

SAMSUNG

SINGLE Technical Data Book

**Wind-Free 4Way Cassette for America
(R410A, HP)**



Model : CNH**4DN (AC0**NN4DCH/AA), CXH**ADJ (AC0**JXADCH/AA)

History

Version	Modification	Date	Remark
Ver.1.0	Released CAC Wind-Free 4Way Cassette for North America	'18. 03. 20	
Ver.1.1	Revised some errors in spec pages(product weight, size) and updated "Temperature and air flow distribution" data	'18. 04. 06	
Ver.1.2	Updated the panel model name in specification page	'19. 01. 22	
Ver.1.3	Updated the model code including US code	'20. 08. 20	

Features & Benefits

CAC - World-class energy efficiency

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

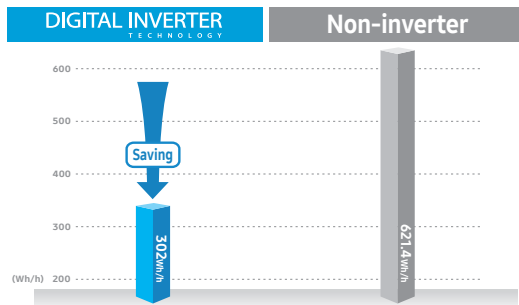
Featuring a suite of energy-optimizing technologies, Samsung CAC Single delivers top-class energy efficiency to support business in saving costs and the environment.

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.

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.



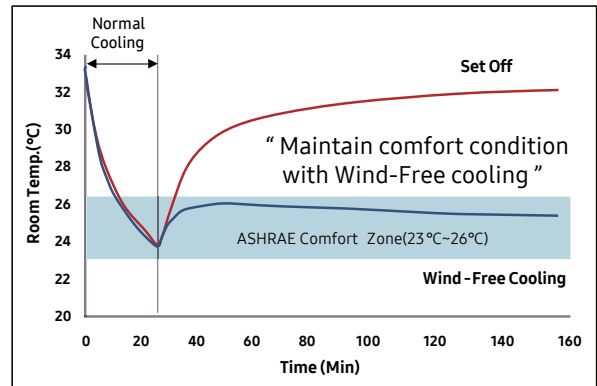
Wind-Free Cooling with Micro holes

- 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



[Comparison of Room Temp.]



※ Internal Test (14.0kW Model @ 122m²)

Features & Benefits

CAC Single - Superior performance

Stabilize the atmosphere with broad temperature allowance and control

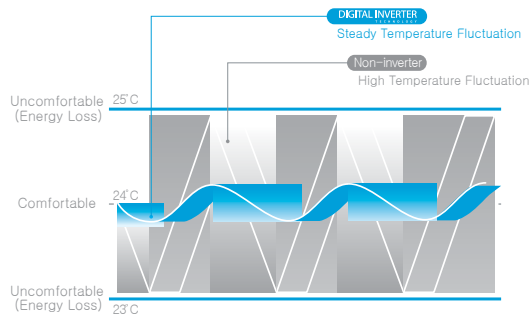
Samsung is dedicated to supporting comfortable living and working environments based on the strength of its technologies. With a single unit, CAC Single delivers reliable comfort and control over multiple areas to ensure a pleasant atmosphere in any climate.

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.



Versatile piping installation

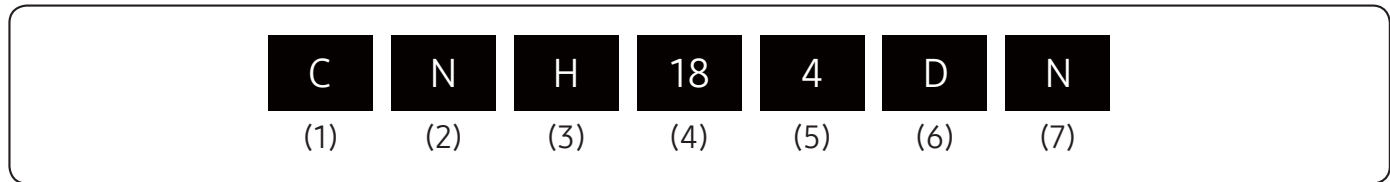
CAC Single outdoor units offer a selection of pipe directions. The internal pipe connection ports allow four different pipe directions, supporting a neater, more organized-looking unit upon installation.



Nomenclature

US Code

Model Name



(1) Classification

C	CAC
----------	-----

(2) Product Type

N	Indoor Unit
X	Outdoor Unit

(3) Mode

H	Heat Pump
----------	-----------

(4) Capacity

	X1,000 Btu/h (2 digits)
--	-------------------------

(5-1) Product Notation (Indoor Unit)

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)

(5-2) Feature1 (Outdoor Unit)

A	Inv+Side+General Temp
S	Inv+Side+Low Temp
Q	Inv+Side+Tropical Temp
F	Inv+Top+Tropical Temp

(6) Feature

F	Flagship
S	Standard
D	Deluxe
P	Premium

(7) Version

J	2015
K	2016
M	2017
N	2018

Nomenclature

Indoor Unit

Model Name



(1) Classification

AC	CAC
----	-----

(2) Capacity

X1,000 Btu/h (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

C	1Φ, 208-230V, 60Hz
---	--------------------

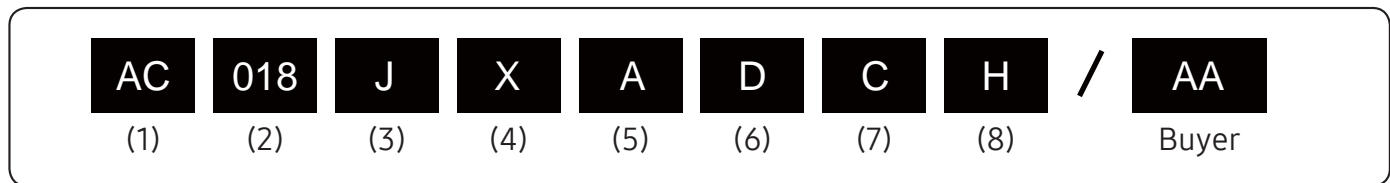
(8) Mode

H	Heat Pump
---	-----------

Nomenclature

Outdoor Unit

Model Name



(1) Classification

AC	Single
AM	VRF

(2) Capacity

x 1000 Btu/h (3 digits)

(3) Version

F	2013
H	2014
J	2015

(4) Product Type

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

(5) Feature1

A	Inv+Side+General Temp
S	Inv+Side+Low Temp
Q	Inv+Side+Tropical Temp
F	Inv+Top+Tropical Temp

(6) Feature2

F	Flagship
S	Standard
D	Deluxe
P	Premium

(7) Rating Voltage







C	1Φ, 208~230V, 60Hz
H	3Φ, 400V, 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 (kBtu/h)					
	18	24	30	36	42	48
Wind-Free 4Way CST						

Outdoor Unit

Model	Capacity (kBtu/h)					
	18	24	30	36	42	48
1Phase						

Contents

Wind-Free 4Way Cassette	10
Outdoor Units	34

Wind-Free 4Way Cassette

Wind-Free 4Way Cassette

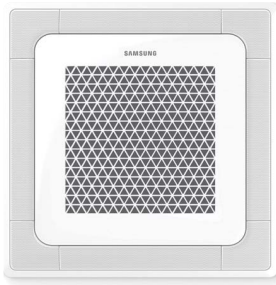
1. Specification	12
2. Summary Table	18
3. Capacity Table	19
4. Dimensional Drawing	25
5. Center of Gravity	27
6. Electrical Wiring Diagram	28
7. Sound Data	29
8. Temperature and air flow distribution	31

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.



Wind-Free 4Way Cassette - Stylishly clean design

Aesthetic panel and display

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



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

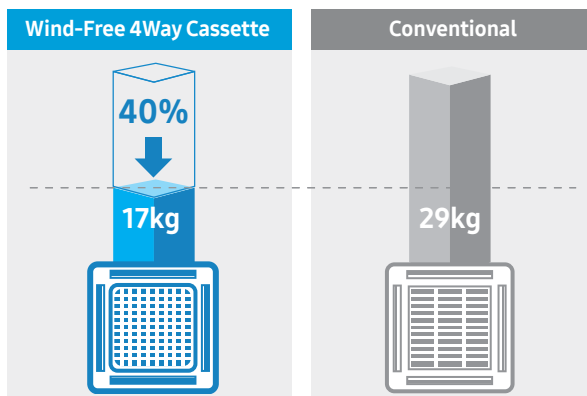
- **Stylishly clean design.** Add panache to interior spaces with a choice of clean, streamlined panel patterns in a lightweight build.
- **Robust operation.** Control the atmosphere perfectly with an advanced design for superior airflow and cooling/heating performance.
- **Low maintenance and simple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

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

System	Model Name		Indoor Unit	AC018NN4DCH/AA	AC024NN4DCH/AA	AC030NN4DCH/AA				
			Outdoor Unit	AC018JXADCH/AA	AC024JXADCH/AA	AC030JXADCH/AA				
	US Code		Indoor Unit	CNH184DN	CNH244DN	CNH304DN				
			Outdoor Unit	CXH18ADJ	CXH24ADJ	CXH30ADJ				
	Mode			-	Heat Pump	Heat Pump	Heat Pump			
	Performance		Capacity		Cooling (Min/Std/Max)					
					kW	1.47 / 5.28 / 6.15	2.05 / 7.03 / 7.91	2.73 / 8.79 / 10.26		
					Btu/h	5,000 / 18,000 / 21,000	7,000 / 24,000 / 27,000	9,300 / 30,000 / 35,000		
					US RT	0.42 / 1.50 / 1.75	0.58 / 2.00 / 2.25	0.78 / 2.50 / 2.92		
					Heating (Min/Std/Max)					
					kW	1.11 / 5.86 / 7.33	1.52 / 7.91 / 9.09	2.64 / 9.38 / 11.14		
			Btu/h	3,800 / 20,000 / 25,000	5,200 / 27,000 / 31,000	9,000 / 32,000 / 38,000				
			US RT	0.32 / 1.67 / 2.08	0.43 / 2.25 / 2.58	0.75 / 2.67 / 3.17				
	Power		Power Input		Cooling (Min/Std/Max)					
					kW	0.35 / 1.54 / 2.20	0.45 / 2.11 / 2.50	0.70 / 2.89 / 4.00		
					Heating (Min/Std/Max)					
					kW	0.26 / 1.60 / 2.70	0.38 / 2.50 / 3.50	0.65 / 3.11 / 5.50		
			Current Input		Cooling (Min/Std/Max)					
					A	2.10 / 7.10 / 10.00	2.80 / 9.80 / 12.00	4.00 / 13.40 / 17.00		
			Heating (Min/Std/Max)							
			A	1.70 / 7.40 / 12.00	2.50 / 11.60 / 14.50	3.40 / 14.40 / 21.80				
	Current		MCA		A	8.10	12.06	19.71		
			MFA		A	15	20	30		
	Efficiency		EER		Cooling		-	3.43	3.33	3.04
					Cooling (US)		(Btu/h)/W	11.70	11.40	10.40
			COP		Heating		W/W	3.66	3.17	3.02
			SEER				-	20.1	20.5	19.2
			HSPF				-	10.0	9.7	9.8
	Piping Connections		Liquid Pipe		Type	Flare connection	Flare connection	Flare connection		
					Φ, mm (inch)	6.35 (1/4")	6.35 (1/4")	9.52 (3/8")		
Gas Pipe			Type	Flare connection	Flare connection	Flare connection				
			Φ, mm (inch)	12.70 (1/2")	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 (ft)	7.5(24.6)	7.5(24.6)	7.5(24.6)		
			Max.		m (ft)	30 (98)	50 (164)	50 (164)		
		Elevation		m (ft)	20 (66)	30 (98)	30 (98)			
		Chargeless		m (ft)	7.5(24.6)	7.5(24.6)	7.5(24.6)			
Wiring connections		Communication		Min.	mm ²	0.75	0.75	0.75		
		Remark				-	F1, F2	F1, F2	F1, F2	
Refrigerant		Type				-	R410A	R410A	R410A	
		Factory Charging				kg	1.3	2.1	2.6	
						lbs	2.87	4.63	5.73	

1. Specification

Wind-Free 4Way Cassette

Indoor Unit	Model Name		Indoor Unit	AC018NN4DCH/AA	AC024NN4DCH/AA	AC030NN4DCH/AA		
			Outdoor Unit	AC018JXADCH/AA	AC024JXADCH/AA	AC030JXADCH/AA		
	US Code		Indoor Unit	CNH184DN	CNH244DN	CNH304DN		
			Outdoor Unit	CXH18ADJ	CXH24ADJ	CXH30ADJ		
	Power Supply			∅, #, V, Hz	1,2,208-230,60	1,2,208-230,60	1,2,208-230,60	
	Heat Exchanger		Type		-	Fin & Tube	Fin & Tube	
			Material	Fin	-	Al	Al	Al
				Tube	-	Cu	Cu	Cu
			Fin Treatment		-	Green Hydrophile	Green Hydrophile	
	Fan		Type		-	Turbo	Turbo	
			Quantity		EA	1	1	1
			Air Flow Rate	H/M/L	m ³ /min	16.4	16.4	23.8
					ft ³ /min	580	580	840
				l/s	273.7	273.7	396.4	
	Fan Motor		Type		-	BLDC Motor	BLDC Motor	
			Output		W x n	65 x 1	65 x 1	97 x 1
	Drain	Drain Pipe		∅, 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)	36 / 33 / 30	36 / 33 / 30	
			Sound Power Level		dB(A)	51	51	53
	External Dimension		Net Weight		kg (lbs)	15.0 (33.07)	15.0 (33.07)	
			Shipping Weight		kg (lbs)	18.0 (39.68)	18.0 (39.68)	22.0 (48.50)
			Net Dimensions (WxHxD)		mm	840 x 204 x 840	840 x 204 x 840	840 x 288 x 840
					inch	33.07 x 8.03 x 33.07	33.07 x 8.03 x 33.07	33.07 x 11.34 x 33.07
			Shipping Dimensions (WxHxD)		mm	898 x 275 x 898	898 x 275 x 898	898 x 357 x 898
	inch	35.35 x 10.83 x 35.35			35.35 x 10.83 x 35.35	35.35 x 14.06 x 35.35		
	Casing	Material		-	Polypropylene	Polypropylene	Polypropylene	
	Panel		Model Name		-	PC4NUFMAN PC4NUFMUN	PC4NUFMAN PC4NUFMUN	
			Type		-	Wind-Free Type	Wind-Free Type	Wind-Free Type
			Material		-	HIPS	HIPS	HIPS
			Color		-	DA White	DA White	DA White
			Net Weight		kg (lbs)	6.3 (13.89)	6.3 (13.89)	6.3 (13.89)
			Shipping Weight		kg (lbs)	8.7 (19.18)	8.7 (19.18)	8.7 (19.18)
			Net Dimensions (WxHxD)		mm	950 x 64 x 950	950 x 64 x 950	950 x 64 x 950
inch					37.4 x 2.5 x 37.4	37.4 x 2.5 x 37.4	37.4 x 2.5 x 37.4	
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		
		inch	39.8 x 4.6 x 39.4	39.8 x 4.6 x 39.4	39.8 x 4.6 x 39.4			
Control System		Infrared remote control		-	AR-EH03E	AR-EH03E		
		Wired remote control		-	MWR-WE13N	MWR-WE13N		
Drain Pump		Drain Pump		-	Included	Included		
		Max. lifting Height / Displacement		in / gal/h	29-5/16 6.34gal/h	29-5/16 6.34gal/h	29-5/16 6.34gal/h	
Additional Accessories	Air Filter		-	Removable / Washable	Removable / Washable	Removable / Washable		

1. Specification

Wind-Free 4Way Cassette

Outdoor Unit	Model Name		Indoor Unit	AC018NN4DCH/AA	AC024NN4DCH/AA	AC030NN4DCH/AA				
	Model Name		Outdoor Unit	AC018JXADCH/AA	AC024JXADCH/AA	AC030JXADCH/AA				
	US Code		Indoor Unit	CNH184DN	CNH244DN	CNH304DN				
	US Code		Outdoor Unit	CXH18ADJ	CXH24ADJ	CXH30ADJ				
	Power Supply			Ø, #, V, Hz	1,2,208-230,60	1,2,208-230,60	1,2,208-230,60			
	Heat Exchanger		Type		-	FMC	FMC	FMC		
			Material		Fin		-	Al	Al	Al
					Tube		-	Al	Al	Al
	Fin Treatment		-	Hybrid Coating	Hybrid Coating	Hybrid Coating				
	Compressor		Model Name		-	UG4T150LNBEQ	UG4T200LNFE4	UG8T300LNBJU		
			Type		-	BLDC Rotary	BLDC Rotary	BLDC Rotary		
			Output		kW		1.42	1.85	2.82	
					Oil		-	POE	POE	PVE
			Initial charge		cc (fl oz)	500	700	1200		
	Fan		Type		-	Propeller	Propeller	Propeller		
			Discharge direction		-	Front	Front	Front		
			Quantity		EA	1	1	1		
			Air Flow Rate		m ³ /min		43.9	62.0	62.9	
					ft ³ /min		1,550	2,190	2,220	
			l/s		731.5	1033.5	1047.7			
	Fan Motor		Type		-	BLDC Motor	BLDC Motor	BLDC Motor		
			Output		W x n	68 x 1	125 x 1	125 x 1		
	Sound		Sound Pressure Level		Cooling		dB(A)	48	50	50
					Heating		dB(A)	48	50	52
			Sound Power Level		dB(A)	62	65	65		
	External Dimension		Net Weight		kg (lbs)	45.0 (99.21)	64.5 (142.20)	70.0 (154.32)		
			Shipping Weight		kg (lbs)	48.0 (105.82)	69.5 (153.22)	74.0 (163.14)		
			Net Dimensions (W×H×D)		mm		880 x 638 x 310	940 x 998 x 330	940 x 998 x 330	
inch					34.65 x 25.12 x 12.20	37.01 x 39.29 x 12.99	37.01 x 39.29 x 12.99			
Shipping Dimensions (W×H×D)			mm		1,023 x 730 x 413	995 x 1,096 x 426	995 x 1,096 x 426			
		inch		40.28 x 28.74 x 16.26	39.17 x 43.15 x 16.77	39.17 x 43.15 x 16.77				
Casing		Material		-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate			
		Body		-	EGI Steel Plate	EGI Steel Plate	EGI Steel Plate			
Operating Temp. Range		Cooling		°C (°F)	-18~46 (-0.4 ~ 114.8)	-18~46 (-0.4 ~ 114.8)	-18~46 (-0.4 ~ 114.8)			
		Heating		°C (°F)	-20.0~24.0 (-4.0 ~ 75)	-20.0~24.0 (-4.0 ~ 75)	-20.0~24.0 (-4.0 ~ 75)			

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB, Outdoor temperature : 95°F(35°C) DB, 75°F(23.9°C) WB
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB, Outdoor temperature : 47°F(8.3°C) DB, 43°F(6.1°C) WB
 - Equivalent refrigerant piping length 5m(16.4ft), Level differences : 0m(0ft)
 - 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

System	Model Name		Indoor Unit	AC036NN4DCH/AA	AC042NN4DCH/AA	AC048NN4DCH/AA	
			Outdoor Unit	AC036JXADCH/AA	AC042JXADCH/AA	AC048JXADCH/AA	
	US Code		Indoor Unit	CNH364DN	CNH424DN	CNH484DN	
			Outdoor Unit	CXH36ADJ	CXH42ADJ	CXH48ADJ	
	US Code			Indoor Unit	Heat Pump	Heat Pump	Heat Pump
	Outdoor Unit		Cooling (Min/Std/Max)	kW	4.10 / 10.55 / 12.02	4.78 / 12.31 / 13.19	5.45 / 14.07 / 14.95
				Btu/h	14,000 / 36,000 / 41,000	16,300 / 42,000 / 45,000	18,600 / 48,000 / 51,000
				US RT	1.17 / 3.00 / 3.42	1.36 / 3.50 / 3.75	1.55 / 4.00 / 4.25
			Heating (Min/Std/Max)	kW	3.37 / 11.72 / 14.07	3.93 / 13.77 / 14.65	4.48 / 15.53 / 16.12
				Btu/h	11,500 / 40,000 / 48,000	13,400 / 47,000 / 50,000	15,300 / 53,000 / 55,000
				US RT	0.96 / 3.33 / 4.00	1.12 / 3.92 / 4.17	1.28 / 4.42 / 4.58
	Power	Power Input	Cooling (Min/Std/Max)	kW	0.93 / 2.98 / 3.60	1.08 / 4.04 / 4.50	1.24 / 4.95 / 5.00
			Heating (Min/Std/Max)	kW	0.72 / 3.48 / 5.00	0.84 / 4.35 / 5.40	0.96 / 5.05 / 5.70
		Current Input	Cooling (Min/Std/Max)	A	4.80 / 13.80 / 17.00	5.60 / 18.70 / 21.00	6.40 / 22.90 / 23.00
			Heating (Min/Std/Max)	A	3.70 / 16.10 / 23.00	4.30 / 20.10 / 25.00	5.00 / 23.40 / 28.00
		Current	MCA	A	22.08	22.08	22.08
			MFA	A	35	35	35
	Efficiency	EER	Cooling	-	3.54	3.05	2.84
			Cooling (US)	(Btu/h)/W	12.10	10.40	9.70
		COP	Heating	W/W	3.37	3.17	3.08
		SEER	-	20.5	19.6	18.8	
		HSPF	-	9.5	9.5	9.5	
	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
Piping length (ODU-IDU)		Standard	Max.	m (ft)	7.5(24.6)	7.5(24.6)	7.5(24.6)
			Elevation	m (ft)	30 (98)	30 (98)	30 (98)
	Chargeless		Min.	mm ²	0.75	0.75	0.75
			Remark	-	F1, F2	F1, F2	F1, F2
Wiring connections	Communication		Min.	mm ²	0.75	0.75	
	Communication		Remark	-	F1, F2	F1, F2	
Refrigerant	Type		-	R410A	R410A	R410A	
	Factory Charging		kg	2.8	2.8	2.8	
			lbs	6.17	6.17	6.17	

