

VRF

Technical Data Book

Ceiling for America (R410A, 60Hz, HP)



Model : AM*FNCDCH*****

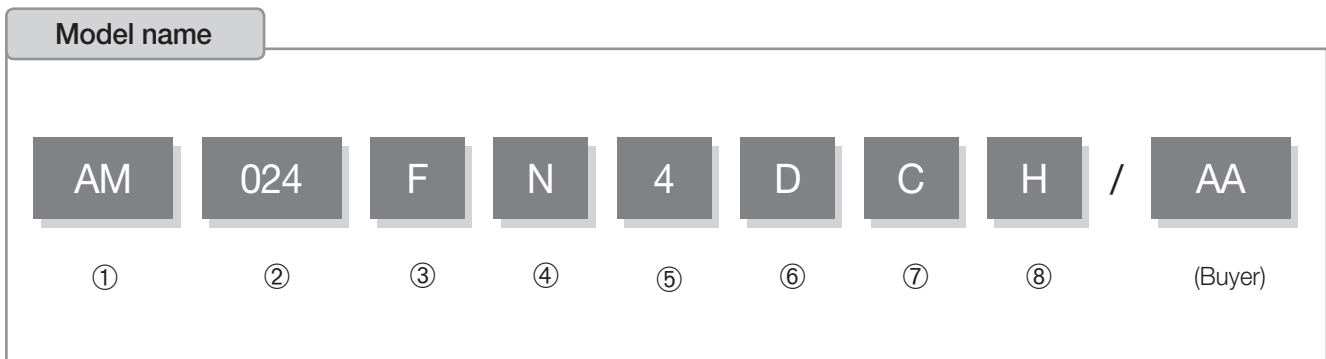
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History

Version	Modification	Date	Remark
Ver.1.0	Release Ceiling for America (R410A, 60Hz, HP)	15.11.04	-

1 Nomenclature

Indoor Units



① Classification

AM	DVM
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② Capacity

kBtu/h (3digits)

③ Version

E	2012
F	2013
G	2014

④ Product Type

X	Outdoor Unit
N	Indoor Unit

⑤ Product Notation

1	1 way cassette
2	2 way cassette
N	4 way cassette (interior)
4	4 way cassette
L	LSP Duct (Slim Duct)
M	MSP Duct
H	HSP Duct
C	Ceiling
J	Console
F	Floor Standing
T	NEO FORTE
Q	NEO FORTE (EEV)
B	HYDRO UNIT (Floor Standing)
K	FLAT(CEILING TYPE) VTL

⑥ Feature

D	DELUXE
F	FLAGSHIP
G (EHS)	CASCADE (EEV)

⑦ Rating Voltage

C	1Ø, 208~230V, 60Hz
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⑧ Mode

H	Heat Pump (R410a)
R	Heat Recovery (R410a)

2 Specification

Specifications

1) Technical specifications

Model				AM018FNCDCH/AA	AM024FNCDCH/AA
Power Supply		Ø, V, Hz		1,208-230,60	1,208-230,60
Mode				HP/HR	HP/HR
Performance	Capacity (Nominal)	Cooling ^{*1)}	Btu/h	18,000	24,000
			US RT	1.50	2.00
		Heating ^{*1)}	Btu/h	20,000	27,000
			US RT	1.67	2.25
Power	Power Input (Nominal)	Cooling ^{*1)}	W	72.00	80.00
				Heating ^{*1)}	72.00
	Current Input (Nominal)	Cooling ^{*1)}	A	0.42	0.48
				Heating ^{*1)}	0.42
Fan	Motor	Type	-	Sirocco Fan	Sirocco Fan
		Output x n	W	25 x 1	35 x 1
	Air Flow Rate	H/M/L (UL)	CFM	494.42/459.11/423.79	635.69/582.71/529.74
	External Pressure	Min / Std / Max	Pa	-	-
Piping Connections	Liquid Pipe	Ø, mm	6.35	9.52	
		Ø, inch	1/4"	3/8"	
	Gas Pipe	Ø, mm	12.70	15.88	
		Ø, inch	1/2"	5/8"	
Drain Pipe	Ø, mm	ID 18 HOSE	ID 18 HOSE		
Refrigerant	Type	-	R410A	R410A	
	Control Method	-	EEV NOT INCLUDED	EEV NOT INCLUDED	
Sound	Sound Pressure ^{*2)}	High / Mid / Low	dBA	40.0/37.0/34.0	44.0/42.0/40.0
Dimensions	Net Weight	kg		21.00	21.00
		lbs		46.30	46.30
	Shipping Weight	kg		25.50	25.50
		lbs		56.22	56.22
	Net Dimensions (W×H×D)	mm		1000 x 650 x 200	1000 x 650 x 200
		inch		39.37 x 25.59 x 7.87	39.37 x 25.59 x 7.87
	Shipping Dimensions (W×H×D)	mm		1080 x 730 x 300	1080 x 730 x 300
		inch		42.52 x 28.74 x 11.81	42.52 x 28.74 x 11.81
Panel Size	Panel model		model name	-	-
	Panel Net Weight	kg		-	-
		lbs		-	-
	Shipping Weight	kg		-	-
		lbs		-	-
	Net Dimensions (W×H×D)	mm		-	-
		inch		-	-
	Shipping Dimensions (W×H×D)	mm		-	-
inch		-	-		
Additional Accessories	Drain pump	Drain pump	model name	-	-
		Max. lifting Height / Displacement	mm/liter/h	-	-
	Air Filter		-	Long life filter	Long life filter

