / 40/ 37	42 / 38 / 33	43 / 38 / 33
		Sound Power Level		dB(A)	-	-	-	-
	External Dimension	Net Weight		kg	15.0	15.0	18.5	18.5
		Shipping Weight		kg	18.0	18.0	22.0	22.0
		Net Dimensions (WxHxD)		mm	840 x 204 x 840	840 x 204 x 840	840 x 288 x 840	840 x 288 x 840
		Shipping Dimensions (WxHxD)		mm	898 x 275 x 898	898 x 275 x 898	898 x 357 x 898	898 x 357 x 898
	Casing	Material		-	Polypropylene	Polypropylene	Polypropylene	Polypropylene
	Panel	Model Name		-	PC4NUFMAN	PC4NUFMAN	PC4NUFMAN	PC4NUFMAN
		Type		-	Wind-Free Type	Wind-Free Type	Wind-Free Type	Wind-Free Type
		Material		-	HIPS	HIPS	HIPS	HIPS
		Color		-	DA White	DA White	DA White	DA White
		Net Weight		kg	6.3	6.3	6.3	6.3
		Shipping Weight		kg	8.7	8.7	8.7	8.7
		Net Dimensions (WxHxD)		mm	950 x 64 x 950	950 x 64 x 950	950 x 64 x 950	950 x 64 x 950
		Shipping Dimensions (WxHxD)		mm	1,010 x 117 x 1,000	1,010 x 117 x 1,000	1,010 x 117 x 1,000	1,010 x 117 x 1,000
	Control System	Infrared remote control		-	AR-EH03E	AR-EH03E	AR-EH03E	AR-EH03E
		Wired remote control		-	MWR-WE13N	MWR-WE13N	MWR-WE13N	MWR-WE13N
	Drain Pump	Drain Pump		-	Included	Included	Included	Included
		Max. lifting Height / Displacement		mm / Liter/h	750/24	750/24	750/24	750/24
	Additional Accessories	Air Filter		-	Removable / Washable	Removable / Washable	Removable / Washable	Removable / Washable
		Virus Doctor		-	Option	Option	Option	Option

1. Specification

Wind-Free 4Way Cassette

Type					Wind-Free 4Way Cassette	Wind-Free 4Way Cassette	Wind-Free 4Way Cassette	Wind-Free 4Way Cassette
	Model Name	Indoor Unit			AC052NN4DEH/AF	AC071NN4DEH/AF	AC090NN4DEH/AF	AC100NN4DEH/AF
		Outdoor Unit			AC052JX4DEH/AF	AC071JX4DEH/AF	AC090JX4DEH/AF	AC100JX4DGH/AF
Outdoor Unit	Power Supply			Ø, #, V, Hz	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50
	Heat Exchanger	Type		-	FMC	FMC	Fin & Tube	Fin & Tube
		Material	Fin	-	Al	Al	Al	Al
			Tube	-	Al	Al	Cu	Cu
		Fin Treatment		-	Hybrid Coating	Hybrid Coating	Green Hydrophile	Green Hydrophile
	Compressor	Model Name			UG4T150LNBEQ	UG4T200FUAE4	UG8T300LNBJU	UG8T300FUCJU
		Type		-	BLDC Rotary	BLDC Rotary	BLDC Rotary	BLDC Rotary
		Output		kW	1.42	1.79	2.82	2.82
		Oil	Type	-	POE	POE	PVE	PVE
			Initial charge	cc	500	650	1200	1200
	Fan	Type		-	Propeller	Propeller	Propeller	Propeller
		Discharge direction		-	Front	Front	Front	Front
		Quantity		EA	1	1	1	1
		Air Flow Rate		m³/min	40.00	41.00	60.00	60.00
				l/s	666.67	683.33	1000.00	1000.00
	Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor	BLDC Motor
		Output		W x n	65 x 1	65 x 1	97 x 1	97 x 1
	Sound	Sound Pressure Level	Cooling	dB(A)	47	49	54	55
			Heating	dB(A)	48	51	56	57
		Sound Power Level		dB(A)	-	-	-	-
	External Dimension	Net Weight		kg	36.0	45.0	67.0	69.5
		Shipping Weight		kg	39.0	48.0	72.0	74.5
		Net Dimensions (WxHxD)		mm	790 x 548 x 285	880 x 638 x 310	880 x 967 x 320	880 x 967 x 320
		Shipping Dimensions (WxHxD)		mm	913 x 622 x 371	1,023 x 730 x 413	1,047 x 1,045 x 415	1,047 x 1,045 x 415
	Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate
	Operating Temp. Range	Cooling		℃	-5.0 ~ 48.0	-5.0 ~ 48.0	-5.0 ~ 48.0	-5.0 ~ 48.0
		Heating		℃	-15.0 ~ 24.0	-15.0 ~ 24.0	-15.0 ~ 24.0	-15.0 ~ 24.0

NOTE

- Specification may be subject to change without prior notice.

1) Performances are based on the following test conditions.
   - Cooling : Indoor temperature 27°C DB, 19°C WB, Outdoor temperature 35°C DB, 24°C WB
   - Heating : Indoor temperature 20°C DB, 15°C WB, Outdoor temperature 7°C DB, 6°C WB
   - Equivalent refrigerant pipe length 5m, Level differences 0m
2) Select wire size based on the value of MCA
3) 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
4) 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
5) These products contain R410A which is fluorinated greenhouse gas.

1. Specification

Wind-Free 4Way Cassette

Type					Wind-Free 4Way Cassette	Wind-Free 4Way Cassette	Wind-Free 4Way Cassette
	Model Name	Indoor Unit			AC100NN4DEH/AF	AC120NN4DEH/AF	AC140NN4DEH/AF
		Outdoor Unit			AC100JX4DEH/AF	AC120JX4DGH/AF	AC140JX4DGH/AF
System	Mode			-	Heat Pump	Heat Pump	Heat Pump
	Performance	Capacity (Min/Std/Max)	Cooling	kW	3.22 / 10.26 / 10.84	2.93 / 12.31 / 12.46	3.19 / 14.07 / 14.21
				Btu/h	11,000 / 35,000 / 37,000	10,000 / 42,000 / 42,500	10,900 / 48,000 / 48,500
			Heating	kW	2.17 / 10.26 / 11.58	3.52 / 13.48 / 16.35	3.52 / 14.07 / 18.40
				Btu/h	7,400 / 35,000 / 39,500	12,000 / 46,000 / 55,800	12,000 / 48,000 / 62,800
	Power	Power Input (Min/Std/Max)	Cooling	kW	0.70 / 3.60 / 4.80	1.03 / 4.32 / 5.89	1.30 / 5.35 / 6.30
			Heating	kW	0.45 / 2.75 / 4.26	0.88 / 4.35 / 7.30	1.30 / 4.54 / 7.50
		Current Input (Min/Std/Max)	Cooling	A	4.00 / 16.00 / 21.00	2.10 / 6.80 / 9.00	3.00 / 8.50 / 9.50
			Heating	A	2.90 / 12.00 / 19.50	1.80 / 6.80 / 12.00	2.00 / 7.00 / 12.40
		Current	MCA	A	23.70	13.70	13.70
			MFA	A	27.50	15.10	15.10
	Efficiency	EER	Cooling	-	2.85	2.85	2.63
		COP	Heating	-	3.73	3.10	3.10
		Energy Grade	Cooling	-	-	-	-
			Heating	-	-	-	-
	Piping Connections	Liquid Pipe		Type	Flare connection	Flare connection	Flare connection
				Φ, mm (inch)	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
		Gas Pipe		Type	Flare connection	Flare connection	Flare connection
				Φ, mm (inch)	15.88 (5/8")	15.88 (5/8")	15.88 (5/8")
		Heat Insulation		-	Both liquid and gas pipes	Both liquid and gas pipes	Both liquid and gas pipes
		Piping length (ODU-IDU)	Standard	m	5	5	5
			Max.	m	50	50	50
			Elevation	m	30	30	30
			Chargeless	m	5	5	5
	Wiring connections	Communication	Min.	mm	0.75	0.75	0.75
			Remark	-	F1, F2	F1, F2	F1, F2
	Refrigerant	Type		-	R410A	R410A	R410A
		Factory Charging		kg	2.50	2.20	2.20

1. Specification

Wind-Free 4Way Cassette

Type					Wind-Free 4Way Cassette	Wind-Free 4Way Cassette	Wind-Free 4Way Cassette
	Model Name	Indoor Unit			AC100NN4DEH/AF	AC120NN4DEH/AF	AC140NN4DEH/AF
		Outdoor Unit			AC100JX4DEH/AF	AC120JX4DGH/AF	AC140JX4DGH/AF
Indoor Unit	Power Supply			Ø, #, V, Hz	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50
	Heat Exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
		Material	Fin	-	Al	Al	Al
			Tube	-	Cu	Cu	Cu
		Fin Treatment		-	Green Hydrophile	Green Hydrophile	Green Hydrophile
	Fan	Type		-	Turbo Fan	Turbo Fan	Turbo Fan
		Quantity		EA	1	1	1
		Air Flow Rate	H/M/L	m^3/min	33.00 / 26.00 / 19.00	31.00 / 24.00 / 19.00	31.00 / 24.00 / 19.00
				l/s	550.00 / 433.33 / 316.67	516.67 / 400.00 / 316.67	516.67 / 400.00 / 316.67
		External Static Pressure	Min/Std/ Max	mmAq	-	-	-
				Pa	-	-	-
	Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
		Output		W x n	97 x 1	97 x 1	97 x 1
	Drain	Drain Pipe		Φ, mm	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)	VP25 (OD 32, ID 25)
	Sound	Sound Pressure Level	H/M/L/ (Silent)	dB(A)	43 / 38 / 33	44 / 40 / 36	44 / 40 / 36
		Sound Power Level		dB(A)	-	-	-
	External Dimension	Net Weight		kg	18.5	18.5	18.5
		Shipping Weight		kg	22.0	22.0	22.0
		Net Dimensions (WxHxD)		mm	840 x 288 x 840	840 x 288 x 840	840 x 288 x 840
		Shipping Dimensions (WxHxD)		mm	898 x 357 x 898	898 x 357 x 898	898 x 357 x 898
	Casing	Material		-	Polypropylene	Polypropylene	Polypropylene
	Panel	Model Name		-	PC4NUFMAN	PC4NUFMAN	PC4NUFMAN
		Type		-	Wind-Free Type	Wind-Free Type	Wind-Free Type
		Material		-	HIPS	HIPS	HIPS
		Color		-	DA White	DA White	DA White
		Net Weight		kg	6.3	6.3	6.3
		Shipping Weight		kg	8.7	8.7	8.7
		Net Dimensions (WxHxD)		mm	950 x 64 x 950	950 x 64 x 950	950 x 64 x 950
		Shipping Dimensions (WxHxD)		mm	1,010 x 117 x 1,000	1,010 x 117 x 1,000	1,010 x 117 x 1,000
	Control System	Infrared remote control		-	AR-EH03E	AR-EH03E	AR-EH03E
		Wired remote control		-	MWR-WE13N	MWR-WE13N	MWR-WE13N
	Drain Pump	Drain Pump		-	Included	Included	Included
		Max. lifting Height / Displacement		mm / Liter/h	750/24	750/24	750/24
	Additional Accessories	Air Filter		-	Removable / Washable	Removable / Washable	Removable / Washable
		Virus Doctor		-	Option	Option	Option

1. Specification

Wind-Free 4Way Cassette

Type					Wind-Free 4Way Cassette	Wind-Free 4Way Cassette	Wind-Free 4Way Cassette
	Model Name	Indoor Unit			AC100NN4DEH/AF	AC120NN4DEH/AF	AC140NN4DEH/AF
		Outdoor Unit			AC100JX4DEH/AF	AC120JX4DGH/AF	AC140JX4DGH/AF
Outdoor Unit	Power Supply			Ø, #, V, Hz	1,2,220-240,50	1,2,220-240,50	1,2,220-240,50
	Heat Exchanger	Type		-	Fin & Tube	FMC	FMC
		Material	Fin	-	Al	Al	Al
			Tube	-	Cu	Al	Al
		Fin Treatment		-	Green Hydrophile	Hybrid Coating	Hybrid Coating
	Compressor	Model Name			UG8T300LNBJU	UG5T450FUFJX	UG5T450FUFJX
		Type		-	BLDC Rotary	BLDC Rotary	BLDC Rotary
		Output		kW	2.82	4.12	4.12
		Oil	Type	-	PVE	PVE	PVE
			Initial charge	cc	1200	1700	1700
	Fan	Type		-	Propeller	Propeller	Propeller
		Discharge direction		-	Front	Front	Front
		Quantity		EA	1	2	2
		Air Flow Rate		m^3/min	60.00	70.00	70.00
				l/s	1000.00	1166.67	1166.67
	Fan Motor	Type		-	BLDC Motor	BLDC Motor	BLDC Motor
		Output		W x n	97 x 1	97 x 2	97 x 2
	Sound	Sound Pressure Level	Cooling	dB(A)	55	57	57
			Heating	dB(A)	57	58	59
		Sound Power Level		dB(A)	-	-	-
	External Dimension	Net Weight		kg	67.0	89.0	89.0
		Shipping Weight		kg	72.0	99.0	99.0
		Net Dimensions (WxHxD)		mm	880 x 967 x 320	932 x 1,162 x 375	932 x 1,162 x 375
		Shipping Dimensions (WxHxD)		mm	1,047 x 1,045 x 415	1,095 x 1,286 x 476	1,095 x 1,286 x 476
	Casing	Material	Body	-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate
	Operating Temp. Range	Cooling		℃	-5.0 ~ 48.0	-5.0 ~ 48.0	-5.0 ~ 48.0
		Heating		℃	-15.0 ~ 24.0	-15.0 ~ 24.0	-15.0 ~ 24.0

NOTE

- Specification may be subject to change without prior notice.

1) Performances are based on the following test conditions.
   - Cooling : Indoor temperature 27°C DB, 19°C WB, Outdoor temperature 35°C DB, 24°C WB
   - Heating : Indoor temperature 20°C DB, 15°C WB, Outdoor temperature 7°C DB, 6°C WB
   - Equivalent refrigerant pipe length 5m, Level differences 0m
2) Select wire size based on the value of MCA
3) 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
4) 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
5) These products contain R410A which is fluorinated greenhouse gas.

2. Summary Table

Wind-Free 4Way Cassette

Performance Characteristics

Model Code	Net Weight (kg)		Capacity		Fan Speed	Airflow (Cooling/Heating) (CMM)	Sound Pressure Level (dBA)
			Cooling (Btu/h)	Heating (Btu/h)			
AC052NN4DEH	14.5	Max.	18,000	22,000	High	18.0 / 18.0	33
		Std.	17,000	17,000	Mid	15.0 / 15.0	31
		Min.	5,000	2,500	Low	13.0 / 13.0	27
AC071NN4DEH	14.5	Max.	26,500	27,400	High	21.0 / 21.0	35
		Std.	24,500	24,500	Mid	18.0 / 18.0	33
		Min.	7,100	4,900	Low	16.0 / 16.0	29
AC090NN4DEH	18.0	Max.	34,000	35,000	High	29.0 / 29.0	39
		Std.	30,000	31,500	Mid	24.0 / 24.0	37
		Min.	10,000	4,400	Low	19.0 / 19.0	34
AC100NN4DEH	18.0	Max.	37,000	39,500	High	33.0 / 33.0	41
		Std.	35,000	35,000	Mid	26.0 / 26.0	38
		Min.	11,000	7,400	Low	19.0 / 19.0	35
AC120NN4DEH	18.0	Max.	42,500	55,800	High	31.0 / 31.0	44
		Std.	42,000	46,000	Mid	24.0 / 24.0	40
		Min.	10,000	12,000	Low	19.0 / 19.0	36
AC140NN4DEH	11.8	Max.	48,500	62,800	High	32.0 / 32.0	45
		Std.	48,000	48,000	Mid	24.0 / 24.0	41
		Min.	10,900	12,000	Low	20.0 / 20.0	36

NOTE

- Sound data is based on cooling operation.

Electric Characteristics

Model		Outdoor Unit				Input Current (Amperes)				Power Supply	
Indoor Unit	Outdoor Unit	Rated	Voltage range			Outdoor Unit		Indoor Unit	Total	MCA(A)	MFA(A)
		Hz	Volts	Min.	Max.	Cooling	Heating				
AC052NN4DEH	AC052JX4DEH	50	220 to 240	198	264	10.0	10.0	0.8	10.8	10.8	12.5
AC071NN4DEH	AC071JX4DEH	50	220 to 240	198	264	20.0	20.0	0.8	20.8	20.8	25.0
AC090NN4DEH	AC090JX4DEH	50	220 to 240	198	264	22.0	22.0	1.7	23.7	23.7	27.5
AC100NN4DEH	AC100JX4DEH	50	220 to 240	198	264	22.0	22.0	1.7	23.7	23.7	27.5
AC100NN4DEH	AC100JX4DGH	50	380 to 415	342	457	12.0	12.0	1.7	13.7	13.7	15.1
AC120NN4DEH	AC120JX4DGH	50	380 to 415	342	457	12.0	12.0	1.7	13.7	13.7	15.1
AC140NN4DEH	AC140JX4DGH	50	380 to 415	342	457	12.0	12.0	1.7	13.7	13.7	15.1

NOTE

- MCA : Minimum circuit amperes
- MFA : Maximum fuse amperes
- Select wire size based on the value of MCA

3. Capacity Table

Wind-Free 4Way Cassette

(1) AC052NN4DEH/AF + AC052JX4DEH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	15.52	12.41	0.66	15.90	12.72	0.68	16.29	13.03	0.69	16.69	13.35	0.71	16.96	13.57	0.72	17.09	13.67	0.73	17.50	14.00	0.74
21.0	15.80	12.64	0.85	16.18	12.95	0.87	16.58	13.27	0.89	16.99	13.59	0.91	17.26	13.81	0.92	17.40	13.92	0.93	17.82	14.25	0.95
35.0	15.81	12.64	1.49	16.19	12.96	1.52	16.59	13.27	1.56	17.00	13.60	1.60	17.27	13.82	1.63	17.41	13.93	1.64	17.83	14.26	1.68
46.0	13.27	10.61	1.80	13.59	10.87	1.85	13.93	11.14	1.89	14.27	11.42	1.94	14.50	11.60	1.97	14.61	11.69	1.99	14.96	11.97	2.03
48.0	12.50	10.00	1.81	12.80	10.24	1.86	13.12	10.49	1.90	13.44	10.75	1.95	13.66	10.92	1.98	13.76	11.01	2.00	14.09	11.27	2.04

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	13.60	1.65	13.46	1.64	13.33	1.62	13.20	1.60	13.06	1.59	12.93	1.57
-10.0	14.53	1.55	14.38	1.54	14.24	1.52	14.10	1.50	13.96	1.49	13.82	1.47
0.0	16.39	1.36	16.23	1.34	16.07	1.33	15.91	1.32	15.75	1.30	15.59	1.29
7.0	17.34	1.25	17.17	1.24	17.00	1.23	16.83	1.22	16.66	1.21	16.50	1.19
24.0	21.53	1.14	21.32	1.13	21.11	1.12	20.90	1.11	20.69	1.10	20.48	1.09

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(2) AC071NN4DEH/AF + AC071JX4DEH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	28.24	22.60	1.53	28.94	23.15	1.56	29.65	23.72	1.60	30.38	24.30	1.64	30.87	24.69	1.67	31.11	24.89	1.68	31.86	25.48	1.72
21.0	27.33	21.87	1.75	28.01	22.40	1.80	28.69	22.96	1.84	29.40	23.52	1.89	29.87	23.90	1.92	30.11	24.08	1.93	30.83	24.66	1.98
35.0	22.78	18.22	2.28	23.34	18.67	2.33	23.91	19.13	2.39	24.50	19.60	2.45	24.89	19.91	2.49	25.09	20.07	2.51	25.69	20.55	2.57
46.0	19.59	15.67	2.87	20.07	16.06	2.94	20.56	16.45	3.01	21.07	16.86	3.09	21.41	17.13	3.14	21.58	17.26	3.16	22.09	17.67	3.24
48.0	16.63	13.30	2.19	17.04	13.63	2.24	17.46	13.96	2.30	17.89	14.31	2.35	18.17	14.54	2.39	18.31	14.65	2.41	18.75	15.00	2.47

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	15.00	1.73	14.85	1.72	14.70	1.70	14.55	1.68	14.41	1.67	14.26	1.65
-10.0	18.24	2.06	18.06	2.04	17.89	2.02	17.71	2.00	17.53	1.98	17.35	1.96
0.0	21.24	1.94	21.03	1.92	20.83	1.90	20.62	1.88	20.41	1.86	20.21	1.84
7.0	24.99	2.04	24.75	2.02	24.50	2.00	24.26	1.98	24.01	1.96	23.77	1.94
24.0	30.99	2.08	30.68	2.06	30.38	2.04	30.08	2.02	29.78	2.00	29.48	1.98

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(3) AC090NN4DEH/AF + AC090JX4DEH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	33.93	27.15	1.65	34.77	27.82	1.70	35.62	28.50	1.74	36.50	29.20	1.78	37.08	29.67	1.81	37.38	29.90	1.82	38.27	30.62	1.87
21.0	31.61	25.29	2.16	32.39	25.91	2.21	33.18	26.55	2.26	34.00	27.20	2.32	34.54	27.64	2.36	34.82	27.85	2.38	35.65	28.52	2.43
35.0	27.89	22.31	2.60	28.58	22.86	2.67	29.28	23.42	2.73	30.00	24.00	2.80	30.48	24.38	2.84	30.72	24.58	2.87	31.46	25.17	2.94
46.0	19.52	15.62	2.29	20.00	16.00	2.34	20.50	16.40	2.40	21.00	16.80	2.46	21.34	17.07	2.50	21.50	17.20	2.52	22.02	17.62	2.58
48.0	18.22	14.58	2.25	18.67	14.94	2.31	19.13	15.30	2.36	19.60	15.68	2.42	19.91	15.93	2.46	20.07	16.06	2.48	20.55	16.44	2.54

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	26.01	3.47	25.76	3.43	25.50	3.40	25.24	3.37	24.99	3.33	24.74	3.30
-10.0	32.03	3.93	31.71	3.89	31.40	3.85	31.09	3.81	30.78	3.77	30.47	3.74
0.0	31.62	2.76	31.31	2.74	31.00	2.71	30.69	2.68	30.38	2.66	30.08	2.63
7.0	32.13	2.50	31.82	2.47	31.50	2.45	31.18	2.43	30.87	2.40	30.56	2.38
24.0	41.21	2.58	40.80	2.56	40.40	2.53	40.00	2.50	39.60	2.48	39.20	2.45

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(4) AC100NN4DEH/AF + AC100JX4DGH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	40.44	32.35	2.20	41.44	33.15	2.26	42.46	33.96	2.31	43.50	34.80	2.37	44.20	35.36	2.41	44.54	35.64	2.43	45.61	36.49	2.49
21.0	37.00	29.60	2.65	37.91	30.33	2.71	38.84	31.08	2.78	39.80	31.84	2.85	40.44	32.35	2.90	40.76	32.60	2.92	41.73	33.39	2.99
35.0	32.54	26.03	3.30	33.34	26.67	3.38	34.16	27.33	3.46	35.00	28.00	3.55	35.56	28.45	3.61	35.84	28.67	3.64	36.70	29.36	3.72
46.0	23.24	18.59	2.86	23.81	19.05	2.93	24.40	19.52	3.01	25.00	20.00	3.08	25.40	20.32	3.13	25.60	20.48	3.15	26.21	20.97	3.23
48.0	21.57	17.26	2.79	22.10	17.68	2.86	22.64	18.11	2.93	23.20	18.56	3.00	23.57	18.86	3.05	23.76	19.01	3.07	24.33	19.46	3.15

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	28.77	3.88	28.48	3.84	28.20	3.80	27.92	3.76	27.64	3.72	27.36	3.69
-10.0	35.50	4.34	35.15	4.29	34.80	4.25	34.45	4.21	34.11	4.17	33.77	4.12
0.0	35.09	3.11	34.74	3.08	34.40	3.05	34.06	3.02	33.72	2.99	33.38	2.96
7.0	35.70	2.81	35.35	2.78	35.00	2.75	34.65	2.72	34.30	2.70	33.96	2.67
24.0	46.72	2.91	46.26	2.88	45.80	2.85	45.34	2.82	44.89	2.79	44.44	2.77

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(5) AC100NN4DEH/AF + AC100JX4DEH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	40.44	32.35	2.25	41.44	33.15	2.31	42.46	33.96	2.36	43.50	34.80	2.42	44.20	35.36	2.46	44.54	35.64	2.48	45.61	36.49	2.54
21.0	37.00	29.60	2.70	37.91	30.33	2.76	38.84	31.08	2.83	39.80	31.84	2.90	40.44	32.35	2.95	40.76	32.60	2.97	41.73	33.39	3.04
35.0	32.54	26.03	3.35	33.34	26.67	3.43	34.16	27.33	3.51	35.00	28.00	3.60	35.56	28.45	3.66	35.84	28.67	3.69	36.70	29.36	3.77
46.0	23.24	18.59	2.90	23.81	19.05	2.97	24.40	19.52	3.05	25.00	20.00	3.12	25.40	20.32	3.17	25.60	20.48	3.19	26.21	20.97	3.27
48.0	21.57	17.26	2.83	22.10	17.68	2.90	22.64	18.11	2.97	23.20	18.56	3.04	23.57	18.86	3.09	23.76	19.01	3.11	24.33	19.46	3.19

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	28.77	3.96	28.48	3.92	28.20	3.88	27.92	3.84	27.64	3.80	27.36	3.76
-10.0	35.50	4.43	35.15	4.38	34.80	4.34	34.45	4.30	34.11	4.25	33.77	4.21
0.0	35.09	3.16	34.74	3.13	34.40	3.10	34.06	3.07	33.72	3.04	33.38	3.01
7.0	35.70	2.81	35.35	2.78	35.00	2.75	34.65	2.72	34.30	2.70	33.96	2.67
24.0	46.72	2.96	46.26	2.93	45.80	2.90	45.34	2.87	44.89	2.84	44.44	2.81

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(6) AC120NN4DEH/AF + AC120JX4DGH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	37.10	29.68	2.41	38.01	30.41	2.47	38.94	31.15	2.53	39.90	31.92	2.59	40.54	32.43	2.63	40.86	32.69	2.65	41.84	33.47	2.72
21.0	38.27	30.61	3.41	39.21	31.37	3.50	40.17	32.14	3.58	41.16	32.93	3.67	41.82	33.45	3.73	42.15	33.72	3.76	43.16	34.53	3.85
35.0	39.05	31.24	4.02	40.01	32.01	4.12	40.99	32.79	4.22	42.00	33.60	4.32	42.67	34.14	4.39	43.01	34.41	4.42	44.04	35.23	4.53
46.0	30.85	24.68	4.62	31.61	25.29	4.73	32.38	25.91	4.85	33.18	26.54	4.97	33.71	26.97	5.05	33.98	27.18	5.09	34.79	27.83	5.21
48.0	28.11	22.49	4.42	28.81	23.04	4.53	29.51	23.61	4.64	30.24	24.19	4.75	30.72	24.58	4.83	30.97	24.77	4.87	31.71	25.37	4.98

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	38.95	5.90	38.56	5.84	38.18	5.79	37.80	5.73	37.42	5.67	37.05	5.61
-10.0	44.11	6.43	43.67	6.37	43.24	6.31	42.81	6.24	42.38	6.18	41.96	6.12
0.0	45.99	6.97	45.53	6.90	45.08	6.83	44.63	6.76	44.18	6.69	43.74	6.63
7.0	46.92	4.44	46.46	4.39	46.00	4.35	45.54	4.31	45.08	4.26	44.63	4.22
24.0	60.06	4.88	59.47	4.83	58.88	4.79	58.29	4.74	57.71	4.69	57.13	4.64