1. Specification

Wind-Free 4Way Cassette

Indoor Unit	Model Name		Indoor Unit	AC036NN4DCH/AA	AC042NN4DCH/AA	AC048NN4DCH/AA		
			Outdoor Unit	AC036JXADCH/AA	AC042JXADCH/AA	AC048JXADCH/AA		
	US Code		Indoor Unit	CNH364DN	CNH424DN	CNH484DN		
			Outdoor Unit	CXH36ADJ	CXH42ADJ	CXH48ADJ		
	Power Supply			Ø, #, V, Hz	1,2,208-230,60	1,2,208-230,60	1,2,208-230,60	
	Heat Exchanger		Type		-	Fin & Tube	Fin & Tube	
			Material	Fin	-	Al	Al	Al
				Tube	-	Cu	Cu	Cu
			Fin Treatment		-	Green Hydrophile	Green Hydrophile	
	Fan		Type		-	Turbo	Turbo	
			Quantity		EA	1	1	1
			Air Flow Rate	H/M/L	m ³ /min	28.9	33.1	34.8
					ft ³ /min	1,020	1,170	1,230
					l/s	481.4	552.2	
	Fan Motor		Type		-	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)	
	Sound		Sound Pressure Level	H/M/L/(Silent)	dB(A)	43 / 38 / 33	44 / 40 / 34	
			Sound Power Level		dB(A)	58	59	60
	External Dimension		Net Weight		kg (lbs)	18.5 (40.79)	18.5 (40.79)	
			Shipping Weight		kg (lbs)	22.0 (48.50)	22.0 (48.50)	22.0 (48.50)
			Net Dimensions (WxHxD)		mm		840 x 288 x 840	840 x 288 x 840
					inch		33.07 x 11.34 x 33.07	33.07 x 11.34 x 33.07
			Shipping Dimensions (WxHxD)		mm		898 x 357 x 898	898 x 357 x 898
	inch				35.35 x 14.06 x 35.35	35.35 x 14.06 x 35.35		
	Casing		Material		-	Polypropylene	Polypropylene	
	Panel		Model Name		-	PC4NUFMAN PC4NUFMUN	PC4NUFMAN PC4NUFMUN	
			Type		-	Wind-Free Type	Wind-Free Type	
			Material		-	HIPS	HIPS	
			Color		-	DA White	DA White	
			Net Weight		kg (lbs)	6.3 (13.89)	6.3 (13.89)	6.3 (13.89)
			Shipping Weight		kg (lbs)	8.7 (19.18)	8.7 (19.18)	8.7 (19.18)
			Net Dimensions (WxHxD)		mm		950 x 64 x 950	950 x 64 x 950
					inch		37.4 x 2.5 x 37.4	37.4 x 2.5 x 37.4
			Shipping Dimensions (WxHxD)		mm		1,010 x 117 x 1,000	1,010 x 117 x 1,000
	inch				39.8 x 4.6 x 39.4	39.8 x 4.6 x 39.4		
	Control System		Infrared remote control		-	AR-EH03E	AR-EH03E	
			Wired remote control		-	MWR-WE13N	MWR-WE13N	
	Drain Pump		Drain Pump		-	Included	Included	
			Max. lifting Height / Displacement		in / gal/h	29-5/16 6.34gal/h	29-5/16 6.34gal/h	
Additional Accessories		Air Filter		-	Removable / Washable	Removable / Washable		

1. Specification

Wind-Free 4Way Cassette

Outdoor Unit	Model Name		Indoor Unit	AC036NN4DCH/AA	AC042NN4DCH/AA	AC048NN4DCH/AA	
	Outdoor Unit			AC036JXADCH/AA	AC042JXADCH/AA	AC048JXADCH/AA	
	US Code		Indoor Unit	CNH364DN	CNH424DN	CNH484DN	
	Outdoor Unit			CXH36ADJ	CXH42ADJ	CXH48ADJ	
	Power Supply			Ø, #, V, Hz	1,2,208-230,60	1,2,208-230,60	1,2,208-230,60
	Heat Exchanger		Type	-	FMC	FMC	FMC
	Material		Fin	-	Al	Al	Al
			Tube	-	Al	Al	Al
	Fin Treatment			-	Hybrid Coating	Hybrid Coating	Hybrid Coating
	Compressor		Model Name	-	UG5T450FUEJX	UG5T450FUEJX	UG5T450FUEJX
			Type	-	BLDC Rotary	BLDC Rotary	BLDC Rotary
	Output			kW	4.12	4.12	4.12
	Oil		Type	-	POE	POE	POE
			Initial charge	cc (fl oz)	1700	1700	1700
	Fan		Type	-	Propeller	Propeller	Propeller
			Discharge direction	-	Front	Front	Front
	Quantity			EA	2	2	2
	Air Flow Rate			m ³ /min	86.1	86.1	86.1
				ft ³ /min	3,040	3,040	3,040
				l/s	1434.7	1434.7	1434.7
	Fan Motor		Type	-	BLDC Motor	BLDC Motor	BLDC Motor
	Output			W x n	125 x 2	125 x 2	125 x 2
	Sound		Sound Pressure Level	Cooling	dB(A)	49	51
				Heating	dB(A)	51	53
	Sound Power Level				dB(A)	65	66
	External Dimension		Net Weight	kg (lbs)	88 (194.0)	88 (194.0)	88 (194.0)
			Shipping Weight	kg (lbs)	98.0 (216.05)	98.0 (216.05)	98.0 (216.05)
			Net Dimensions (W×H×D)	mm	940 x 1,210 x 330	940 x 1,210 x 330	940 x 1,210 x 330
		inch		37.01 x 47.64 x 12.99	37.01 x 47.64 x 12.99	37.01 x 47.64 x 12.99	
		Shipping Dimensions (W×H×D)	mm	995 x 1,388 x 426	995 x 1,388 x 426	995 x 1,388 x 426	
			inch	39.17 x 54.65 x 16.77	39.17 x 54.65 x 16.77	39.17 x 54.65 x 16.77	
Casing		Material	Body	-	EGI Steel Plate	EGI Steel Plate	
Operating Temp. Range		Cooling	°C (°F)	-18~46 (-0.4 ~ 114.8)	-18~46 (-0.4 ~ 114.8)	-18~46 (-0.4 ~ 114.8)	
		Heating	°C (°F)	-20.0~24.0 (-4.0 ~ 75)	-20.0~24.0 (-4.0 ~ 75)	-20.0~24.0 (-4.0 ~ 75)	

NOTE

- Specification may be subject to change without prior notice.
 - 1) Performances are based on the following test conditions.
 - Cooling : Indoor temperature : 80°F(26.7°C) DB, 67°F(19.4°C) WB, Outdoor temperature : 95°F(35°C) DB, 75°F(23.9°C) WB
 - Heating : Indoor temperature : 70°F(21.1°C) DB, 60°F(15.6°C) WB, Outdoor temperature : 47°F(8.3°C) DB, 43°F(6.1°C) WB
 - Equivalent refrigerant piping length 5m(16.4ft), Level differences : 0m(0ft))
 - 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 (lbs)	Capacity		Fan Speed	Airflow (Cooling/Heating) (CFM)	Sound Pressure Level (dBA)	Sound Power Level (dBA)	
		Cooling (Btu/h)	Heating (Btu/h)					
CNH184DN (AC018NN4DCH/AA)	33.07	Max.	21,000	25,000	High	580 / 580	36	51
		Std.	18,000	20,000	Mid	490 / 490	33	-
		Min.	5,000	3,800	Low	430 / 430	30	-
CNH244DN (AC024NN4DCH/AA)	33.07	Max.	27,000	31,000	High	580 / 580	36	51
		Std.	24,000	27,000	Mid	490 / 490	33	-
		Min.	7,000	5,200	Low	430 / 430	30	-
CNH304DN (AC030NN4DCH/AA)	40.79	Max.	35,000	38,000	High	840 / 840	38	53
		Std.	30,000	32,000	Mid	715 / 715	35	-
		Min.	9,300	9,000	Low	590 / 590	32	-
CNH364DN (AC036NN4DCH/AA)	40.79	Max.	41,000	48,000	High	1,020 / 1,020	43	58
		Std.	36,000	40,000	Mid	840 / 840	38	-
		Min.	14,000	11,500	Low	620 / 620	33	-
CNH424DN (AC042NN4DCH/AA)	40.79	Max.	45,000	50,000	High	1,170 / 1,170	44	59
		Std.	42,000	47,000	Mid	890 / 890	40	-
		Min.	16,300	13,400	Low	670 / 670	34	-
CNH484DN (AC048NN4DCH/AA)	40.79	Max.	51,000	55,000	High	1,230 / 1,230	45	60
		Std.	48,000	53,000	Mid	940 / 940	41	-
		Min.	18,600	15,300	Low	715 / 715	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)	MOP(A)	
		Hz	Voltz	Min.	Max	Cooling					Heating
CNH184DN (AC018NN4DCH/AA)	CXH18ADJ (AC018JXADCH/AA)	60	208 to 230	187	253	7.10	7.10	1.00	8.10	8.10	15.00
CNH244DN (AC024NN4DCH/AA)	CXH24ADJ (AC024JXADCH/AA)	60	208 to 230	187	253	11.06	11.06	1.00	12.06	12.06	20.00
CNH304DN (AC030NN4DCH/AA)	CXH30ADJ (AC030JXADCH/AA)	60	208 to 230	187	253	18.71	18.71	1.00	19.71	19.71	30.00
CNH364DN (AC036NN4DCH/AA)	CXH36ADJ (AC036JXADCH/AA)	60	208 to 230	187	253	21.08	21.08	1.00	22.08	22.08	35.00
CNH424DN (AC042NN4DCH/AA)	CXH42ADJ (AC042JXADCH/AA)	60	208 to 230	187	253	21.08	21.08	1.00	22.08	22.08	35.00
CNH484DN (AC048NN4DCH/AA)	CXH48ADJ (AC048JXADCH/AA)	60	208 to 230	187	253	21.08	21.08	1.00	22.08	22.08	35.00

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) CNH184DN (AC018NN4DCH/AA) + CXH18ADJ (AC018JXADCH/AA)

Cooling

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

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68/57			72/61			77/64			80/67			82/70			86/72			90/75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0.0	19.99	15.99	0.66	20.48	16.38	0.68	20.98	16.79	0.69	21.50	17.20	0.71	21.72	17.37	0.72	22.24	17.79	0.73	22.57	18.06	0.75
70.0	21.48	17.18	1.08	22.00	17.60	1.10	22.55	18.04	1.13	23.10	18.48	1.16	23.33	18.66	1.17	23.89	19.11	1.20	24.25	19.40	1.22
95.0	16.73	13.39	1.43	17.15	13.72	1.47	17.57	14.05	1.50	18.00	14.40	1.54	18.18	14.54	1.56	18.62	14.89	1.59	18.90	15.12	1.62
115.0	16.27	13.02	2.09	16.67	13.34	2.14	17.08	13.66	2.20	17.50	14.00	2.25	17.68	14.14	2.27	18.10	14.48	2.33	18.37	14.70	2.36

Heating

TC : Total Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61.0		64.0		68.0		70.0		72.0		75.0	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	10.51	1.33	10.41	1.32	10.30	1.30	10.20	1.29	10.10	1.28	10.00	1.26
14.0	19.68	1.97	19.48	1.95	19.29	1.93	19.10	1.91	18.91	1.89	18.72	1.87
32.0	20.09	1.85	19.89	1.84	19.70	1.82	19.50	1.80	19.31	1.78	19.11	1.76
47.0	20.61	1.65	20.40	1.63	20.20	1.62	20.00	1.60	19.80	1.58	19.60	1.57
75.2	25.86	1.08	25.60	1.07	25.35	1.06	25.10	1.05	24.85	1.04	24.60	1.03

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(2) CNH244DN (AC024NN4DCH/AA) + CXH24ADJ (AC024JXADCH/AA)

Cooling

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

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68/57			72/61			77/64			80/67			82/70			86/72			90/75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0.0	26.12	20.90	0.86	26.77	21.41	0.89	27.43	21.94	0.91	28.10	22.48	0.93	28.38	22.70	0.94	29.06	23.25	0.96	29.50	23.60	0.98
70.0	25.85	20.68	1.87	26.48	21.19	1.91	27.13	21.71	1.96	27.80	22.24	2.01	28.08	22.46	2.03	28.75	23.00	2.08	29.18	23.35	2.11
95.0	22.31	17.85	1.96	22.86	18.29	2.01	23.42	18.74	2.06	24.00	19.20	2.11	24.24	19.39	2.13	24.82	19.86	2.18	25.19	20.16	2.21
115.0	21.48	17.18	2.81	22.00	17.60	2.88	22.55	18.04	2.95	23.10	18.48	3.02	23.33	18.66	3.05	23.89	19.11	3.12	24.25	19.40	3.17

Heating

TC : Total Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61.0		64.0		68.0		70.0		72.0		75.0	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	16.28	2.18	16.12	2.16	15.96	2.14	15.80	2.12	15.64	2.10	15.49	2.08
14.0	25.96	3.19	25.71	3.16	25.45	3.13	25.20	3.10	24.95	3.07	24.70	3.04
32.0	25.76	2.88	25.50	2.86	25.25	2.83	25.00	2.80	24.75	2.77	24.50	2.74
47.0	27.82	2.58	27.54	2.55	27.27	2.53	27.00	2.50	26.73	2.48	26.46	2.45
75.2	33.48	2.56	33.15	2.53	32.83	2.50	32.50	2.48	32.18	2.46	31.85	2.43

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(3) CNH304DN (AC030NN4DCH/AA) + CXH30ADJ (AC030JXADCH/AA)

Cooling

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

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68/57			72/61			77/64			80/67			82/70			86/72			90/75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0.0	32.73	26.18	1.72	33.53	26.82	1.76	34.36	27.48	1.81	35.20	28.16	1.85	35.55	28.44	1.87	36.41	29.12	1.91	36.95	29.56	1.94
70.0	31.98	25.59	1.81	32.77	26.21	1.86	33.57	26.86	1.90	34.40	27.52	1.95	34.74	27.80	1.97	35.58	28.46	2.02	36.11	28.89	2.05
95.0	27.89	22.31	2.69	28.58	22.86	2.75	29.28	23.42	2.82	30.00	24.00	2.89	30.30	24.24	2.92	31.03	24.82	2.99	31.49	25.19	3.03
115.0	22.87	18.30	2.85	23.43	18.75	2.92	24.01	19.21	3.00	24.60	19.68	3.07	24.85	19.88	3.10	25.44	20.35	3.18	25.82	20.66	3.22

Heating

TC : Total Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61.0		64.0		68.0		70.0		72.0		75.0	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	21.12	2.83	20.91	2.81	20.71	2.78	20.50	2.75	20.30	2.72	20.09	2.70
14.0	33.48	4.46	33.15	4.42	32.83	4.37	32.50	4.33	32.18	4.29	31.85	4.24
32.0	33.69	3.61	33.36	3.57	33.03	3.54	32.70	3.50	32.37	3.47	32.05	3.43
47.0	32.97	3.20	32.64	3.17	32.32	3.14	32.00	3.11	31.68	3.08	31.36	3.05
75.2	42.04	3.03	41.62	3.00	41.21	2.97	40.80	2.94	40.39	2.91	39.99	2.88

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(4) CNH364DN (AC036NN4DCH/AA) + CXH36ADJ (AC036JXADCH/AA)

Cooling

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

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68/57			72/61			77/64			80/67			82/70			86/72			90/75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0.0	36.02	28.81	2.40	36.90	29.52	2.46	37.81	30.25	2.52	38.74	30.99	2.58	39.13	31.30	2.61	40.07	32.05	2.67	40.67	32.53	2.71
70.0	35.89	28.71	2.43	36.77	29.42	2.49	37.67	30.14	2.55	38.60	30.88	2.61	38.99	31.19	2.64	39.92	31.94	2.70	40.52	32.42	2.74
95.0	33.47	26.78	2.77	34.29	27.43	2.84	35.14	28.11	2.91	36.00	28.80	2.98	36.36	29.09	3.01	37.23	29.79	3.08	37.79	30.23	3.13
115.0	23.34	18.67	2.52	23.91	19.13	2.58	24.50	19.60	2.64	25.10	20.08	2.71	25.35	20.28	2.74	25.96	20.77	2.80	26.35	21.08	2.84

Heating

TC : Total Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61.0		64.0		68.0		70.0		72.0		75.0	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	26.27	4.33	26.01	4.28	25.76	4.24	25.50	4.20	25.25	4.16	24.99	4.12
14.0	39.67	4.96	39.27	4.91	38.89	4.86	38.50	4.81	38.12	4.76	37.73	4.71
32.0	40.70	4.22	40.29	4.18	39.90	4.14	39.50	4.10	39.11	4.06	38.71	4.02
47.0	41.21	3.59	40.80	3.55	40.40	3.51	40.00	3.48	39.60	3.45	39.20	3.41
75.2	48.22	2.97	47.74	2.94	47.27	2.91	46.80	2.88	46.33	2.85	45.87	2.82

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(5) CNH424DN (AC042NN4DCH/AA) + CXH42ADJ (AC042JXADCH/AA)

Cooling

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

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68/57			72/61			77/64			80/67			82/70			86/72			90/75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0.0	41.93	33.54	2.98	42.96	34.37	3.06	44.02	35.21	3.13	45.10	36.08	3.21	45.55	36.44	3.24	46.64	37.32	3.32	47.34	37.88	3.37
70.0	40.91	32.73	3.11	41.91	33.53	3.18	42.94	34.36	3.26	44.00	35.20	3.34	44.44	35.55	3.37	45.51	36.41	3.45	46.19	36.95	3.51
95.0	39.05	31.24	3.76	40.01	32.01	3.85	40.99	32.79	3.94	42.00	33.60	4.04	42.42	33.94	4.08	43.44	34.75	4.18	44.09	35.27	4.24
115.0	26.22	20.97	2.90	26.86	21.49	2.97	27.52	22.02	3.05	28.20	22.56	3.12	28.48	22.79	3.15	29.17	23.33	3.23	29.60	23.68	3.28

Heating

TC : Total Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61.0		64.0		68.0		70.0		72.0		75.0	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	26.89	4.48	26.62	4.44	26.36	4.39	26.10	4.35	25.84	4.31	25.58	4.26
14.0	41.01	5.10	40.60	5.05	40.20	5.00	39.80	4.95	39.40	4.90	39.01	4.85
32.0	45.59	4.84	45.14	4.79	44.69	4.75	44.25	4.70	43.81	4.65	43.37	4.61
47.0	48.42	4.48	47.94	4.44	47.47	4.39	47.00	4.35	46.53	4.31	46.06	4.26
75.2	53.37	4.02	52.84	3.98	52.32	3.94	51.80	3.90	51.28	3.86	50.77	3.82

NOTE

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

3. Capacity Table

Wind-Free 4Way Cassette

(6) CNH484DN (AC048NN4DCH/AA) + CXH48ADJ (AC048JXADCH/AA)

Cooling

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

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB / WB)																				
	68/57			72/61			77/64			80/67			82/70			86/72			90/75		
	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI	TC	SHC	PI
	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW	MBH	MBH	kW
0.0	48.81	39.05	3.18	50.01	40.01	3.26	51.24	40.99	3.34	52.50	42.00	3.42	53.03	42.42	3.45	54.30	43.44	3.54	55.11	44.09	3.59
70.0	47.79	38.23	3.23	48.96	39.17	3.31	50.17	40.13	3.39	51.40	41.12	3.47	51.91	41.53	3.50	53.16	42.53	3.59	53.96	43.17	3.64
95.0	44.63	35.70	4.60	45.72	36.58	4.72	46.85	37.48	4.83	48.00	38.40	4.95	48.48	38.78	5.00	49.64	39.71	5.12	50.39	40.31	5.20
115.0	30.03	24.02	3.32	30.77	24.61	3.40	31.52	25.22	3.48	32.30	25.84	3.57	32.62	26.10	3.61	33.41	26.72	3.69	33.91	27.13	3.75

Heating

TC : Total Capacity, PI : Power Input

Outdoor Temperature (°F, DB)	Indoor Temperature (°F, DB)											
	61.0		64.0		68.0		70.0		72.0		75.0	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW	MBH	kW
-4.0	26.89	4.48	26.62	4.44	26.36	4.39	26.10	4.35	25.84	4.31	25.58	4.26
14.0	41.01	5.10	40.60	5.05	40.20	5.00	39.80	4.95	39.40	4.90	39.01	4.85
32.0	48.22	5.25	47.74	5.20	47.27	5.15	46.80	5.10	46.33	5.05	45.87	5.00
47.0	54.61	5.20	54.07	5.15	53.53	5.10	53.00	5.05	52.47	5.00	51.95	4.95
75.2	57.18	4.58	56.62	4.54	56.06	4.49	55.50	4.45	54.95	4.41	54.40	4.36

NOTE

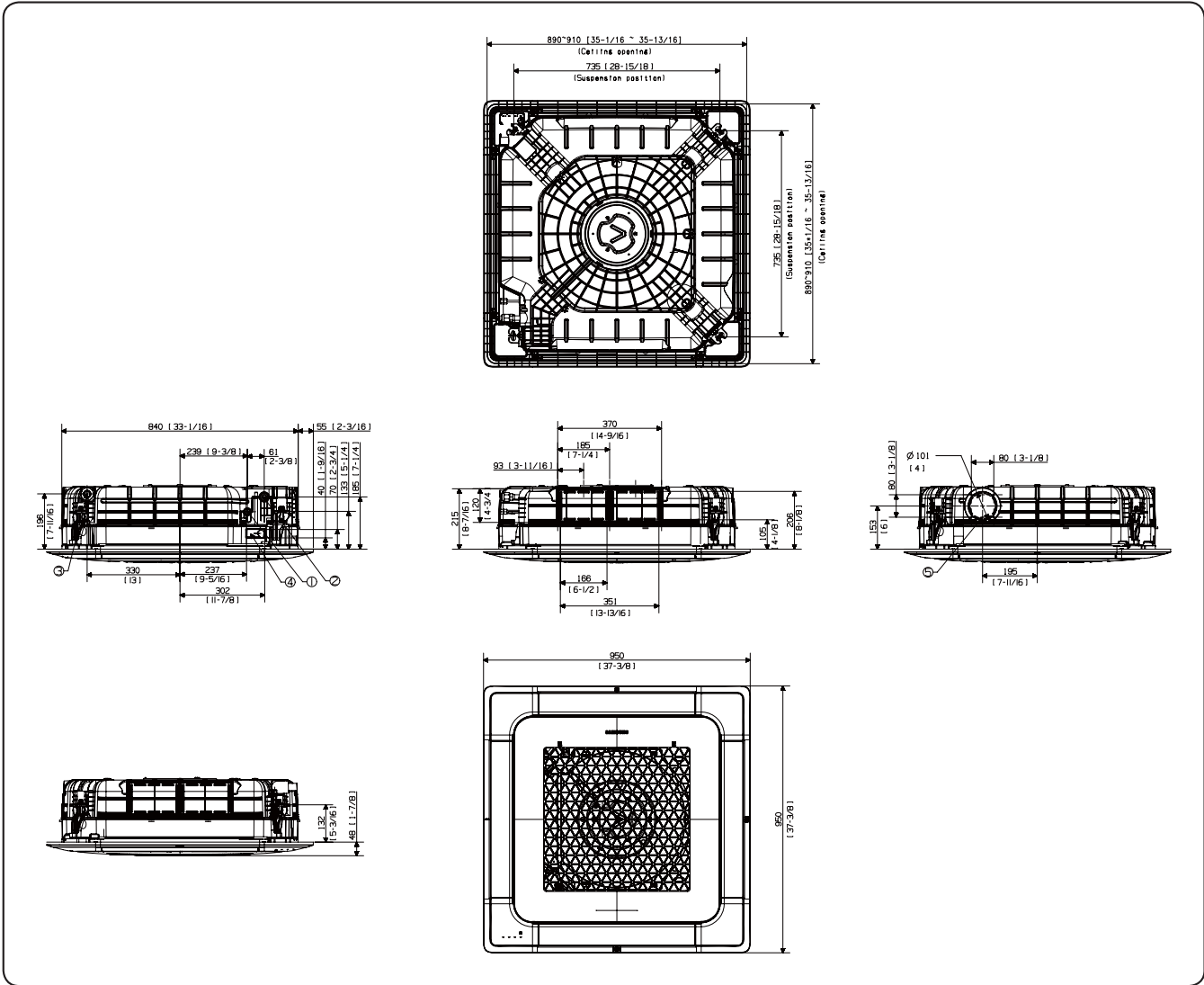
- The performance table shows the average value of each conditions.