1) Nominal Capacity are based on (Equivalent refrigerant piping : 25ft , Level differences : 0ft);

- Cooling : Indoor temperature : 80°F DB, 67°F WB / Outdoor temperature : 95°F DB, 75°F WB

- Heating : Indoor temperature : 70°F DB, 60°F WB / Outdoor temperature : 47°F DB, 43°F WB

2) Sound pressure was acquired in a dead room. Thus actual noise level may be different depending on the installation conditions.

3) Specifications are subject to change without prior notice for product improvement.

3 Capacity Table

Capacity tables

1) Cooling

TC : Total Capacity(Btu/h), SHC : Sensible Heat Capacity(Btu/h)

Model	Outdoor Temperature (F, DB)	Indoor Temperature (F, WB)													
		57		61		64		67		70		72		75	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
018	50	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	20,300	12,500	21,500	11,900
	54	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	20,300	12,500	21,500	11,900
	58	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,500	11,900
	60	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	64	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	67	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	70	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	73	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	77	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	80	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	84	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	88	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	92	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	95	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,600
	99	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	11,300
	103	12,500	10,300	14,800	11,300	17,000	12,500	18,000	12,500	18,600	12,500	19,900	12,200	21,200	10,900
	107	12,500	10,300	14,800	11,300	17,000	12,500	17,400	12,200	18,000	12,200	18,600	11,600	19,300	10,300
	111	12,500	10,300	14,800	11,300	16,100	12,200	17,000	11,900	17,400	11,900	17,700	11,300	18,000	9,600
115	12,500	10,300	14,800	11,300	16,100	12,200	17,000	11,900	17,400	11,900	17,700	11,300	18,000	9,600	
118	12,500	10,300	14,800	11,300	16,100	12,200	17,000	11,900	17,400	11,900	17,700	11,300	18,000	9,600	
024	50	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	27,000	17,200	28,700	16,200
	54	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,700	16,200
	58	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,700	16,200
	60	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	64	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	67	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	70	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	73	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	77	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	80	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	84	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	88	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	92	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	95	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	25,000	16,900	26,700	16,900	28,400	16,200
	99	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	24,700	16,600	26,400	16,600	27,700	15,900
	103	16,600	13,500	19,600	15,200	22,600	16,200	24,000	16,900	24,700	16,600	26,000	16,200	27,400	15,500
	107	16,600	13,500	19,600	15,200	22,600	16,200	23,300	16,200	23,700	15,900	24,700	15,500	25,700	14,900
	111	16,600	13,500	19,600	15,200	21,300	15,500	22,600	15,200	23,000	15,500	23,700	15,200	24,000	14,200
115	16,600	13,500	19,600	15,200	21,300	15,500	22,600	15,200	23,000	15,500	23,700	15,200	24,000	14,200	
118	16,600	13,500	19,600	15,200	21,300	15,500	22,600	15,200	23,000	15,500	23,700	15,200	24,000	14,200	