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(7) AC140NN4DEH/AF + AC140JX4DGH/AF

Cooling

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

Outdoor Air Temp. (DB)	Indoor temperature (ºC)																				
	20 (DB)			23 (DB)			26 (DB)			27 (DB)			28 (DB)			30 (DB)			32 (DB)		
	14 (WB)			16 (WB)			18 (WB)			19 (WB)			20 (WB)			22 (WB)			24 (WB)		
	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)	TC (MBH)	SHC (MBH)	PI (kW)
-5.0	42.39	33.92	2.90	43.44	34.75	2.97	44.51	35.60	3.05	45.60	36.48	3.12	46.33	37.06	3.17	46.69	37.36	3.19	47.82	38.25	3.27
21.0	43.73	34.99	4.11	44.81	35.85	4.21	45.91	36.73	4.31	47.04	37.63	4.42	47.79	38.23	4.49	48.17	38.54	4.53	49.33	39.46	4.63
35.0	44.63	35.70	4.83	45.72	36.58	4.95	46.85	37.48	5.08	48.00	38.40	5.20	48.77	39.01	5.28	49.15	39.32	5.32	50.33	40.27	5.45
46.0	35.25	28.20	5.56	36.12	28.90	5.70	37.01	29.61	5.84	37.92	30.34	5.98	38.53	30.82	6.08	38.83	31.06	6.12	39.76	31.81	6.27
48.0	32.13	25.70	5.32	32.92	26.34	5.45	33.73	26.98	5.58	34.56	27.65	5.72	35.11	28.09	5.81	35.39	28.31	5.86	36.24	28.99	6.00

Heating

TC : Total Capacity, PI : Power Input

Outdoor Air Temp. (DB)	Indoor temperature (ºC)											
	16.0 (DB)		18.0 (DB)		20.0 (DB)		21.0 (DB)		22.0 (DB)		24.0 (DB)	
	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)	TC(MBH)	PI(kW)
-15.0	40.64	6.16	40.24	6.10	39.84	6.04	39.44	5.98	39.05	5.92	38.66	5.86
-10.0	46.03	6.72	45.57	6.65	45.12	6.58	44.67	6.52	44.22	6.45	43.78	6.39
0.0	47.99	7.27	47.51	7.20	47.04	7.13	46.57	7.06	46.10	6.99	45.64	6.92
7.0	48.96	4.63	48.48	4.59	48.00	4.54	47.52	4.49	47.04	4.45	46.57	4.41
24.0	62.67	5.09	62.05	5.04	61.44	4.99	60.83	4.94	60.22	4.89	59.62	4.85

NOTE

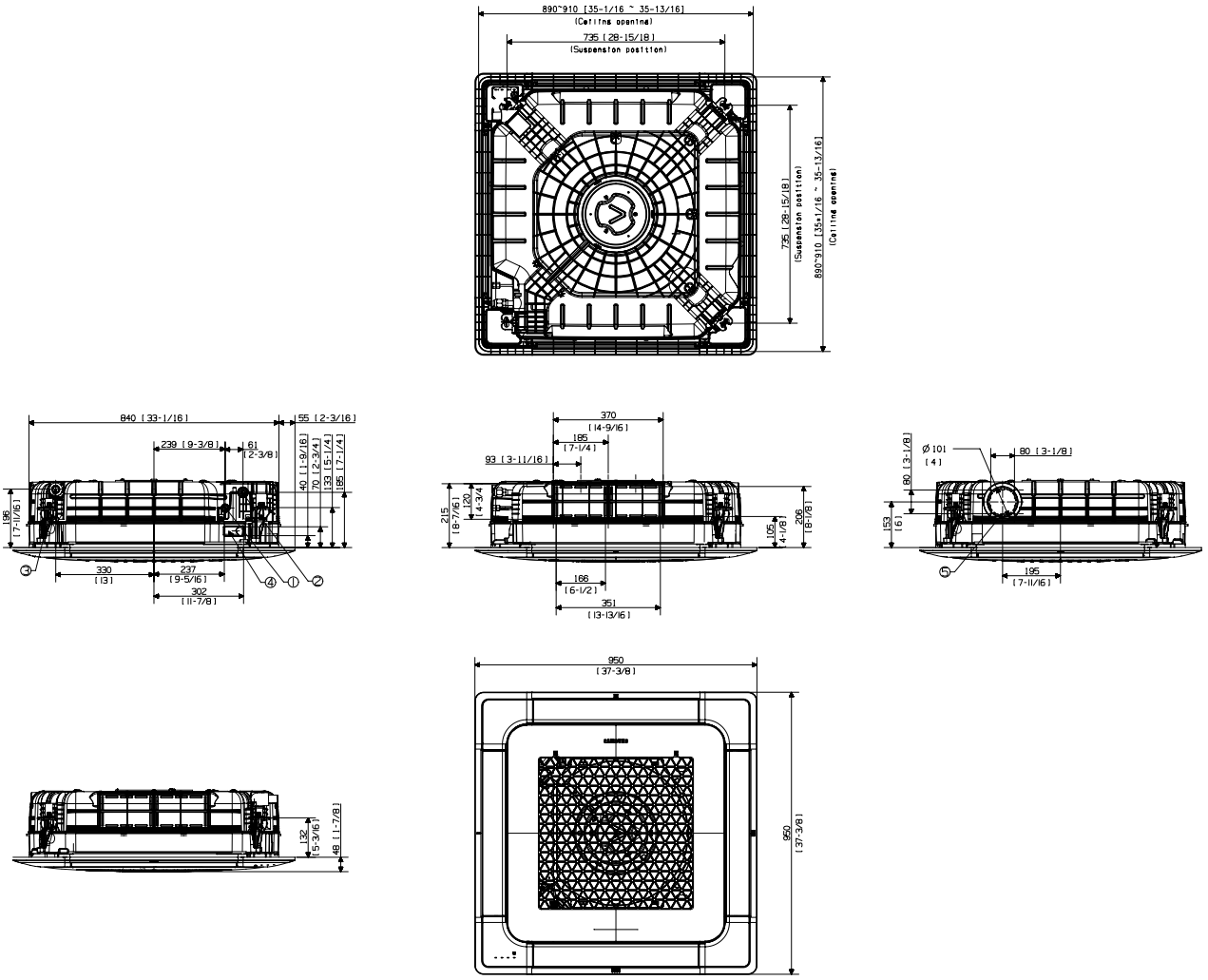
- The performance table shows the average value of each conditions.

4. Dimensional Drawing

Wind-Free 4Way Cassette

AC052/071NN4DEH/AF

Units : mm [inches]



No.	Name	Description	
		AC052NN4DEH/AF	AC071NN4DEH/AF
1	Liquid pipe connection	Φ6.35(1/4)	
2	Gas pipe connection	Φ12.7(1/2)	Φ15.88(5/8)
3	Drain pipe connection	VP-25(OD32, ID25)	
4	Power supply & Communication wiring conduit		
5	Fresh air intake knockout hole	Φ10[4] , Use M4 Screw	

NOTE

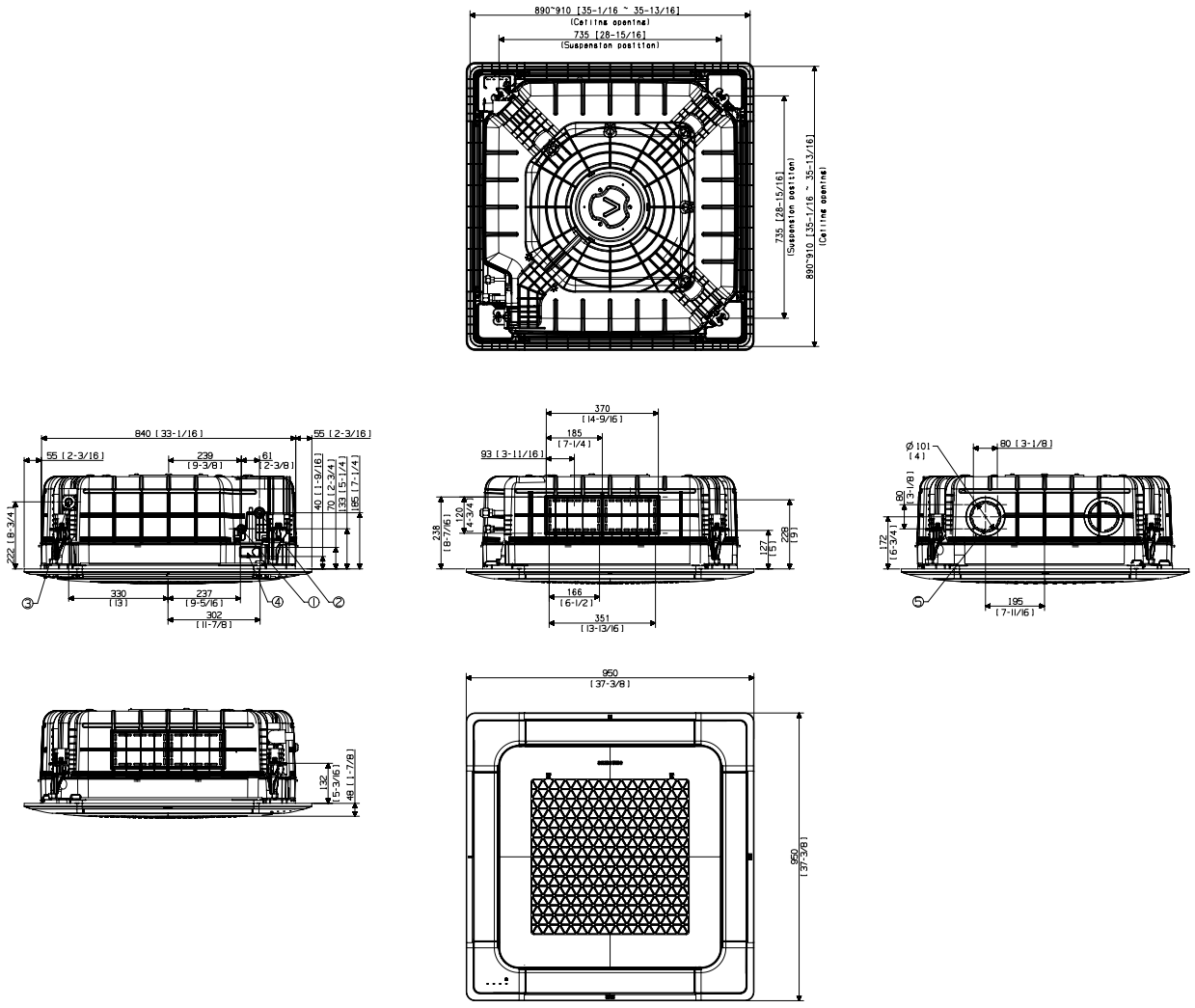
- As for suspension bolt, please use M8 ~ M10.
  (Procured at local site)

4. Dimensional Drawing

Wind-Free 4Way Cassette

AC090/100/120/140NN4DEH/AF

Units : mm [inches]



No.	Name	Description
1	Liquid pipe connection	Φ9.52(3/8)
2	Gas pipe connection	Φ15.88(5/8)
3	Drain pipe connection	VP-25(OD32, ID25)
4	Power supply & Communication wiring conduit	
5	Fresh air intake knockout hole	Φ10[4] , Use M4 Screw

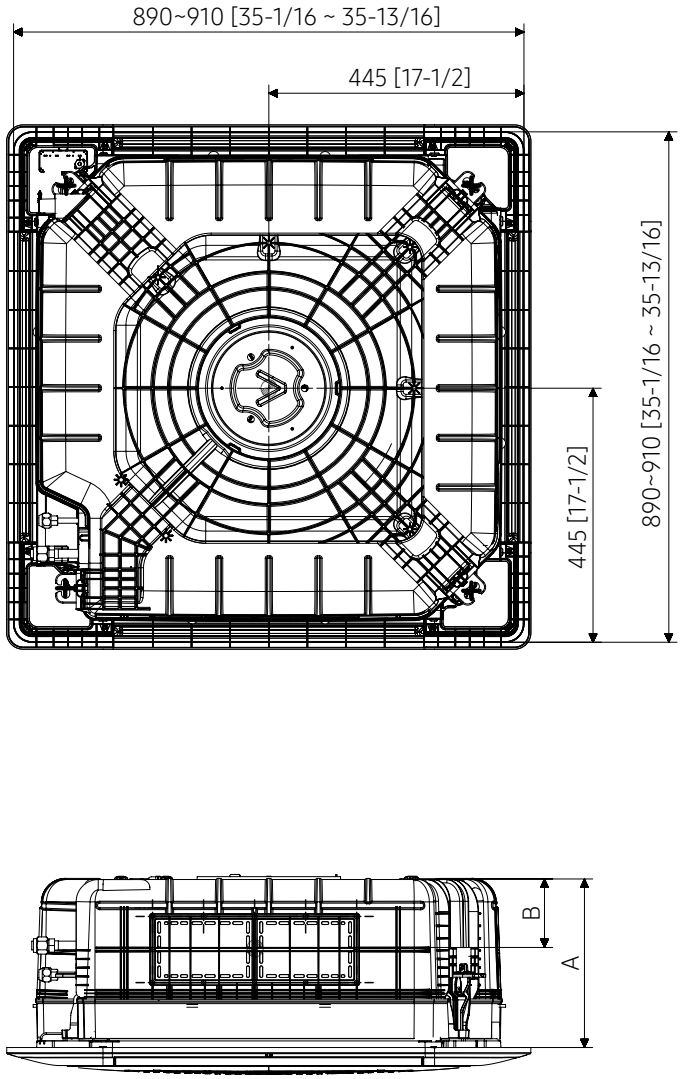
NOTE

- As for suspension bolt, please use M8 ~ M10.
  (Procured at local site)

5. Center of Gravity

Wind-Free 4Way Cassette

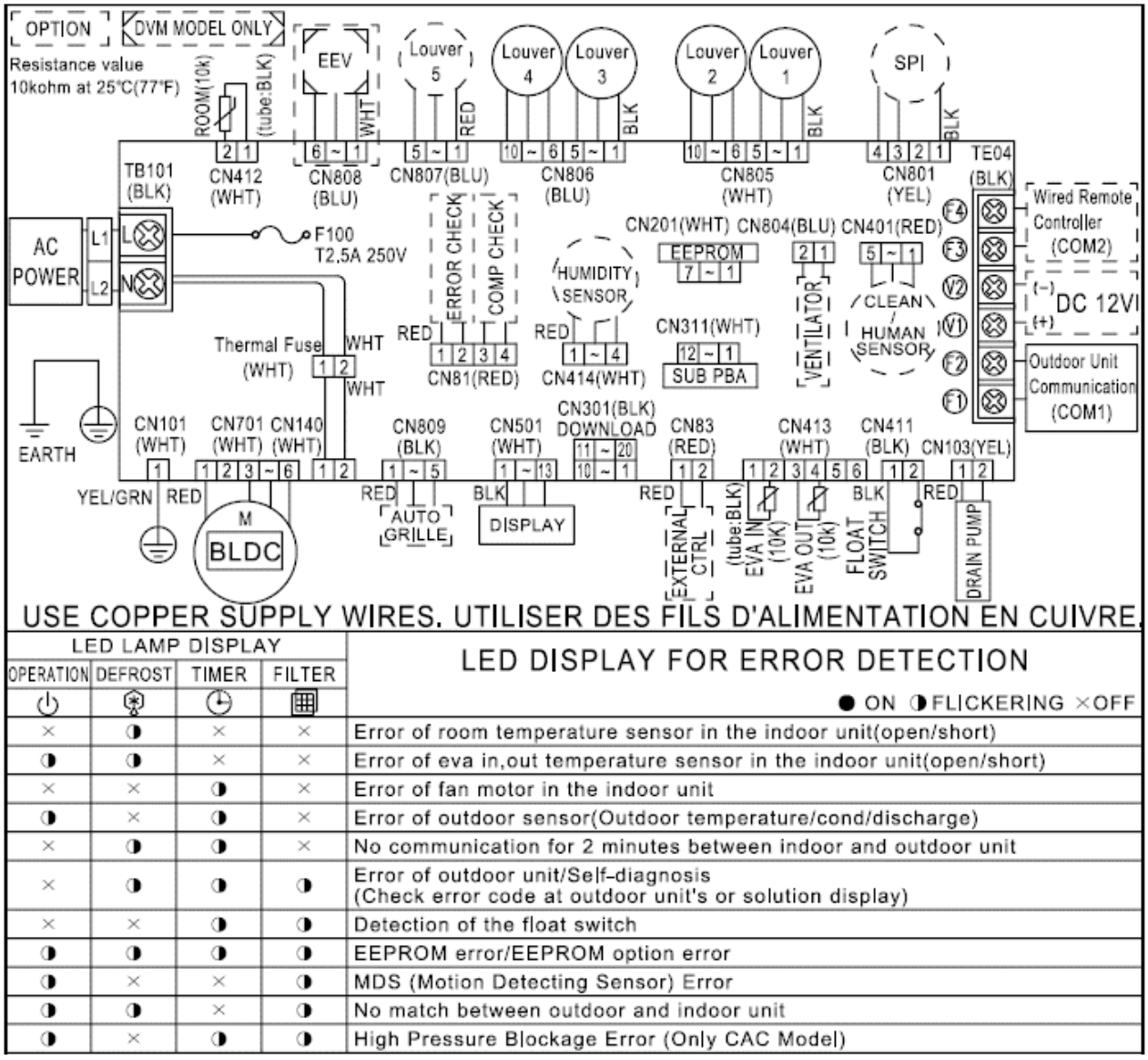
Units : mm [inches]



	A	B
~ 7.1kW	221 [8-11/16]	70 [2-3/4]
9kW ~ 14kW	305 [12]	130 [5-1/8]

6. Electrical Wiring Diagram

Wind-Free 4Way Cassette



USE COPPER SUPPLY WIRES. UTILISER DES FILS D'ALIMENTATION EN CUIVRE.

LED LAMP DISPLAY				LED DISPLAY FOR ERROR DETECTION
OPERATION	DEFROST	TIMER	FILTER	● ON ◑ FLICKERING × OFF
×	◑	×	×	Error of room temperature sensor in the indoor unit(open/short)
◑	◑	×	×	Error of eva in,out temperature sensor in the indoor unit(open/short)
×	×	◑	×	Error of fan motor in the indoor unit
◑	×	◑	×	Error of outdoor sensor(Outdoor temperature/cond/discharge)
×	◑	◑	×	No communication for 2 minutes between indoor and outdoor unit
×	◑	◑	◑	Error of outdoor unit/Self-diagnosis (Check error code at outdoor unit's or solution display)
×	×	◑	◑	Detection of the float switch
◑	◑	◑	◑	EEPROM error/EEPROM option error
◑	×	×	◑	MDS (Motion Detecting Sensor) Error
◑	◑	×	◑	No match between outdoor and indoor unit
◑	×	◑	◑	High Pressure Blockage Error (Only CAC Model)

SUB PBA	Printed Circuit Board(SUB)	SPI	S-Plasma ion	ROOM(10K)	Thermistor ROOM OUT(10K)
M-BLDC	BLDC Motor	EEV	Electronic Expansion Valve	EVA-IN(10K)	Thermistor EVA IN(10K)
		EXT_CONTROL	EXTERNAL_CONTROL	EVA-OUT(10K)	Thermistor EVA OUT(10K)

NOTE

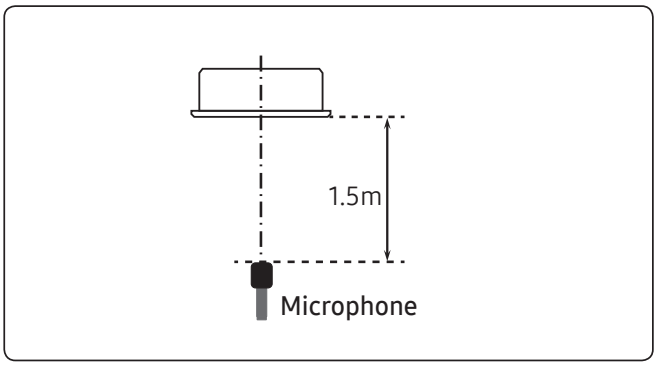
- This wiring diagram applies only to the Indoor unit.
- Symbols show as follow :
  blk: black, red: red, blu: blue, wht: white, yel: yellow, brn: brown, sky: skyblue: grn: green
- For connection wiring indoor-outdoor transmission F1-F2, indoor-wired remote controller transmission F3-F4.
- ⏚ Protective earth(screw), ⊏⊐⊏⊐ : connector, N : The wire quantity

7. Sound Data

Wind-Free 4Way Cassette

Sound Pressure level

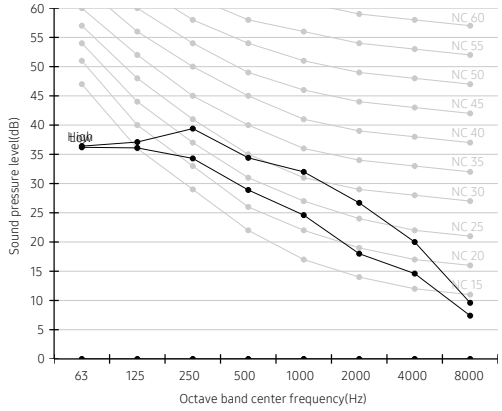
Unit: dB(A)



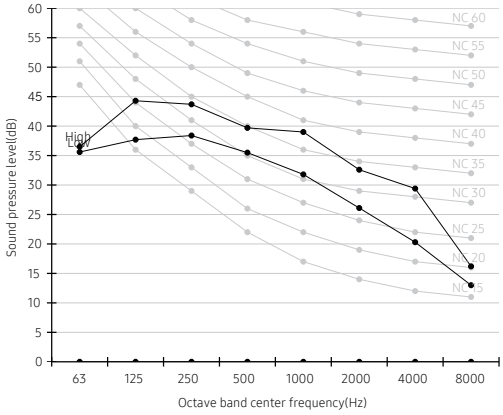
Model	High	LOW
AC052NN4DEH/AF	37	31
AC071NN4DEH/AF	43	37
AC090NN4DEH/AF	42	33
AC100NN4DEH/AF	43	33

- NC Curve

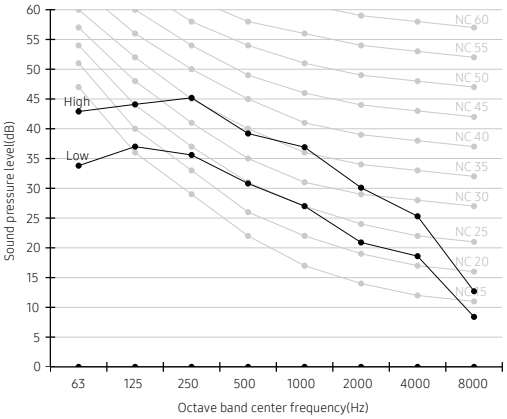
1) AC052NN4DEH/AF



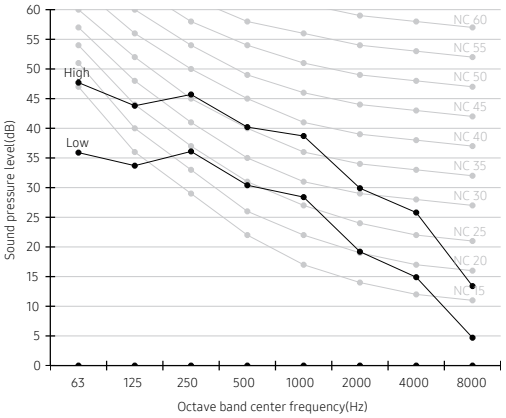
2) AC071NN4DEH/AF



3) AC090NN4DEH/AF



4) AC100NN4DEH/AF



NOTE

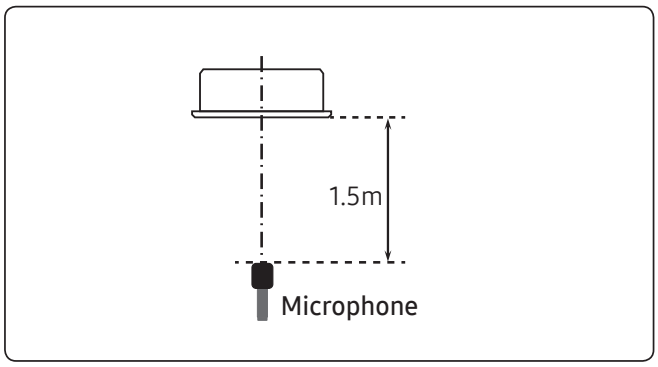
- Specifications may be subject to change without prior notice.
  - Sound pressure level is obtained in an anechoic room.
  - Sound pressure level is a relative value, depending on the distance and acoustic environment.
  - Sound pressure level may differ depending on operation condition.
  - dBA = A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

7. Sound Data

Wind-Free 4Way Cassette

Sound Pressure level

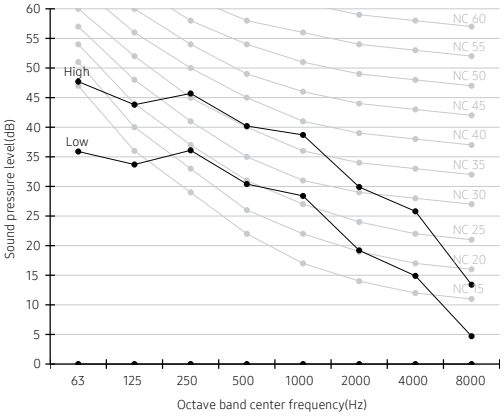
Unit: dB(A)



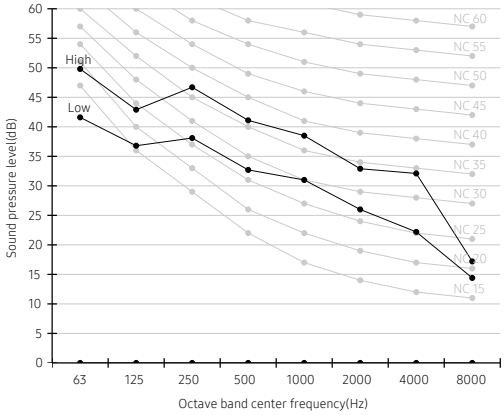
Model	High	LOW
AC100NN4DEH/AF	43	33
AC120NN4DEH/AF	44	36
AC140NN4DEH/AF	45	36

- NC Curve

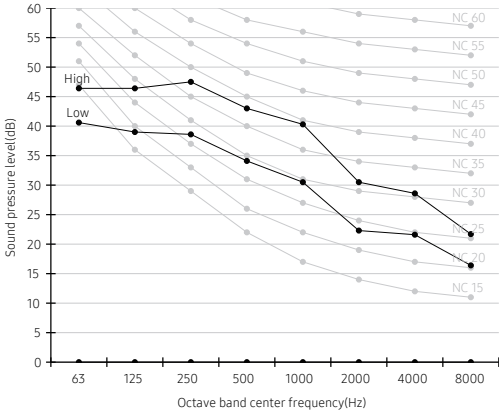
5) AC100NN4DEH/AF



6) AC120NN4DEH/AF



7) AC140NN4DEH/AF



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

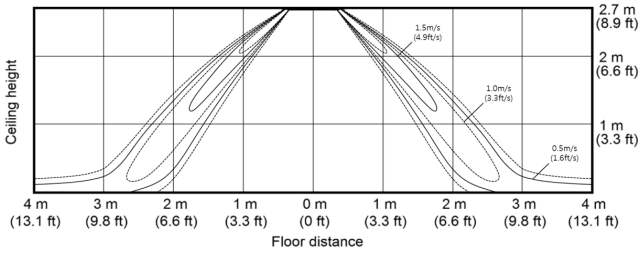
8. Temperature and air flow distribution