4. Dimensional Drawing

Wind-Free 4Way Cassette

CNH184DN (AC018NN4DCH/AA), CNH244DN (AC024NN4DCH/AA)

Units : mm [inches]



No.	Name	Description	
		CNH184DN (AC018NN4DCH/AA)	CNH244DN (AC024NN4DCH/AA)
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

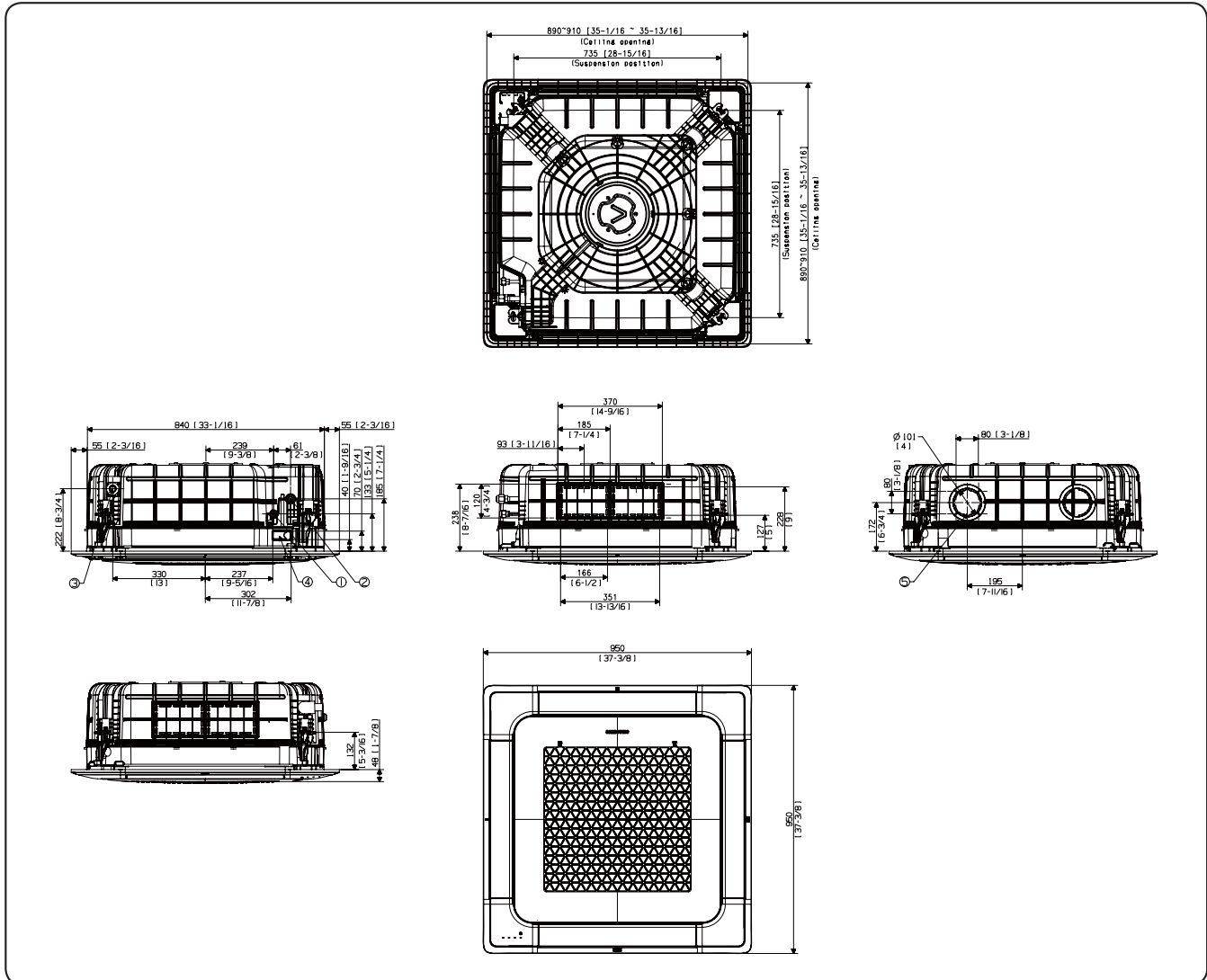
- As for suspension bolt, please use M8 ~ M10.
(Procured at local site)

4. Dimensional Drawing

Wind-Free 4Way Cassette

CNH304DN (AC030NN4DCH/AA), CNH364DN (AC036NN4DCH/AA),
 CNH424DN (AC042NN4DCH/AA), CNH484DN (AC048NN4DCH/AA)

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

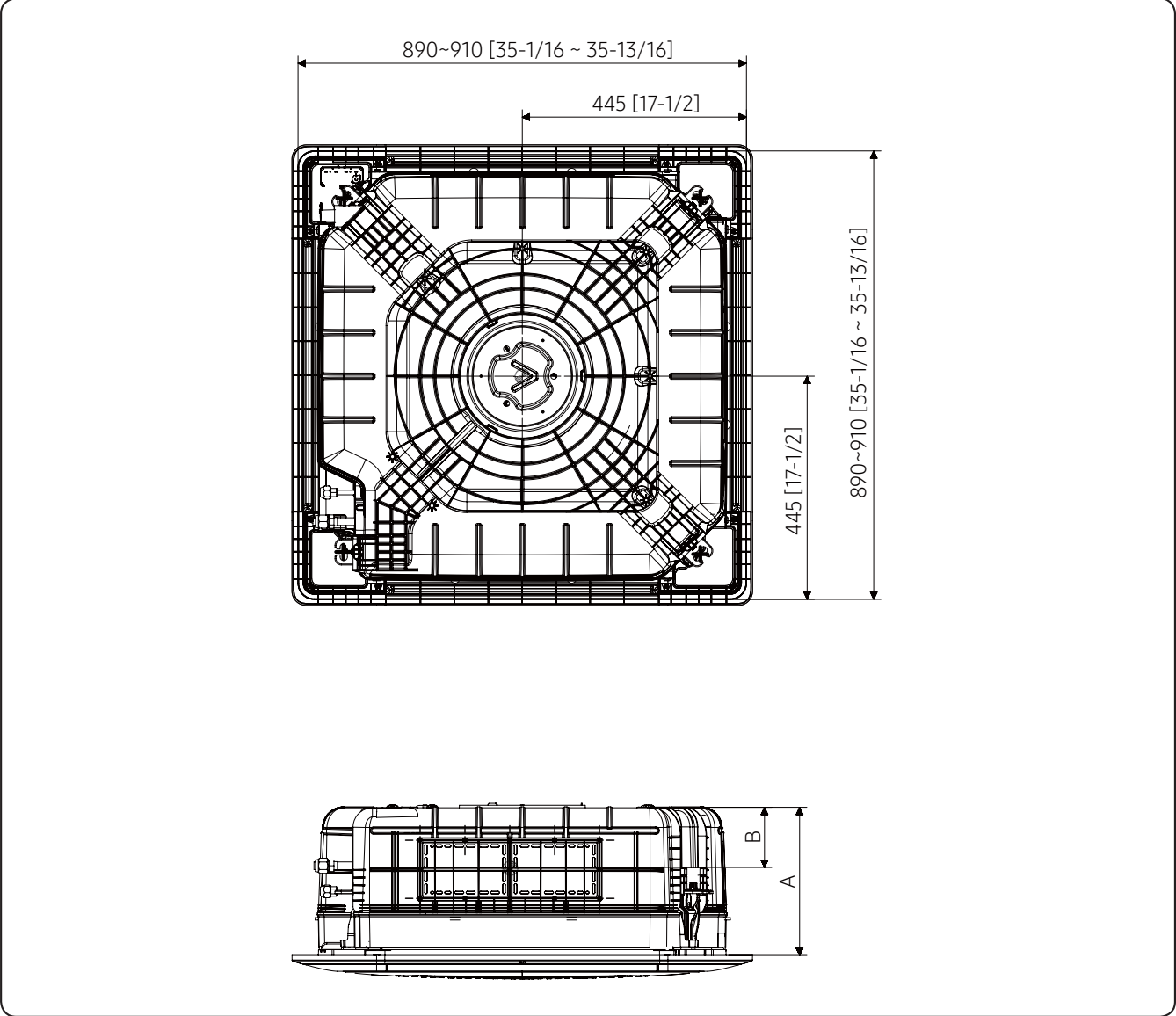
NOTE

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

5. Center of Gravity

Wind-Free 4Way Cassette

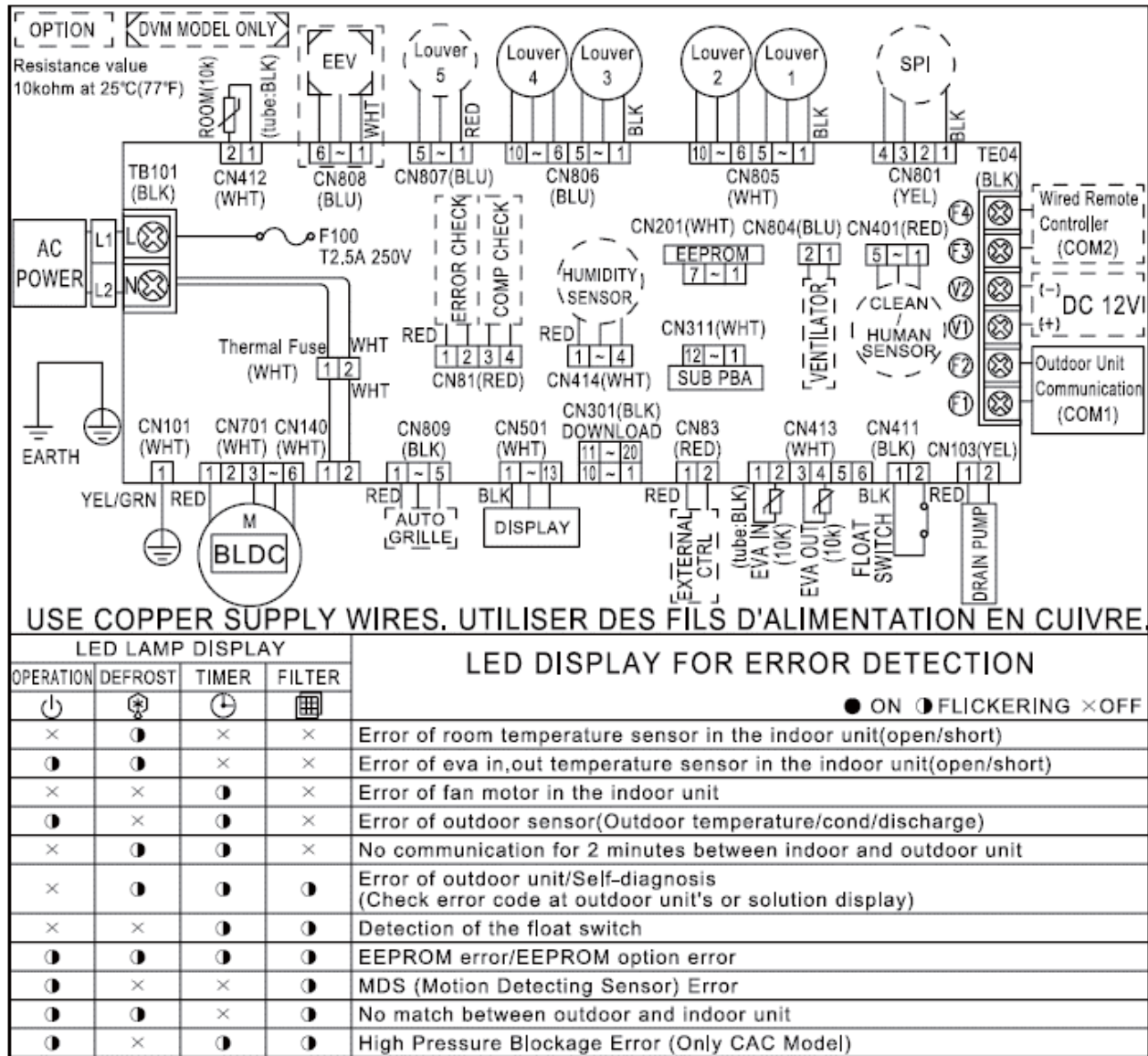
Units : mm [inches]



	A	B
~ 24kBtu/h	221 [8-11/16]	70 [2-3/4]
24~ 48kBtu/h	305 [12]	130 [5-1/8]

6. Electrical Wiring Diagram

Wind-Free 4Way Cassette



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)

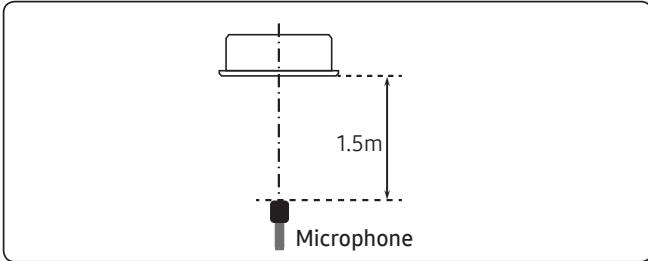
NOTE

- 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, : The wire quantity

7. Sound Data

Wind-Free 4Way Cassette

Sound Pressure level

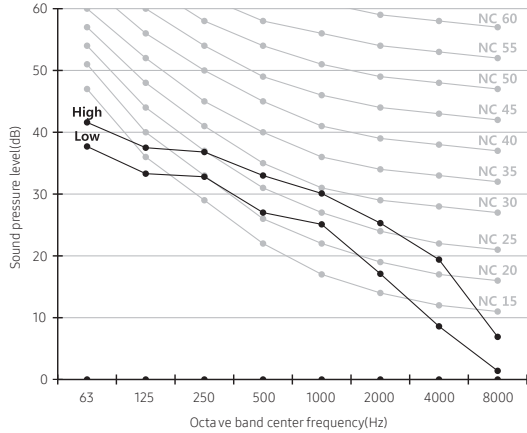


Unit: dB(A)

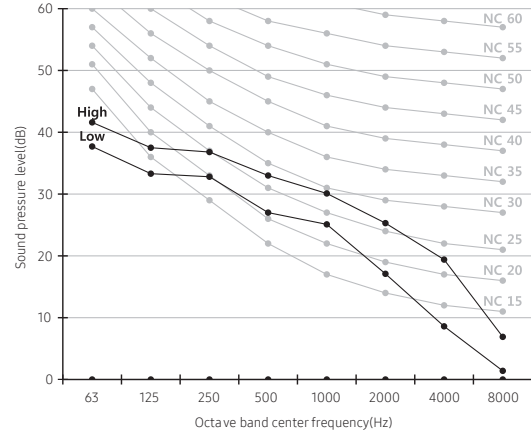
Model	High	LOW
CNH184DN (AC018NN4DCH/AA)	36	30
CNH244DN (AC024NN4DCH/AA)	36	30
CNH304DN (AC030NN4DCH/AA)	38	32
CNH364DN (AC036NN4DCH/AA)	43	33

- NC Curve

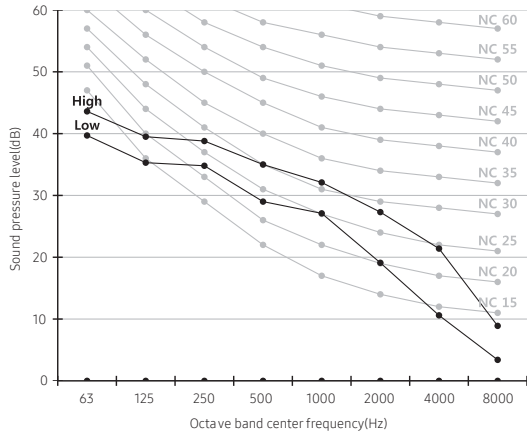
1) CNH184DN (AC018NN4DCH/AA)



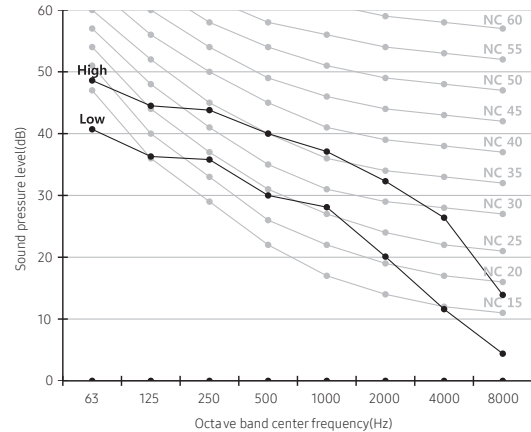
2) CNH244DN (AC024NN4DCH/AA)



3) CNH304DN (AC030NN4DCH/AA)



4) CNH364DN (AC036NN4DCH/AA)



NOTE

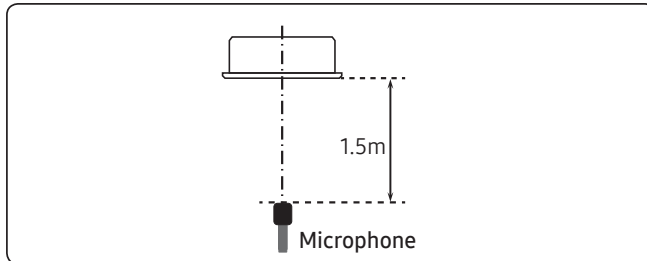
- Specifications may be subject to change without prior notice.
 - Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A weighted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

7. Sound Data

Wind-Free 4Way Cassette

Sound Pressure level

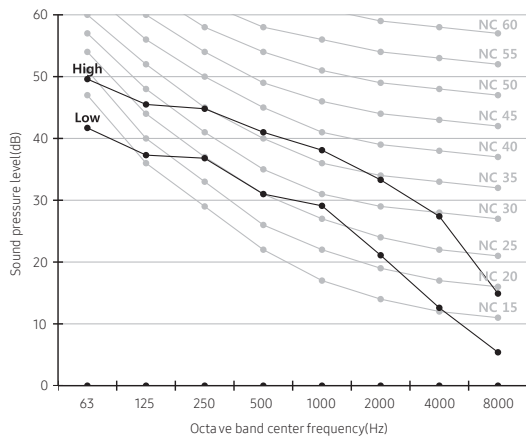
Unit: dB(A)



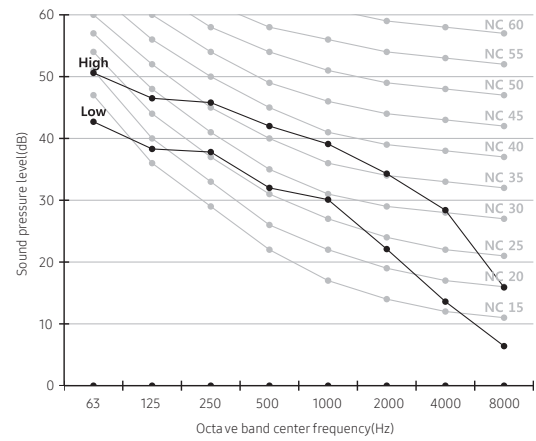
Model	High	LOW
CNH424DN (AC042NN4DCH/AA)	44	34
CNH484DN (AC048NN4DCH/AA)	45	35

- NC Curve

5) CNH424DN (AC042NN4DCH/AA)



6) CNH484DN (AC048NN4DCH/AA)



NOTE

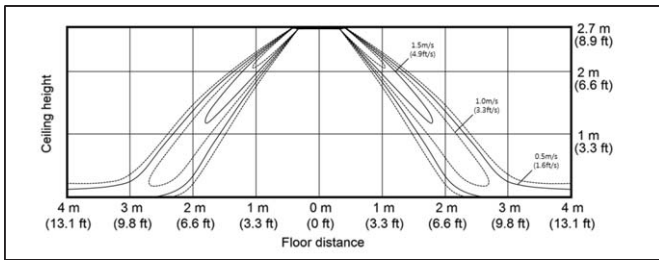
- Specifications may be subject to change without prior notice.
 - Sound pressure level is obtained in an anechoic room.
 - Sound pressure level is a relative value, depending on the distance and acoustic environment.
 - Sound pressure level may differ depending on operation condition.
 - dBA = A weighted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

8. Temperature and air flow distribution

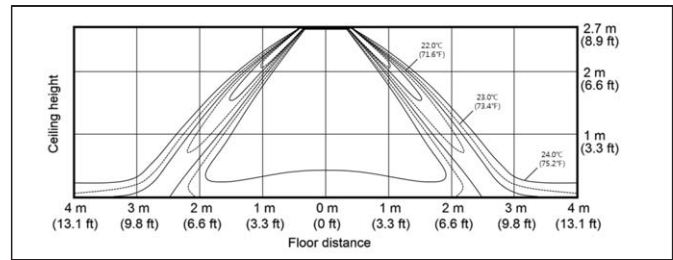
Wind-Free 4Way Cassette

CNH184DN (AC018NN4DCH/AA)

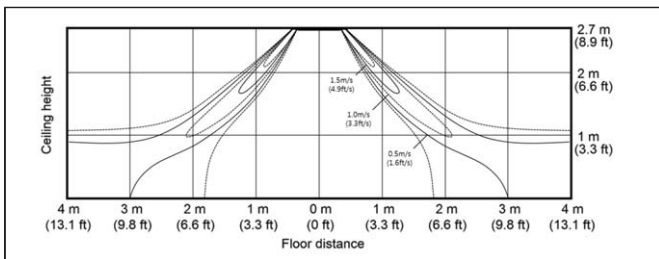
- Cooling Air Velocity distribution
(Discharge angle : 45 degree)



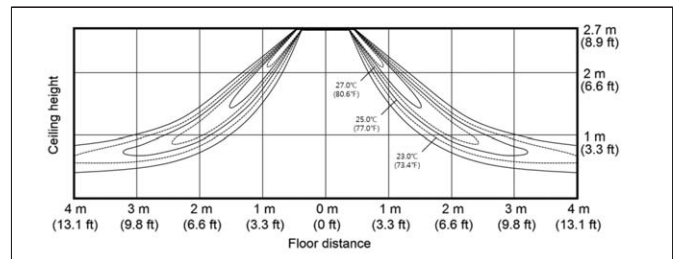
- Cooling temperature distribution
(Discharge angle : 45 degree)



- Heating Air Velocity distribution
(Discharge angle : 52 degree)

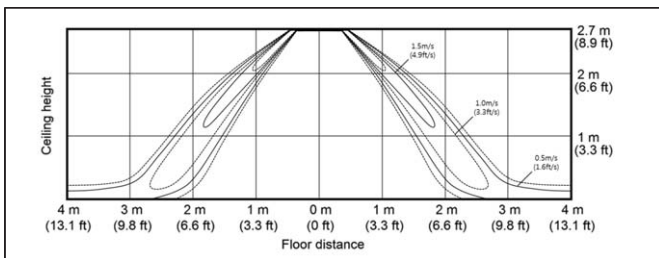


- Heating temperature distribution
(Discharge angle : 52 degree)

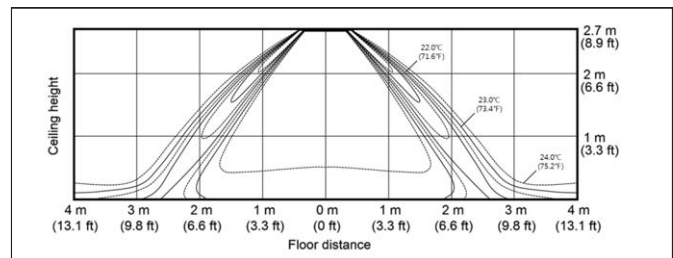


CNH244DN (AC024NN4DCH/AA)

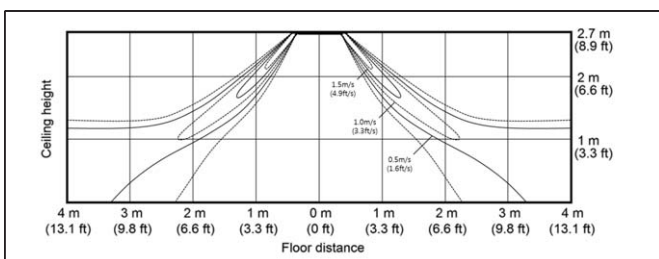
- Cooling Air Velocity distribution
(Discharge angle : 45 degree)



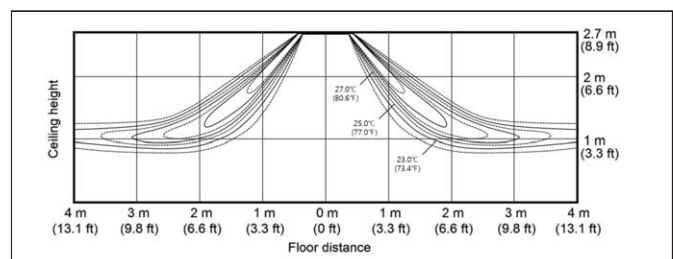
- Cooling temperature distribution
(Discharge angle : 45 degree)



- Heating Air Velocity distribution
(Discharge angle : 52 degree)



- Heating temperature distribution
(Discharge angle : 52 degree)

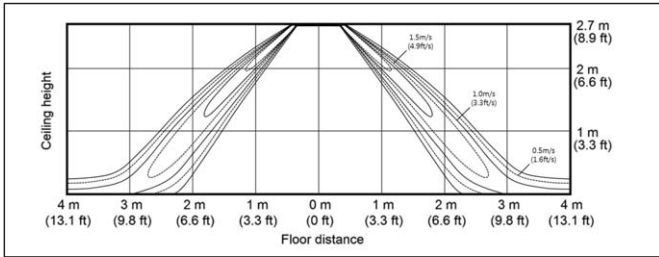


8. Temperature and air flow distribution

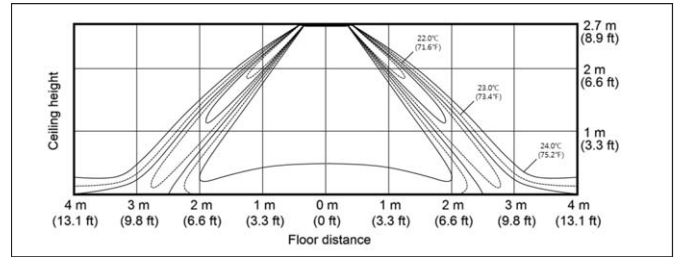
Wind-Free 4Way Cassette

CNH304DN (AC030NN4DCH/AA)

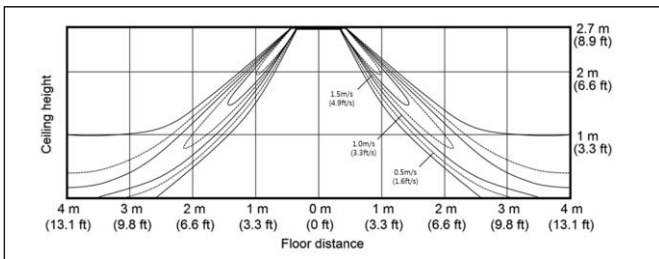
- Cooling Air Velocity distribution
(Discharge angle : 45 degree)



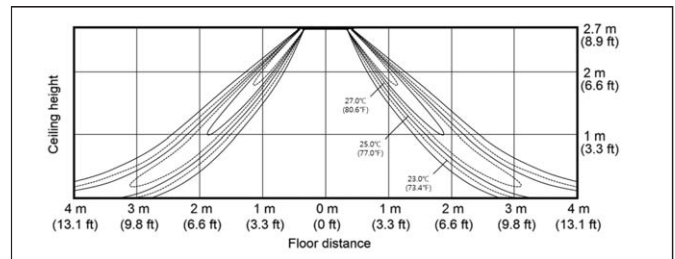
- Cooling temperature distribution
(Discharge angle : 45 degree)



- Heating Air Velocity distribution
(Discharge angle : 52 degree)

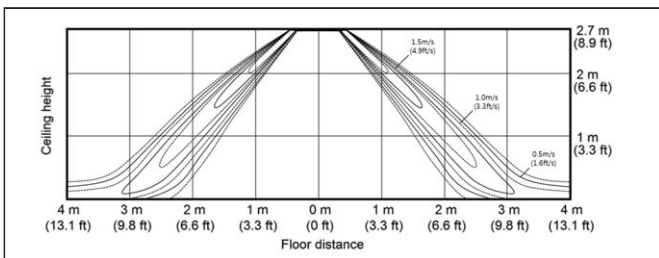


- Heating temperature distribution
(Discharge angle : 52 degree)

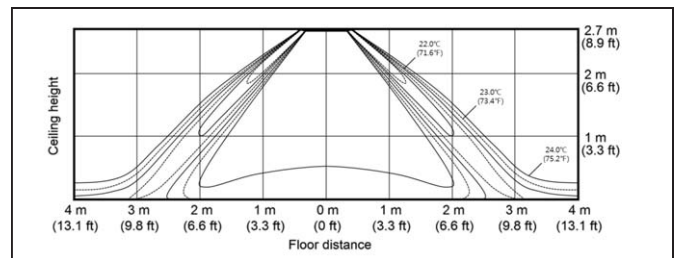


CNH364DN (AC036NN4DCH/AA)

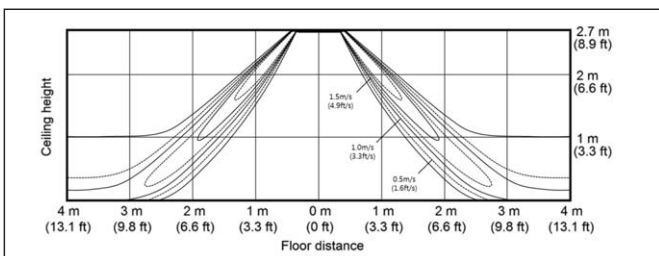
- Cooling Air Velocity distribution
(Discharge angle : 45 degree)



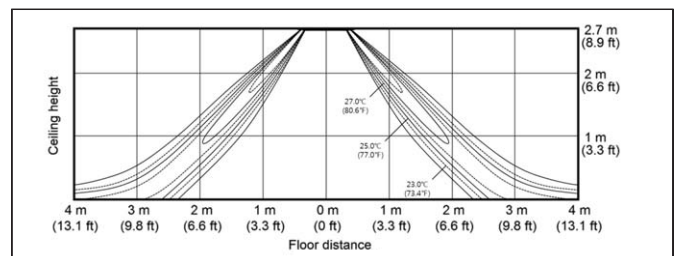
- Cooling temperature distribution
(Discharge angle : 45 degree)



- Heating Air Velocity distribution
(Discharge angle : 52 degree)



- Heating temperature distribution
(Discharge angle : 52 degree)

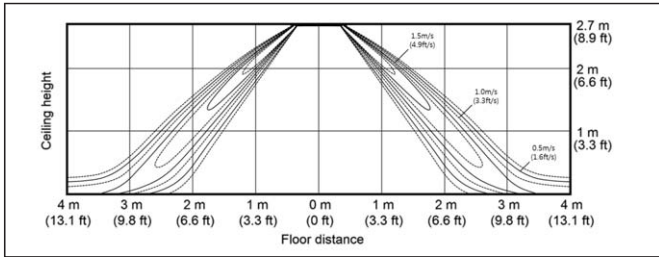


8. Temperature and air flow distribution

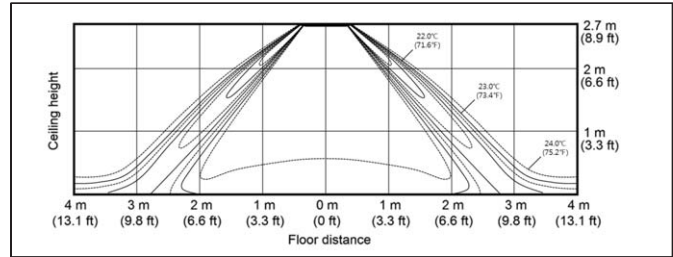
Wind-Free 4Way Cassette

CNH424DN (AC042NN4DCH/AA)

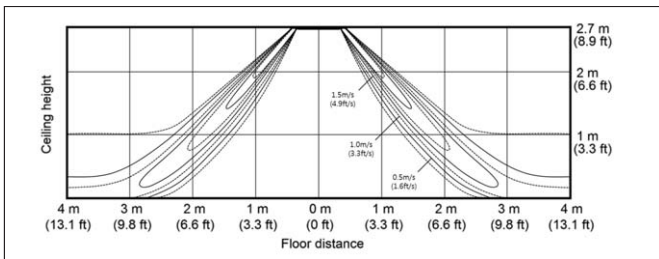
- Cooling Air Velocity distribution
(Discharge angle : 45 degree)



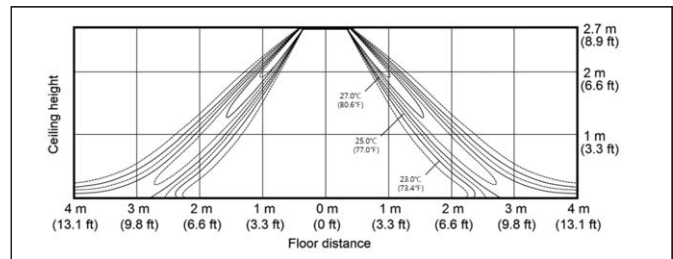
- Cooling temperature distribution
(Discharge angle : 45 degree)



- Heating Air Velocity distribution
(Discharge angle : 52 degree)

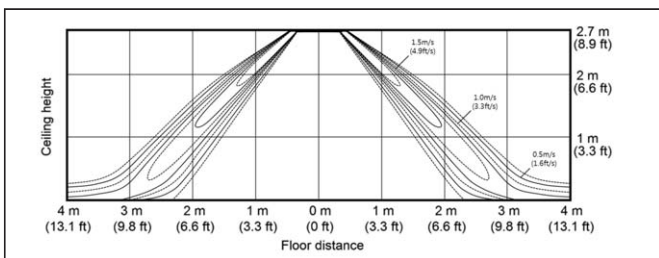


- Heating temperature distribution
(Discharge angle : 52 degree)

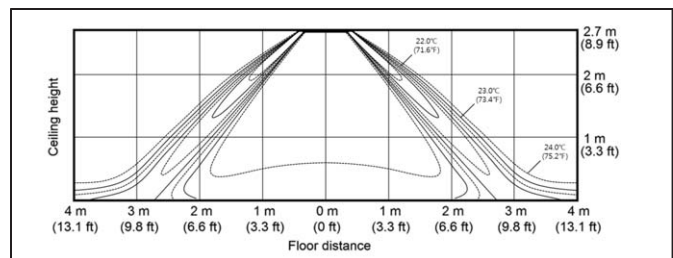


CNH484DN (AC048NN4DCH/AA)

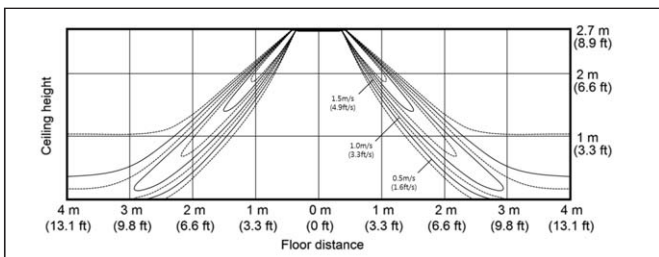
- Cooling Air Velocity distribution
(Discharge angle : 45 degree)



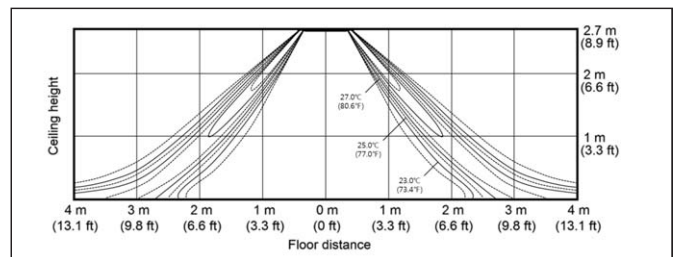
- Cooling temperature distribution
(Discharge angle : 45 degree)



- Heating Air Velocity distribution
(Discharge angle : 52 degree)



- Heating temperature distribution
(Discharge angle : 52 degree)



Outdoor Units

Outdoor Units

1. Summary Table	35
2. Dimensional Drawing	36
3. Center of Gravity	39
4. Electrical Wiring Diagram	41
5. Sound Data	43
6. Capacity Correction	45
7. Operation Range	51
8. Piping Diagram	52

1. Summary Table

Outdoor Units

Performance Characteristics

Capacity/ kW	Model Code	Net Size (WxHxD inch)	Net Weight (lbs)	Airflow (CFM)	Sound Pressure Level (dBA)		Sound Power Level (dBA)
					Cooling	Heating	
18,000	CXH18ADJ (AC018JXADCH/AA)	34.65 x 25.12 x 12.20	99.21	1,550	48	48	62
24,000	CXH24ADJ (AC024JXADCH/AA)	37.01 x 39.29 x 12.99	142.20	2,190	50	50	65
30,000	CXH30ADJ (AC030JXADCH/AA)	37.01 x 39.29 x 12.99	154.32	2,220	52	52	65
36,000	CXH36ADJ (AC036JXADCH/AA)	37.01 x 47.64 x 12.99	194.01	3,040	49	51	65
42,000	CXH42ADJ (AC042JXADCH/AA)	37.01 x 47.64 x 12.99	194.01	3,040	51	53	66
48,000	CXH48ADJ (AC048JXADCH/AA)	37.01 x 47.64 x 12.99	194.01	3,040	53	55	67

NOTE

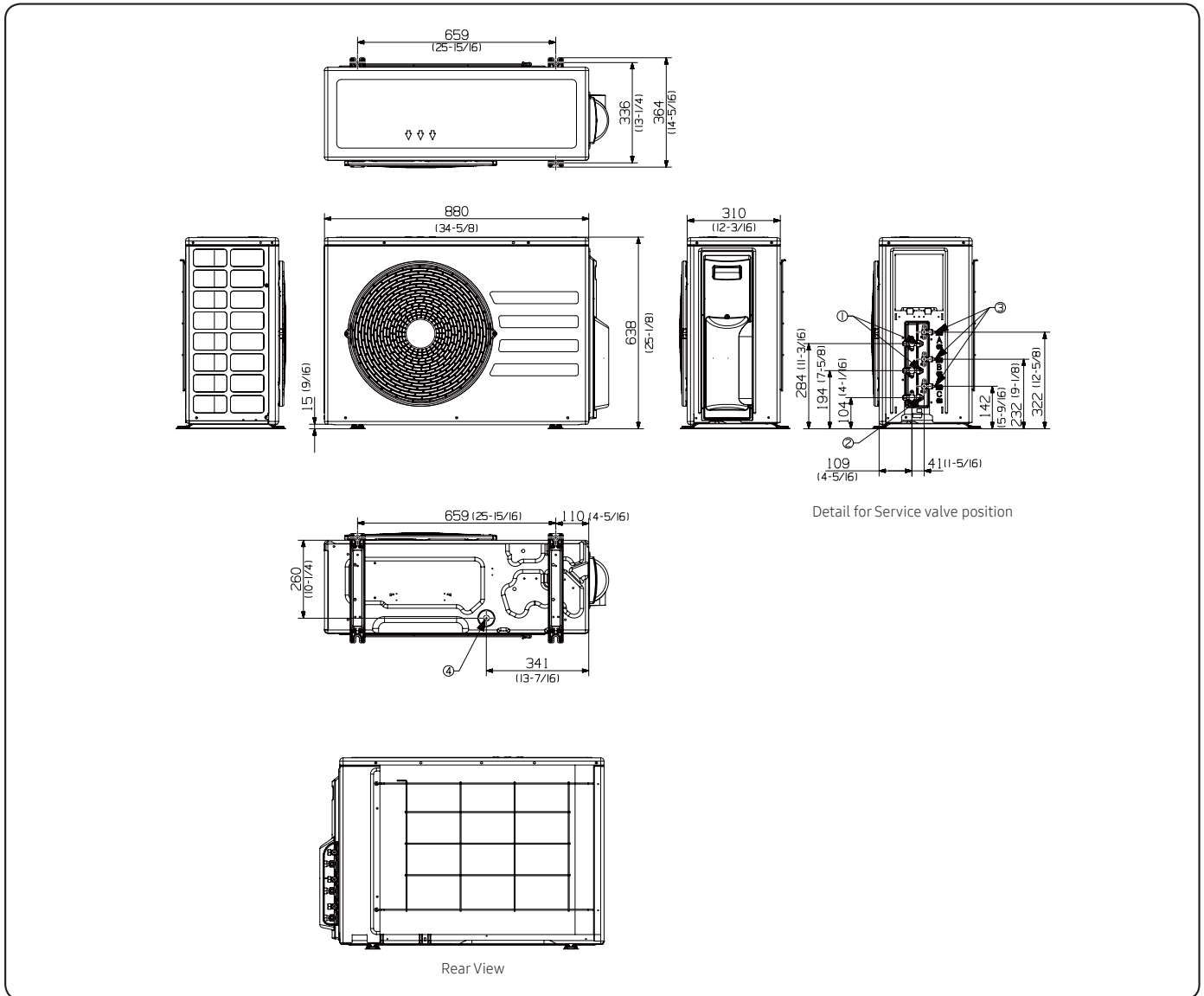
- Sound power level is based on cooling operation.

2. Dimensional Drawing

Outdoor Units

CXH18ADJ (AC018JXADCH/AA)

Units : mm [inches]



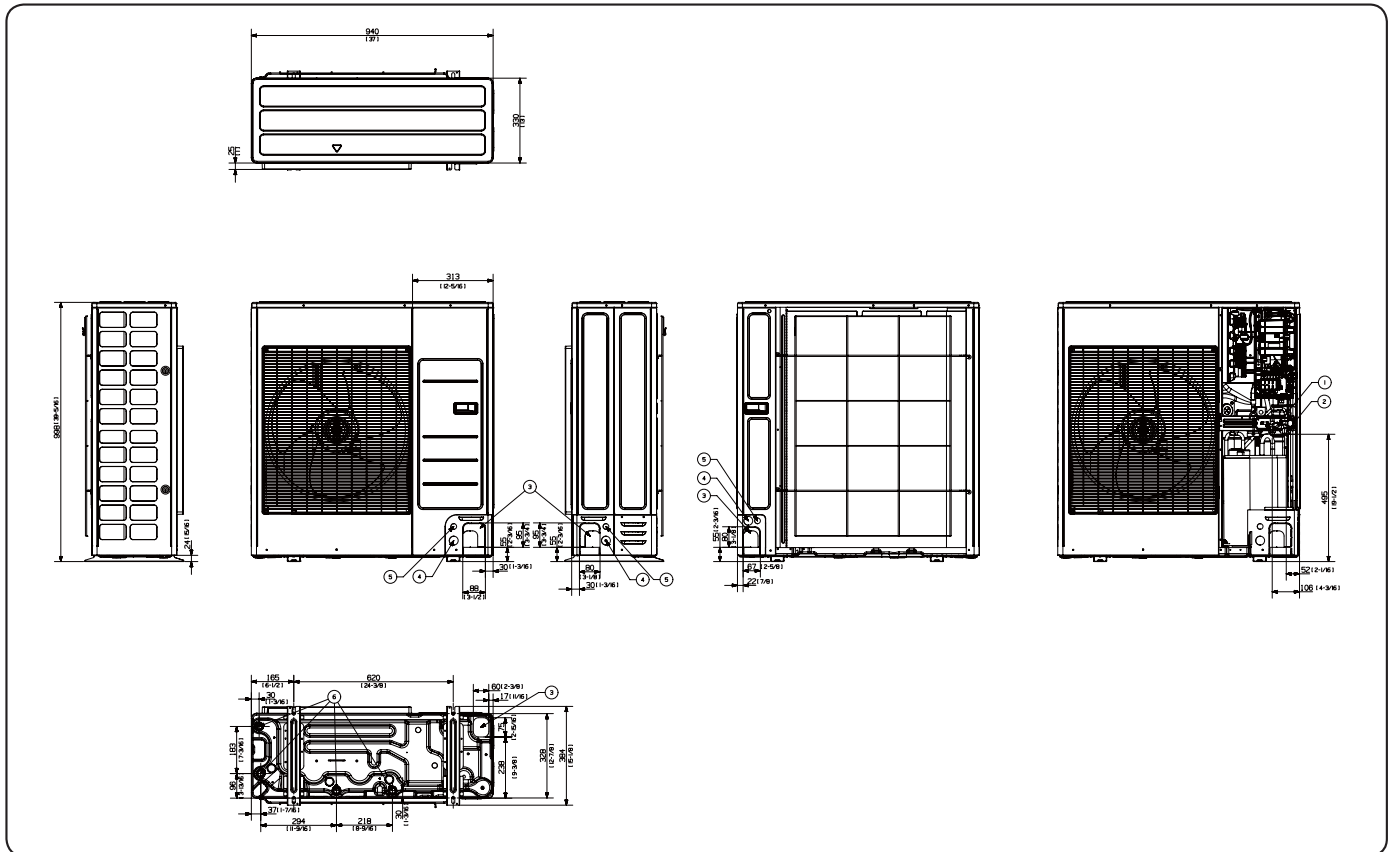
No.	Name	Description
1	Refrigerant gas pipe	Φ9.52 (Φ3/8) X 2EA
2		Φ12.7 (Φ1/2) X 1EA
3	Refrigerant liquid pipe	Φ6.35 (Φ1/4) X 3EA
4	Drain hole	Connection with the provided drain plug.