Wind-Free 4Way Cassette

AC052NN4DEH/AF

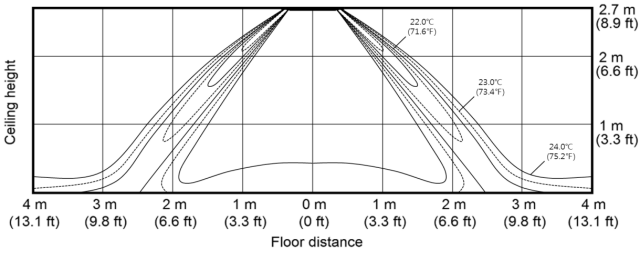
- Cooling Air Velocity distribution

  (Discharge angle : 45 degree)



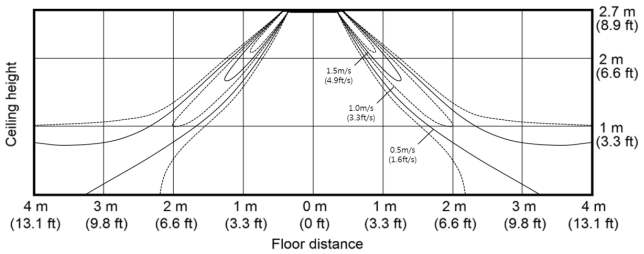
- Cooling temperature distribution

  (Discharge angle : 45 degree)



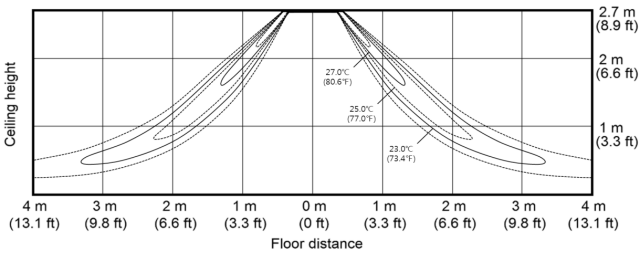
- Heating Air Velocity distribution

  (Discharge angle : 52 degree)



- Heating temperature distribution

  (Discharge angle : 52 degree)



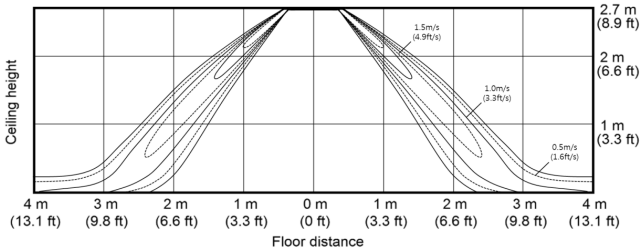
8. Temperature and air flow distribution

Wind-Free 4Way Cassette

AC071NN4DEH/AF

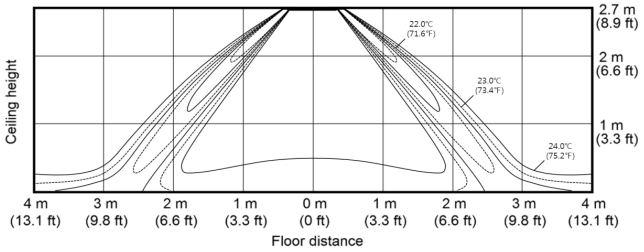
- Cooling Air Velocity distribution

  (Discharge angle : 45 degree)



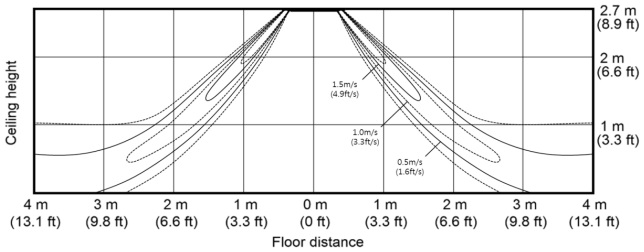
- Cooling temperature distribution

  (Discharge angle : 45 degree)



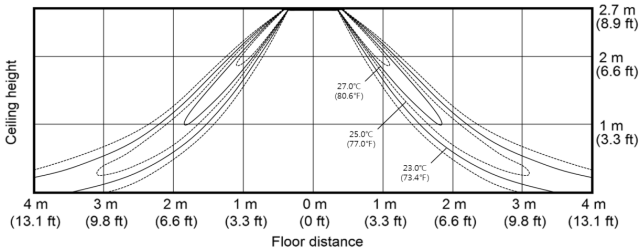
- Heating Air Velocity distribution

  (Discharge angle : 52 degree)



- Heating temperature distribution

  (Discharge angle : 52 degree)



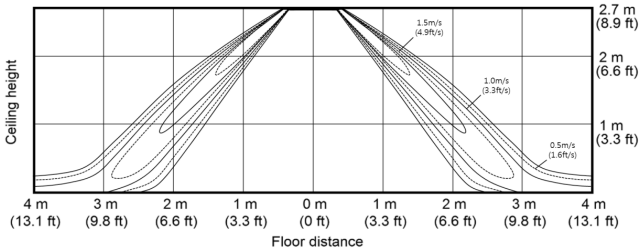
8. Temperature and air flow distribution

Wind-Free 4Way Cassette

AC090NN4DEH/AF

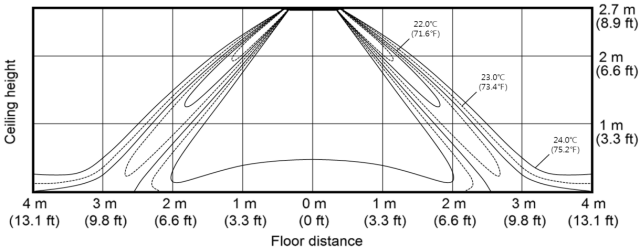
- Cooling Air Velocity distribution

  (Discharge angle : 45 degree)



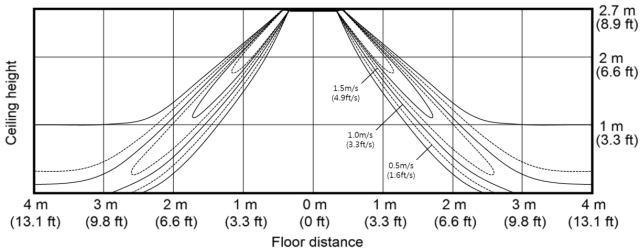
- Cooling temperature distribution

  (Discharge angle : 45 degree)



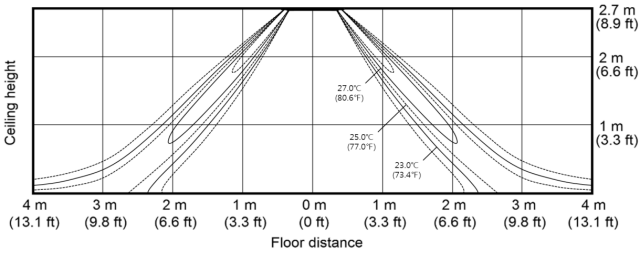
- Heating Air Velocity distribution

  (Discharge angle : 52 degree)



- Heating temperature distribution

  (Discharge angle : 52 degree)



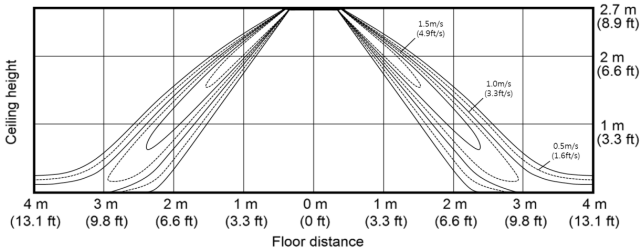
8. Temperature and air flow distribution

Wind-Free 4Way Cassette

AC100NN4DEH/AF

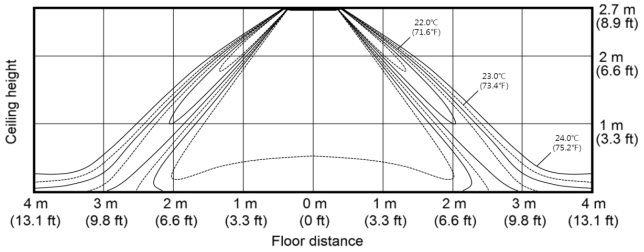
- Cooling Air Velocity distribution

  (Discharge angle : 45 degree)



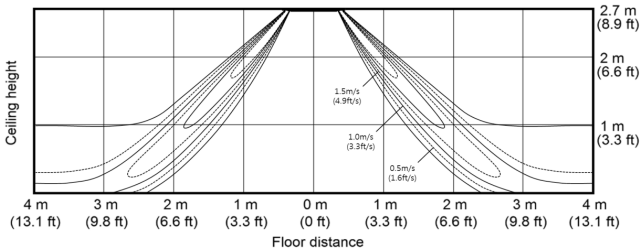
- Cooling temperature distribution

  (Discharge angle : 45 degree)



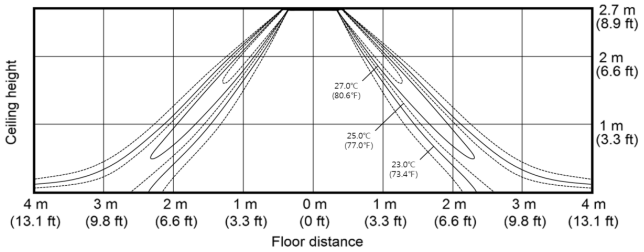
- Heating Air Velocity distribution

  (Discharge angle : 52 degree)



- Heating temperature distribution

  (Discharge angle : 52 degree)



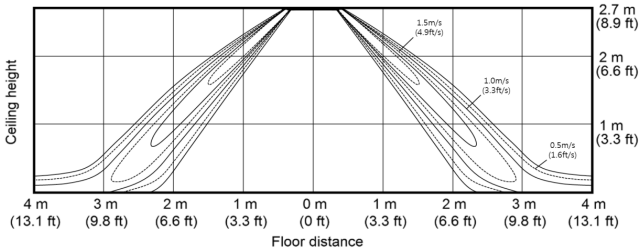
8. Temperature and air flow distribution

Wind-Free 4Way Cassette

AC120NN4DEH/AF

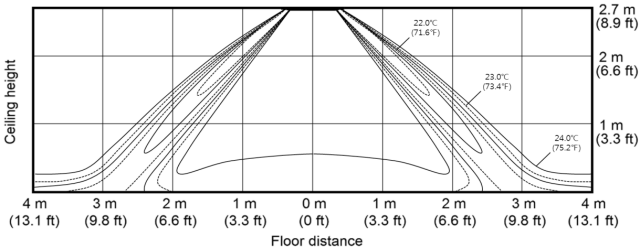
- Cooling Air Velocity distribution

  (Discharge angle : 45 degree)



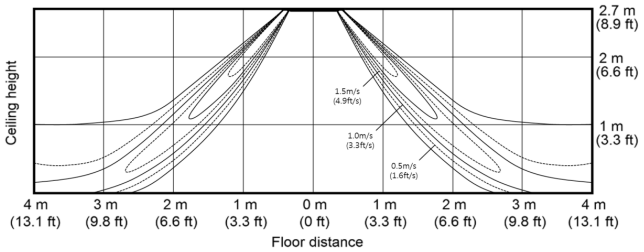
- Cooling temperature distribution

  (Discharge angle : 45 degree)



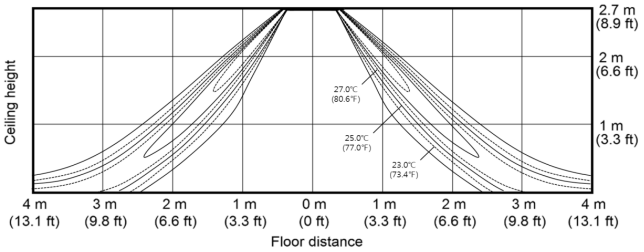
- Heating Air Velocity distribution

  (Discharge angle : 52 degree)



- Heating temperature distribution

  (Discharge angle : 52 degree)



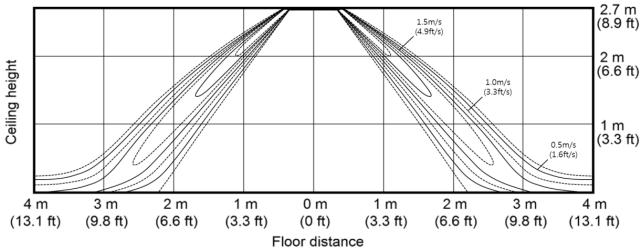
8. Temperature and air flow distribution

Wind-Free 4Way Cassette

AC140NN4DEH/AF

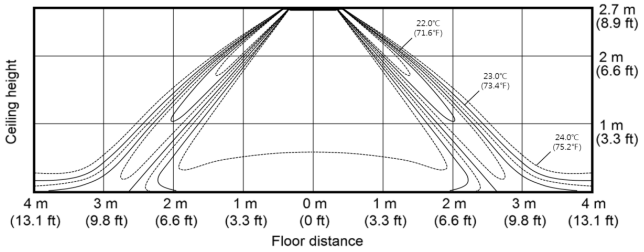
- Cooling Air Velocity distribution

  (Discharge angle : 45 degree)



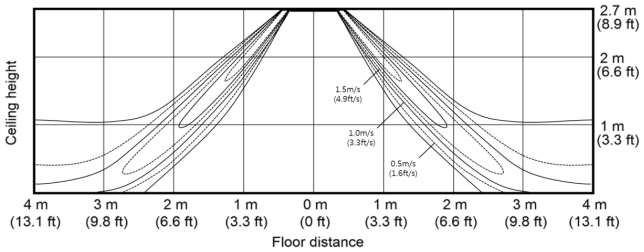
- Cooling temperature distribution

  (Discharge angle : 45 degree)



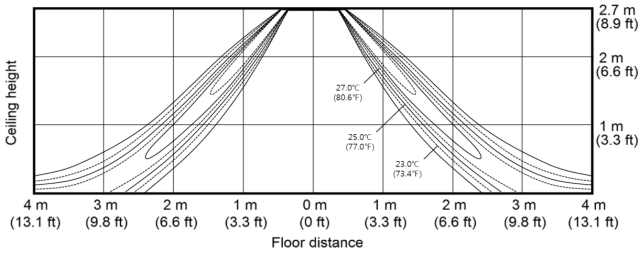
- Heating Air Velocity distribution

  (Discharge angle : 52 degree)



- Heating temperature distribution

  (Discharge angle : 52 degree)



Outdoor Units

1. Summary Table 56
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1. Summary Table

Outdoor Units

Performance Characteristics

Capacity/ kW	Model Code	Net Size (WxHxD mm)	Net Weight (kg)	Airflow (CMM)	Sound Pressure Level (dBA)	
					Cooling	Heating
9,000	AC026JXNDEH	720x548x265	29.5	37	46	47
12,000	AC035JXNDEH	720x548x265	29.5	37	47	48
16,800	AC052JXNDEH	720x548x265	36	40	46	47
19,500	AC060JXNDEH	880x638x310	45	41	49	51
17,000	AC052JX4DEH	720x548x265	36	40	47	48
24,500	AC071JX4DEH	880x638x310	45	41	49	51
30,000	AC090JX4DEH	880x967x320	67	60	54	56
35,000	AC100JX4DEH	880x967x320	67	60	55	57
42,000	AC120JX4DGH	932x1162x375	70	70	57	58
48,000	AC140JX4DGH	932x1162x375	70	70	57	59

NOTE

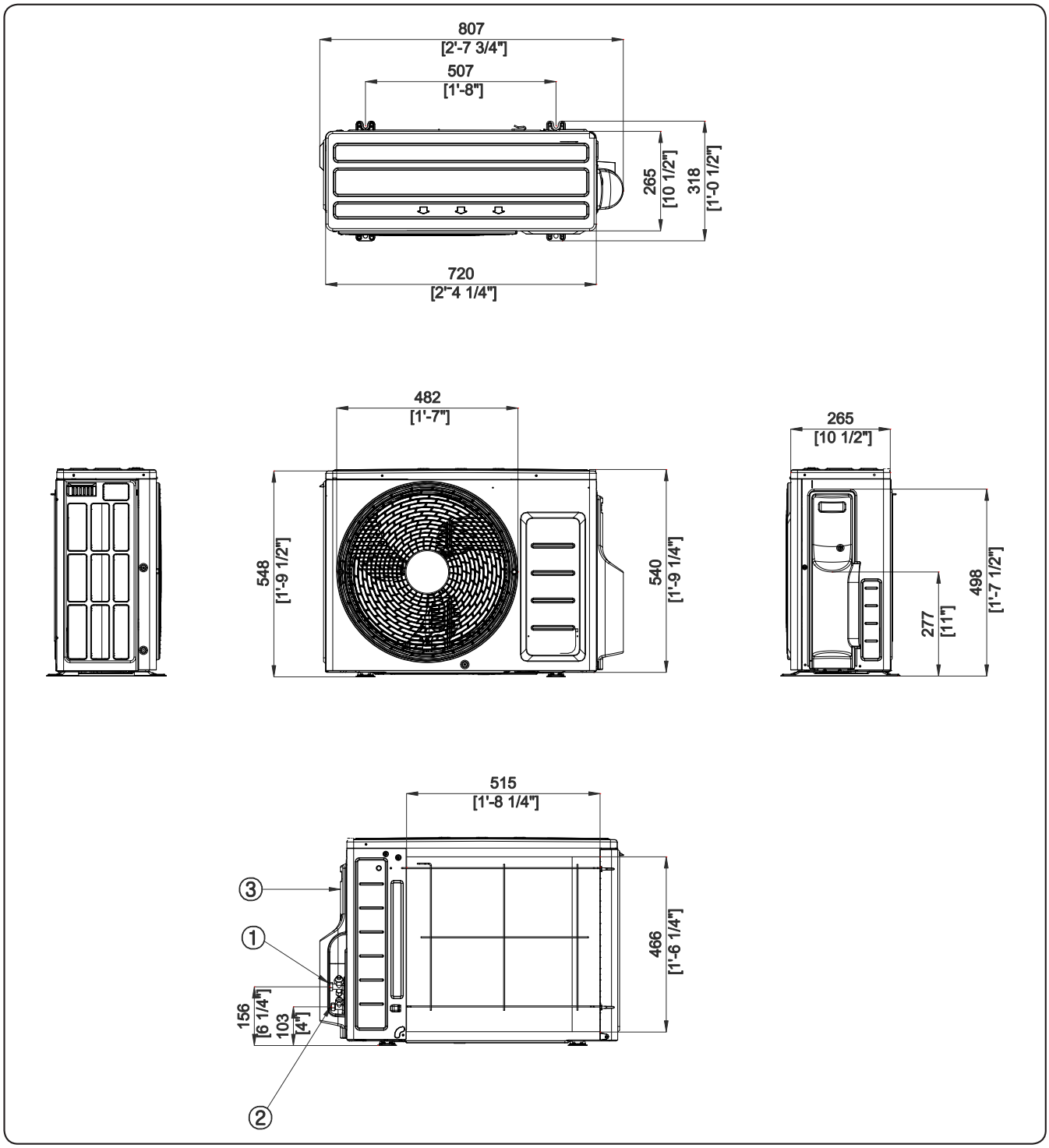
- Sound power level is based on cooling operation.

2. Dimensional Drawing

Outdoor Units

AC026/035JXNDEH

Units : mm [inches]



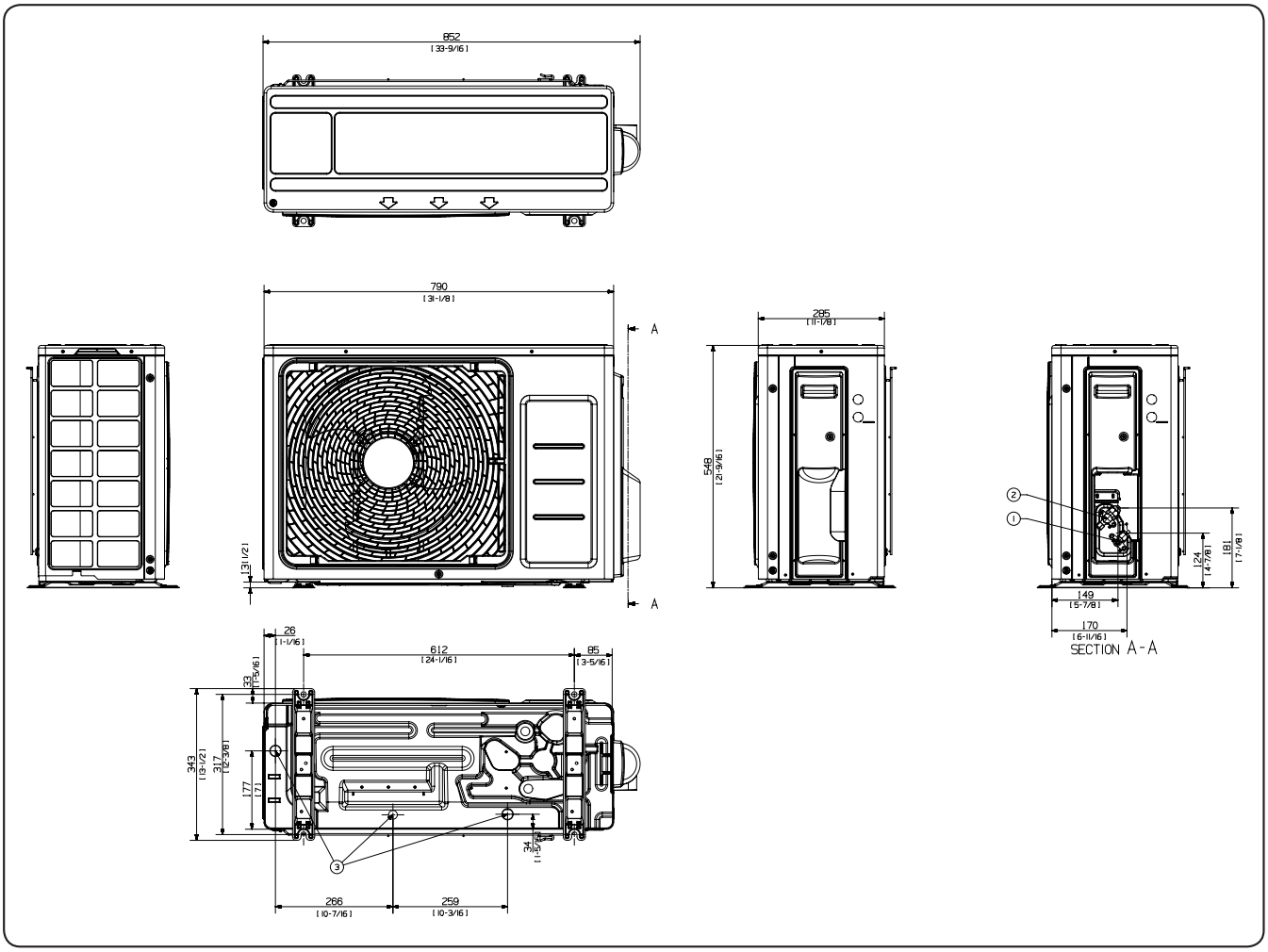
No.	Name	Description
1	Refrigerant liquid pipe	Φ6.35(1/4)
2	Refrigerant gas pipe	Φ9.52(3/8)
3	Drain Hole	

2. Dimensional Drawing

Outdoor Units

AC052JXNDEH, AC052JX4DEH

Units : mm [inches]



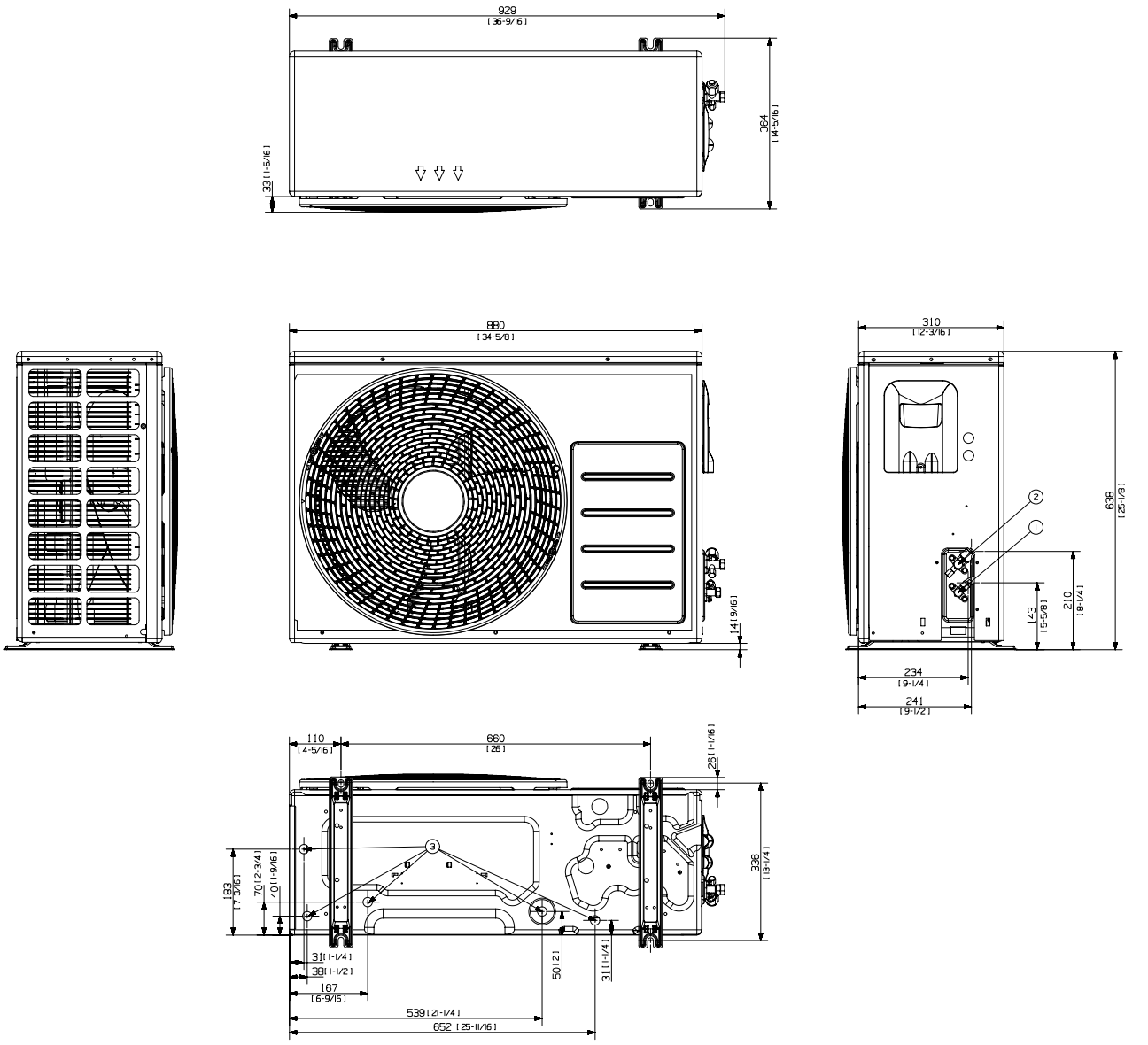
No.	Name	Description
1	Refrigerant liquid pipe	Φ6.35(1/4)
2	Refrigerant gas pipe	Φ9.52(3/8)
3	Drain Hole	

2. Dimensional Drawing

Outdoor Units

AC060JXNDEH, AC071JX4DEH

Units : mm [inches]



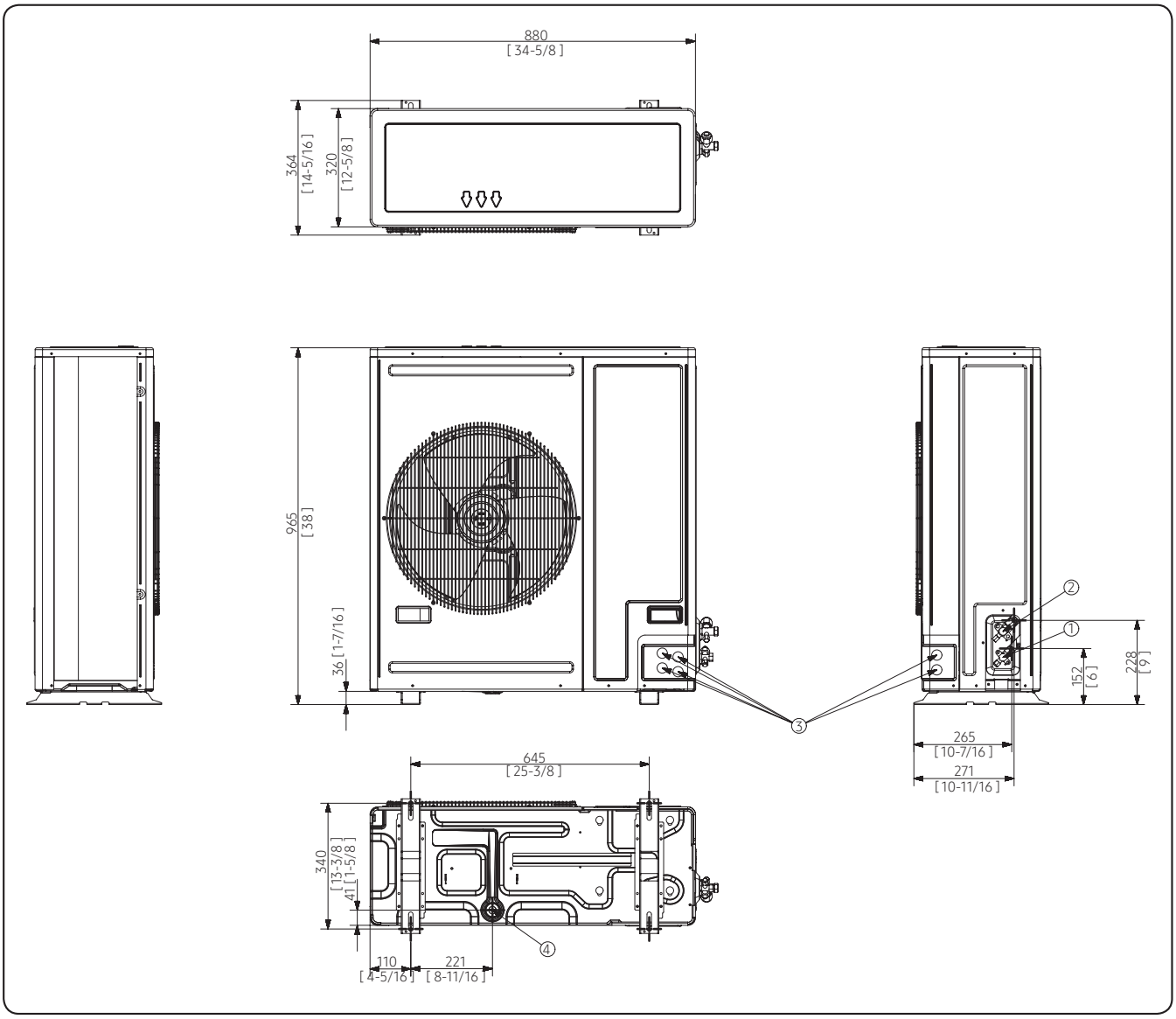
No.	Name	Description
1	Refrigerant liquid pipe	Φ6.35(1/4)
2	Refrigerant gas pipe	Φ12.7(1/2)
3	Drain Hole	

2. Dimensional Drawing

Outdoor Units

AC090JX4DEH, AC100JX4DEH

Units : mm [inches]



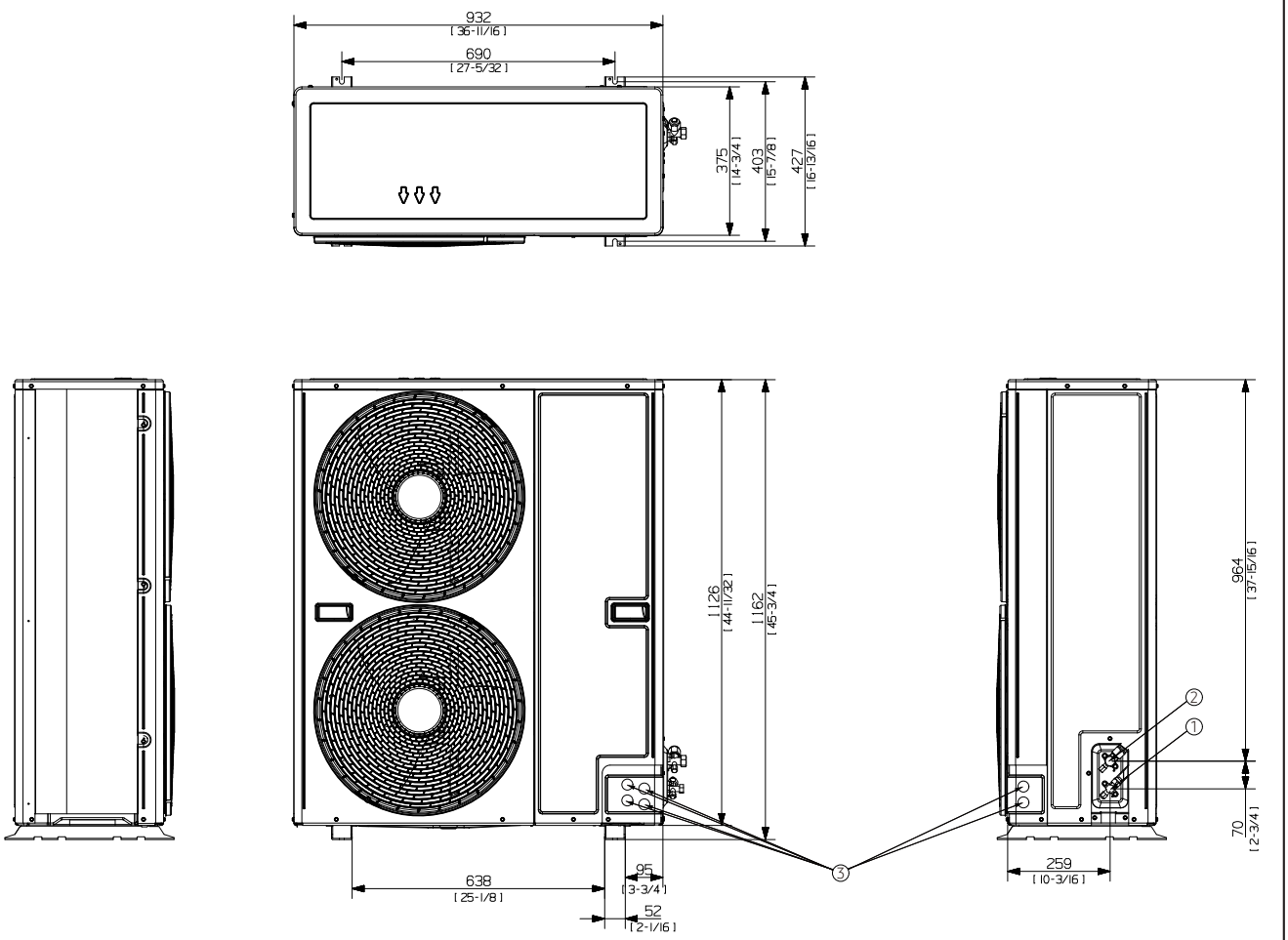
No.	Name	Description
1	Refrigerant liquid pipe	Φ9.52(3/8)
2	Refrigerant gas pipe	Φ15.88(5/8)
3	Power & Communication wiring Conduits	Φ22 x 6ea
4	Drain Hole	Connect with the provided drain plug

2. Dimensional Drawing

Outdoor Units

AC120JX4DGH, AC140JX4DGH

Units : mm [inches]



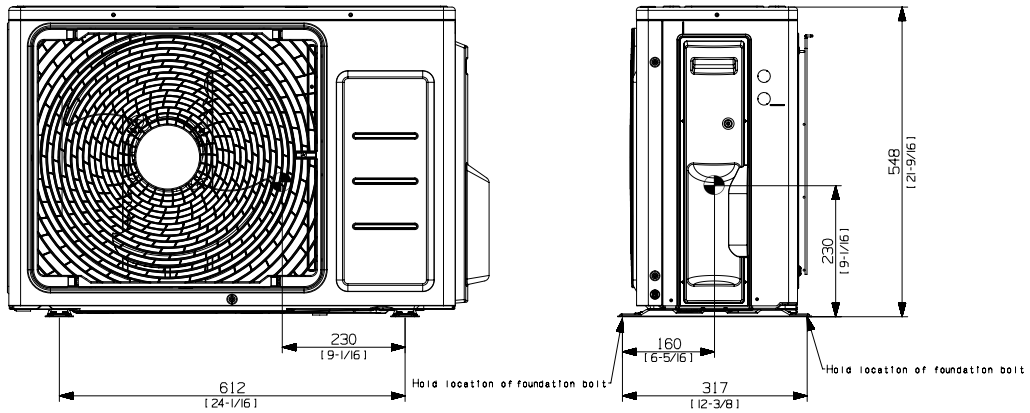
No.	Name	Description
1	Refrigerant liquid pipe	Φ9.52 (3/8)
2	Refrigerant gas pipe	Φ15.88(5/8)
3	Drain Hole	

3. Center of Gravity

Outdoor Units

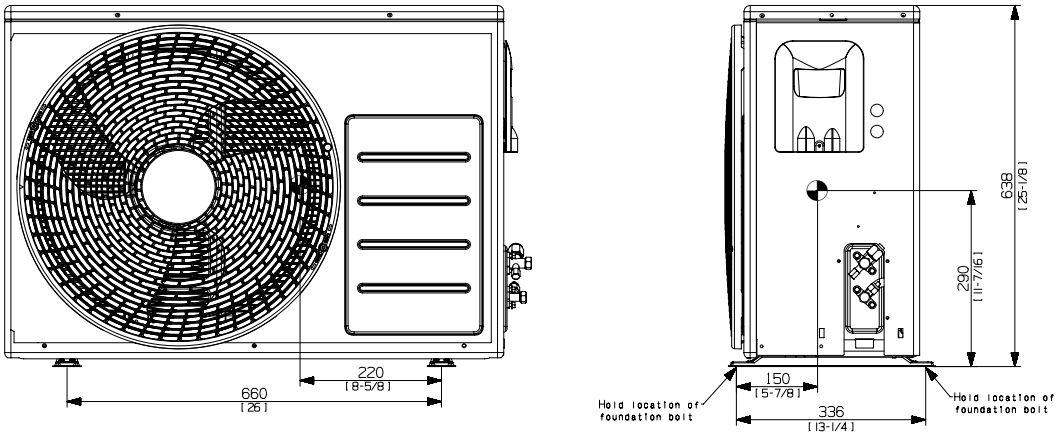
AC026/035/052JX*DEH/AF

Units : mm [inches]



AC060/071JX*DEH/AF

Units : mm [inches]

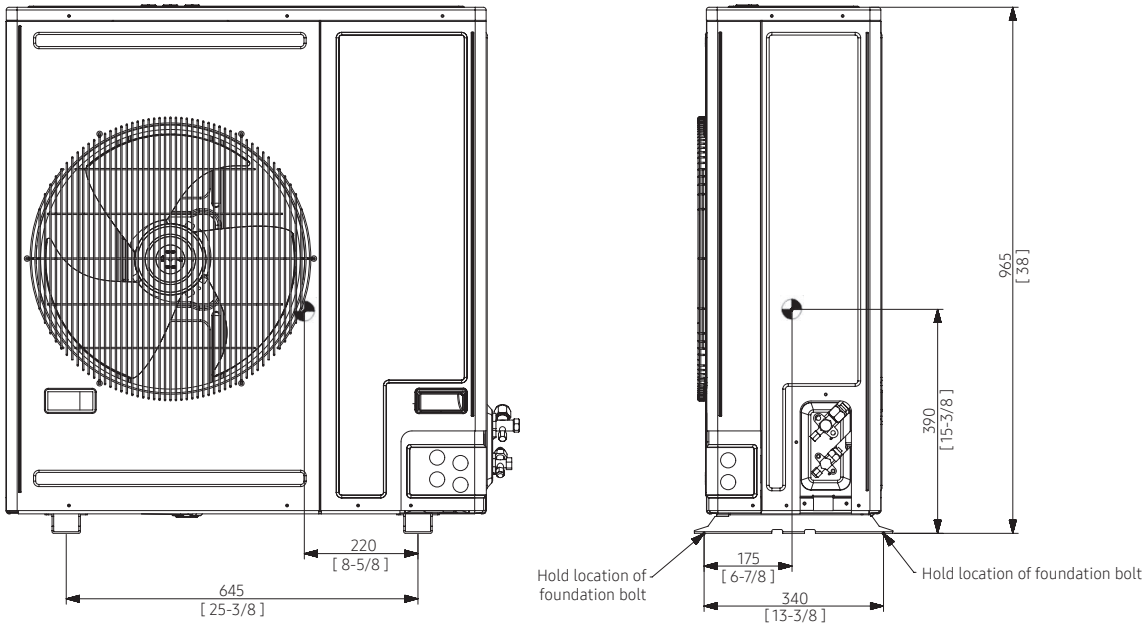


3. Center of Gravity

Outdoor Units

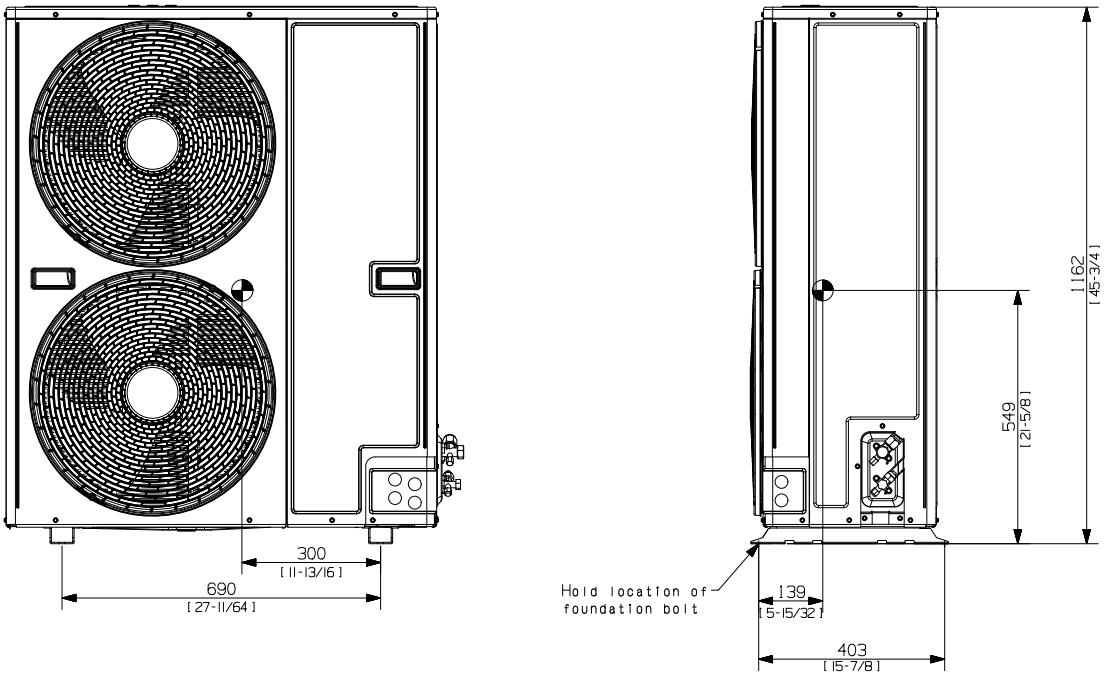
AC090/100JX4DEH/AF

Units : mm [inches]



AC120/140JX4DGH/AF

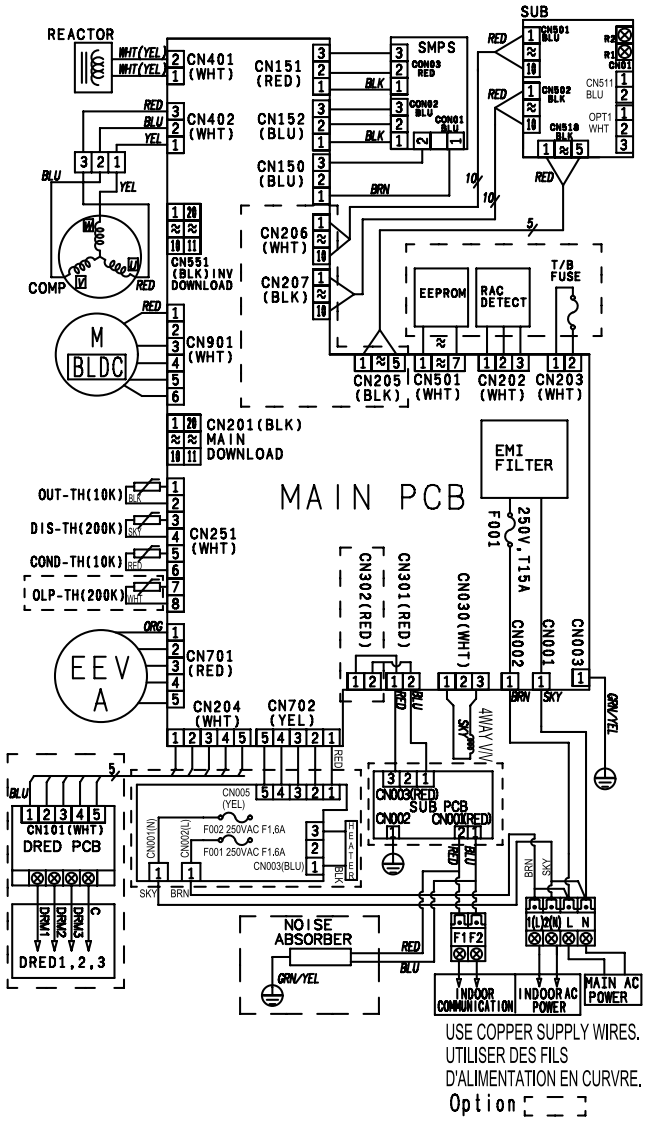
Units : mm [inches]



4. Electrical Wiring Diagram

Outdoor Units

AC026JXNDEH/AF, AC035JXNDEH/AF, AC052JXNDEH/AF, AC052JX4DEH/AF



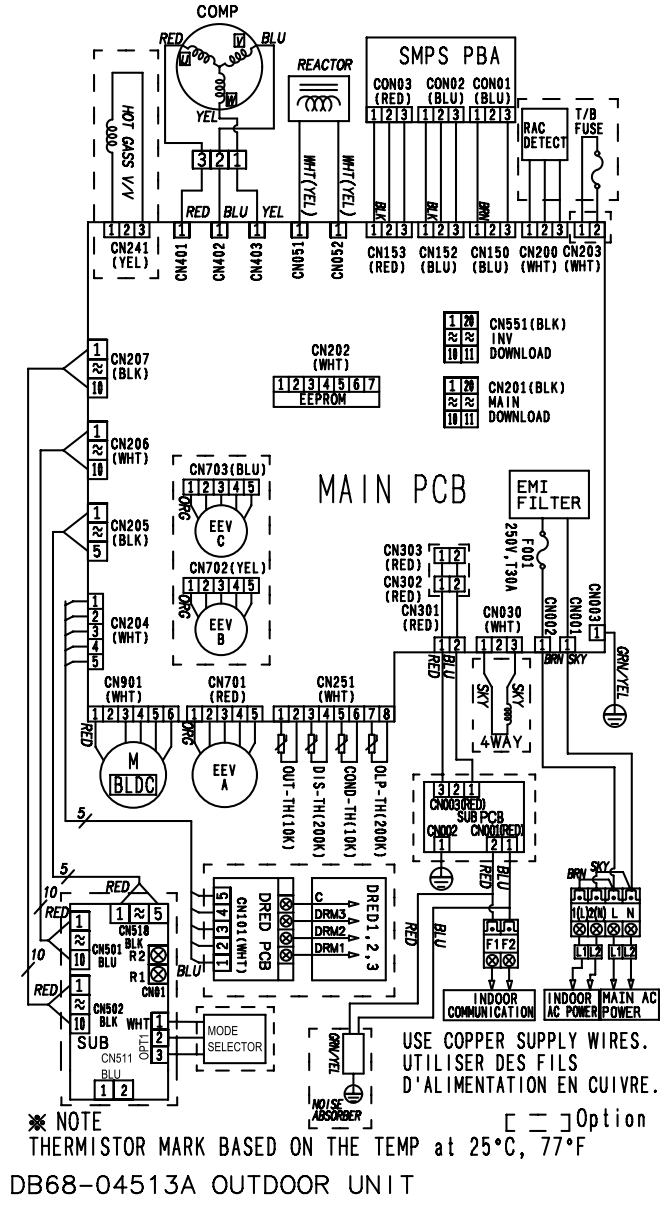
DB68-04512A ※NOTE - 25°C (77°F) at 10Kohm / 200Kohm

MAIN PCB	Printed circuit board(MAIN)	EEV	Electronic Expansion Valve	DIS-TH(200K)	Thermistor DISCHARGE
DRED PCB	Printed circuit board(DRED)	M-BLDC	BLDC Motor	OUT-TH(10K)	Thermistor AMBIENT
SMPS	Printed circuit board(SMPS)	OLP-TEMP	Thermistor OLP	COND-TH(10K)	Thermistor CONDENSOR
SUB	Printed circuit board(SUB)				

4. Electrical Wiring Diagram

Outdoor Units

AC060JXNDEH/AF, AC071JX4DEH/AF

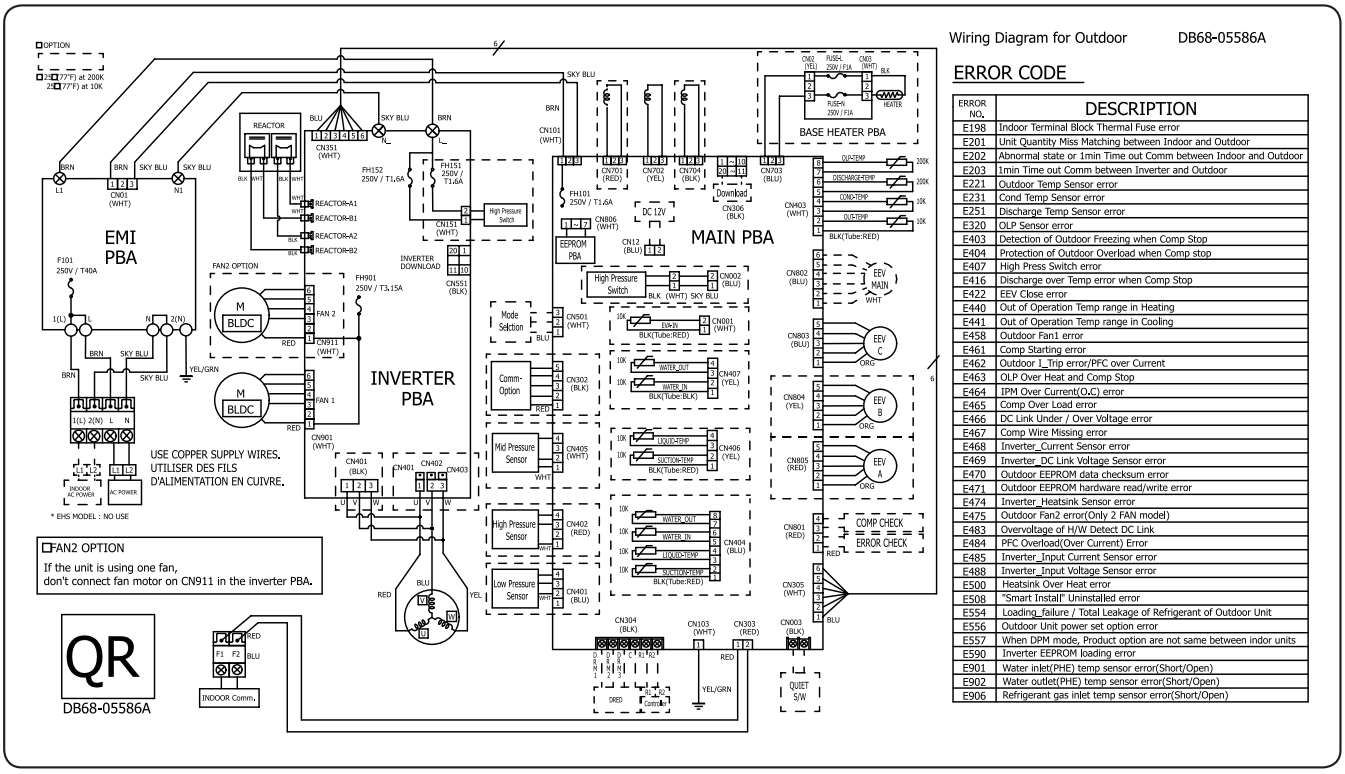


MAIN PCB	Printed circuit board(MAIN)	EEV	Electronic Expansion Valve	DIS-TH(200K)	Thermistor DISCHARGE
DRED PCB	Printed circuit board(DRED)	M-BLDC	BLDC Motor	OUT-TH(10K)	Thermistor AMBIENT
SMPS	Printed circuit board(SMPS)	HOT GASS V/V	HOT GASS Valve	COND-TH(10K)	Thermistor CONDENSOR
SUB	Printed circuit board(SUB)	OLP-TEMP	Thermistor OLP		

4. Electrical Wiring Diagram

Outdoor Units

AC090JX4DEH/AF, AC100JX4DEH/AF, AC100JX4DGH/AF, AC120JX4DGH/AF, AC140JX4DGH/AF



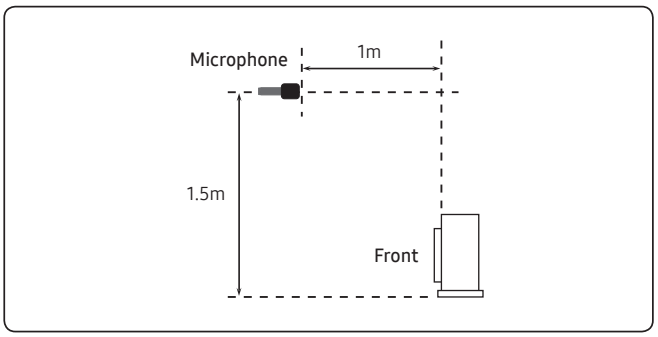
MAIN PCB	Printed circuit board(MAIN)	EEV	Electronic Expansion Valve	DIS-TEMP	Thermistor DISCHARGE
INVERTER PCB	Printed circuit board(INVERTER)	M-BLDC	BLDC Motor	OUT-TEMP	Thermistor AMBIENT
EMI PCB	Printed circuit board(EMI)	OLP-TEMP	Thermistor OLP	COND-TEMP	Thermistor CONDENSOR