2. Dimensional Drawing

Outdoor Units

CXH24ADJ (AC024JXADCH/AA), CXH30ADJ (AC030JXADCH/AA)

Units : mm [inches]



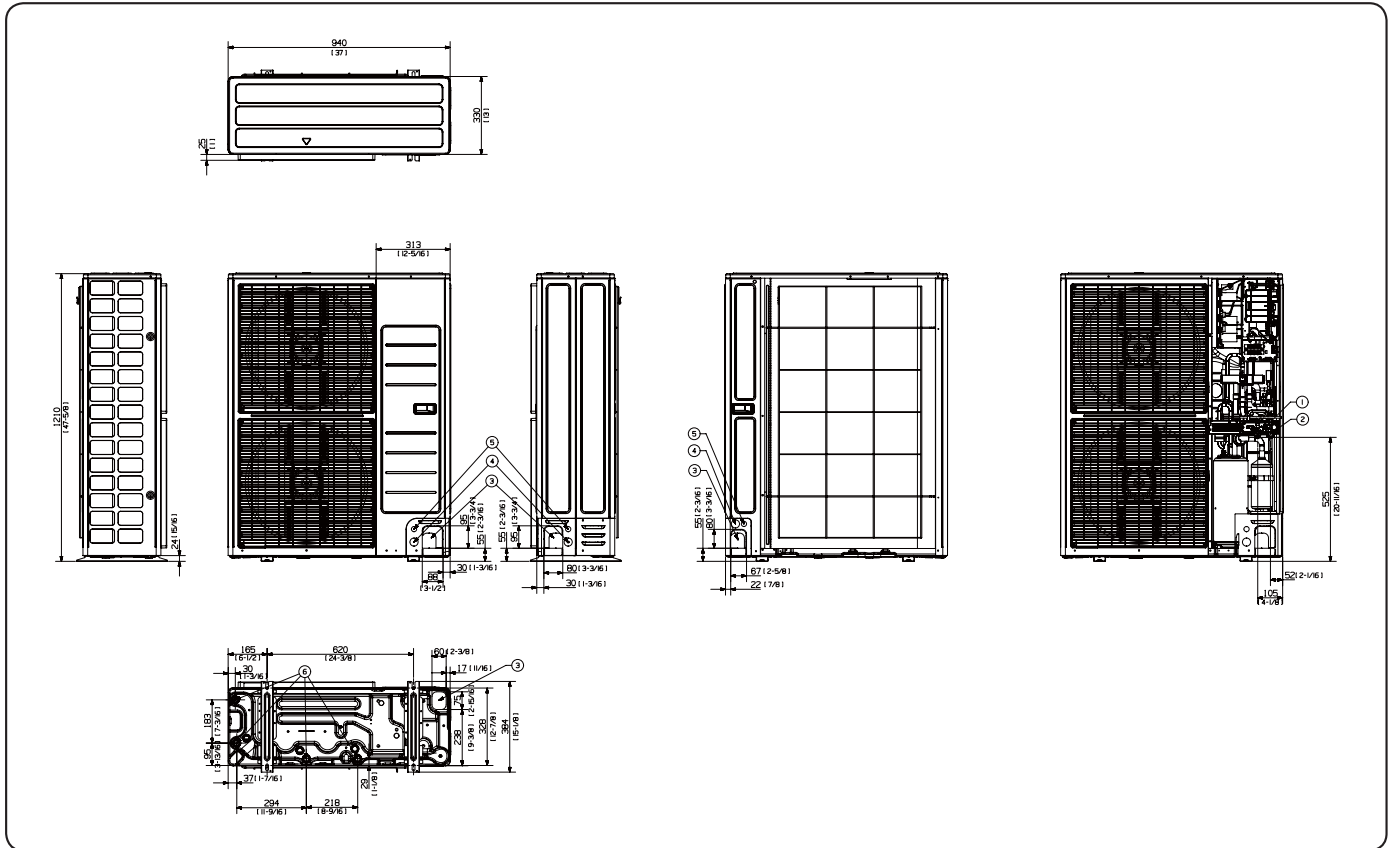
No.	Name	Description
1	Refrigerant liquid pipe	Φ9.52(3/8)
2	Refrigerant gas pipe	Φ15.88(5/8)
3	Piping intake knockout hole	Front / Side / Rear / Bottom
4	Power wiring conduit	Front / Side / Rear, Φ34 [1-3/8]
5	Communication wiring conduit	Front / Side / Rear, Φ22 [7/8]
6	Drain Hole	Connect with the provided drain plug

2. Dimensional Drawing

Outdoor Units

CXH36ADJ (AC036JXADCH/AA), CXH42ADJ (AC042JXADCH/AA),
 CXH48ADJ (AC048JXADCH/AA)

Units : mm [inches]



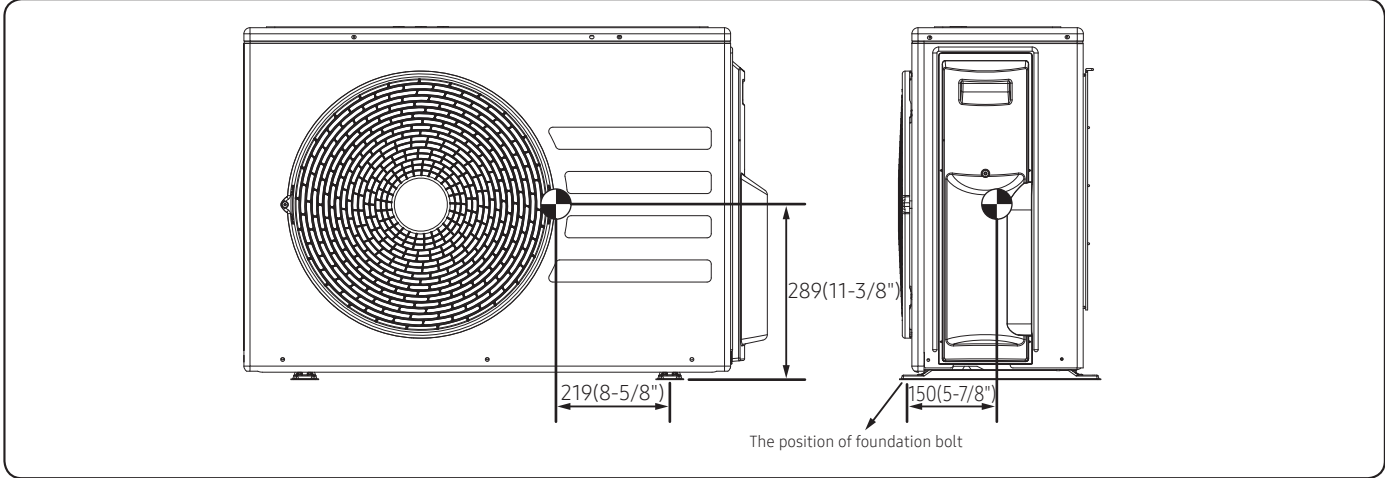
No.	Name	Description
1	Refrigerant liquid pipe	Φ9.52(3/8)
2	Refrigerant gas pipe	Φ15.88(5/8)
3	Piping intake knockout hole	Front / Side / Rear / Bottom
4	Power wiring conduit	Front / Side / Rear , Φ34 [1-3/8]
5	Communication wiring conduit	Front / Side / Rear , Φ22 [7/8]
6	Drain Hole	Connect with the provided drain plug

3. Center of Gravity

Outdoor Units

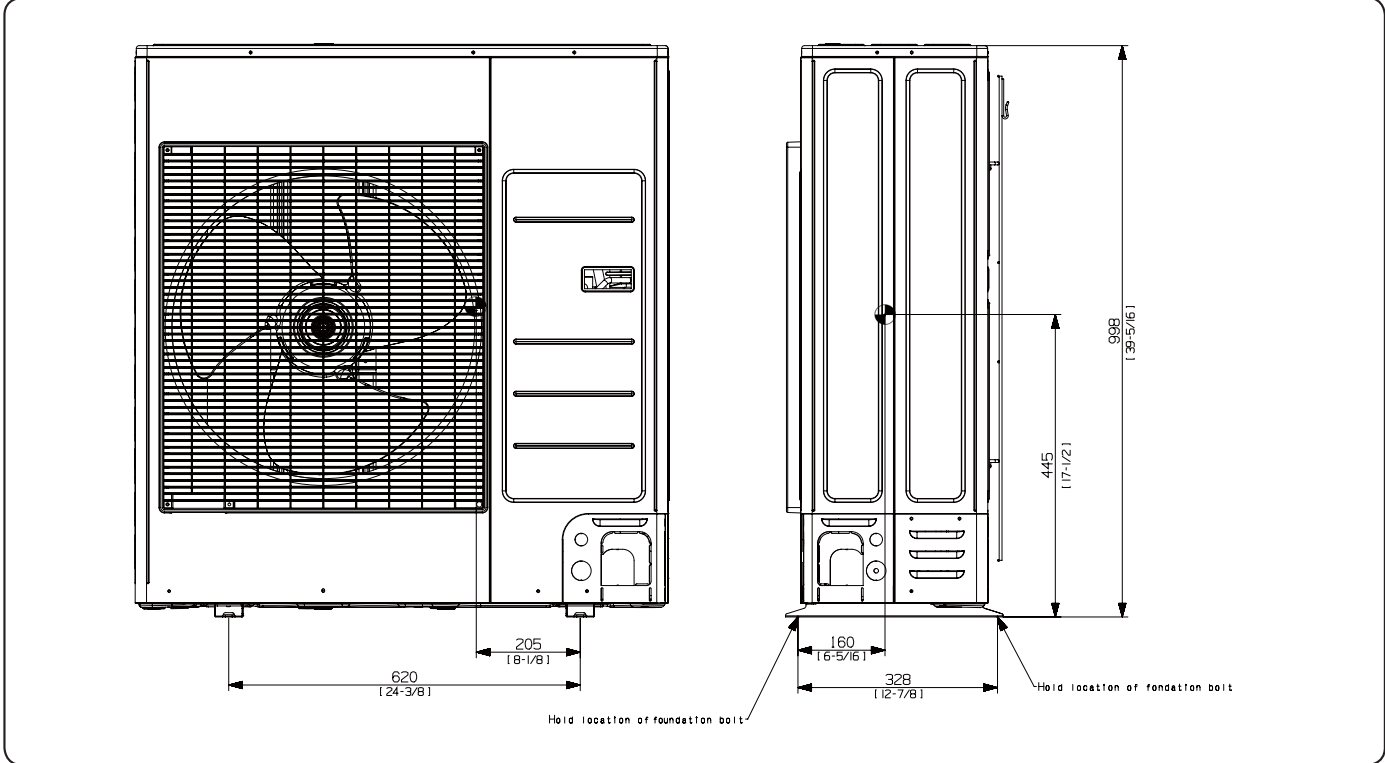
CXH18ADJ (AC018JXADCH/AA)

Units : mm [inches]



CXH24ADJ (AC024JXADCH/AA), CXH30ADJ (AC030JXADCH/AA)

Units : mm [inches]

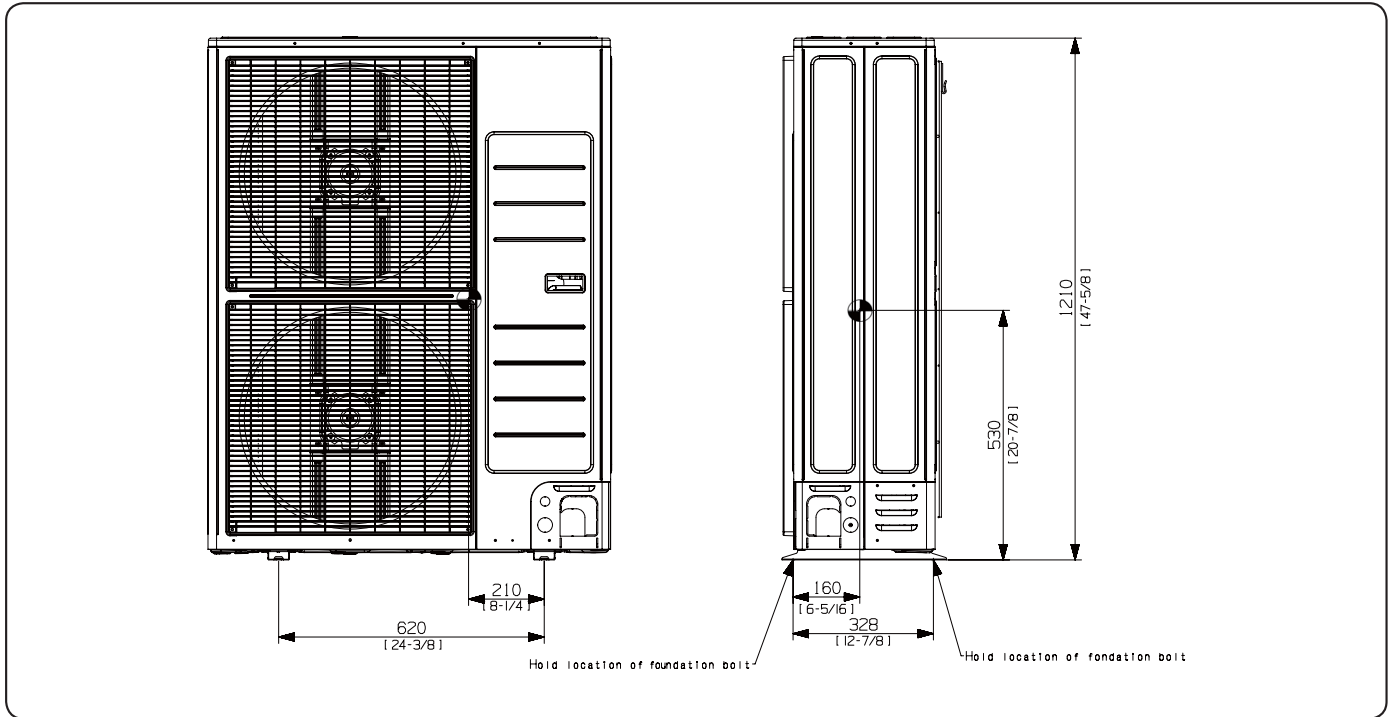


3. Center of Gravity

Outdoor Units

CXH36ADJ (AC036JXADCH/AA), CXH42ADJ (AC042JXADCH/AA),
CXH48ADJ (AC048JXADCH/AA)

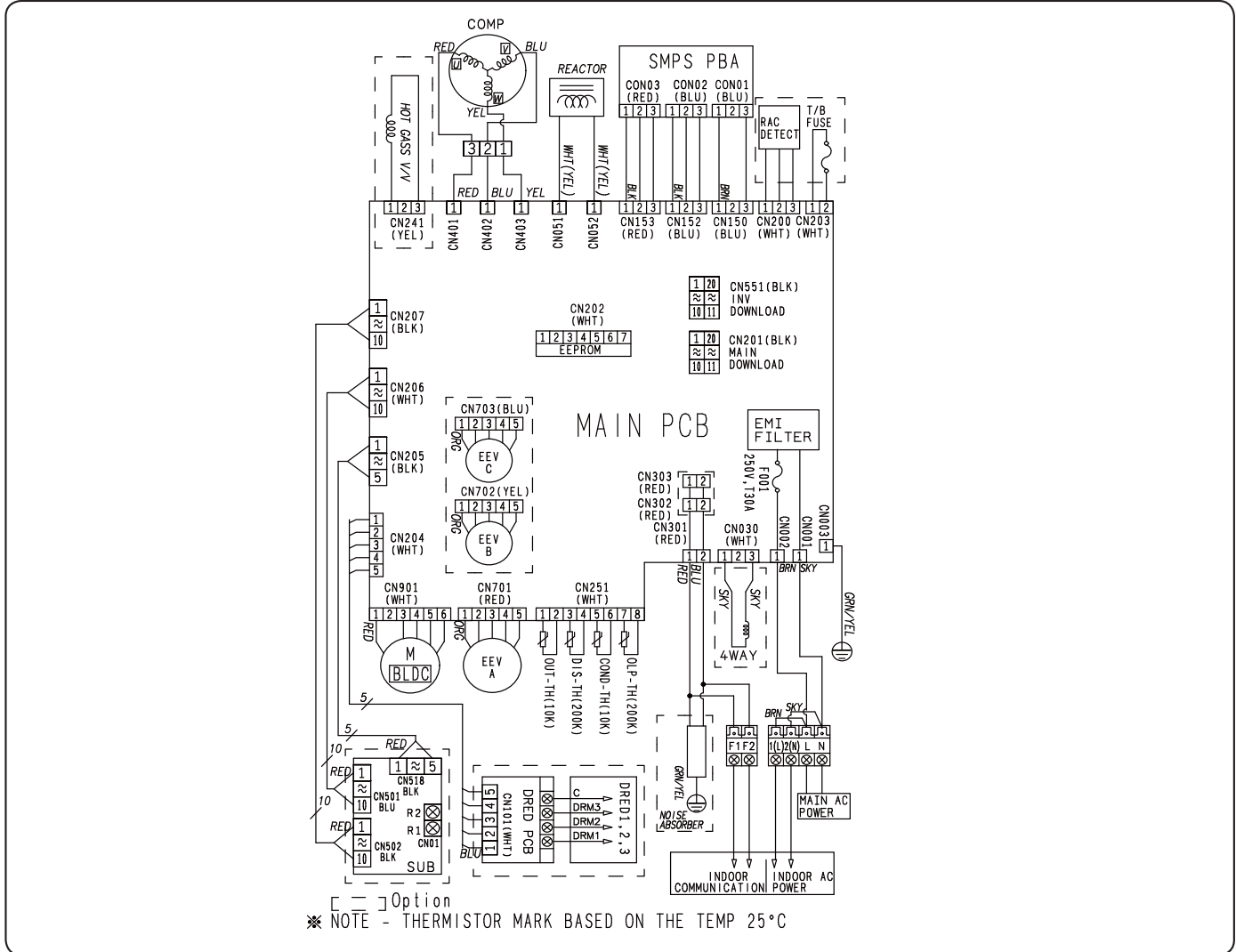
Units : mm [inches]



4. Electrical Wiring Diagram

Outdoor Units

CXH18ADJ (AC018JXADCH/AA)



MAIN PCB	Printed circuit board(MAIN)	EEV	Electronic Expansion Valve
INVERTER PCB	Printed circuit board(INVERTER)	M-BLDC	BLDC Motor
EMI PCB	Printed circuit board(EMI)	OLP-TEMP	Thermistor OLP

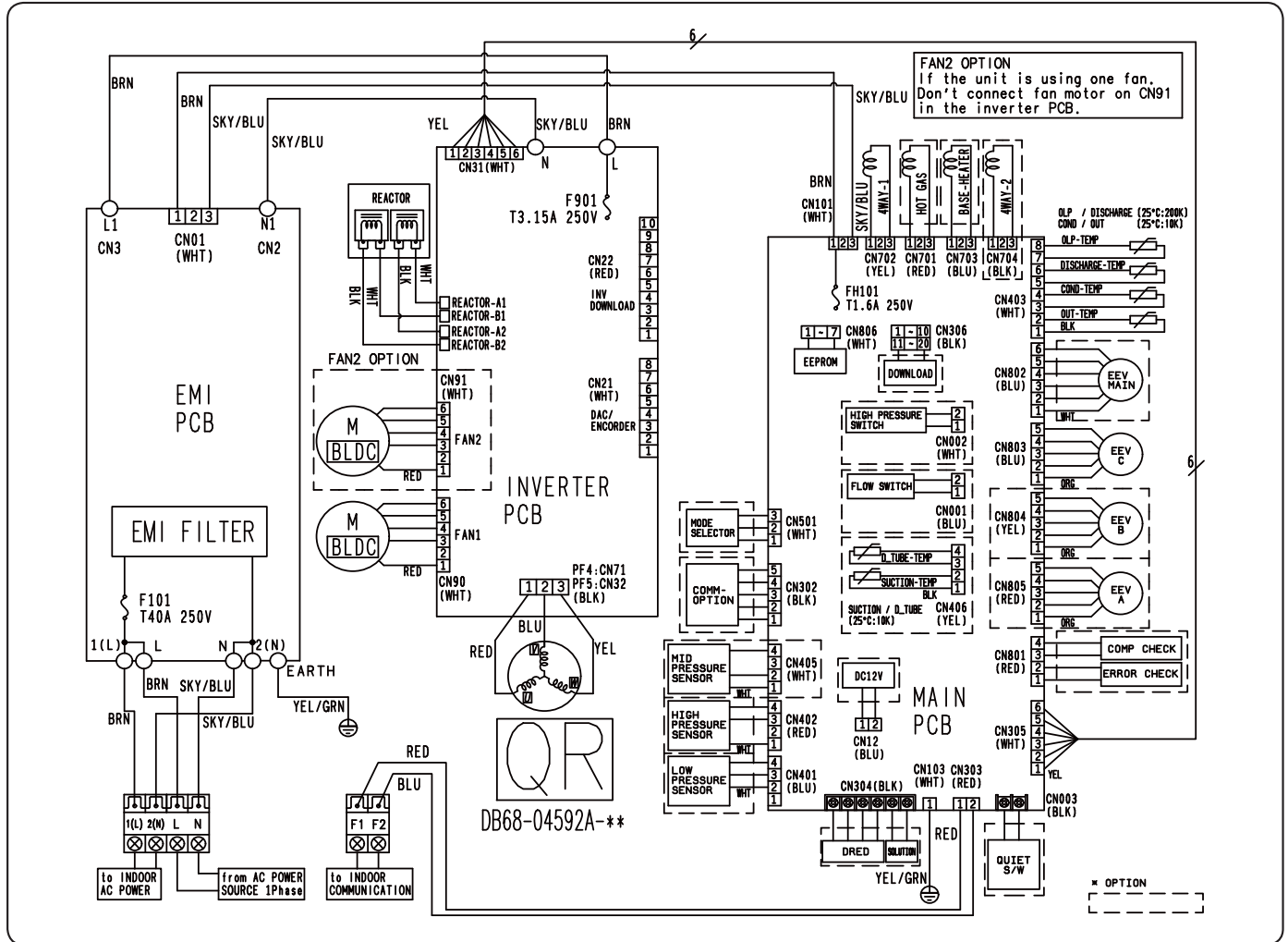
NOTE

- This wiring diagram applies only to the outdoor unit.
- Colors blk: black, red: red, blu: blue, wht: white, yel: yellow, brn: brown, sky: skyblue
- When operating, don't short circuit the protection device (High Pressure switch)
- For connection wiring indoor-outdoor transmission F1-F2, outdoor-outdoor transmission OF1-OF2, refer to the installation manual.
- Protective earth(screw), : connector, : The wire quantity

4. Electrical Wiring Diagram

Outdoor Units

CXH24ADJ (AC024JXADCH/AA), CXH30ADJ (AC030JXADCH/AA), CXH36ADJ (AC036JXADCH/AA), CXH42ADJ (AC042JXADCH/AA), CXH48ADJ (AC048JXADCH/AA)



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

NOTE

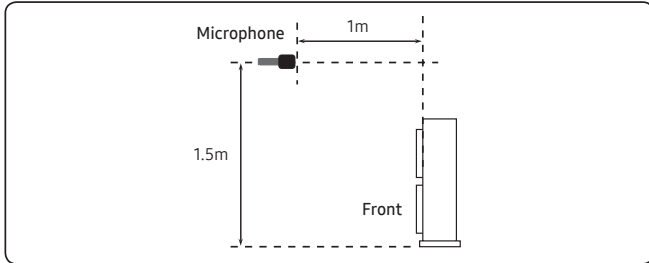
- This wiring diagram applies only to the outdoor unit.
- Colors blk: black, red: red, blu: blue, wht: white, yel: yellow, brn: brown, sky: skyblue
- When operating, don't shortcircuit the protection device (High Pressure switch)
- For connection wiring indoor-outdoor transmission F1-F2, outdoor-outdoor transmission OF1-OF2, refer to the installation manual.
- Protective earth(screw), : connector, : The wire quantity

5. Sound Data

Outdoor Units

Sound Pressure level

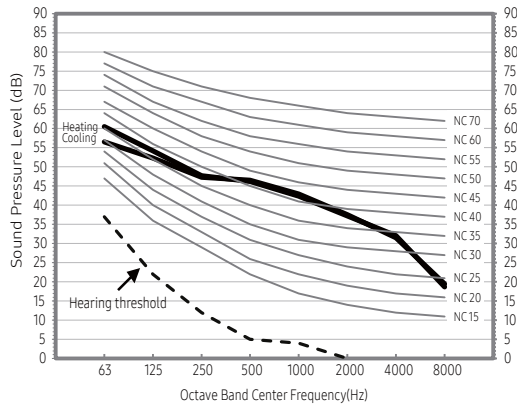
Unit: dB(A)



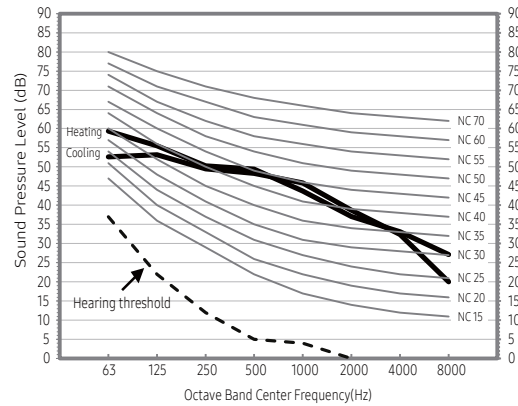
Model	Cooling	Heating
CXH18ADJ (AC018JXADCH/AA)	48	48
CXH24ADJ (AC024JXADCH/AA)	50	50
CXH30ADJ (AC030JXADCH/AA)	50	52
CXH36ADJ (AC036JXADCH/AA)	49	51