5. Sound Data

Outdoor Units

Sound Pressure level

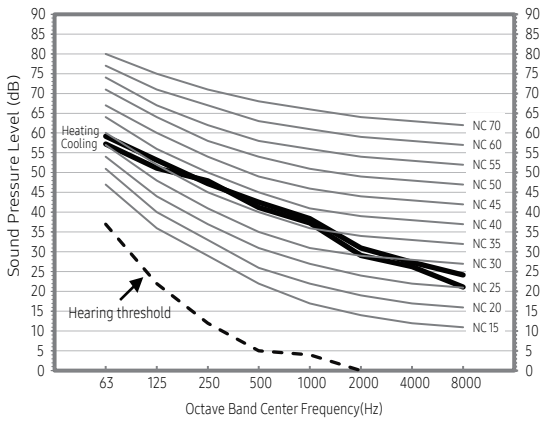
Unit: dB(A)



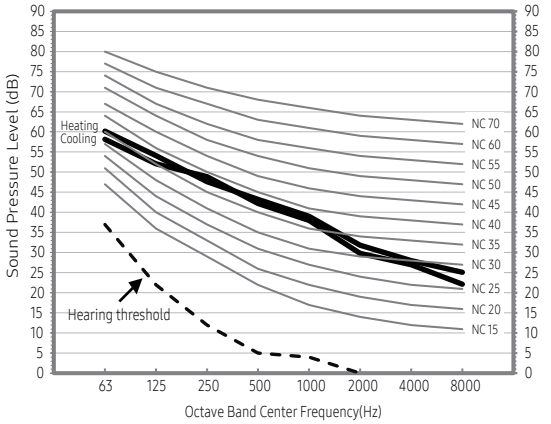
Model	Cooling	Heating
AC026JXNDEH/AF	46	47
AC035JXNDEH/AF	47	48
AC052JXNDEH/AF	47	48
AC060JXNDEH/AF	49	51

- NC Curve

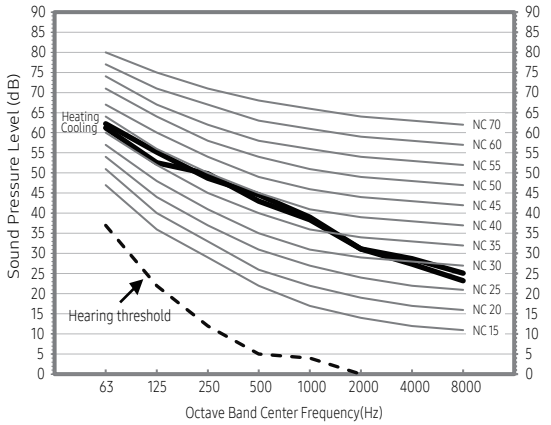
1) AC026JXNDEH/AF



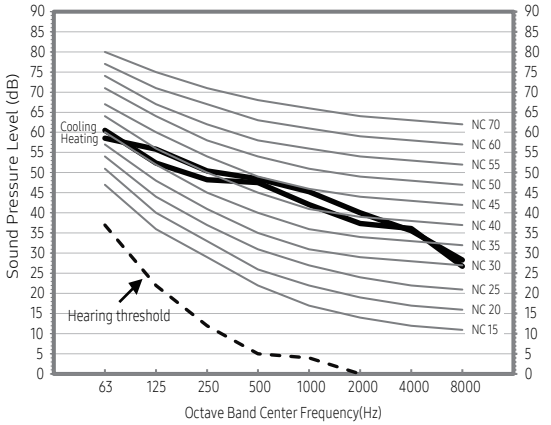
2) AC035JXNDEH/AF



3) AC052JXNDEH/AF



4) AC060JXNDEH/AF



NOTE

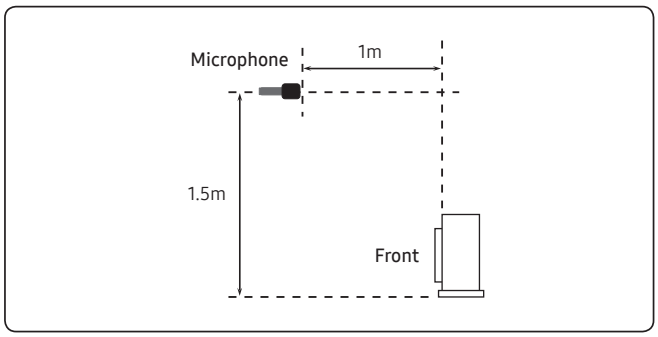
- Specifications may be subject to change without prior notice
  - These operation values were obtained in an anechoic room.
  - Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.
  - Operation sound level may differ depending on operation and ambient conditions.

5. Sound Data

Outdoor Units

Sound Pressure level

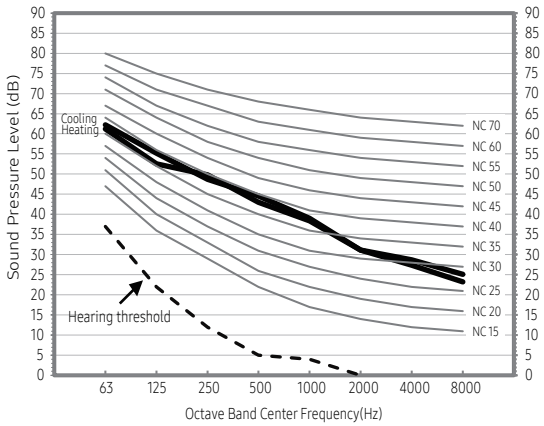
Unit: dB(A)



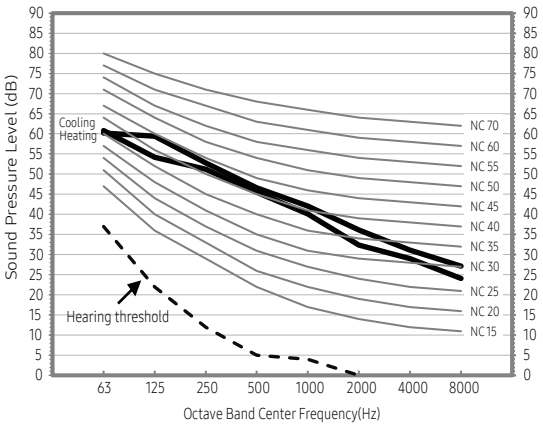
Model	Cooling	Heating
AC052JX4DEH/AF	47	48
AC071JX4DEH/AF	49	51
AC090JX4DEH/AF	54	56
AC100JX4DGH/AF	55	57

- NC Curve

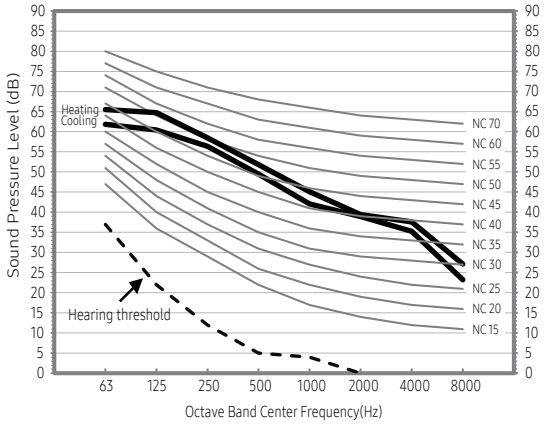
5) AC052JX4DEH/AF



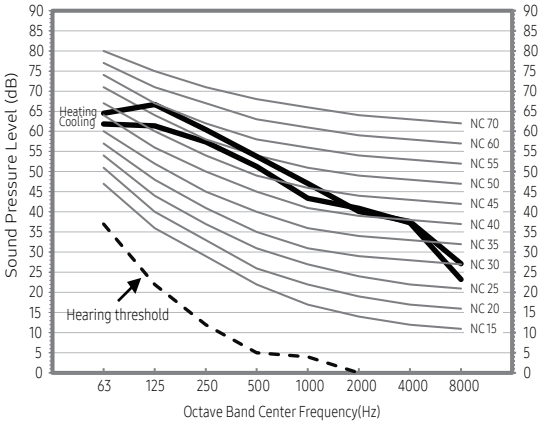
6) AC071JX4DEH/AF



7) AC090JX4DEH/AF



8) AC100JX4DGH/AF



NOTE

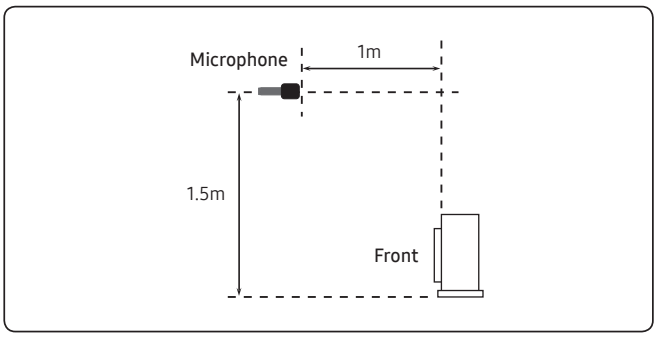
- Specifications may be subject to change without prior notice
  - These operation values were obtained in an anechoic room.
  - Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.
  - Operation sound level may differ depending on operation and ambient conditions.

5. Sound Data

Outdoor Units

Sound Pressure level

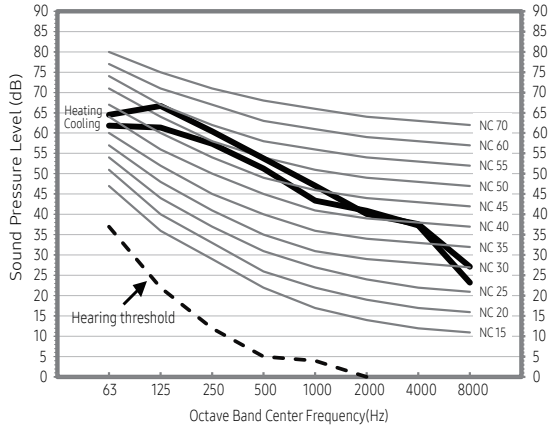
Unit: dB(A)



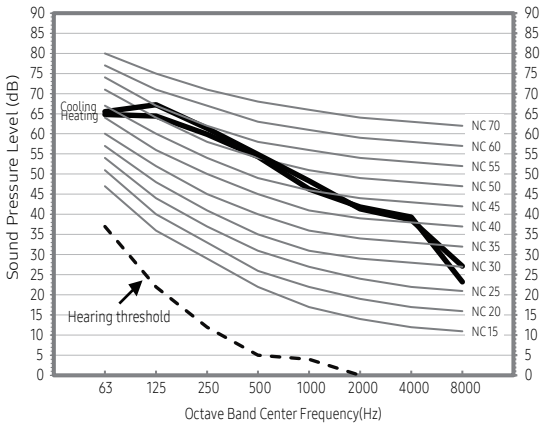
Model	Cooling	Heating
AC100JX4DEH/AF	55	57
AC120JX4DGH/AF	57	58
AC140JX4DGH/AF	57	59

- NC Curve

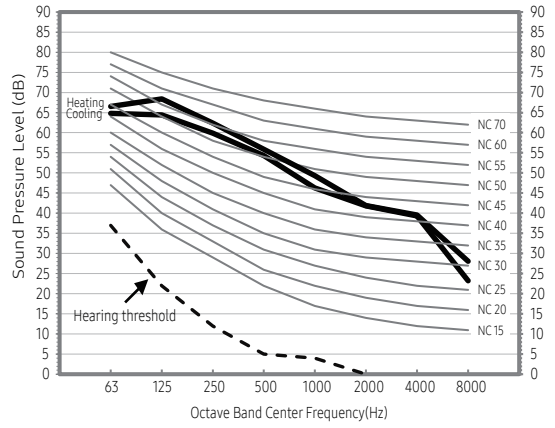
9) AC100JX4DEH/AF



10) AC120JX4DGH/AF



11) AC140JX4DGH/AF



NOTE

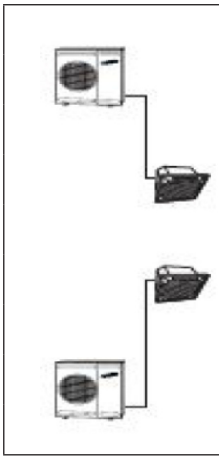
- Specifications may be subject to change without prior notice
  - These operation values were obtained in an anechoic room.
  - Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.
  - Operation sound level may differ depending on operation and ambient conditions.

6. Capacity Correction

Outdoor Units

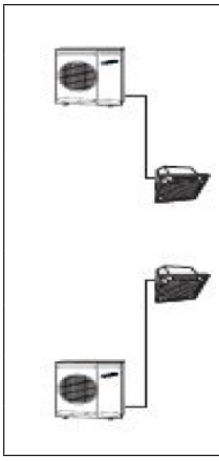
AC026/035JXNDEH/AF

Cooling



		Pipe Length (m)			
		5	10	15	20
Level Difference (m)	15	-	-	0.91	0.87
	10	-	0.96	0.91	0.87
	5	1.00	0.96	0.91	0.87
	0	1.00	0.96	0.91	0.87
	-5	1.00	0.94	0.90	0.86
	-10	-	0.91	0.88	0.85
	-15	-	-	0.87	0.84

Heating



		Pipe Length (m)			
		5	10	15	20
Level Difference (m)	15	-	-	0.91	0.87
	10	-	0.96	0.91	0.87
	5	1.00	0.96	0.91	0.87
	0	1.00	0.96	0.91	0.87
	-5	1.00	0.96	0.91	0.87
	-10	-	0.96	0.91	0.87
	-15	-	-	0.91	0.87

6. Capacity Correction

Outdoor Units

AC052JXNDEH/AF

Cooling



		Pipe Length (m)					
		5	10	15	20	25	30
Level Difference (m)	15	-	-	0.91	0.87	0.93	0.92
	10	-	0.96	0.91	0.87	0.93	0.92
	5	1.00	0.96	0.91	0.87	0.93	0.92
	0	1.00	0.96	0.91	0.87	0.93	0.92
	-5	1.00	0.96	0.91	0.87	0.93	0.92
	-10	-	0.96	0.91	0.87	0.93	0.92
	-15	-	-	0.91	0.87	0.93	0.92

Heating



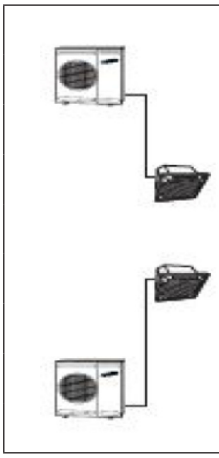
		Pipe Length (m)					
		5	10	15	20	25	30
Level Difference (m)	15	-	-	0.96	0.94	0.92	0.90
	10	-	0.98	0.96	0.94	0.92	0.90
	5	1.00	0.98	0.96	0.94	0.92	0.90
	0	1.00	0.98	0.96	0.94	0.92	0.90
	-5	1.00	0.98	0.96	0.94	0.92	0.90
	-10	-	0.98	0.96	0.94	0.92	0.90
	-15	-	-	0.96	0.94	0.92	0.90

6. Capacity Correction

Outdoor Units

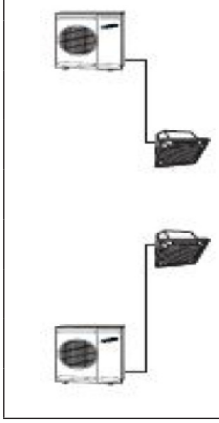
AC060JXNDEH/AF

Cooling



		Pipe Length (m)					
		5	10	15	20	25	30
Level Difference (m)	15	-	-	0.97	0.95	0.94	0.92
	10	-	0.98	0.97	0.95	0.94	0.92
	5	1.00	0.98	0.97	0.95	0.94	0.92
	0	1.00	0.98	0.97	0.95	0.94	0.92
	-5	1.00	0.98	0.96	0.95	0.93	0.92
	-10	-	0.97	0.96	0.94	0.93	0.92
	-15	-	-	0.95	0.94	0.92	0.91

Heating



		Pipe Length (m)					
		5	10	15	20	25	30
Level Difference (m)	15	-	-	0.96	0.94	0.92	0.90
	10	-	0.98	0.96	0.94	0.92	0.90
	5	1.00	0.98	0.96	0.94	0.92	0.90
	0	1.00	0.98	0.96	0.94	0.92	0.90
	-5	1.00	0.98	0.96	0.94	0.92	0.90
	-10	-	0.98	0.96	0.94	0.92	0.90
	-15	-	-	0.96	0.94	0.92	0.90

6. Capacity Correction

Outdoor Units

AC052JX4DEH/AF

Cooling



		Pipe Length (m)					
		5	10	15	20	25	30
Level Difference (m)	15	-	-	0.97	0.95	0.94	0.92
	10	-	0.98	0.97	0.95	0.94	0.92
	5	1.00	0.98	0.97	0.95	0.94	0.92
	0	1.00	0.98	0.97	0.95	0.94	0.92
	-5	1.00	0.98	0.96	0.95	0.93	0.92
	-10	-	0.97	0.96	0.94	0.93	0.92
	-15	-	-	0.95	0.94	0.92	0.91

Heating



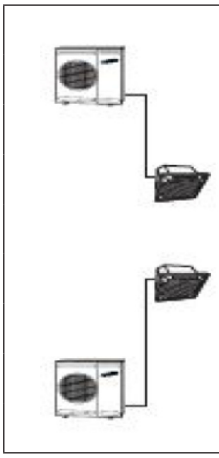
		Pipe Length (m)					
		5	10	15	20	25	30
Level Difference (m)	15	-	-	0.96	0.94	0.92	0.90
	10	-	0.98	0.96	0.94	0.92	0.90
	5	1.00	0.98	0.96	0.94	0.92	0.90
	0	1.00	0.98	0.96	0.94	0.92	0.90
	-5	1.00	0.98	0.96	0.94	0.92	0.90
	-10	-	0.98	0.96	0.94	0.92	0.90
	-15	-	-	0.96	0.94	0.92	0.90

6. Capacity Correction

Outdoor Units

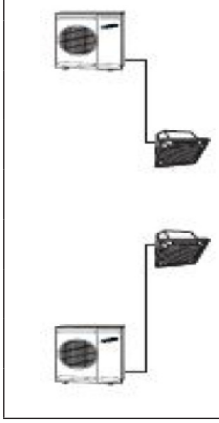
AC071JX4DEH/AF

Cooling



		Pipe Length (m)					
		5	10	15	20	25	30
Level Difference (m)	15	-	-	0.97	0.95	0.94	0.92
	10	-	0.98	0.97	0.95	0.94	0.92
	5	1.00	0.98	0.97	0.95	0.94	0.92
	0	1.00	0.98	0.97	0.95	0.94	0.92
	-5	1.00	0.98	0.96	0.95	0.93	0.92
	-10	-	0.97	0.96	0.94	0.93	0.92
	-15	-	-	0.95	0.94	0.92	0.91

Heating



		Pipe Length (m)					
		5	10	15	20	25	30
Level Difference (m)	15	-	-	0.96	0.94	0.92	0.90
	10	-	0.98	0.96	0.94	0.92	0.90
	5	1.00	0.98	0.96	0.94	0.92	0.90
	0	1.00	0.98	0.96	0.94	0.92	0.90
	-5	1.00	0.98	0.96	0.94	0.92	0.90
	-10	-	0.98	0.96	0.94	0.92	0.90
	-15	-	-	0.96	0.94	0.92	0.90

6. Capacity Correction

Outdoor Units

AC090JX4DEH/AF

Cooling



		Pipe Length (m)									
		5	10	15	20	25	30	35	40	45	50
Level Difference (m)	30	-	-	-	-	-	0.95	0.94	0.93	0.92	0.90
	25	-	-	-	-	0.96	0.95	0.94	0.93	0.92	0.90
	20	-	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.90
	15	-	-	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90
	10	-	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90
	5	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90
	0	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90
	-5	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.92	0.91	0.89
	-10	-	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90	0.88
	-15	-	-	0.97	0.96	0.95	0.94	0.93	0.91	0.89	0.87
	-20	-	-	-	0.96	0.95	0.93	0.92	0.91	0.88	0.85
	-25	-	-	-	-	0.94	0.93	0.92	0.90	0.87	0.84
	-30	-	-	-	-	-	0.93	0.91	0.89	0.87	0.83

Heating



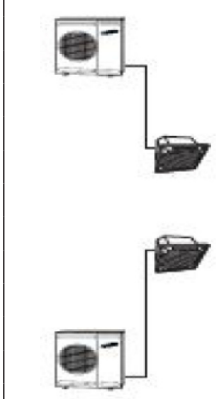
		Pipe Length (m)									
		5	10	15	20	25	30	35	40	45	50
Level Difference (m)	30	-	-	-	-	-	0.97	0.96	0.95	0.94	0.93
	25	-	-	-	-	0.97	0.97	0.96	0.95	0.94	0.93
	20	-	-	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	15	-	-	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	10	-	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	5	1.00	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	0	1.00	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	-5	1.00	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	-10	-	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	-15	-	-	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	-20	-	-	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	-25	-	-	-	-	0.97	0.97	0.96	0.95	0.94	0.93
	-30	-	-	-	-	-	0.97	0.96	0.95	0.94	0.93

6. Capacity Correction

Outdoor Units

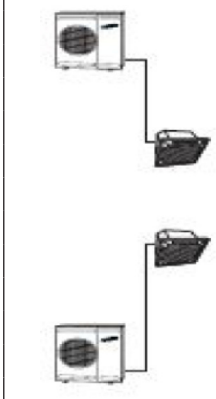
AC100JX4DEH/AF

Cooling



		Pipe Length (m)									
		5	10	15	20	25	30	35	40	45	50
Level Difference (m)	30	-	-	-	-	-	0.96	0.95	0.94	0.93	0.91
	25	-	-	-	-	0.96	0.96	0.95	0.94	0.93	0.91
	20	-	-	-	0.97	0.96	0.96	0.95	0.94	0.93	0.91
	15	-	-	0.98	0.97	0.96	0.96	0.95	0.94	0.93	0.91
	10	-	0.99	0.98	0.97	0.96	0.96	0.95	0.94	0.93	0.91
	5	1.00	0.99	0.98	0.97	0.96	0.96	0.95	0.94	0.93	0.91
	0	1.00	0.99	0.98	0.97	0.96	0.96	0.95	0.94	0.93	0.91
	-5	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90
	-10	-	0.98	0.98	0.97	0.96	0.95	0.94	0.92	0.91	0.89
	-15	-	-	0.97	0.96	0.95	0.94	0.93	0.92	0.90	0.88
	-20	-	-	-	0.96	0.95	0.94	0.93	0.91	0.89	0.86
	-25	-	-	-	-	0.95	0.93	0.92	0.91	0.88	0.85
	-30	-	-	-	-	-	0.93	0.92	0.90	0.88	0.83

Heating



		Pipe Length (m)									
		5	10	15	20	25	30	35	40	45	50
Level Difference (m)	30	-	-	-	-	-	0.97	0.96	0.95	0.94	0.93
	25	-	-	-	-	0.97	0.97	0.96	0.95	0.94	0.93
	20	-	-	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	15	-	-	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	10	-	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	5	1.00	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	0	1.00	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	-5	1.00	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	-10	-	0.99	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	-15	-	-	0.99	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	-20	-	-	-	0.98	0.97	0.97	0.96	0.95	0.94	0.93
	-25	-	-	-	-	0.97	0.97	0.96	0.95	0.94	0.93
	-30	-	-	-	-	-	0.97	0.96	0.95	0.94	0.93

6. Capacity Correction

Outdoor Units

AC120JX4DGH/AF

Cooling



		Pipe Length (m)									
		5	10	15	20	25	30	35	40	45	50
Level Difference (m)	30	-	-	-	-	-	0.90	0.87	0.85	0.83	0.81
	25	-	-	-	-	0.92	0.90	0.87	0.85	0.83	0.81
	20	-	-	-	0.94	0.92	0.90	0.87	0.85	0.83	0.81
	15	-	-	0.96	0.94	0.92	0.90	0.87	0.85	0.83	0.81
	10	-	0.98	0.96	0.94	0.92	0.90	0.87	0.85	0.83	0.81
	5	1.00	0.98	0.96	0.94	0.92	0.90	0.87	0.85	0.83	0.81
	0	1.00	0.98	0.96	0.94	0.92	0.90	0.87	0.85	0.83	0.81
	-5	1.00	0.97	0.96	0.94	0.92	0.90	0.87	0.85	0.83	0.81
	-10	-	0.96	0.95	0.94	0.92	0.89	0.86	0.85	0.83	0.81
	-15	-	-	0.95	0.93	0.92	0.89	0.86	0.84	0.82	0.80
	-20	-	-	-	0.92	0.91	0.89	0.86	0.84	0.82	0.80
	-25	-	-	-	-	0.90	0.88	0.85	0.83	0.81	0.79
	-30	-	-	-	-	-	0.87	0.84	0.83	0.81	0.79

Heating



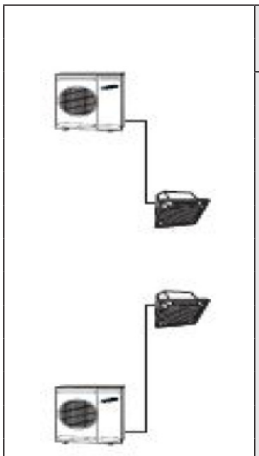
		Pipe Length (m)									
		5	10	15	20	25	30	35	40	45	50
Level Difference (m)	30	-	-	-	-	-	0.91	0.89	0.87	0.85	0.83
	25	-	-	-	-	0.92	0.91	0.89	0.87	0.85	0.83
	20	-	-	-	0.94	0.92	0.91	0.89	0.87	0.85	0.83
	15	-	-	0.96	0.94	0.92	0.91	0.89	0.87	0.85	0.83
	10	-	0.98	0.96	0.94	0.92	0.91	0.89	0.87	0.85	0.83
	5	1.00	0.98	0.96	0.94	0.92	0.91	0.89	0.87	0.85	0.83
	0	1.00	0.98	0.96	0.94	0.92	0.91	0.89	0.87	0.85	0.83
	-5	1.00	0.98	0.96	0.94	0.92	0.91	0.89	0.87	0.85	0.83
	-10	-	0.98	0.96	0.94	0.92	0.91	0.89	0.87	0.85	0.83
	-15	-	-	0.96	0.94	0.92	0.91	0.89	0.87	0.85	0.83
	-20	-	-	-	0.94	0.92	0.91	0.89	0.87	0.85	0.83
	-25	-	-	-	-	0.92	0.91	0.89	0.87	0.85	0.83
	-30	-	-	-	-	-	0.91	0.89	0.87	0.85	0.83

6. Capacity Correction

Outdoor Units

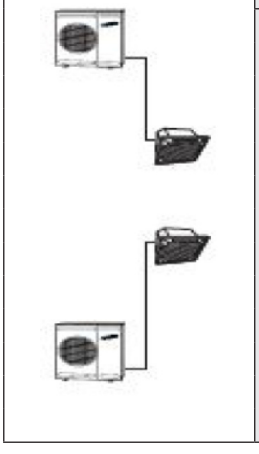
AC140JX4DGH/AF

Cooling



		Pipe Length (m)									
		5	10	15	20	25	30	35	40	45	50
Level Difference (m)	30	-	-	-	-	-	0.87	0.84	0.82	0.79	0.77
	25	-	-	-	-	0.90	0.87	0.84	0.82	0.79	0.77
	20	-	-	-	0.92	0.90	0.87	0.84	0.82	0.79	0.77
	15	-	-	0.95	0.92	0.90	0.87	0.84	0.82	0.79	0.77
	10	-	0.97	0.95	0.92	0.90	0.87	0.84	0.82	0.79	0.77
	5	1.00	0.97	0.95	0.92	0.90	0.87	0.84	0.82	0.79	0.77
	0	1.00	0.97	0.95	0.92	0.90	0.87	0.84	0.82	0.79	0.77
	-5	1.00	0.97	0.95	0.92	0.90	0.87	0.84	0.82	0.79	0.77
	-10	-	0.96	0.94	0.92	0.90	0.87	0.84	0.82	0.79	0.77
	-15	-	-	0.93	0.91	0.89	0.86	0.83	0.82	0.79	0.77
	-20	-	-	-	0.90	0.89	0.86	0.83	0.81	0.78	0.76
	-25	-	-	-	-	0.89	0.86	0.83	0.81	0.78	0.76
	-30	-	-	-	-	-	0.85	0.82	0.80	0.78	0.76