- NC Curve

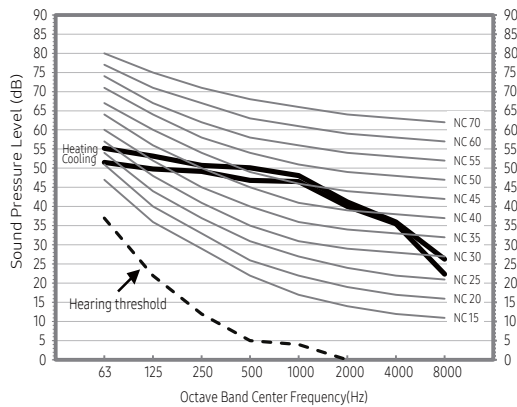
1) CXH18ADJ (AC018JXADCH/AA)



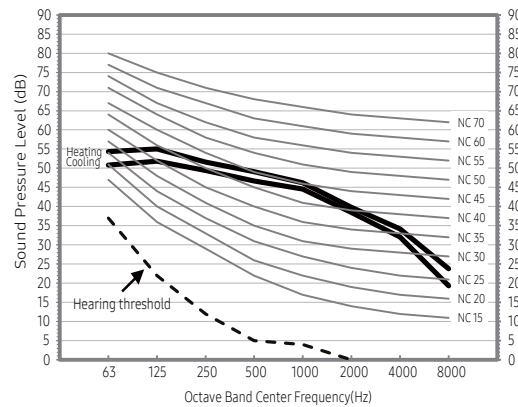
2) CXH24ADJ (AC024JXADCH/AA)



3) CXH30ADJ (AC030JXADCH/AA)



4) CXH36ADJ (AC036JXADCH/AA)



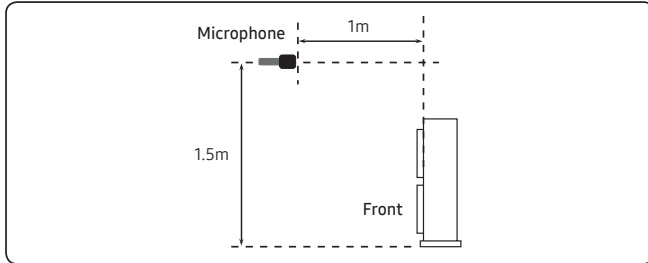
NOTE

- 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.
 - dB(A) = A weighted sound pressure level
 - Reference acoustic pressure 0 dB = 20μPa

5. Sound Data

Outdoor Units

Sound Pressure level

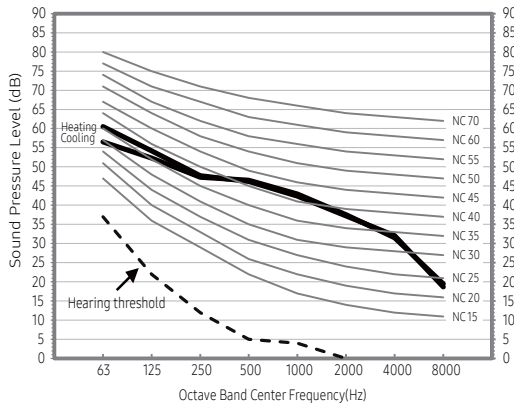


Unit: dB(A)

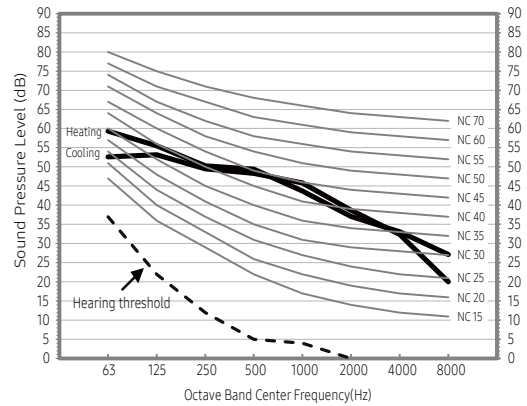
Model	Cooling	Heating
CXH42ADJ (AC042JXADCH/AA)	51	53
CXH48ADJ (AC048JXADCH/AA)	53	55

- NC Curve

5) CXH42ADJ (AC042JXADCH/AA)



6) CXH48ADJ (AC048JXADCH/AA)



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

6. Capacity Correction

Outdoor Units


CXH18ADJ (AC018JXADCH/AA)

Cooling



		Pipe Length (ft)					
		16.4	32.8	49.2	65.6	82.0	98.4
Level Difference (ft)	65.6	-	-	-	0.96	0.94	0.93
	49.2	-	-	0.97	0.96	0.94	0.93
	32.8	-	0.99	0.97	0.96	0.94	0.93
	16.4	1.00	0.99	0.97	0.96	0.94	0.93
	0.0	1.00	0.99	0.97	0.96	0.94	0.93
	-16.4	1.00	0.98	0.97	0.95	0.94	0.93
	-32.8	-	0.97	0.96	0.95	0.93	0.92
	-49.2	-	-	0.96	0.94	0.93	0.92
	-65.6	-	-	-	0.94	0.92	0.91

Heating




		Pipe Length (ft)					
		16.4	32.8	49.2	65.6	82.0	98.4
Level Difference (ft)	65.6	-	-	-	0.94	0.92	0.90
	49.2	-	-	0.96	0.94	0.92	0.90
	32.8	-	0.98	0.96	0.94	0.92	0.90
	16.4	1.00	0.98	0.96	0.94	0.92	0.90
	0.0	1.00	0.98	0.96	0.94	0.92	0.90
	-16.4	1.00	0.98	0.96	0.94	0.92	0.90
	-32.8	-	0.98	0.96	0.94	0.92	0.90
	-49.2	-	-	0.96	0.94	0.92	0.90
	-65.6	-	-	-	0.94	0.92	0.90

6. Capacity Correction

Outdoor Units


CXH24ADJ (AC024JXADCH/AA)

Cooling



		Pipe Length (ft)									
		16.4	32.8	49.2	65.6	82.0	98.4	114.8	131.2	147.6	164.0
Level Difference (ft)	98.4	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90
	82.0	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
	65.6	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	49.2	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	32.8	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	16.4	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	0.0	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-16.4	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90	0.88
	-32.8	-	0.98	0.97	0.96	0.95	0.94	0.92	0.91	0.89	0.87
	-49.2	-	-	0.97	0.96	0.94	0.93	0.92	0.90	0.88	0.85
	-65.6	-	-	-	0.95	0.94	0.93	0.91	0.89	0.87	0.83
	-82.0	-	-	-	-	0.94	0.92	0.91	0.89	0.86	0.82
-98.4	-	-	-	-	-	0.92	0.90	0.88	0.85	0.80	

Heating



		Pipe Length (ft)									
		16.4	32.8	49.2	65.6	82.0	98.4	114.8	131.2	147.6	164.0
Level Difference (ft)	98.4	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90
	82.0	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
	65.6	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	49.2	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	32.8	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	16.4	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	0.0	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-16.4	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-32.8	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-49.2	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-65.6	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-82.0	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
-98.4	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90	

6. Capacity Correction

Outdoor Units

CXH30ADJ (AC030JXADCH/AA)

Cooling



		Pipe Length (ft)									
		16.4	32.8	49.2	65.6	82.0	98.4	114.8	131.2	147.6	164.0
Level Difference (ft)	98.4	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90
	82.0	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
	65.6	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	49.2	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	32.8	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	16.4	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	0.0	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-16.4	1.00	0.98	0.97	0.96	0.95	0.94	0.93	0.92	0.90	0.88
	-32.8	-	0.98	0.97	0.96	0.95	0.94	0.92	0.91	0.89	0.87
	-49.2	-	-	0.97	0.96	0.94	0.93	0.92	0.90	0.88	0.85
	-65.6	-	-	-	0.95	0.94	0.93	0.91	0.89	0.87	0.83
	-82.0	-	-	-	-	0.94	0.92	0.91	0.89	0.86	0.82
-98.4	-	-	-	-	-	0.92	0.90	0.88	0.85	0.80	

Heating



		Pipe Length (ft)									
		16.4	32.8	49.2	65.6	82.0	98.4	114.8	131.2	147.6	164.0
Level Difference (ft)	98.4	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90
	82.0	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
	65.6	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	49.2	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	32.8	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	16.4	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	0.0	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-16.4	1.00	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-32.8	-	0.99	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-49.2	-	-	0.98	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-65.6	-	-	-	0.97	0.96	0.94	0.93	0.92	0.91	0.90
	-82.0	-	-	-	-	0.96	0.94	0.93	0.92	0.91	0.90
-98.4	-	-	-	-	-	0.94	0.93	0.92	0.91	0.90	

6. Capacity Correction

Outdoor Units

CXH36ADJ (AC036JXADCH/AA)

Cooling



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

Heating



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

6. Capacity Correction

Outdoor Units

CXH42ADJ (AC042JXADCH/AA)

Cooling



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

Heating



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

6. Capacity Correction

Outdoor Units

CXH48ADJ (AC048JXADCH/AA)

Cooling



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

Heating



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

7. Operation Range

Outdoor Units

Mode	Indoor temperature	Outdoor temperature	Indoor humidity
Cooling	18°C to 32°C (64°F to 90°F)	-18°C to 46°C (-0.4°F to 114.8°F)	80% or less
Drying	18°C to 32°C (64°F to 90°F)	-18°C to 46°C (-0.4°F to 114.8°F)	-
Heating	30°C(86°F) or less	-20°C to 24°C (-4°F to 75°F)	-

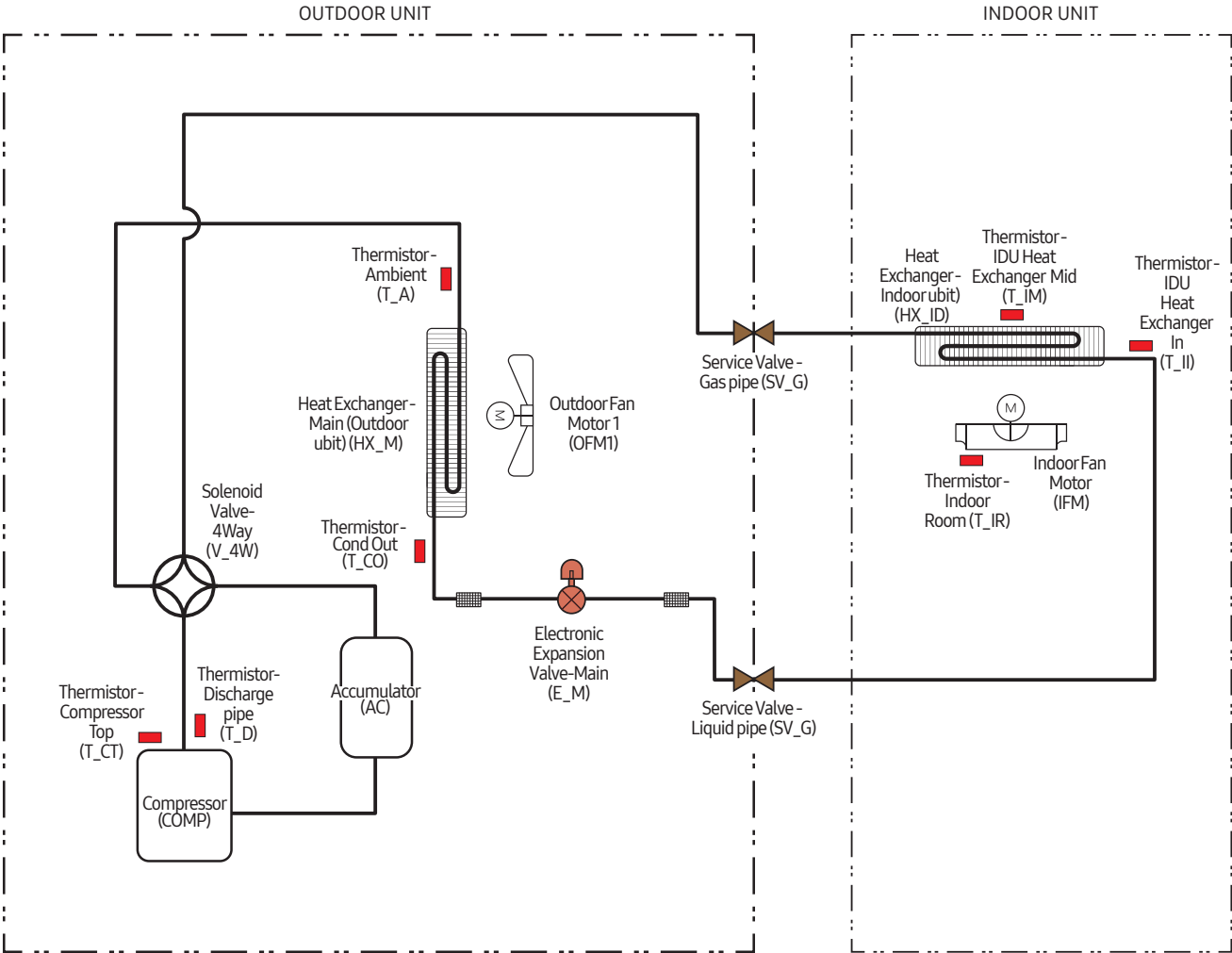
NOTE

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

8. Piping Diagram

Outdoor Units

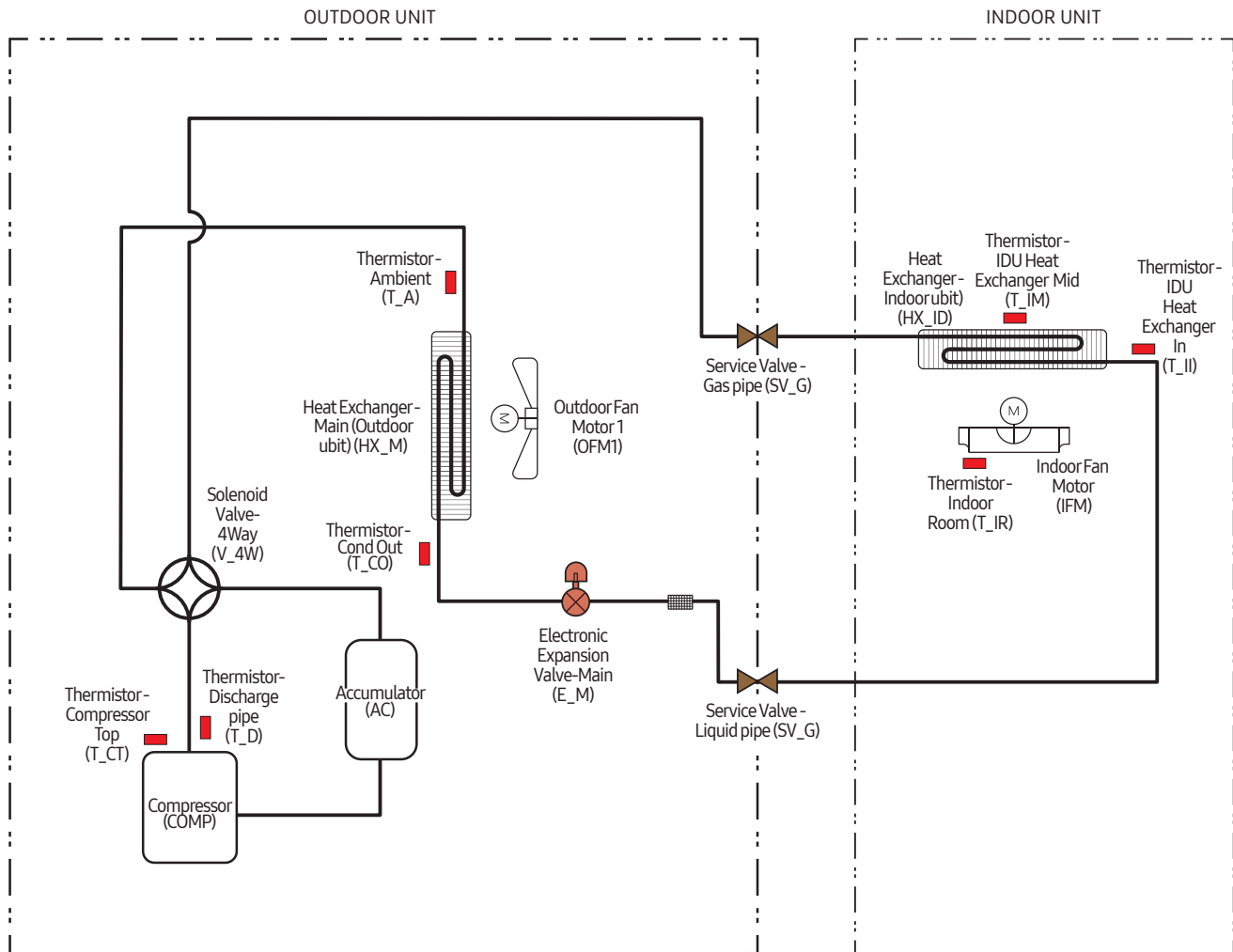
CXH18ADJ (AC018JXADCH/AA)



8. Piping Diagram

Outdoor Units

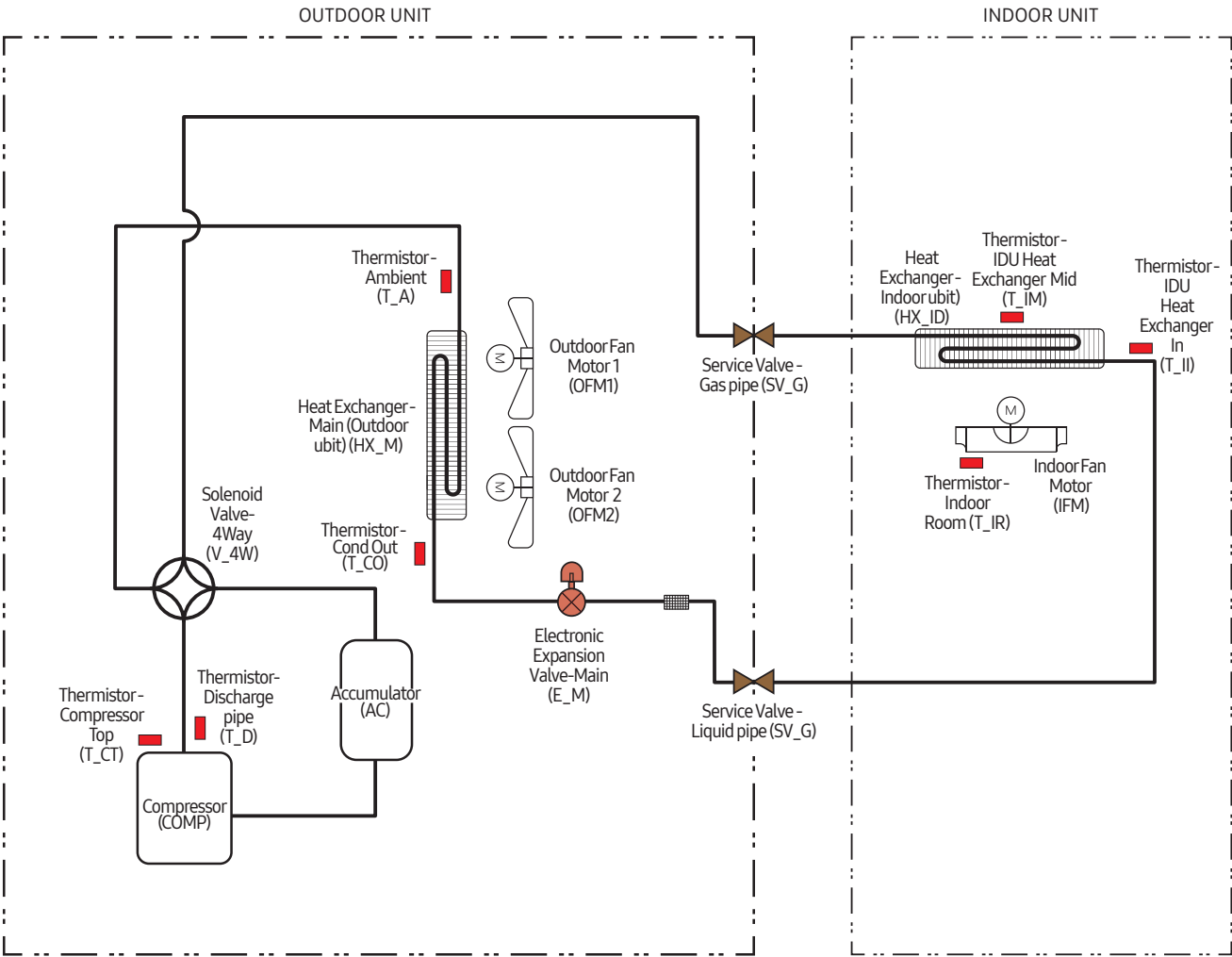
CXH24ADJ (AC024JXADCH/AA), CXH30ADJ (AC030JXADCH/AA)



8. Piping Diagram

Outdoor Units

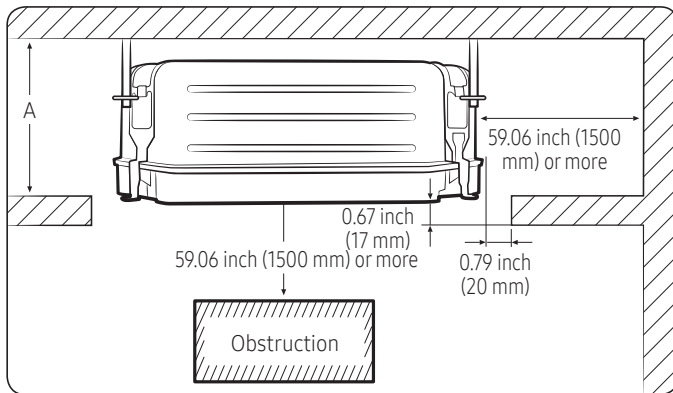
CXH36ADJ (AC036JXADCH/AA), CXH42ADJ (AC042JXADCH/AA), CXH48ADJ (AC048JXADCH/AA)



Installation

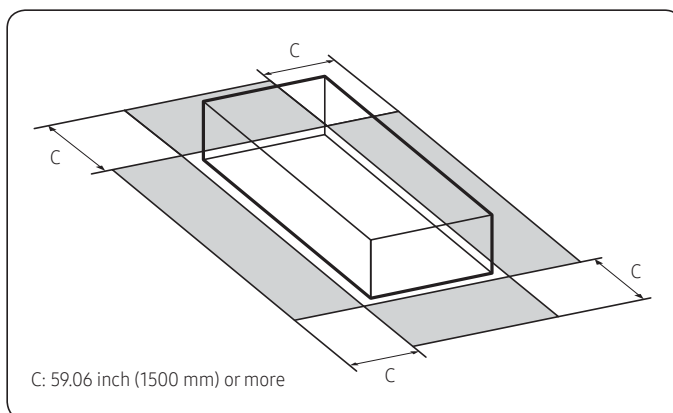
1. Indoor Unit (4Way Cassette Type)

Spacing requirements



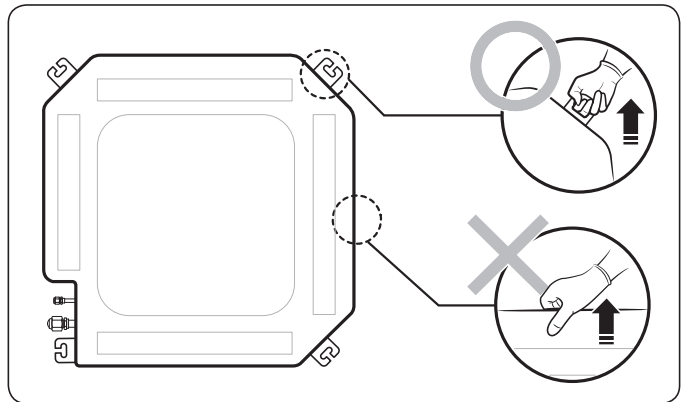
[Unit: inch(mm)]

Model	CNH184DN (AC018NN4DCH/AA) CNH244DN (AC024NN4DCH/AA)	CNH304DN (AC030NN4DCH/AA) CNH364DN (AC036NN4DCH/AA) CNH424DN (AC042NN4DCH/AA) CNH484DN (AC048NN4DCH/AA)
A	9.88 (251)	13.19 (335)



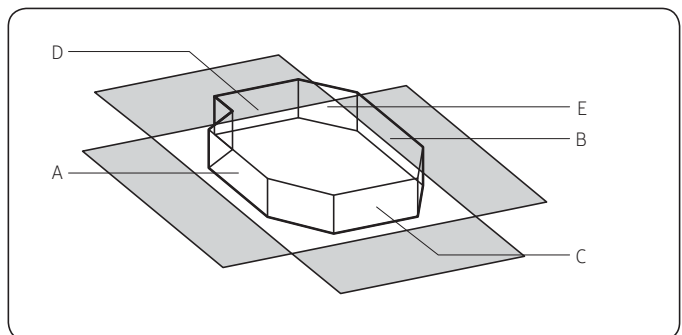
⚠ CAUTION

- 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 80.6°F (27°C) and humidity is over 80%, you must apply an extra 0.39 inch (10 mm) thick polyethylene insulation or a similar type of insulation to the body of the indoor unit.