Heating



		Pipe Length (m)									
		5	10	15	20	25	30	35	40	45	50
Level Difference (m)	30	-	-	-	-	-	0.90	0.88	0.86	0.84	0.82
	25	-	-	-	-	0.92	0.90	0.88	0.86	0.84	0.82
	20	-	-	-	0.94	0.92	0.90	0.88	0.86	0.84	0.82
	15	-	-	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82
	10	-	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82
	5	1.00	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82
	0	1.00	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82
	-5	1.00	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82
	-10	-	0.98	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82
	-15	-	-	0.96	0.94	0.92	0.90	0.88	0.86	0.84	0.82
	-20	-	-	-	0.94	0.92	0.90	0.88	0.86	0.84	0.82
	-25	-	-	-	-	0.92	0.90	0.88	0.86	0.84	0.82
	-30	-	-	-	-	-	0.90	0.88	0.86	0.84	0.82

7. Operation Range

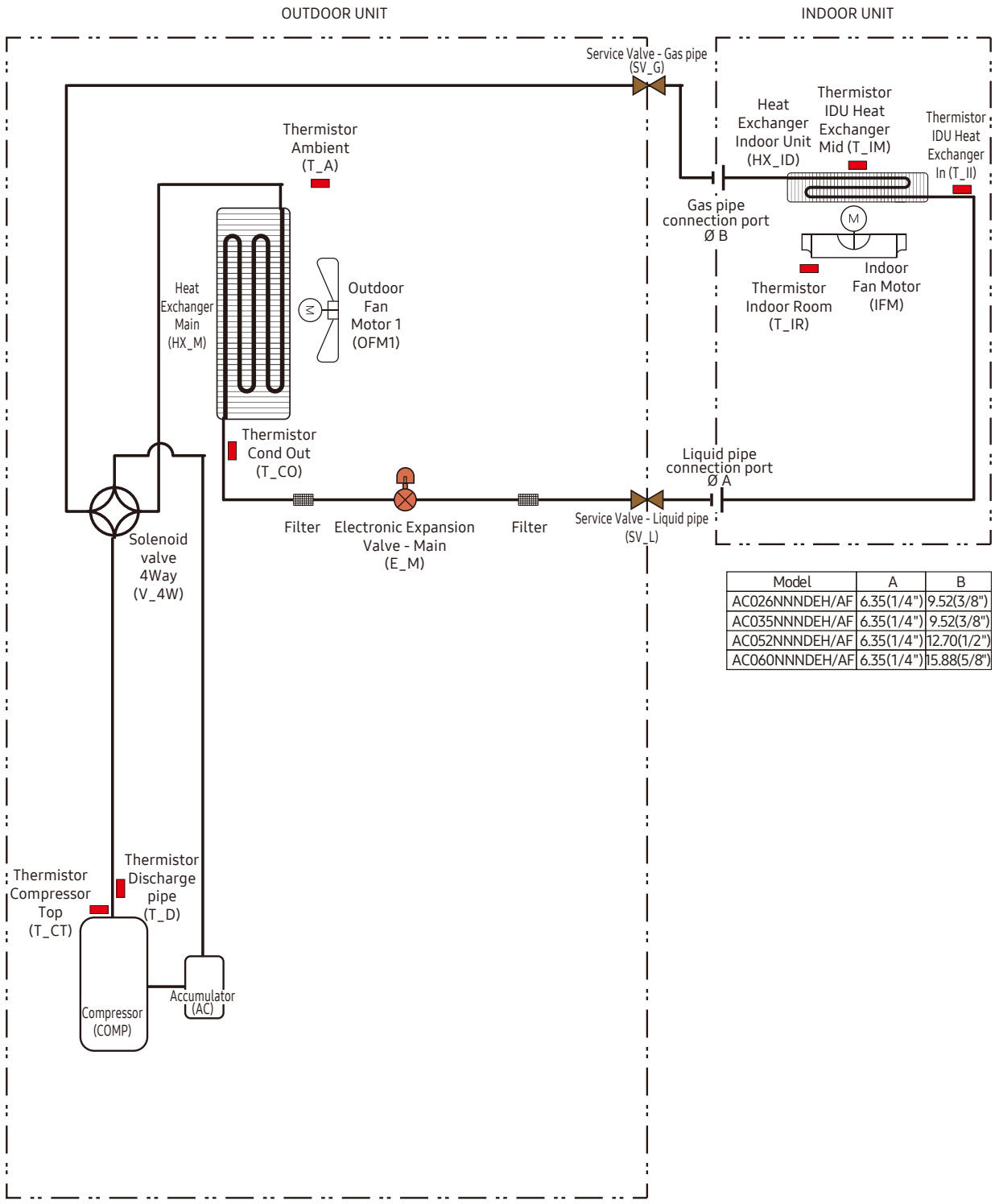
Outdoor Units

Mode	Outdoor Unit	Indoor Unit	Indoor Unit
	Temperature(DB)	Temperature(DB)	Humidity(RH)
Cooling	-5 ~ 48°C	18°C ~ 32°C	80% or less
Heating	-15 ~ 24°C	30°C or less	-
Drying	-5 ~ 48°C	18°C ~ 32°C	80% or less

8. Piping Diagram

Outdoor Units

AC026JXNDEH/AF, AC035JXNDEH/AF, AC052JXNDEH/AF, AC060JXNDEH/AF

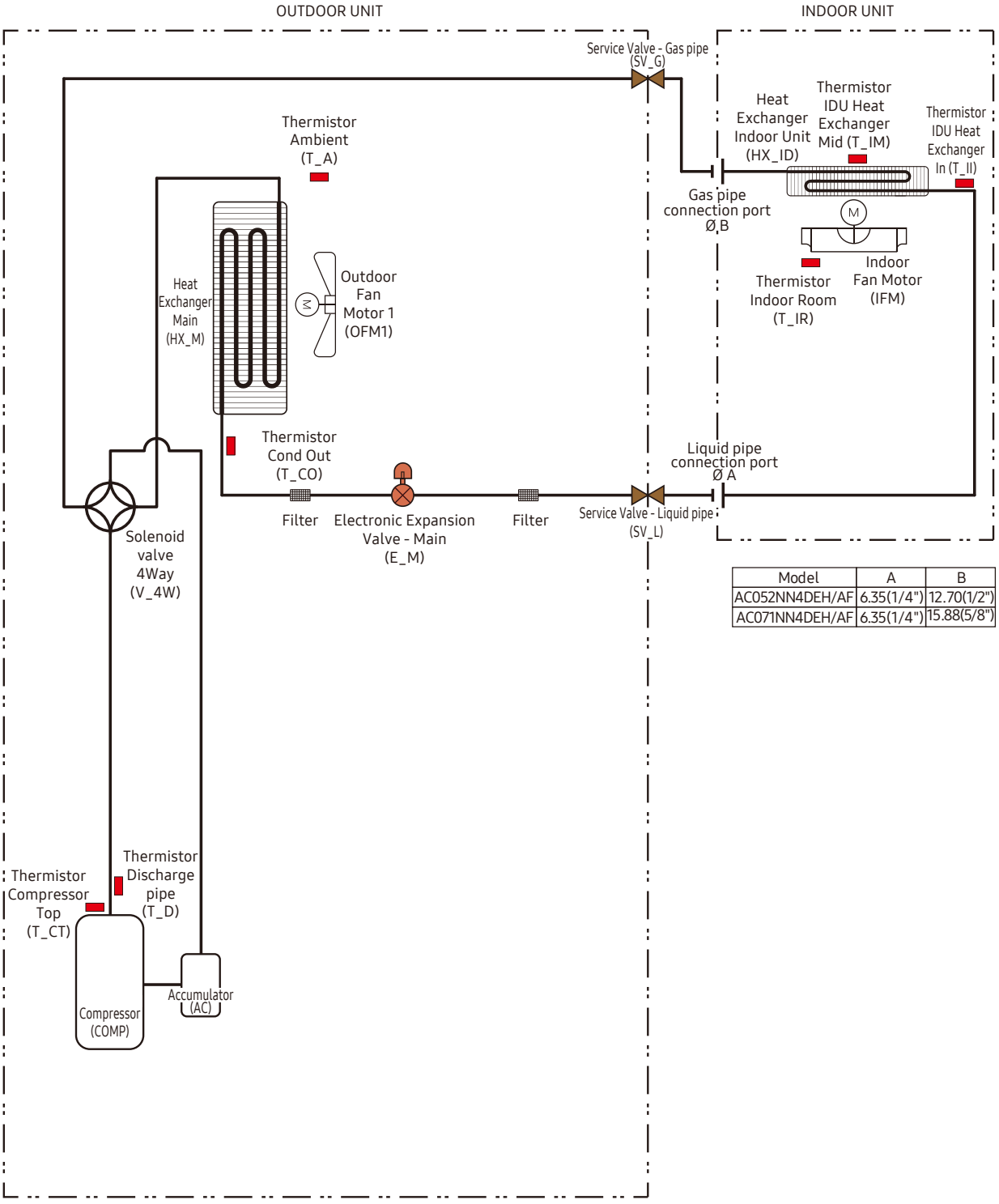


Model	A	B
AC026NNNDEH/AF	6.35(1/4")	9.52(3/8")
AC035NNNDEH/AF	6.35(1/4")	9.52(3/8")
AC052NNNDEH/AF	6.35(1/4")	12.70(1/2")
AC060NNNDEH/AF	6.35(1/4")	15.88(5/8")

8. Piping Diagram

Outdoor Units

AC052JX4DEH/AF, AC071JX4DEH/AF

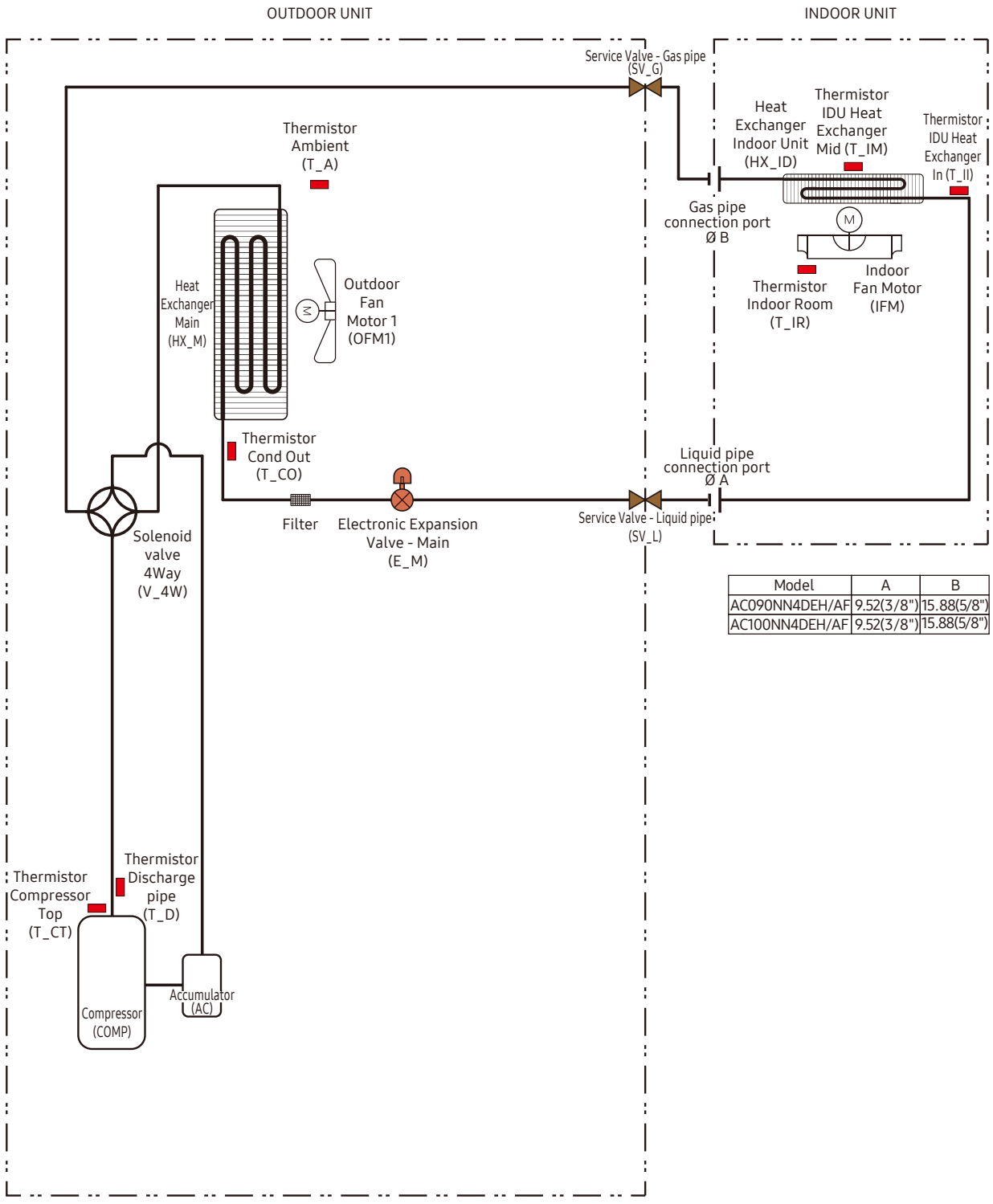


Model	A	B
AC052NN4DEH/AF	6.35(1/4")	12.70(1/2")
AC071NN4DEH/AF	6.35(1/4")	15.88(5/8")

8. Piping Diagram

Outdoor Units

AC090JX4DEH/AF, AC100JX4DEH/AF

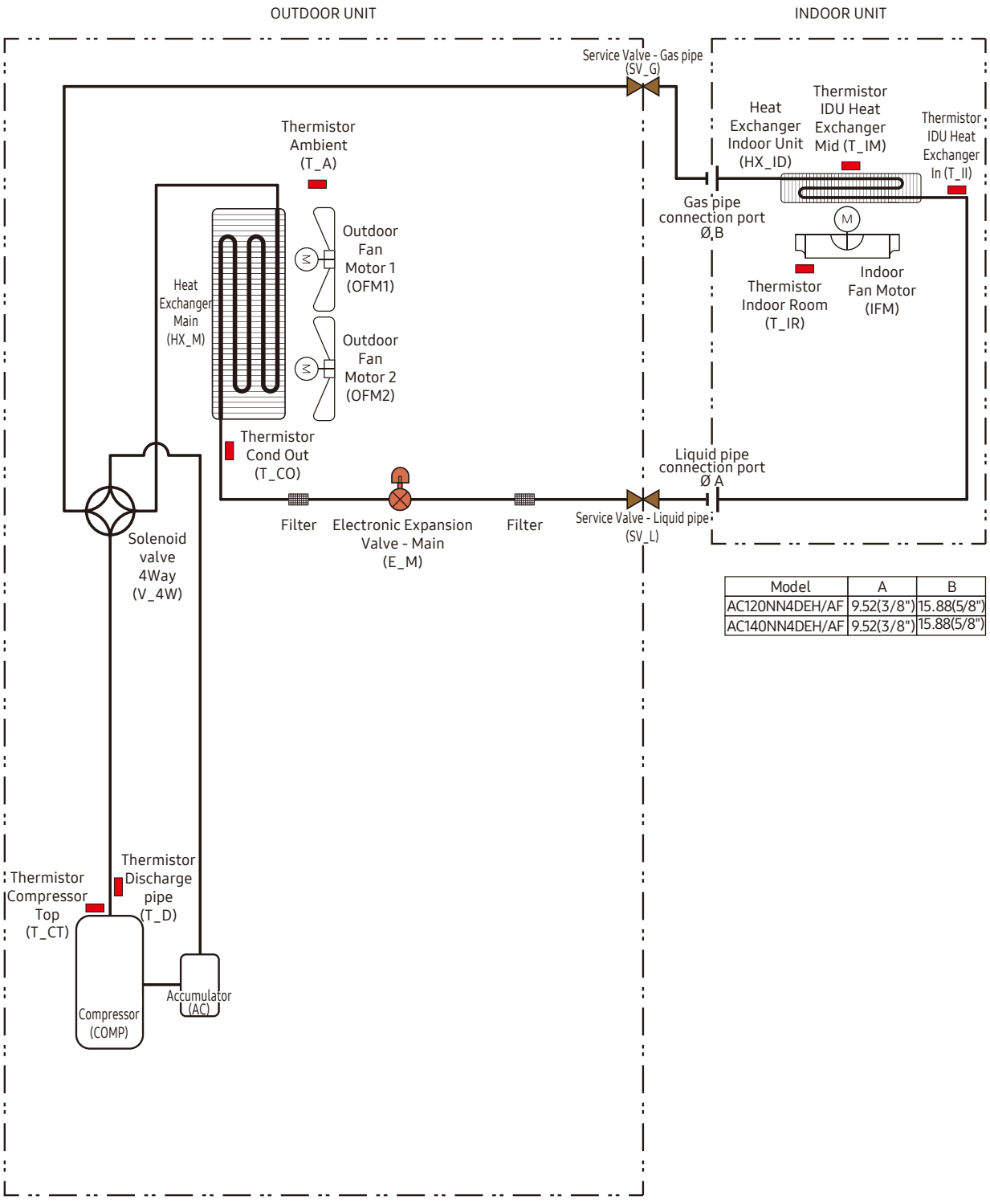


Model	A	B
AC090NN4DEH/AF	9.52(3/8")	15.88(5/8")
AC100NN4DEH/AF	9.52(3/8")	15.88(5/8")

8. Piping Diagram

Outdoor Units

AC120JX4DGH/AF, AC140JX4DGH/AF

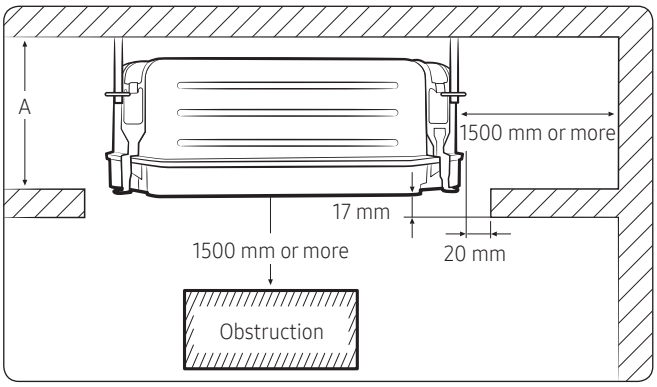


Model	A	B
AC120NN4DEH/AF	9.52(3/8")	15.88(5/8")
AC140NN4DEH/AF	9.52(3/8")	15.88(5/8")

Installation

1. Indoor Unit (4Way Cassette Type)

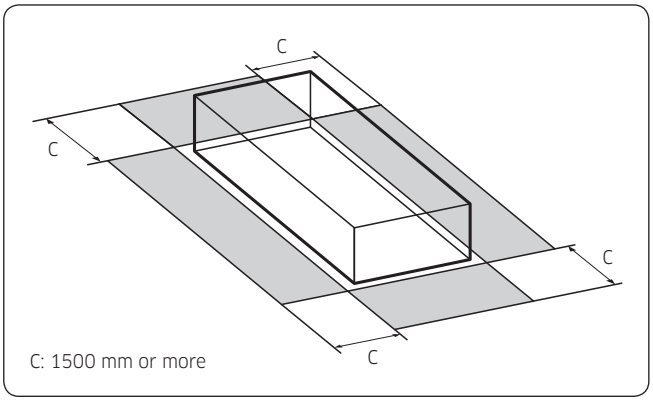
Spacing requirements



(Unit: mm)

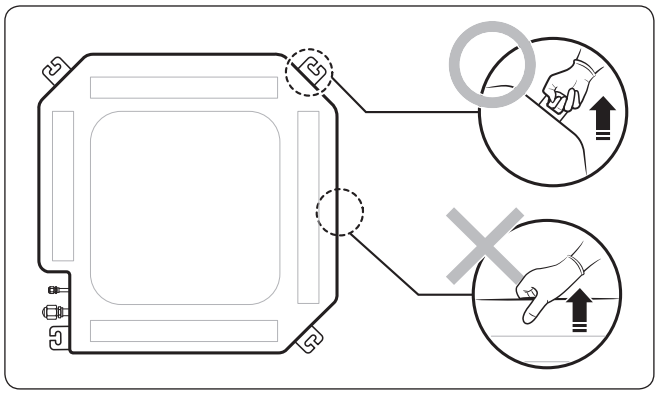
Model	AC026NNNDEH AC035NNNDEH AC052NNNDEH AC060NNNDEH
A	297

Model	AC052NN4DEH AC071NN4DEH	AC090NN4DEH AC100NN4DEH AC120NN4DEH AC140NN4DEH
A	251	335



⚠ CAUTION

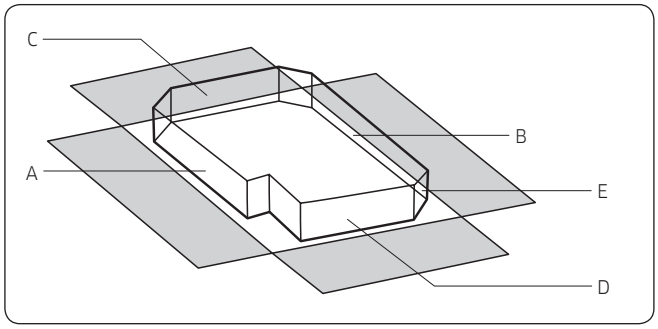
- The indoor unit must be installed according to the specified distances in order to permit accessibility from each side, to guarantee correct operation, maintenance, and repair of the unit. The components of the indoor unit must be reachable and removable under safe conditions for people and the unit.
- Do not hold the discharge while carrying the indoor unit to avoid the possibility of breakage.
- You must hold the hanger plate on the corner and carry the indoor unit.



Optional: Insulating the body of the indoor unit

If you install a cassette type indoor unit on the ceiling when temperature is over 27°C and humidity is over 80%, you must apply an extra 10 mm thick polyethylene insulation or a similar type of insulation to the body of the indoor unit.

Cut away the part where pipes are pulled out for the insulating work.



Insulate the end of the pipe and some curved area by using separate insulator.

NOTE

- A: Reference for the outer circumference of the unit
  (When insulating the body of the indoor unit, use A as the reference for its outer circumference.)

(Unit: mm)

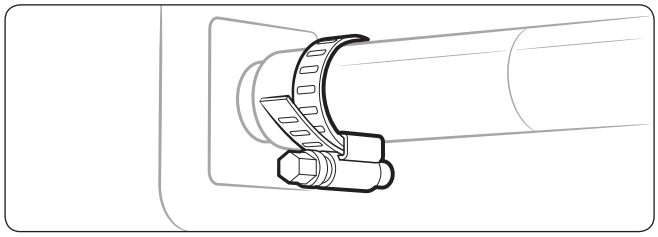
A	B	C	D	E
400X190	400X190	400X190	400X190	550X550

Installation

Installing the drain hose and drain pipe

1 Push the supplied drain hose as far as possible over the drain socket.

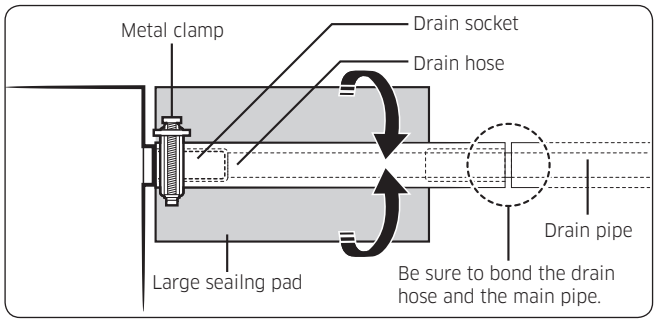
2 Tighten the metal clamp as shown in the picture.

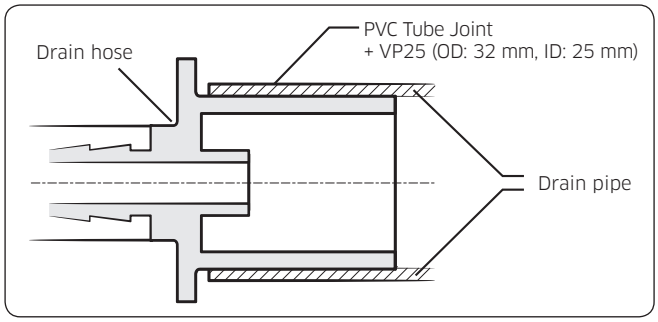


3 Wrap the supplied large sealing pad over the metal clamp and drain hose to insulate and fix it with clamps.

4 Insulate the complete drain piping inside the building (field supply). If the drain hose cannot be sufficiently set on a slope, fit the hose with drain raising piping (field supply).

5 Push the drain hose up to insulation when connecting the drain hose to drain socket.

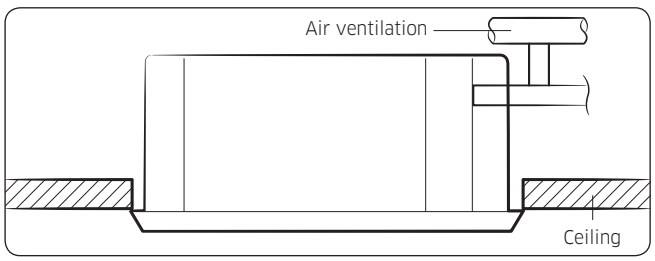




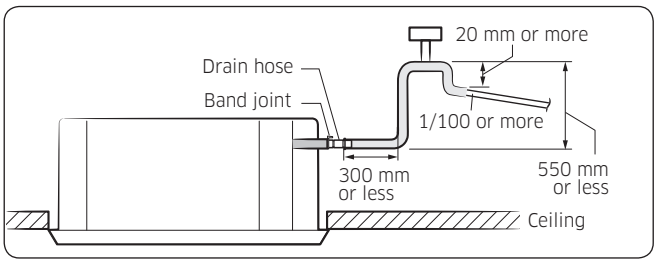
⚠ CAUTION

Check that the indoor unit is level with the ceiling by using the leveller.

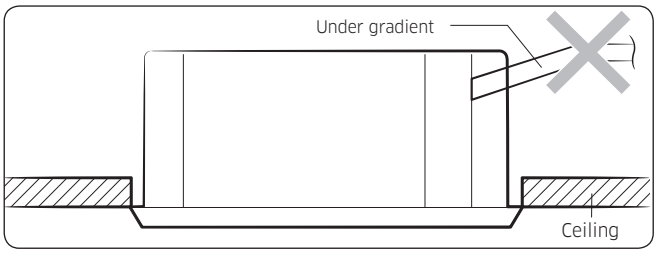
- Install air ventilation to drain condensation smoothly.



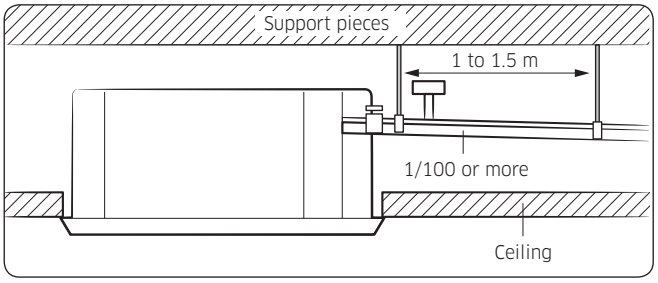
- If it is necessary to increase the height of the drain pipe, install the drain pipe straight within 300 mm from the drain hose port. If it is raised higher than 550 mm, there may be water leaks.