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

Installation

NOTE

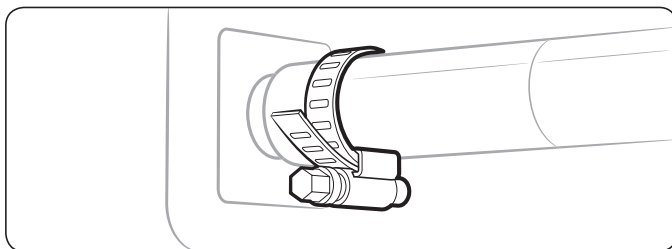
- A: Reference for the outer circumference of the unit (When insulating the body of the indoor unit, use A as the reference for its outer circumference.)

[Unit: inch(mm)]

Indoor unit		A	B	C	D	E
4 way Cassette <S> 33.07x8.03x33.07 (840x204x840)	CNH184DN (AC018NN4DCH/AA)	35.83X5.94 (910X151)	37.00X5.94 (940X151)	24.02X5.94 (610X151)	25.59X5.94 (650X151)	34.25X34.25 (870X870)
	CNH244DN (AC024NN4DCH/AA)					
4 way Cassette <L> 33.07x11.34x33.07 (840x288x840)	CNH304DN (AC030NN4DCH/AA)					
	CNH364DN (AC036NN4DCH/AA)					
	CNH424DN (AC042NN4DCH/AA)	35.83X9.25 (910X235)	37.00X9.25 (940X235)	24.02X9.25 (610X235)	25.59X9.25 (650X235)	34.25X34.25 (870X870)
4 way Cassette <L> 33.07x11.34x33.07 (840x288x840)	CNH484DN (AC048NN4DCH/AA)					

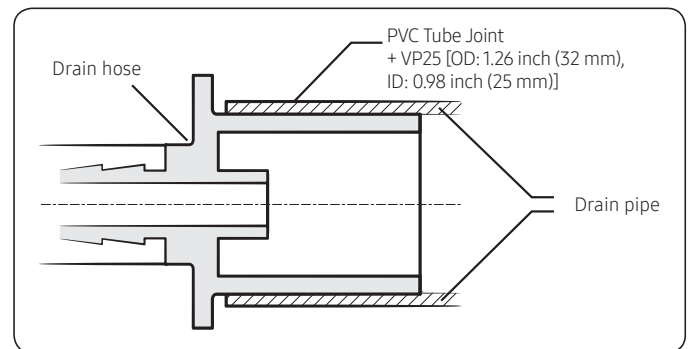
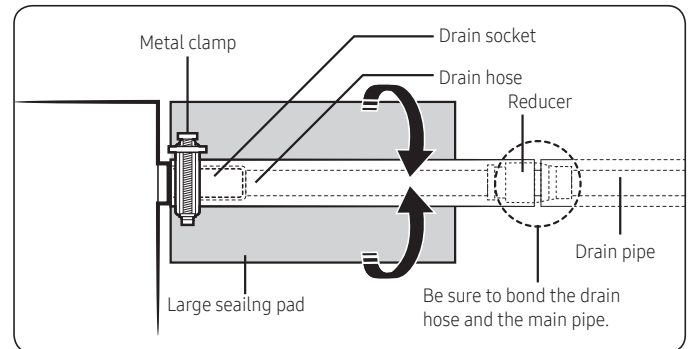
Installing the drain hose and drain pipe

- 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).

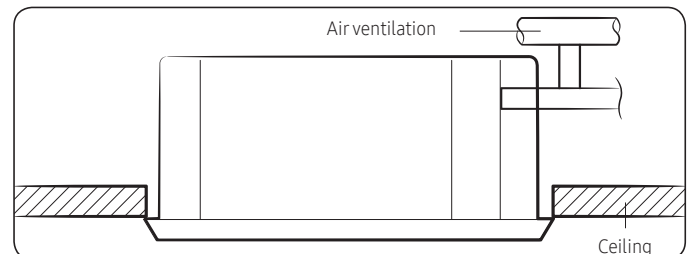
- 5 Push the drain hose up to insulation when connecting the drain hose to drain socket.



CAUTION

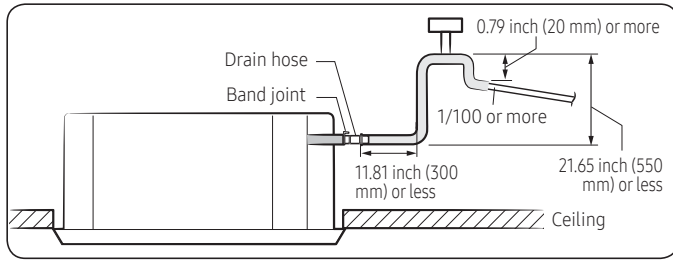
Check that the indoor unit is level with the ceiling by using the leveller.

- Install air ventilation to drain condensation smoothly.

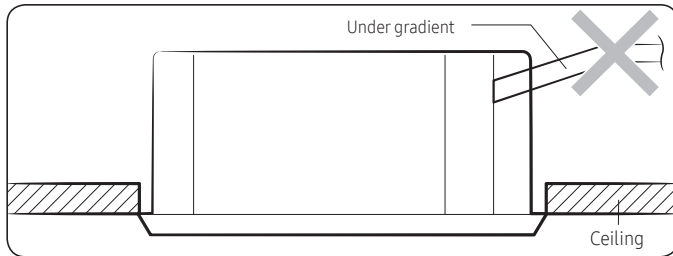


Installation

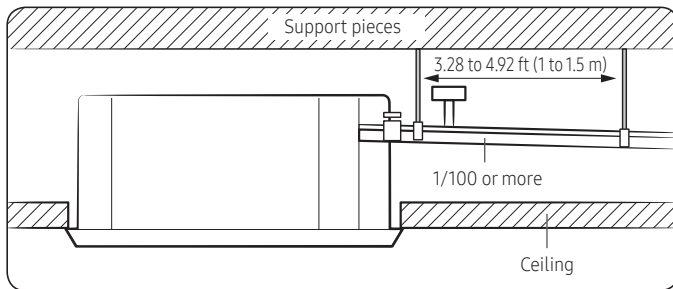
- If it is necessary to increase the height of the drain pipe, install the drain pipe straight within 11.81 inch (300 mm) from the drain hose port. If it is raised higher than 21.65 inch (550 mm), there may be water leaks.



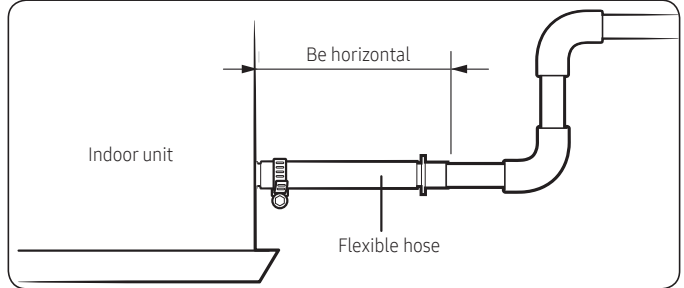
- Do not give the hose an upward gradient beyond the connection port. This will cause water to flow backwards when the unit is stopped, resulting in water leaks.



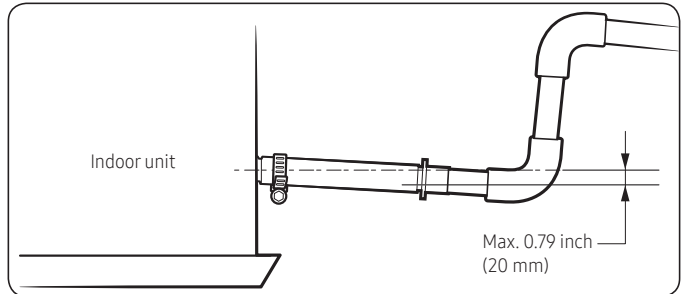
- Do not apply force to the piping on the unit side when connecting the drain hose. The hose should not be allowed to hang loose from its connection to the unit. Fasten the hose to a wall, frame or other support as close to the unit as possible.



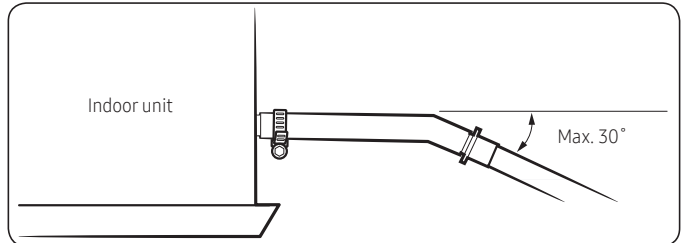
- Install horizontally.



- Max. allowable axis gap.



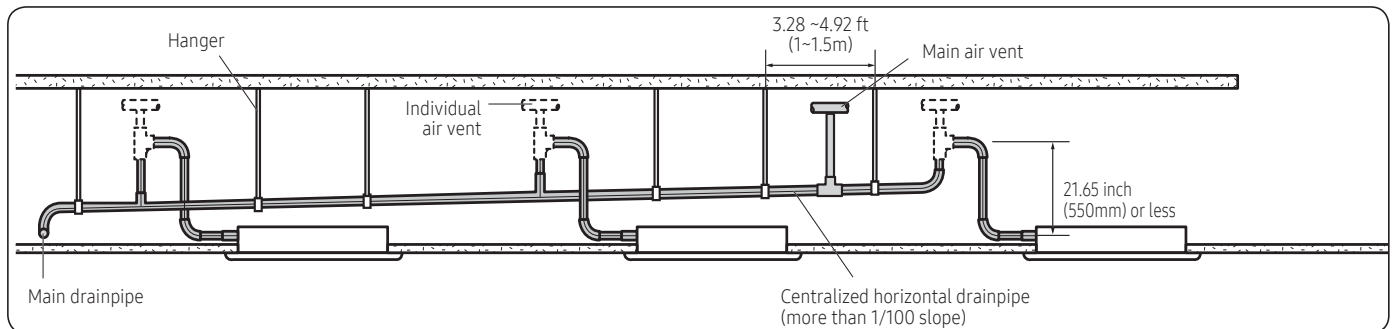
- Max. allowable bending angle.



NOTE

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

Installation



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.

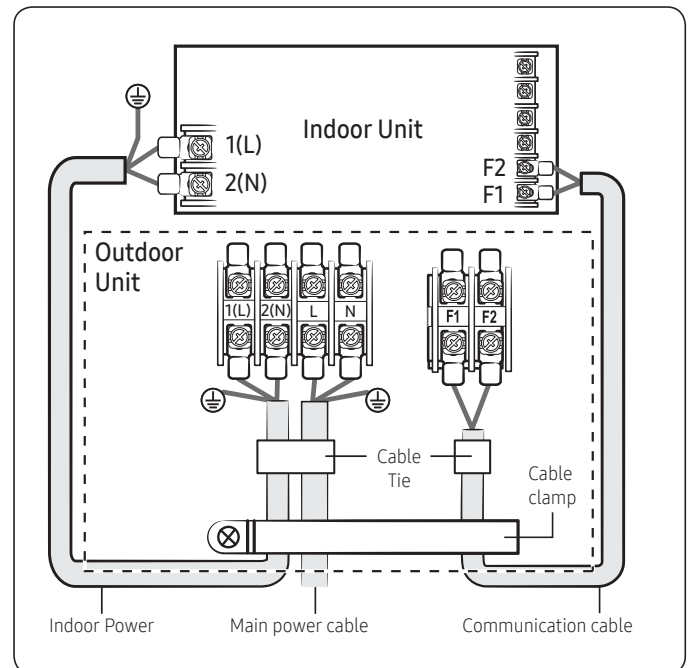
⚠ CAUTION

- 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.

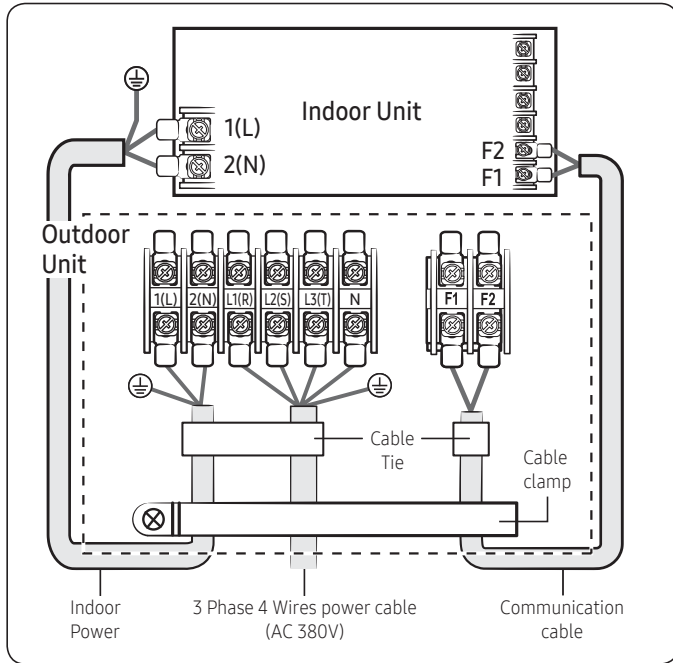
- 1 Remove the screw on the electrical component box and remove the cover plate.
- 2 Route the connection cord through the side of the indoor unit and connect the cable to the terminals refer to the figure below.
- 3 Route the other end of the cable to the outdoor unit through the ceiling & the hole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

1 phase

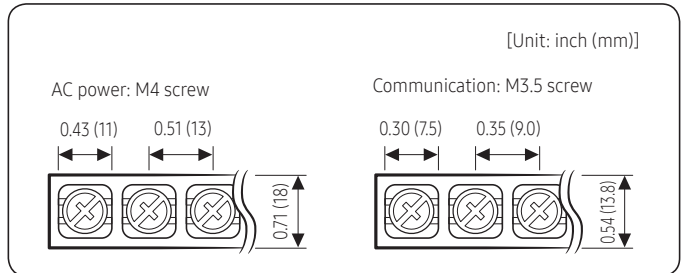


Installation

3 phase

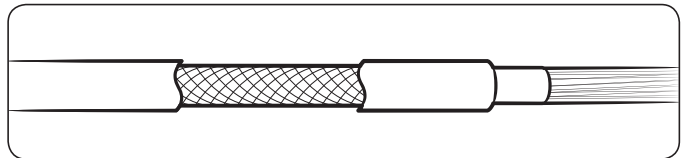


Indoor power supply		
Power supply	Max/Min(V)	Indoor power cable
208 to 230V, 60 Hz	±10%	0.0023 in ² (1.5 mm ²), 3 wires
Communication cable		
0.0012 to 0.0023 in ² (0.75 to 1.5 mm ²), 2 wires		



Tightening torque [lbf•ft (N•m)]	
M3.5	0.58 to 0.87 (0.8 to 1.2)
M4	0.87 to 1.31 (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.



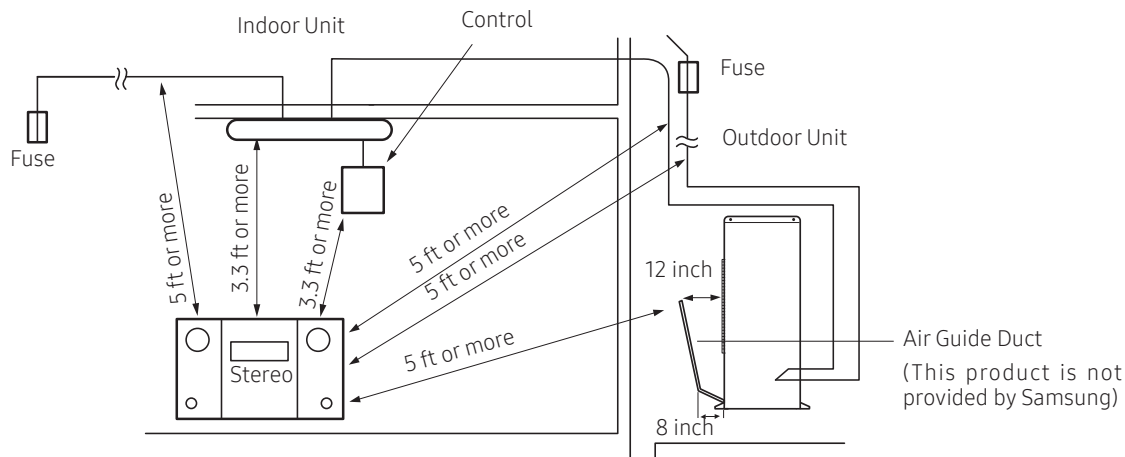
⚠ CAUTION

- 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.
- Select the power cable in accordance with relevant local and national.
- Wire size must comply with local and national code.

Installation

2. Outdoor Unit

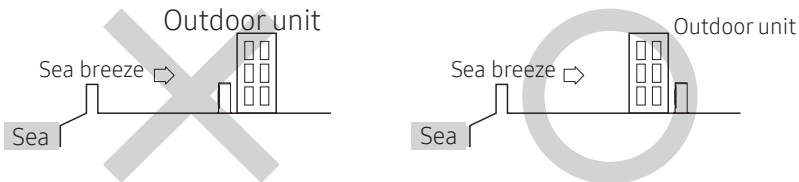
- The outdoor unit must not be placed on its side or upside down, as the compressor lubrication oil will run into the cooling circuit and seriously damage the unit.
- Choose a location that is dry and sunny, but not exposed to direct sunlight or strong winds.
- Do not block any passageways or thoroughfares.
- 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 6.6 ft 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.

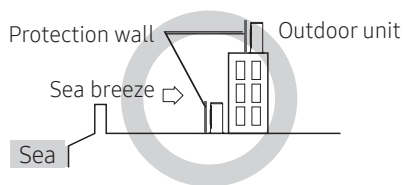
Installation

- 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.
 - 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 27.6 inch 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.)



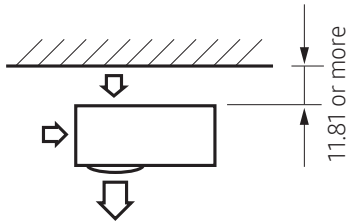
- You have just purchased a system air conditioner and it has been installed by your installation specialist.
- This device must be installed according to the national electrical rules.
- With an outdoor unit having net weight upper than 132.2 lb, we suggest do not install it suspended on wall, but considering 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.

Installation

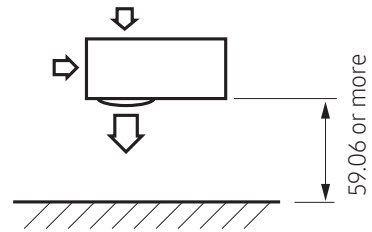
Space Requirements for Outdoor Unit

When installing 1 outdoor unit

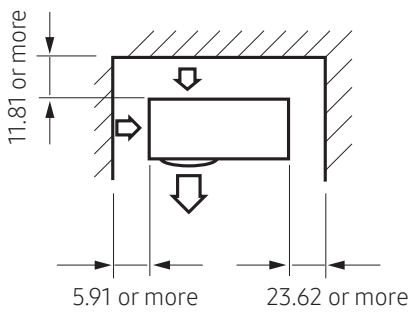
(Unit : inch)



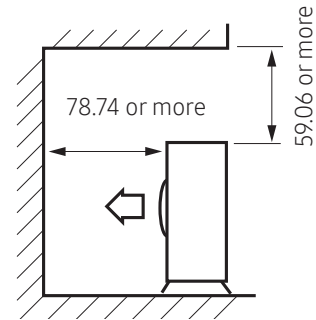
※ When the air outlet is opposite the wall



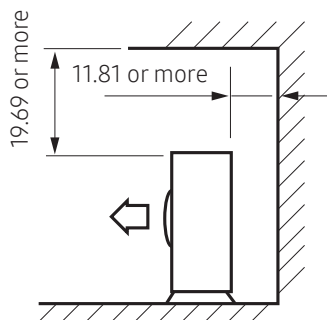
※ When the air outlet is towards the wall



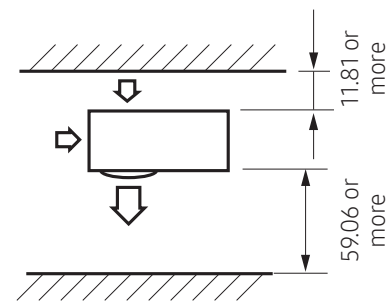
※ When 3 sides of the outdoor unit are blocked by the wall



※ 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

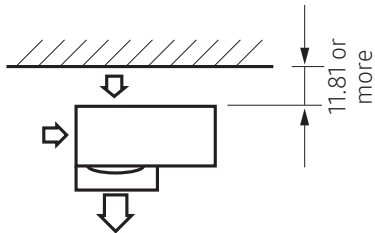


※ When front and rear side of the outdoor unit is towards the wall

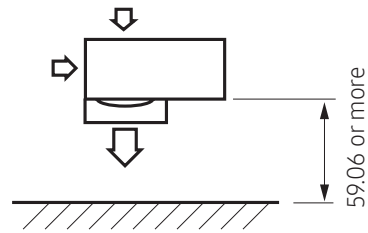
Installation

When installing 1 outdoor unit (with wind baffle)

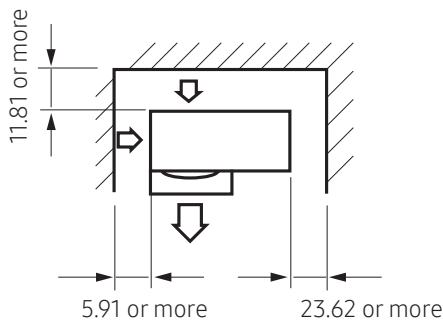
(Unit : inch)



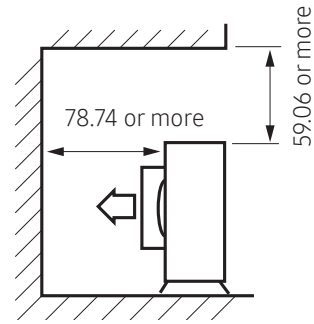
※ When the air outlet is opposite the wall



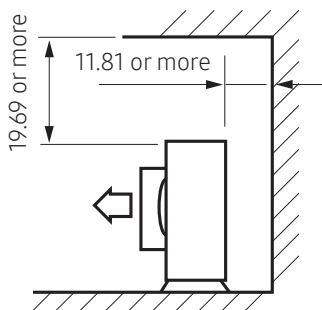
※ When the air outlet is towards the wall