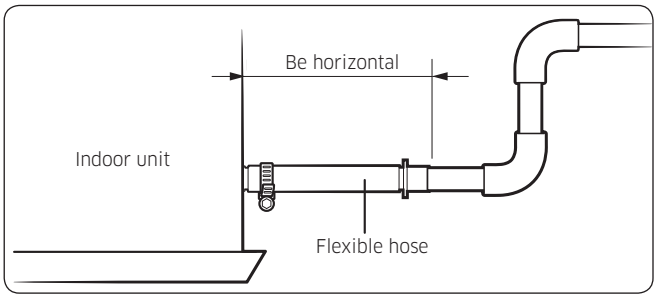
- Do not give the hose an upward gradient beyond the connection port. This will cause water to flow backwards when the unit is stopped, resulting in water leaks.



- Do not apply force to the piping on the unit side when connecting the drain hose. The hose should not be allowed to hang loose from its connection to the unit. Fasten the hose to a wall, frame or other support as close to the unit as possible.

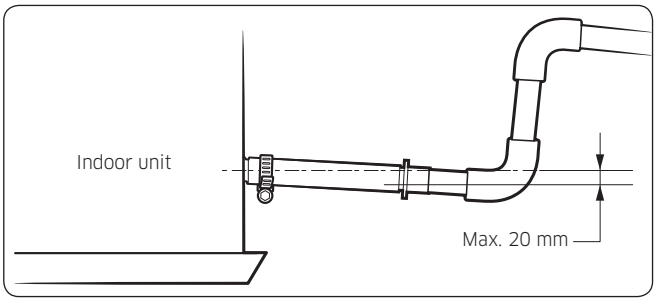


- Install horizontally.

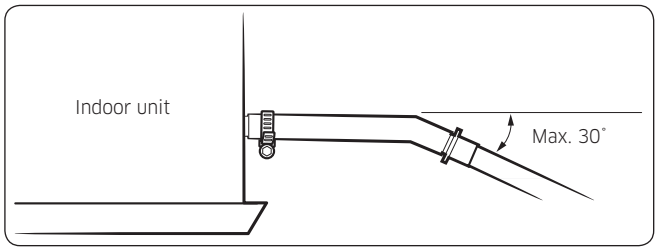


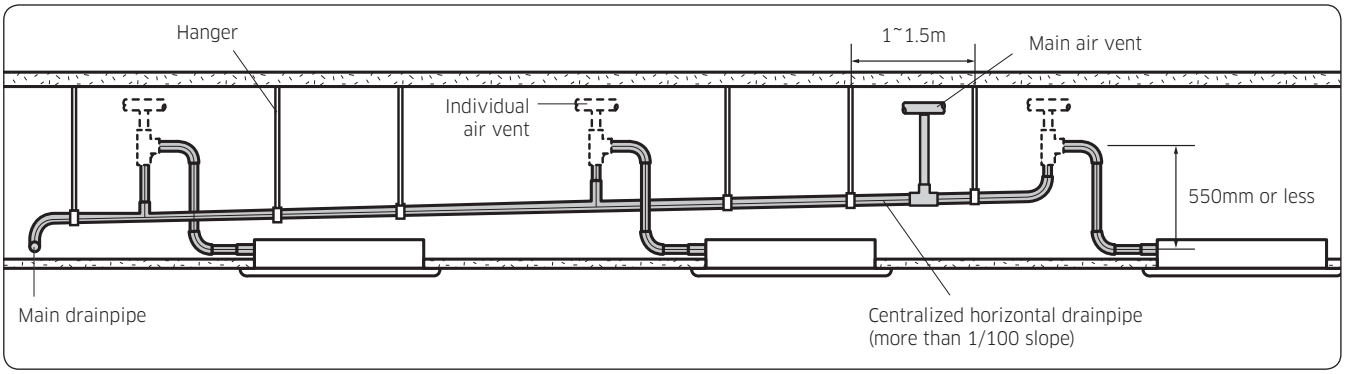
Installation

- Max. allowable axis gap.



- Max. allowable bending angle.





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.

⚠ CAUTION

- 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 H07 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 EN 60335-2-40.

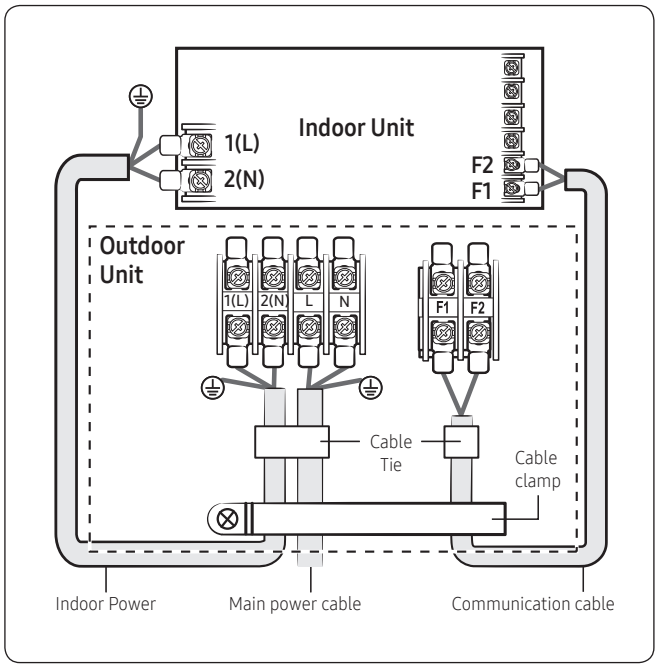
1 Remove the screw on the electrical component box and remove the cover plate.

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.

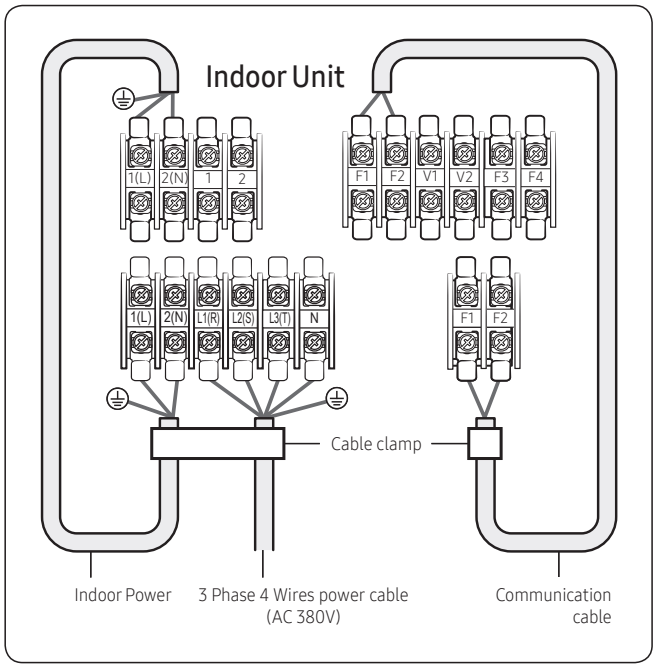
4 Reassemble the electrical component box cover, carefully tightening the screw.

1 phase



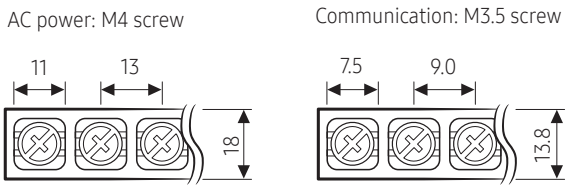
Installation

3 phase



Indoor power supply		
Power supply	Max/Min(V)	Indoor power cable
220 to 240V, 50 Hz	±10%	1.5 mm² ↑, 3 wires
Communication cable		
0.75 to 1.5 mm², 2 wires		

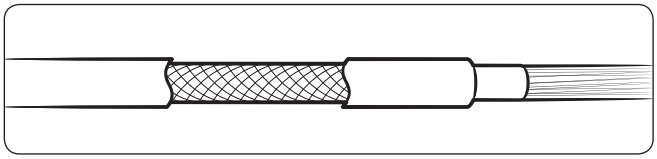
(Unit: mm)



Tightening torque (N • cm)	
M3.5	0.8 to 1.2
M4	1.2 to 1.8

- 1 N·m = 10 kgf·cm

- 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 or IEC:60245 IEC 66 / CENELEC: H07RN-F)
- Since it has the external power supply, refer to the outdoor unit installation manual for MAIN POWER.



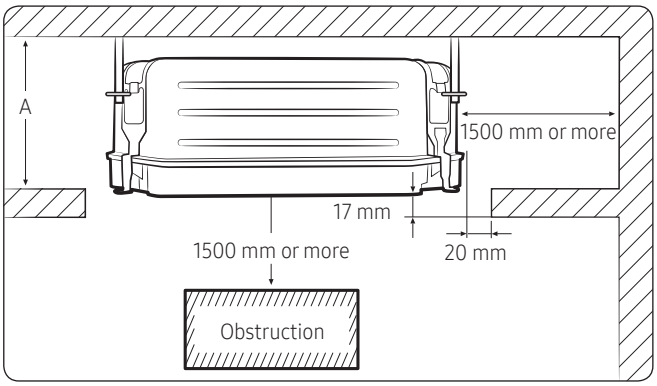
⚠ CAUTION

- 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.

Installation

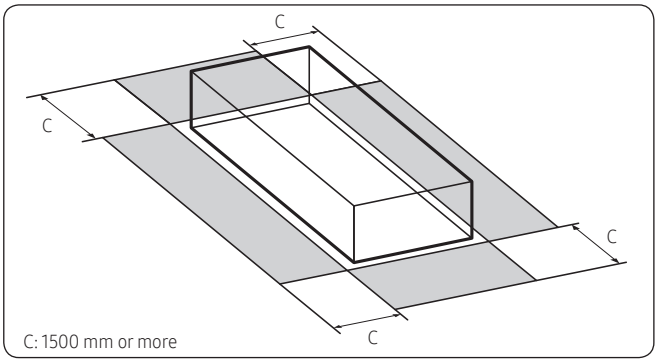
2. Outdoor Units

Spacing requirements



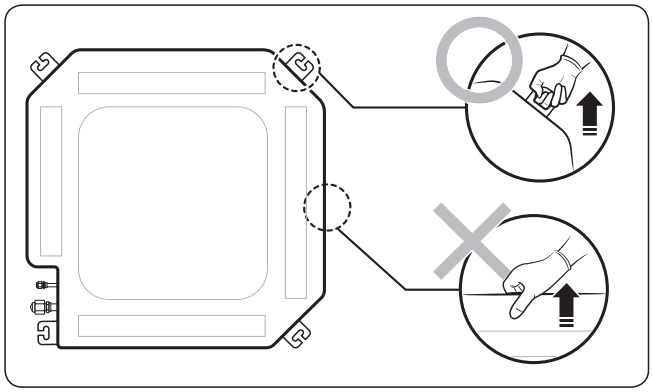
(Unit: mm)

Model	AC052NN4DKH AC071NN4DKH	AC090NN4DKH AC100NN4DKH AC120NN4DKH AC140NN4DKH
A	251	335



⚠ CAUTION

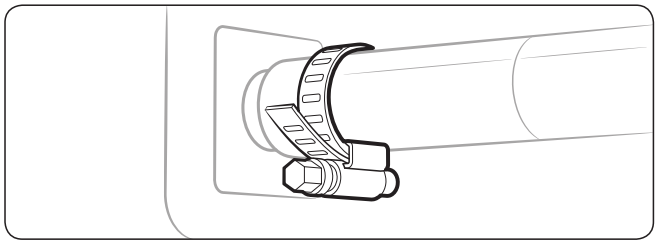
- The indoor unit must be installed according to the specified distances in order to permit accessibility from each side, to guarantee correct operation, maintenance, and repair of the unit. The components of the indoor unit must be reachable and removable under safe conditions for people and the unit.
- Do not hold the discharge while carrying the indoor unit to avoid the possibility of breakage.
- You must hold the hanger plate on the corner and carry the indoor unit.



Installing the drain hose and drain pipe

1 Push the supplied drain hose as far as possible over the drain socket.

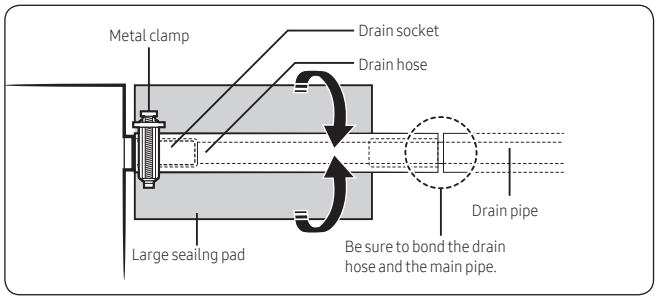
2 Tighten the metal clamp as shown in the picture.

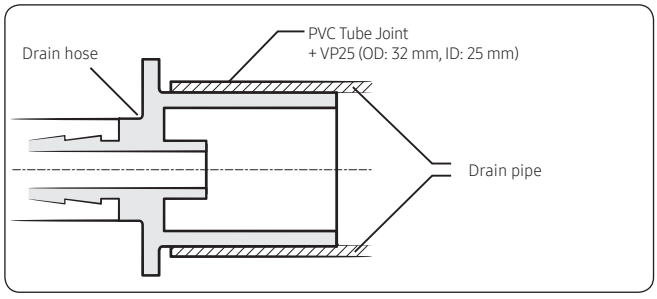


3 Wrap the supplied large sealing pad over the metal clamp and drain hose to insulate and fix it with clamps.

4 Insulate the complete drain piping inside the building (field supply). If the drain hose cannot be sufficiently set on a slope, fit the hose with drain raising piping (field supply).

5 Push the drain hose up to insulation when connecting the drain hose to drain socket.



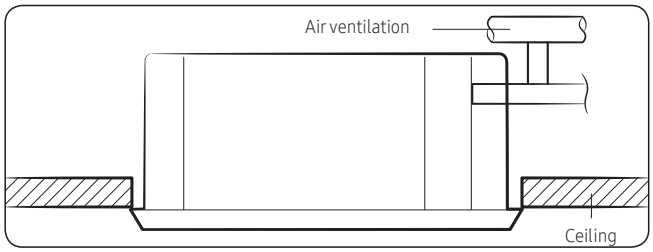


Installation

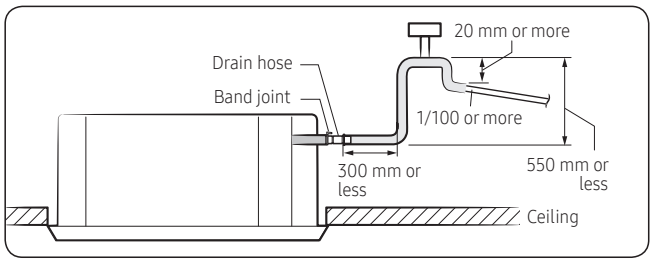
⚠ CAUTION

Check that the indoor unit is level with the ceiling by using the leveller.

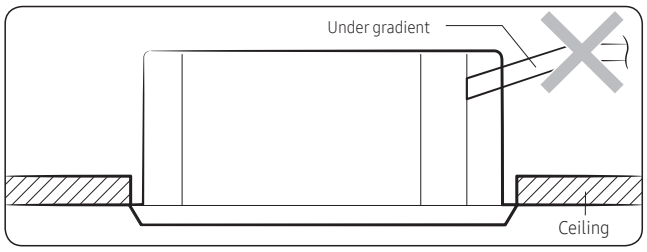
- Install air ventilation to drain condensation smoothly.



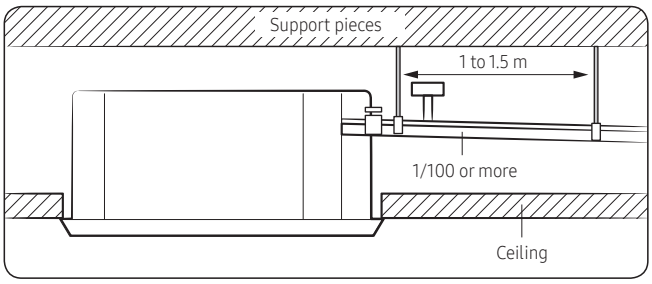
- If it is necessary to increase the height of the drain pipe, install the drain pipe straight within 300 mm from the drain hose port. If it is raised higher than 550 mm, there may be water leaks.

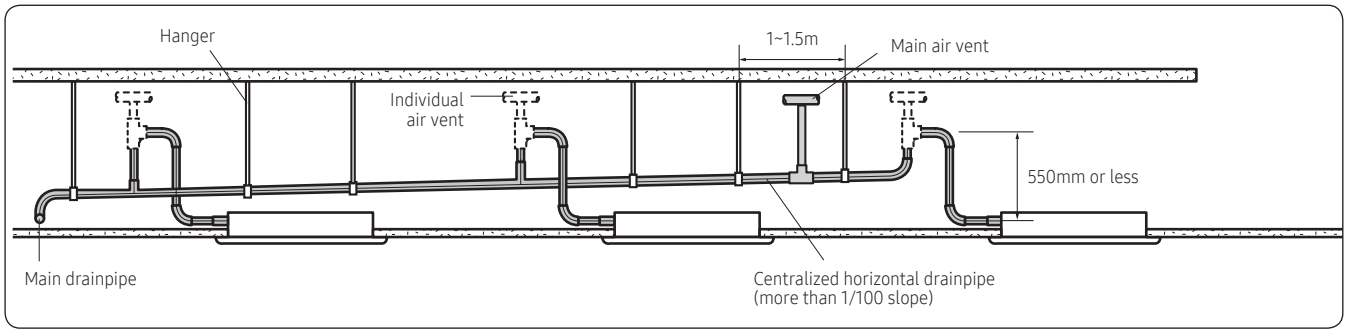


- Do not give the hose an upward gradient beyond the connection port. This will cause water to flow backwards when the unit is stopped, resulting in water leaks.



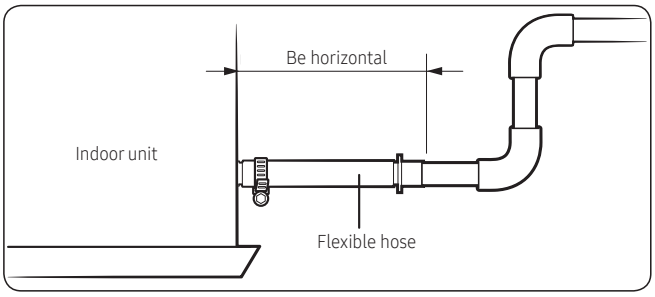
- Do not apply force to the piping on the unit side when connecting the drain hose. The hose should not be allowed to hang loose from its connection to the unit. Fasten the hose to a wall, frame or other support as close to the unit as possible.



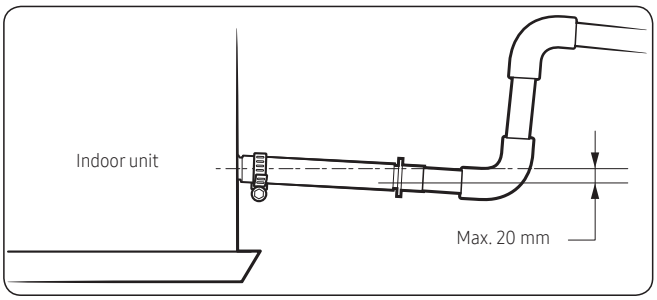


Installation

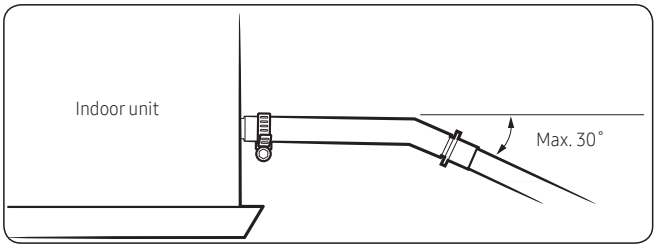
- Install horizontally.



- Max. allowable axis gap.



- Max. allowable bending angle.



NOTE

- If a concentrated drain pipe is installed, refer to the figure below.

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.

⚠ CAUTION

- 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 H07 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 EN 60335-2-40.

1 Remove the screw on the electrical component box and remove the cover plate.

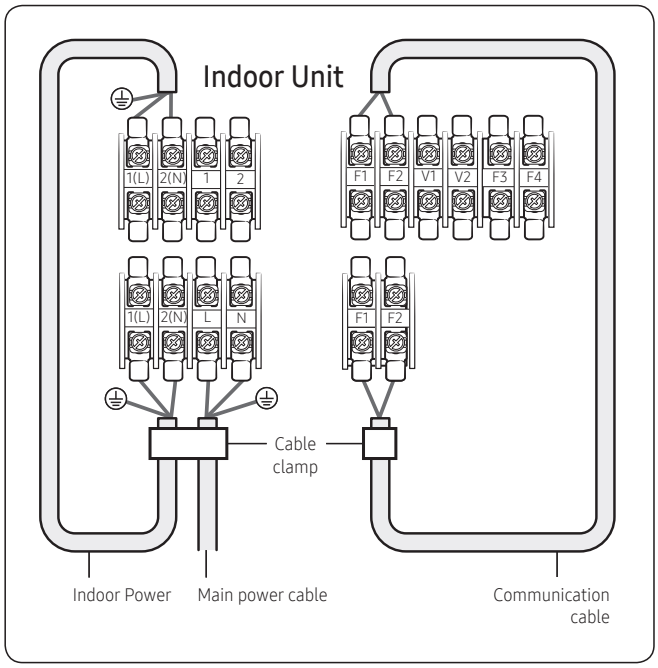
2 Route the connection cord through the side of the indoor unit and connect the cable to the terminals refer to the figure below.

3 Route the other end of the cable to the outdoor unit through the ceiling & the hole on the wall.

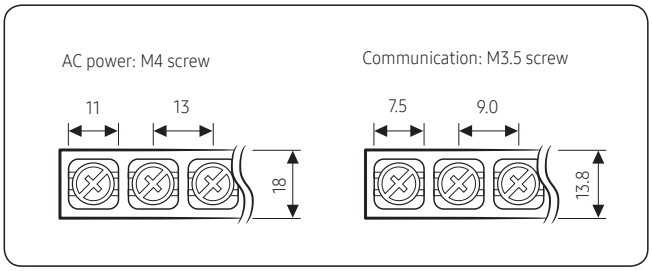
4 Reassemble the electrical component box cover, carefully tightening the screw.

Installation

1 phase



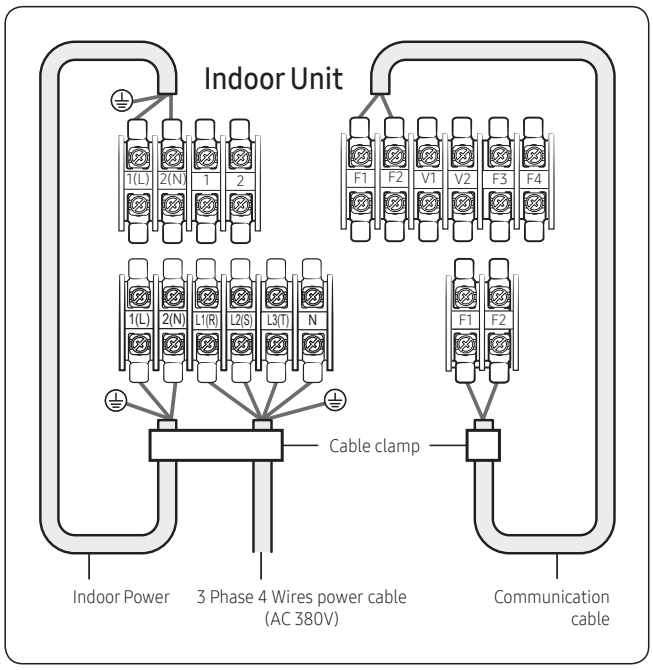
Indoor power supply		
Power supply	Max/Min(V)	Indoor power cable
220 to 240V, 50 Hz	±10%	1.5 mm² ↑, 3 wires
Communication cable		
0.75 to 1.5 mm², 2 wires		



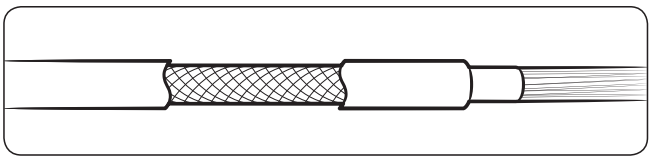
Tightening torque (kgf • cm)	
M3.5	8.0 to 12.0
M4	12.0 to 18.0

- 1 N·m = 10 kgf·cm

3 phase



- 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 or IEC:60245 IEC 66 / CENELEC: H07RN-F)
- Since it has the external power supply, refer to the outdoor unit installation manual for MAIN POWER.



⚠ CAUTION

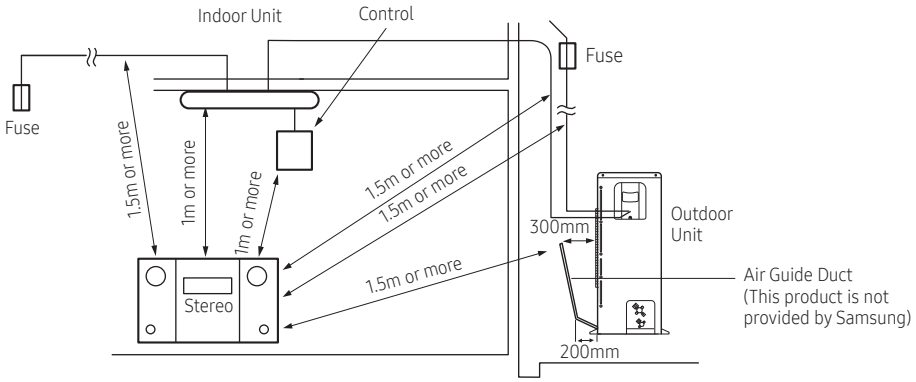
- When installing the indoor unit in a computer room or network room, use the double shielded communication cable (tape aluminum / polyester braid + copper) of FROHH2R type.

3. Outdoor Unit

Deciding on where to install the outdoor unit

Outdoor Unit

- The outdoor unit must not be placed on its side or upside down, as the compressor lubrication oil will run into the cooling circuit and seriously damage the unit.
- Choose a location that is dry and sunny, but not exposed to direct sunlight or strong winds.
- Do not block any passageways or thoroughfares.
- Choose a location where the noise of the air conditioner when running and the discharged air do not disturb any neighbours.
- Choose a position that enables the pipes and cables to be easily connected to the indoor unit.
- Install the outdoor unit on a flat, stable surface that can support its weight and does not generate any unnecessary noise and vibration.
- Position the outdoor 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.



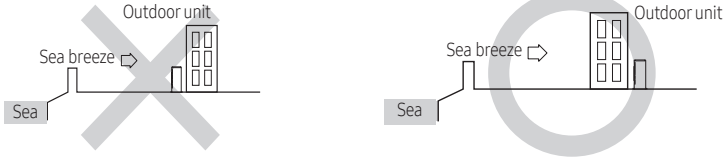
- If the outdoor unit is installed at a height, ensure that its base is firmly fixed in position.
- Make sure that the water dripping from the drain hose runs away correctly and safely.
- When you install the outdoor unit at wayside, you should install it above 2m height or make sure that the heat from the outdoor unit shouldn't be in direct contact with passersby. (The ground for application :The revision of regulation for facility in building by the law of the Ministry of Construction and Transportation.