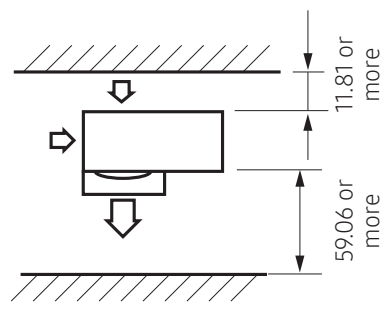
※ When 3 sides of the outdoor unit are blocked by the wall



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



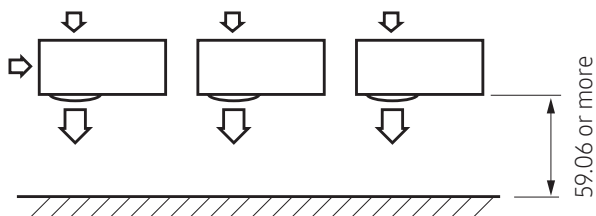
※ The upper part of the outdoor unit and the air outlet is opposite the wall



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

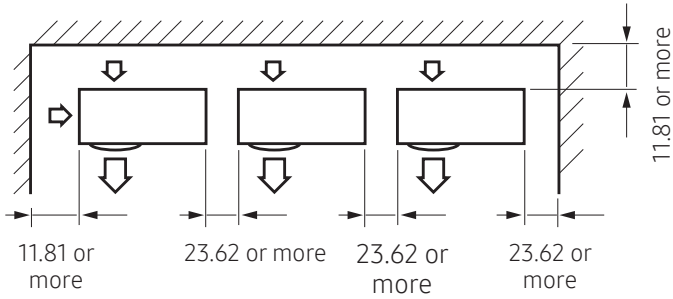
When installing more than 1 outdoor unit

(Unit : inch)

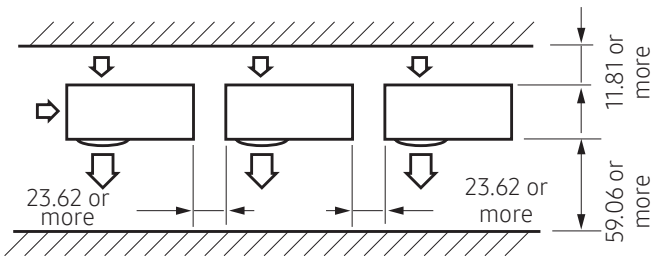


※ When the air outlet is towards the wall

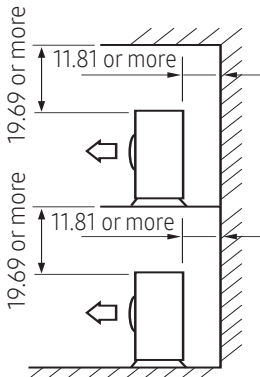
Installation



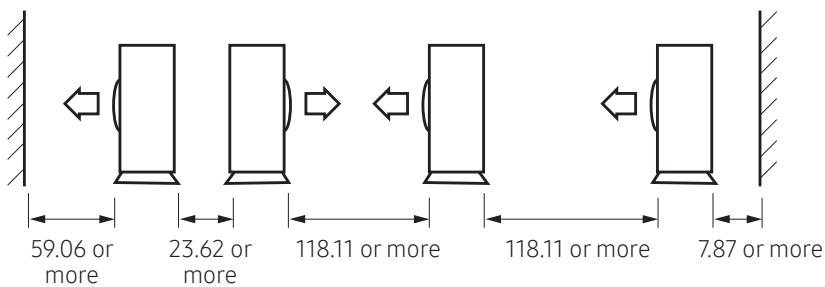
※ When 3 sides of the outdoor unit are blocked by the wall



※ 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

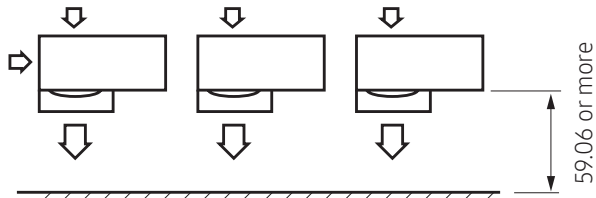


※ When front and rear side of the outdoor unit is towards the wall.

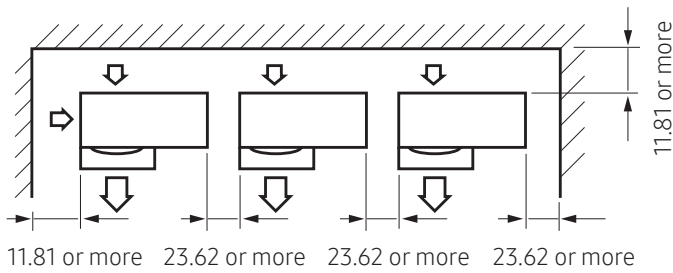
Installation

When installing more than 1 outdoor unit (with wind baffle)

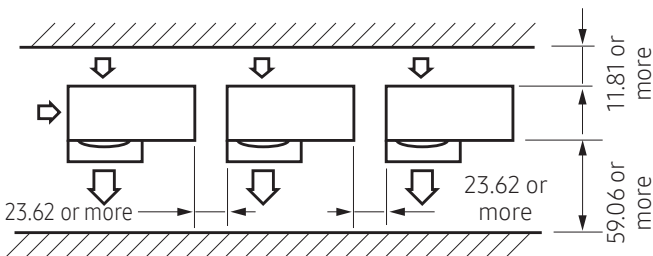
(Unit : inch)



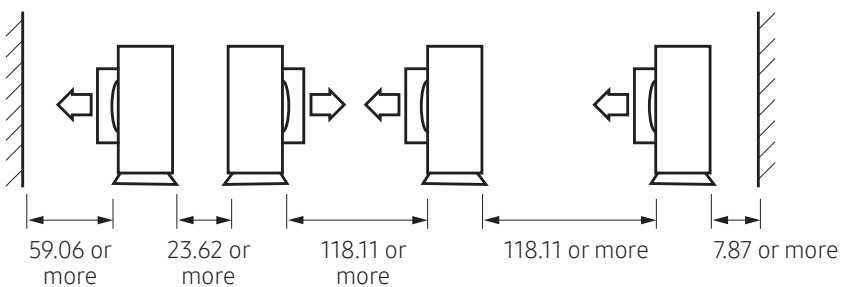
※ When the air outlet is towards the wall



※ 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



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

Installation

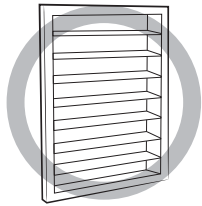


- The units must be installed according to distances declared, in order to permit accessibility from each side, either to guarantee correct operation of maintenance or repairing products.
The unit's parts must be reachable and removable completely under safety condition (for people or things).

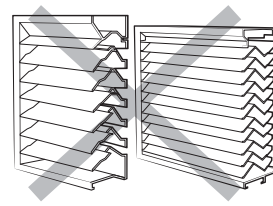


- Should adopt bar type louver. Don't use a type of rain resistance louver.

[Bar type louver]



[Rain resistance louver]



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

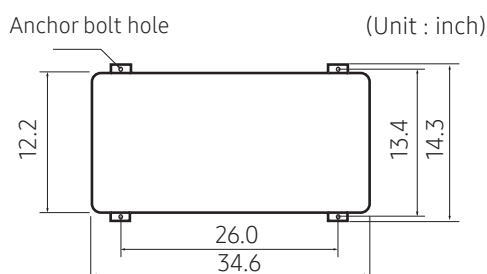
Outdoor unit installation

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).

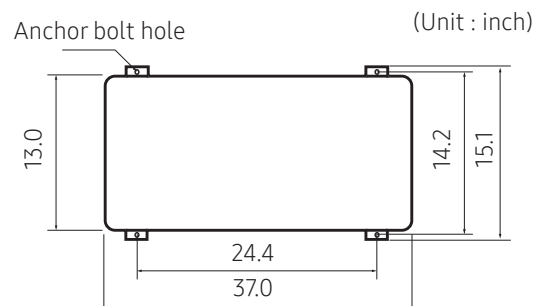
Fix the outdoor unit with anchor bolts.



- The anchor bolt must be 0.79 inch or higher from the base surface.



A Type : CXH18ADJ (AC018JXADCH/AA)



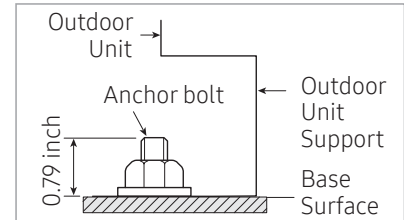
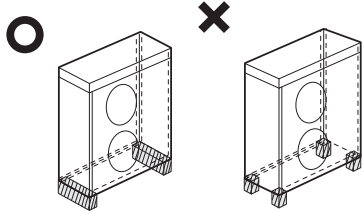
B Type : CXH24ADJ (AC024JXADCH/AA)
 CXH30ADJ (AC030JXADCH/AA)
 CXH36ADJ (AC036JXADCH/AA)
 CXH42ADJ (AC042JXADCH/AA)
 CXH48ADJ (AC048JXADCH/AA)



- 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.

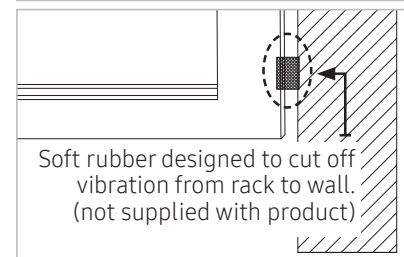
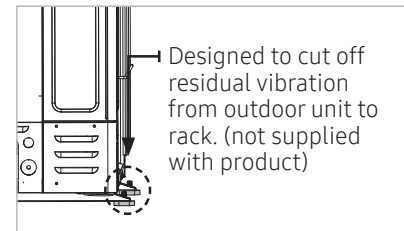
Installation

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.



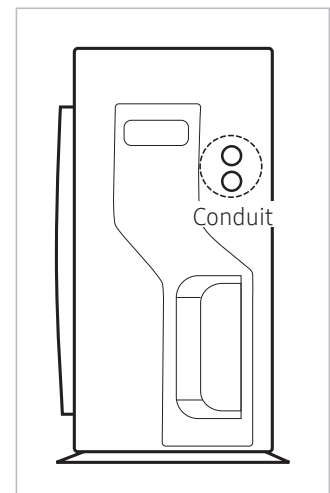
When installing air guide duct

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

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.
- Be sure to run the power supply cable and the communication cable through electrical conduit as seen in the picture.
- Protect the power and communication cable using the protection tube individually.
- Make a knockout hole.
- After making a knockout hole, apply rust resisting paint around the hole.
- Secure the cable tube to the outdoor knockout using the CD connector and bushing.

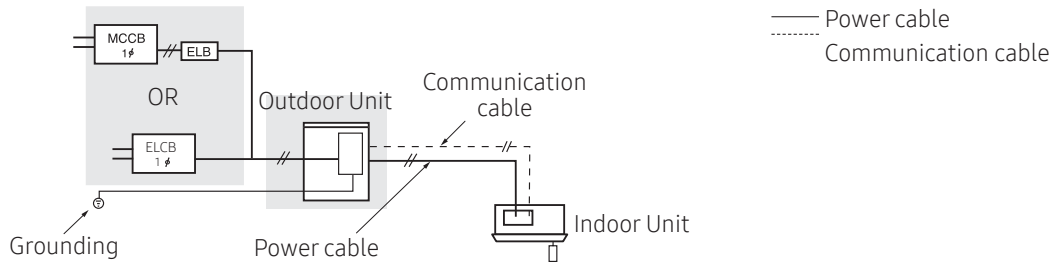


- During the unit installation make first refrigerant connections and then electrical connections. If unit is uninstalled first disconnect electrical cables, then refrigerant connections.
- Connect the air conditioner to grounding system before performing the electrical connection.
- When installing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

Installation

Example of Air Conditioner System

When using ELCB for 1 phase



Power Cable Specifications

- The power cable is not supplied with air conditioner.
 - Select the power supply cable in accordance with relevant local and national regulations.
 - Wire size must comply with the applicable local and national code.
 - Specifications for local wiring power cord and branch wiring are in compliance with local cord.

Model		Power Source	RLA	FLA		MCA	MOP
Outdoor	Indoor			Outdoor	Indoor		
CXH18ADJ (AC018JXADCH/AA)	CNH184DN (AC018NN4DCH/AA)	208~230V/60Hz	6.10 A	0.13 A	0.33 A	8.1	15
CXH24ADJ (AC024JXADCH/AA)	CNH244DN (AC024NN4DCH/AA)		9.00 A	0.48 A	0.33 A	12.06	20
CXH30ADJ (AC030JXADCH/AA)	CNH304DN (AC030NN4DCH/AA)		15.10 A	0.48 A	0.35 A	19.705	30
CXH36ADJ (AC036JXADCH/AA)	CNH364DN (AC036NN4DCH/AA)		17.00 A	0.96 A	0.35 A	22.08	35
CXH42ADJ (AC042JXADCH/AA)	CNH424DN (AC042NN4DCH/AA)		17.00 A	0.96 A	0.35 A	22.08	35
CXH48ADJ (AC048JXADCH/AA)	CNH484DN (AC048NN4DCH/AA)		17.00 A	0.96 A	0.35 A	22.08	35



- RLA is based on AHRI 210/240 colling standard condition
[Indoor temp. : 26.7 °C / 80 °F(DB) / 19.46 °C / 67 °F(WB), Outdoor temp. : 35 °C / 95 °F(DB)]
- Voltage tolerance is ± 10 %.
- Maxium allowable voltage between phases is 2 %.

Symbols

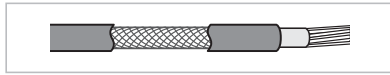
- RLA : Rated Load Ampere
- FLA : Full Load Ampere
- MCA : Minimum Circuit Ampere (A)
- MOP : Maximum Overcurrent Protective Device (A)

Installation

Between Indoor unit and Outdoor unit Connection Cable Specifications (Common in use)

Power supply			Communication Cable
Power supply	Max/Min(V)	Indoor Power Cable	
1Φ, 208~230V, 60Hz	±10%	0.0039 in ² ↑, 3wires	0.0011~0.0023 in ² , 2wires

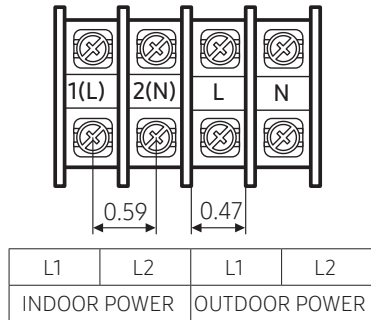
- Power supply cords of parts of appliances for outdoor use shall not be lighter than polychloroprene sheathed flexible cord. (Code designation IEC:60245 IEC 57 / CENELEC: H05RN-F or IEC:60245 IEC 66 / CENELEC: H07RN-F)



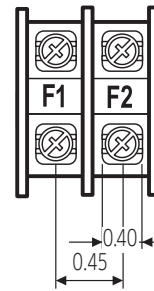
When installing the indoor unit in a computer room or net work room, use the double shielded (Tape aluminum / polyester braid + copper) cable of FROHH2R type.

1-phase terminal block spec

AC power : M4 screw



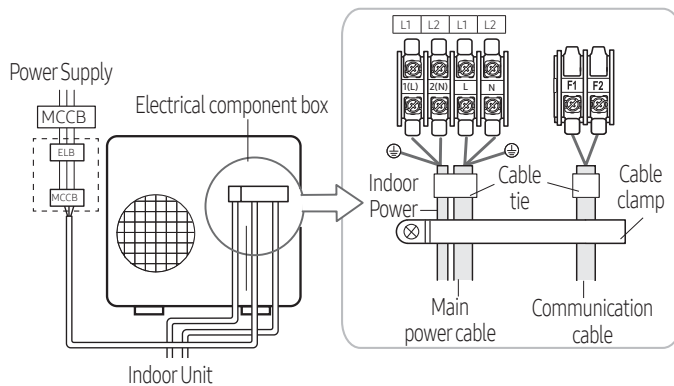
Communication : M4 screw



Wiring Diagram of Power Cable

When using ELB for 1 phase

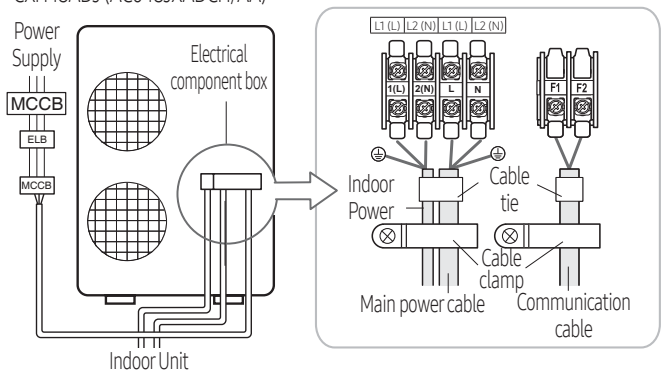
CXH18ADJ (AC018JXADCH/AA)



CXH24ADJ (AC024JXADCH/AA), CXH30ADJ (AC030JXADCH/AA)

CXH36ADJ (AC036JXADCH/AA), CXH42ADJ (AC042JXADCH/AA)

CXH48ADJ (AC048JXADCH/AA)



Installation

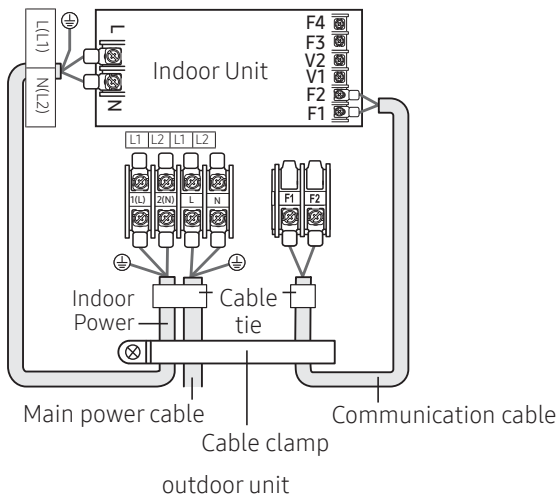
※ The appearance of the unit may be different from the picture depending on the model.



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

Wiring Diagram of Connection Cord

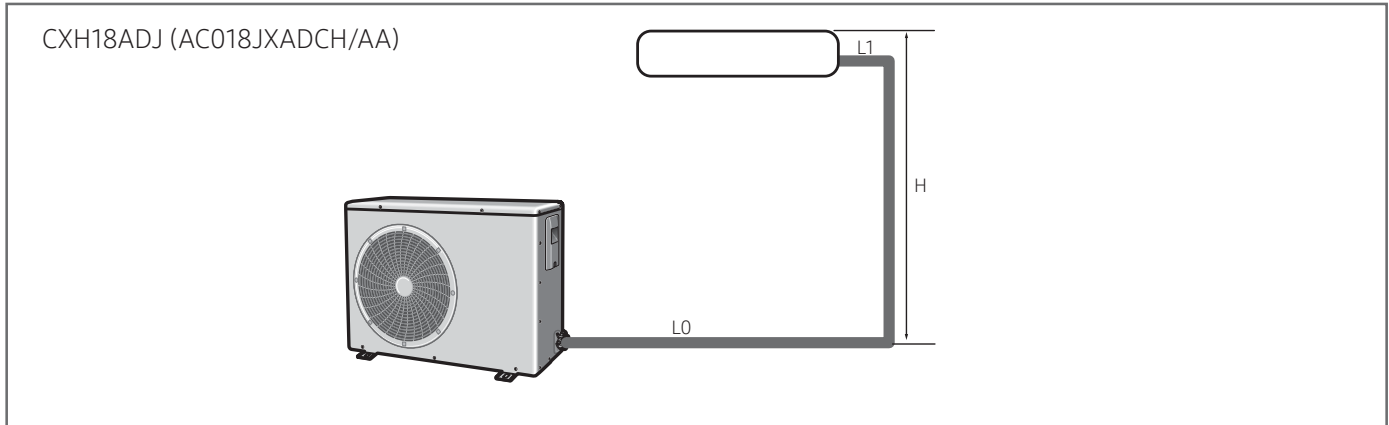
1 phase



- 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

Refrigerant piping system



Refrigerant piping system table			Pipe length or height	
			AC009KXADCH AC012KXADCH	CXH18ADJ (AC018JXADCH/AA) AC018KXADCH
Max. allowable length	Actual pipe length	$L_0 + H + L_1$	65.6 ft (20 m) or less	98.4 ft (30 m) or less
Allowable height length	Actual pipe length	H	49.2 ft (15 m) or less	65.6 ft (20 m) or less

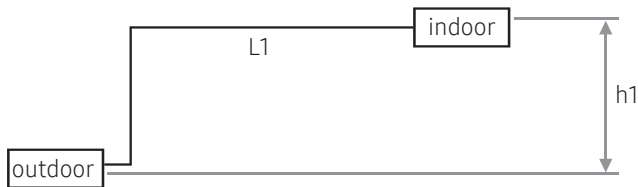
- Temper grade and minimum thickness of the refrigerant pipe

Outer diameter [inch]	Minimum thickness [inch]	Temper grade
1/4	0.0276	C1220T-O
3/8	0.0276	
1/2	0.0315	
5/8	0.0394	
5/8	0.0315	C1220T-1/2H OR C1220T-H
3/4	0.0354	
7/8	0.0354	

Installation

CXH24ADJ (AC024JXADCH/AA), CXH30ADJ (AC030JXADCH/AA) / CXH36ADJ (AC036JXADCH/AA), CXH42ADJ (AC042JXADCH/AA) / CXH48ADJ (AC048JXADCH/AA)

Items	Maximum allowable length		
	Single installation		
Type	A	B	C
Applicable outdoor unit models	CXH18ADJ (AC018JXADCH/AA) CXH24ADJ (AC024JXADCH/AA) CXH30ADJ (AC030JXADCH/AA)	CXH36ADJ (AC036JXADCH/AA) CXH42ADJ (AC042JXADCH/AA) CXH48ADJ (AC048JXADCH/AA)	AC030/036JXSCCH / AC054KXADCH
Main pipe (L1)	164.0 ft (50 m)	246.0 ft (75 m)	
Max. height difference between outdoor and indoor units (h1)	98.4 ft (30 m)	98.4 ft (30 m)	

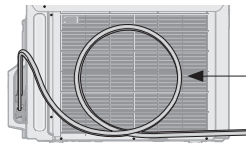


- Temper grade and minimum thickness of the refrigerant pipe

Outer diameter [inch]	Minimum thickness [inch]	Temper grade
1/4	0.0276	C1220T-O
3/8	0.0276	
1/2	0.0315	
5/8	0.0394	
5/8	0.0315	C1220T-1/2H OR C1220T-H
3/4	0.0354	
7/8	0.0354	



- Make sure to use C1220T-1/2H (Semi-hard) pipe for more than 3/4 in. In case of using C1220T-O (Soft) pipe for 3/4 in., pipe may be broken, which can result in an injury.



Make at least one round:
It will reduce noise and vibration

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



- 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.



2020. 08
Ver.1.3

Samsung Electronics Co., LTD.

Head Office (Suwon Korea) 129, Samsung-Ro, Yeongtong-Gu, Suwon City, Gyeonggi-Do, Korea 16677
Website : www.samsung.com, <https://partnerhub.samsung.com> Email : airconditioner@samsung.com
Images and data in this book may subject to change without prior notice.