⚠ CAUTION

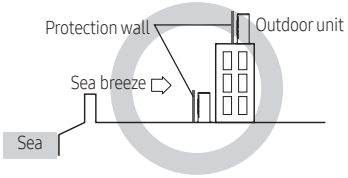
- You have just purchased a system air conditioner and it has been installed by your installation specialist.
- This device must be installed according to the national electrical rules.
- With an outdoor unit having net weight upper than 60kg, we suggest do not install it suspended on wall, but considering floor standing one.
- When the outdoor unit is installed near seashore or in a place where sulfuric acid gas may leak, corrosion may occur in outdoor unit and cause product malfunction.
- When installing the outdoor unit near seashore, make sure it is not directly exposed to sea breeze. If you can not find a adequate place without direct see breeze, protection wall should be constructed.

Installation

- Install the outdoor unit in a place (such as near buildings etc.) where it can be prevented from sea breeze which can damage the outdoor unit.



- If you cannot avoid installing the outdoor unit by the seashore, construct a protection wall around to block the sea breeze.



- Protection wall should be constructed with a solid material such as concrete to block the sea breeze and the height and the width of the wall should be 1.5 times larger than the size of the outdoor unit. Also, secure over 700mm between the protection wall and the outdoor unit for exhausted air to ventilate.

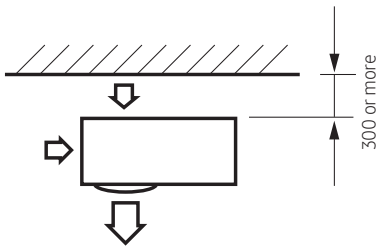
- Install the outdoor unit in a place where water can drain smoothly.

※ If you cannot find a place satisfying above conditions, please contact manufacturer. Make sure to clean the sea water and the dust on the outdoor unit heat exchanger and spread corrosion inhibitor on heat exchanger. (At least one time per one year.)

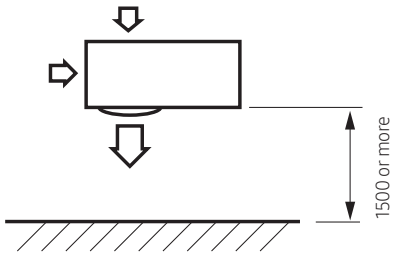
Space Requirements for Outdoor Unit

When installing 1 outdoor unit

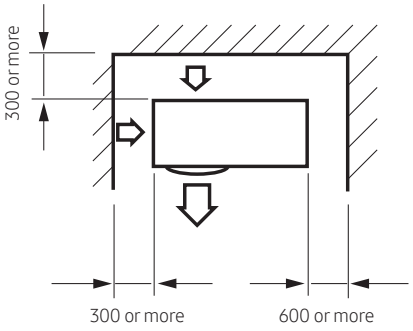
(Unit: mm)

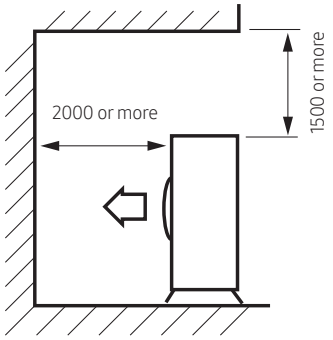


※ When installing 1 outdoor unit



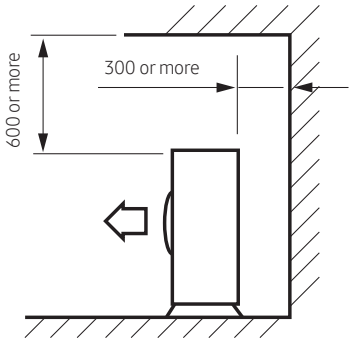
※ When the air outlet is towards the wall



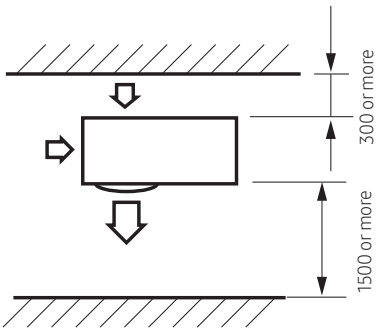


Installation

※ When 3 sides of the outdoor unit are blocked by the wall



※ The upper part of the outdoor unit and the air outlet is towards the wall

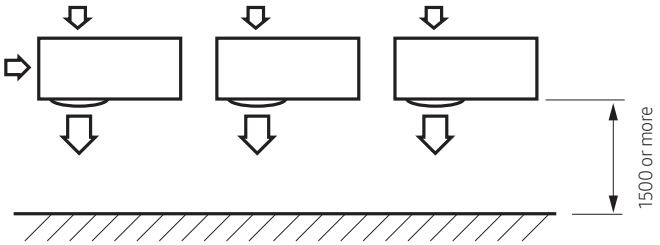


※ The upper part of the outdoor unit and the air outlet is opposite the wall

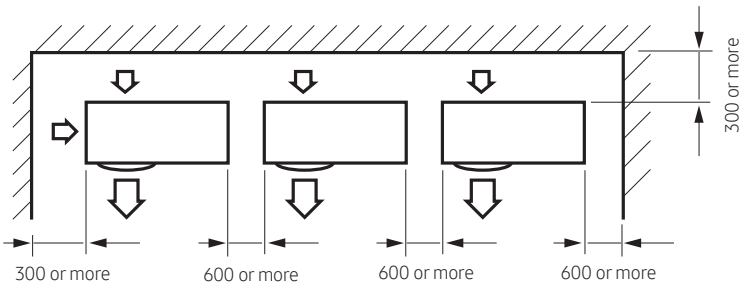
※ When front and rear side of the outdoor unit is towards the wall

When installing more than 1 outdoor unit

(Unit: mm)

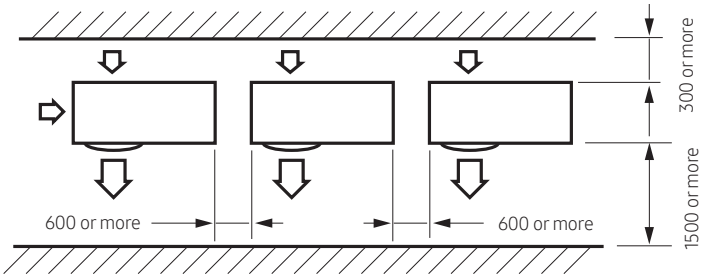


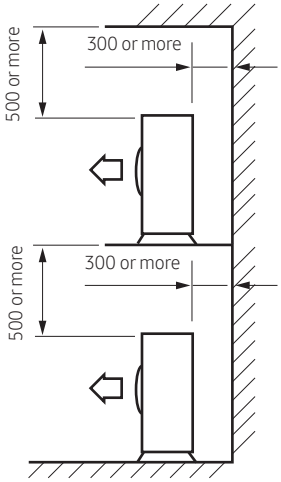
※ When the air outlet is towards the wall



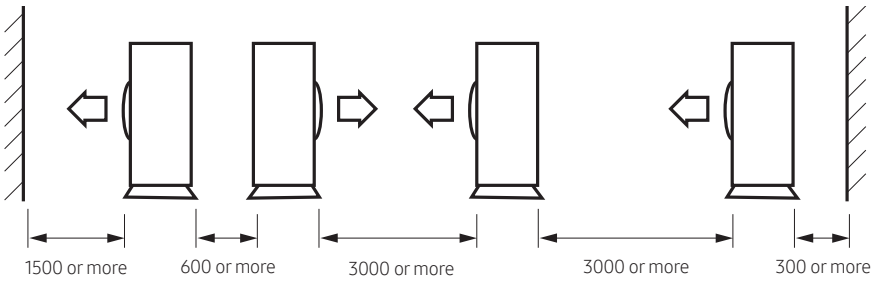
Installation

※ When 3 sides of the outdoor unit are blocked by the wall





※ When front and rear side of the outdoor unit is towards the wall



※ The upper part of the outdoor unit and the air outlet is towards the wall

※ When 3 sides of the outdoor unit are blocked by the wall

⚠ CAUTION

- The units must be installed according to distances declared, in order to permit accessibility from each side, either to guarantee correct operation of maintenance or repairing products. The unit's parts must be reachable and removable completely under safety condition (for people or things).

Installation

Outdoor unit installation

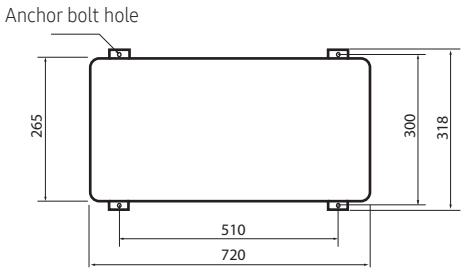
The outdoor unit must be installed on a rigid and stable base to avoid any increase in the noise level and vibration, particularly if the outdoor unit is to be installed in a location exposed to strong winds or at a height, the unit must be fixed to an appropriate support(wall or ground).

Fix the outdoor unit with anchor bolts.

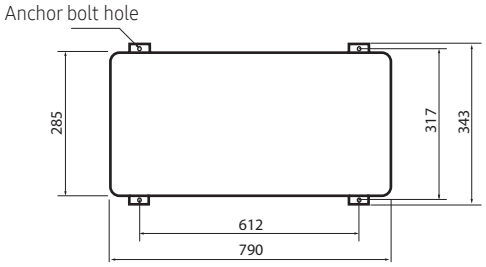
NOTE

- The anchor bolt must be 20mm or higher from the base surface.

(Unit: mm)

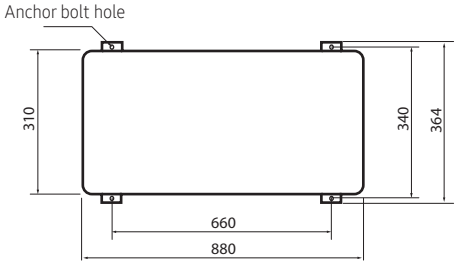


A Type

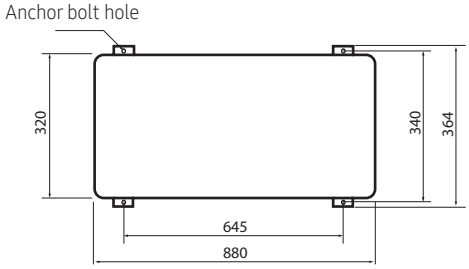


B Type

(Unit: mm)

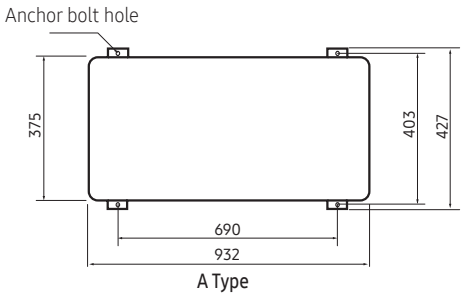


C Type



D Type

(Unit: mm)



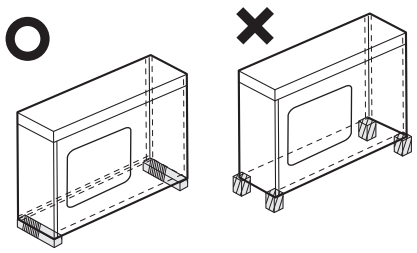
A Type

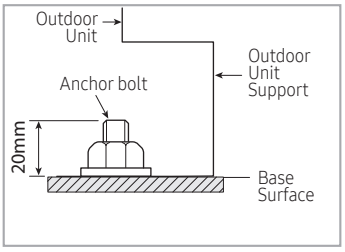
⚠ CAUTION

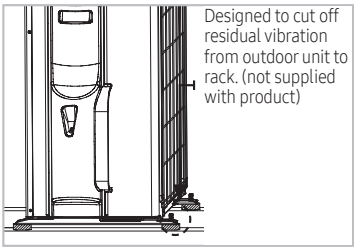
- Make a drain outlet around the base for outdoor unit drainage.
- If the outdoor unit is installed on the roof, you have to check the ceiling strength and waterproof the unit.

Installation

Outdoor Unit Support







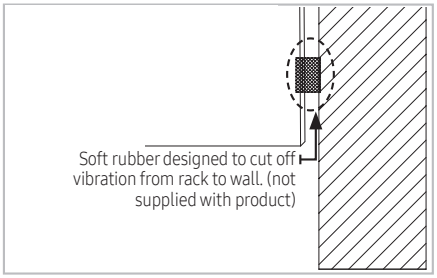
OUTDOOR UNIT INSTALLED ON THE WALL BY RACK

- Ensure the wall will be able to suspend the weight of rack and outdoor unit ;
- Install the rack close to the column as much as possible ;
- Install proper grommet in order to reduce noise and residual vibration transferred by outdoor unit towards wall.

⚠ CAUTION

When installing air guide duct

- Check and make sure that screws do not damage the copper pipe.
- Secure air guide duct on guard fan.



Installation

Connecting the cable

Two electronic cables must be connected to the outdoor unit.

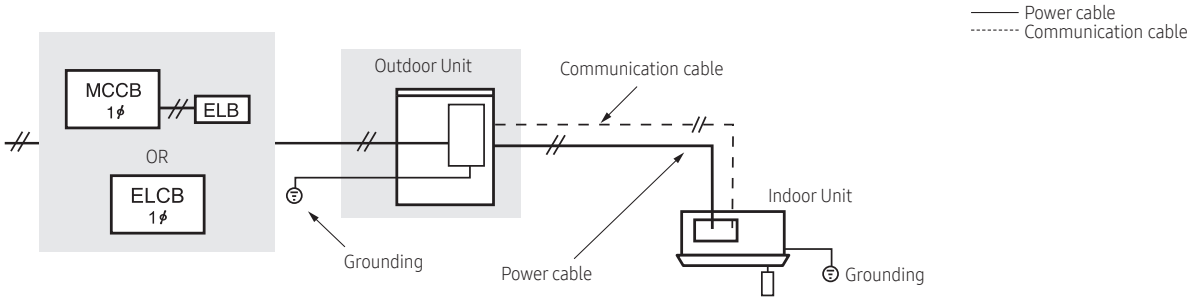
- The connection cord between indoor unit and outdoor unit.
- The power cable between outdoor unit and auxiliary circuit breaker.
- Specially for Russian and European market, before installation, the supply authority should be consulted to determine the supply system impendance to ensure compliance.

⚠ CAUTION

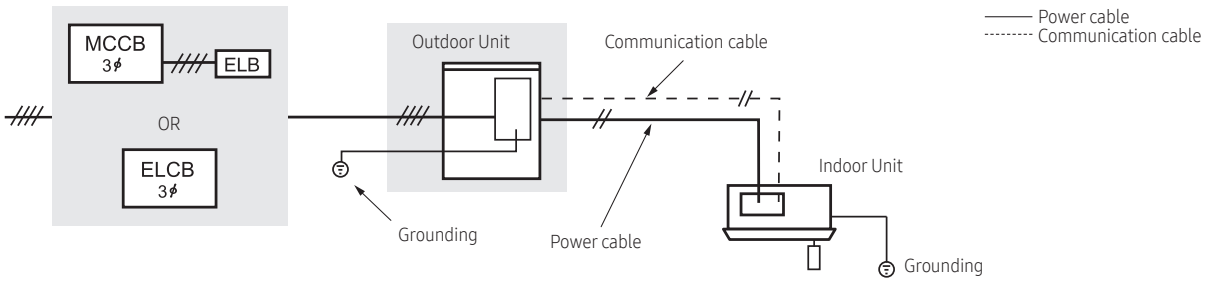
- During the unit installation make first refrigerant connections and then electrical connections. If unit is uninstalled first disconnect electrical cables, then refrigerant connections.
- Connect the air conditioner to grounding system before performing the electrical connection.
- When installing the unit, you shouldn't use inter connection wire.

Example of Air Conditioner System

When installing more than 1 outdoor unit



When using ELCB for 3 phase 4 wires

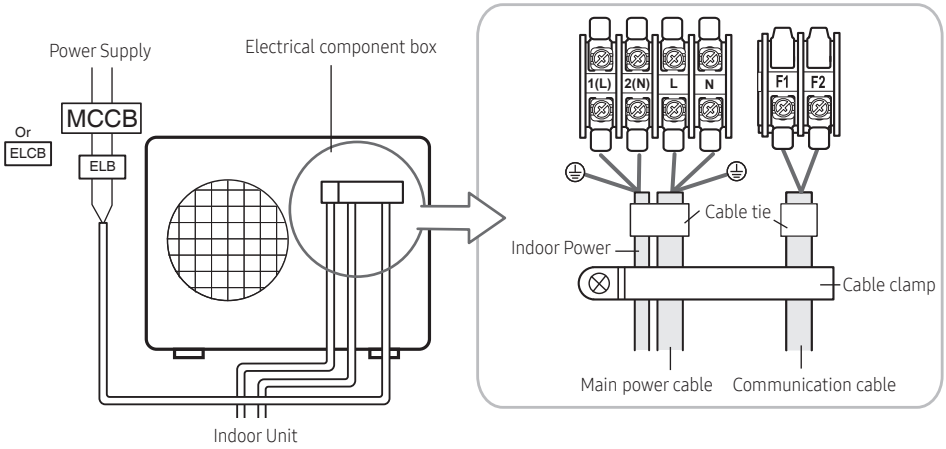


※ If an outdoor unit is installed in a place in danger of an electric leak or submergence, you must install the ELCB or MCCB+ELCB

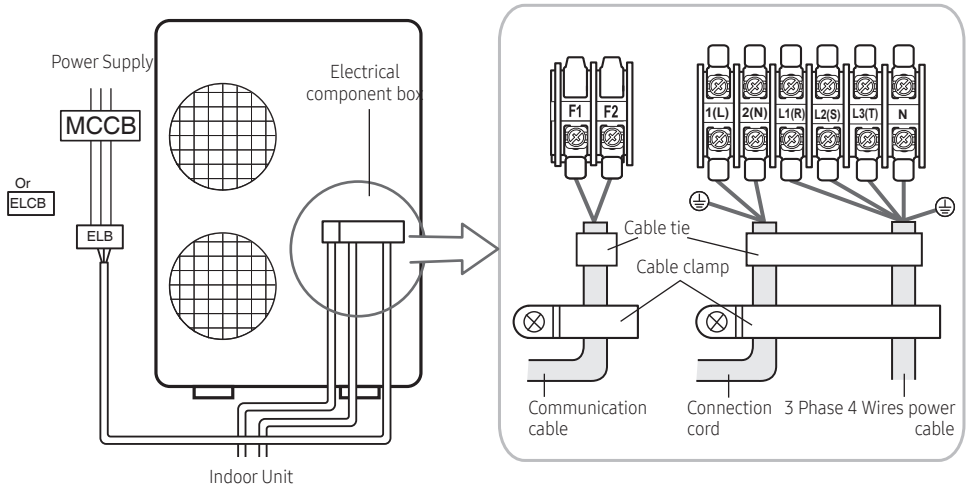
Installation

Wiring Diagram of Power Cable

When using ELCB for1 phase (AC***JXMDEH / AC***JX4DEH)



When using ELCB for 3 phase (AC***JXMDGH / AC***JX4DGH)



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

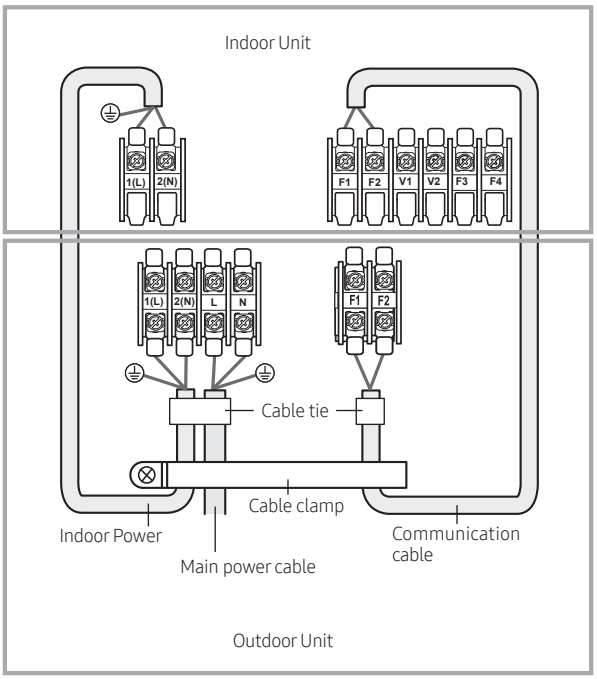
⚠ CAUTION

- 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 3 mm.
- Devices disconnected from the power supply should be completely disconnected in the condition of overvoltage category.
- Keep distances of 50mm or more between power cable and communication cable.

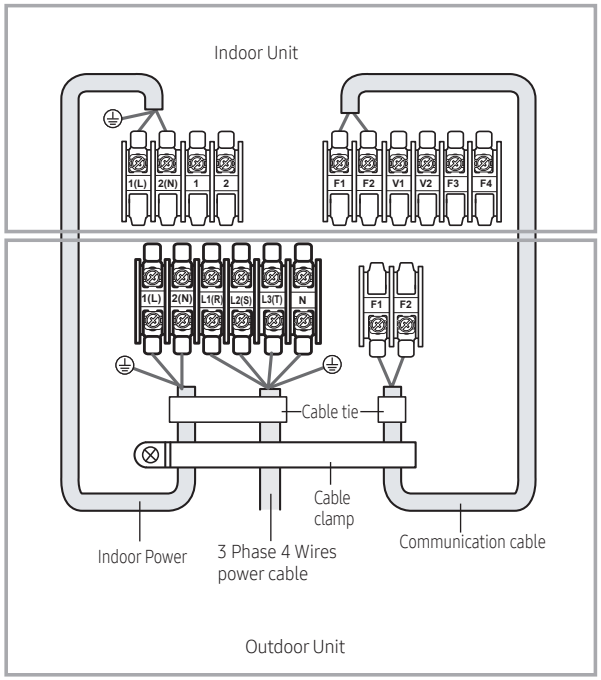
Installation

Wiring Diagram of Connection Cord

1 phase



3 phase



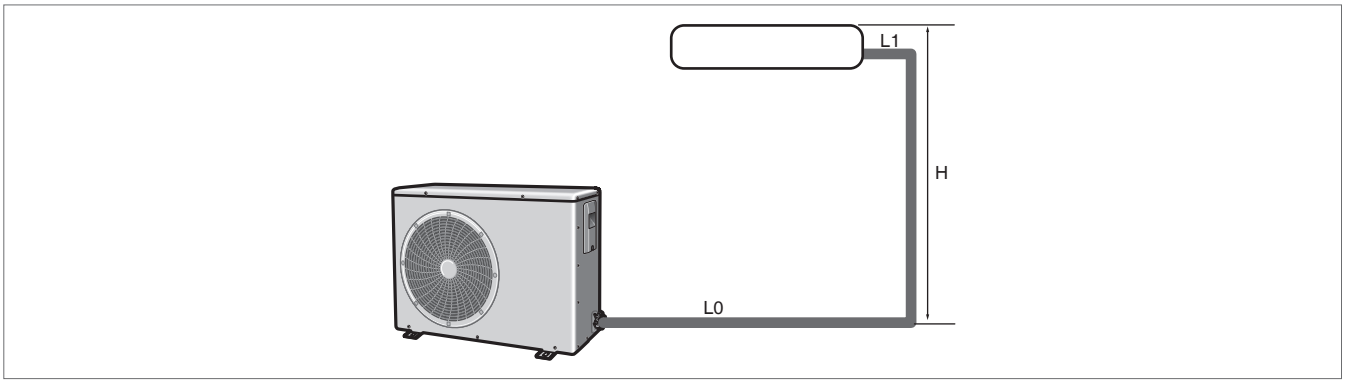
NOTE

- 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).

Installation

Connecting the refrigerant pipe

Refrigerant piping system



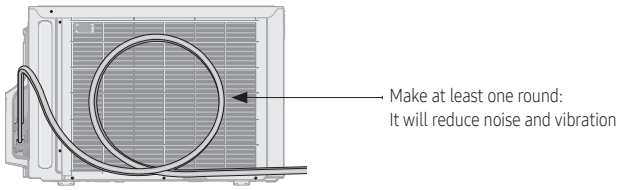
Refrigerant piping system table			Pipe length or height			
			AC026JXNDEH AC035JXNDEH AC035JXMDEH	AC052JXMDEH AC052JX4DEH AC071JXMDEH AC071JX4DEH AC052JXNDEH AC060JXNDEH	AC100JXMDEH AC100JXMDGH AC090JX4DEH AC100JX4DEH AC100JX4DGH AC090JXMDEH	AC120JXMDGH AC120JX4DGH AC140JXMDGH AC140JX4DGH AC160JXMDGH
Max. allowable length	Actual pipe length	L0 + H + L1	20 or less	30 or less	50 or less	50 or less
Allowable height length	Actual pipe length	H	15 or less	15 or less	30 or less	30 or less

- Temper grade and minimum thickness of the refrigerant pipe

Outer diameter [mm]	Minimum thickness [mm]	Temper grade
ø6.35	0.7	C1220T-O
ø9.52	0.7	
ø12.70	0.8	
ø15.88	1.0	
ø15.88	0.8	C1220T-1/2H OR C1220T-H
ø19.05	0.9	
ø22.23	0.9	

⚠ CAUTION

- Make sure to use C1220T-1/2H (Semi-hard) pipe for more than Ø19.05mm. In case of using C1220T-O (Soft) pipe for Ø19.05mm, pipe may be broken, which can result in an injury.



- The appearance of the unit may be different from the diagram depending on the model.

⚠ CAUTION

- After connecting pipes with knock-out treatment, plug the space.
- Following the pipe connection, make sure to proceed precisely to prevent interference with the internal parts.

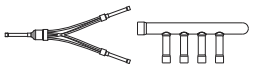
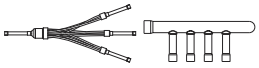
Accessory

Controller

Product	Image	Model	Remark
Panel		PC1NUSMAN	Slim 1Way Cassette
		PC1NUPMAN	Slim 1Way Cassette (Z-sliding)
		PC1MWSKAN	Slim 1Way Cassette
		PC4SUSMBN	4 Way Cassette(600 x 600) (Waffle)
		PC4SUSMFN	4 Way Cassette(600 x 600) (Classic)
		PC4SUFMAN	Wind-Free 4 Way Cassette(600 x 600)
		PC4NUSKAN	4 Way Cassette (Waffle)
		PC4NUSKEN	4 Way Cassette (Classic)
		PC4NUFMAN	Wind-Free 4 Way Cassette
		PC4NBSKAN	4 Way Cassette (Waffle / Black)
		PC4NUDMAN	360 Cassette Square (White)
		PC4NUNMAN	360 Cassette Circle (White)

Accessory

Controller

Product	Image	Model	Remark
Panel		PC4NBDMAN	360 Cassette Square (Black)
		PC4NBNMAN	360 Cassette Circle (Black)
S-Plasma Ion KIT		MSD-CAN1	[Option] 4Way, 4Way(600x600), 360, Ceiling [Included] Console
		MSD-EAN1	[Option] Duct S, Big Duct, ERV, ERV Plus
Motion detect Sensor		MCR-SMA	4Way Cassette(600 x 600)
		MCR-SMC	Wind-Free 4Way Cassette
		MCR-SMD	Wind-Free 4Way Cassette (600 x 600)
Drain Pump		MDP-E075SEE3D	Slim Duct
		MDP-G075SP	Duct S (External)
		MDP-G075SQ	Duct S (Internal)
Joint		MXJ-2D2509K	2 indoor units connection
		MXJ-3D2509K	3 indoor units connection
		MXJ-4D2509K	4 indoor units connection

- In case you want to know more information of the accessories or the controllers including the Line up & Comaptibility Table, please refer to each TDB on pvi.samsung.com site.

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