2) Heating

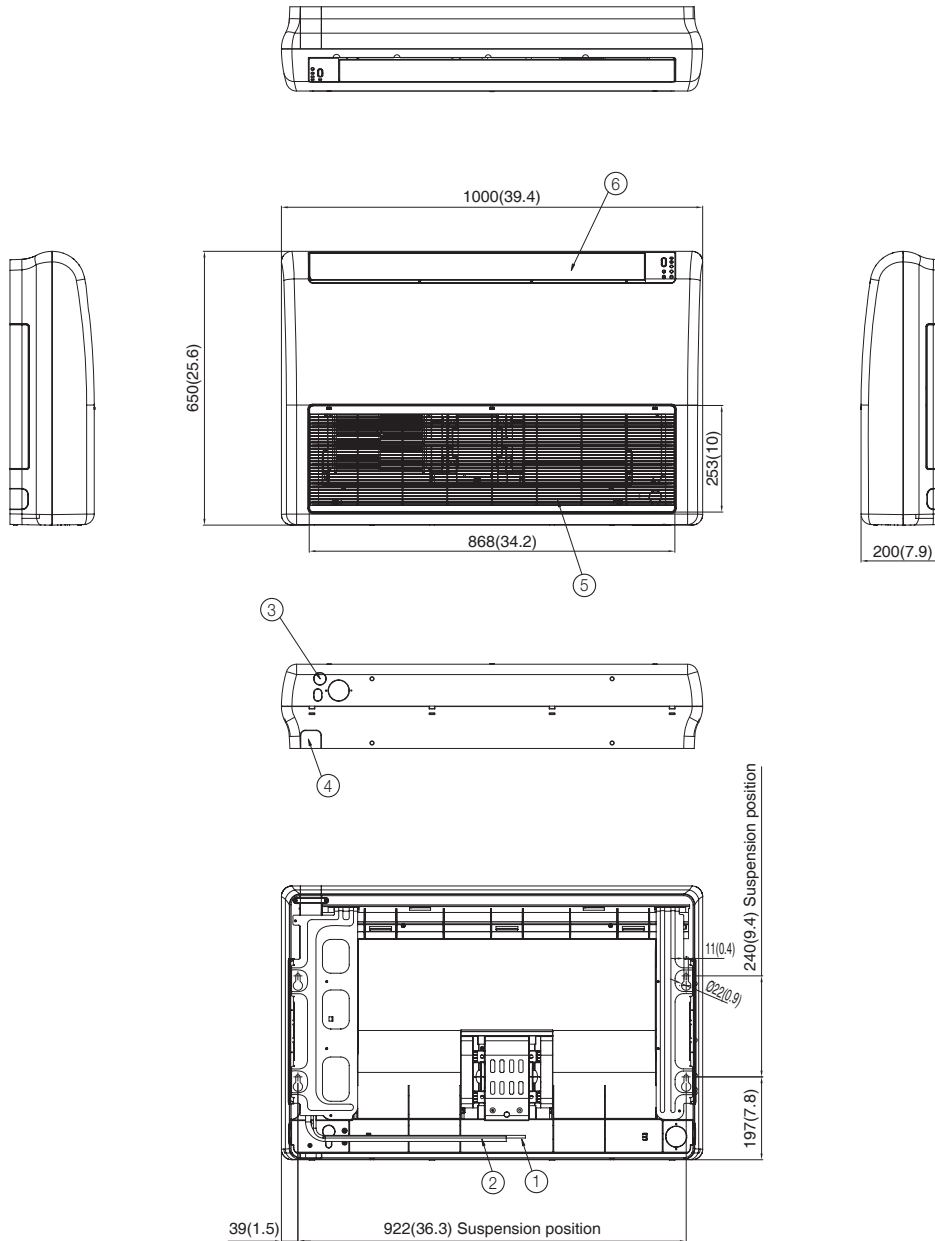
TC : Total Capacity(Btu/h)

Model	Outdoor Temperature (F)		Indoor Temperature (F, DB)				
			61	65	70	72	75
	DB	WB	TC	TC	TC	TC	TC
018	-3.6	-4	12,900	12,600	12,400	12,200	12,200
	-1.8	-2	13,100	12,900	12,600	12,400	12,400
	2	1	13,200	13,200	12,700	12,600	12,600
	6	5	13,900	13,600	13,100	12,900	12,600
	10	9	14,500	14,200	13,900	13,900	13,600
	13	12	15,200	15,200	14,700	14,500	14,500
	17	15	15,700	15,500	15,200	15,000	14,700
	19	18	16,200	15,900	15,700	15,500	14,900
	23	21	17,200	16,900	16,400	16,200	15,500
	26	24	17,900	17,500	17,200	16,900	16,200
	30	28	18,300	18,000	17,500	17,200	16,400
	35	32	18,800	18,500	17,900	17,500	16,500
	39	36	19,500	19,500	18,800	18,500	17,500
	44	40	20,500	20,200	19,300	18,800	17,500
	47	43	21,500	21,200	20,000	19,200	17,500
	51	47	22,100	21,500	20,000	19,200	17,500
	54	50	22,800	21,800	20,000	19,200	17,500
	57	53	23,500	22,100	20,000	19,200	17,500
60	56	24,100	22,500	20,000	19,200	17,500	
024	-3.6	-4	17,200	17,200	16,700	16,500	16,500
	-1.8	-2	17,500	17,400	16,800	16,700	16,700
	2	1	17,900	17,500	17,000	16,800	16,800
	6	5	18,600	18,200	17,500	17,200	16,800
	10	9	19,600	19,300	18,800	18,600	18,200
	13	12	20,700	20,300	19,800	19,600	19,600
	17	15	21,200	20,900	20,300	20,200	20,000
	19	18	21,700	21,400	20,900	20,700	20,300
	23	21	22,800	22,800	22,100	21,700	21,000
	26	24	24,200	23,800	23,000	22,400	21,700
	30	28	24,700	24,400	23,500	23,000	22,100
	35	32	25,200	24,900	24,000	23,500	22,400
	39	36	26,600	26,300	25,200	24,900	23,800
	44	40	27,700	27,400	26,100	25,200	23,800
	47	43	28,800	28,400	27,000	25,900	23,800
	51	47	29,800	28,800	27,000	25,900	23,800
	54	50	30,500	29,500	27,000	25,900	23,800
	57	53	31,600	29,800	27,000	25,900	23,800
60	56	32,300	30,200	27,000	25,900	23,800	

4 Dimensional Drawing

Dimensional drawing

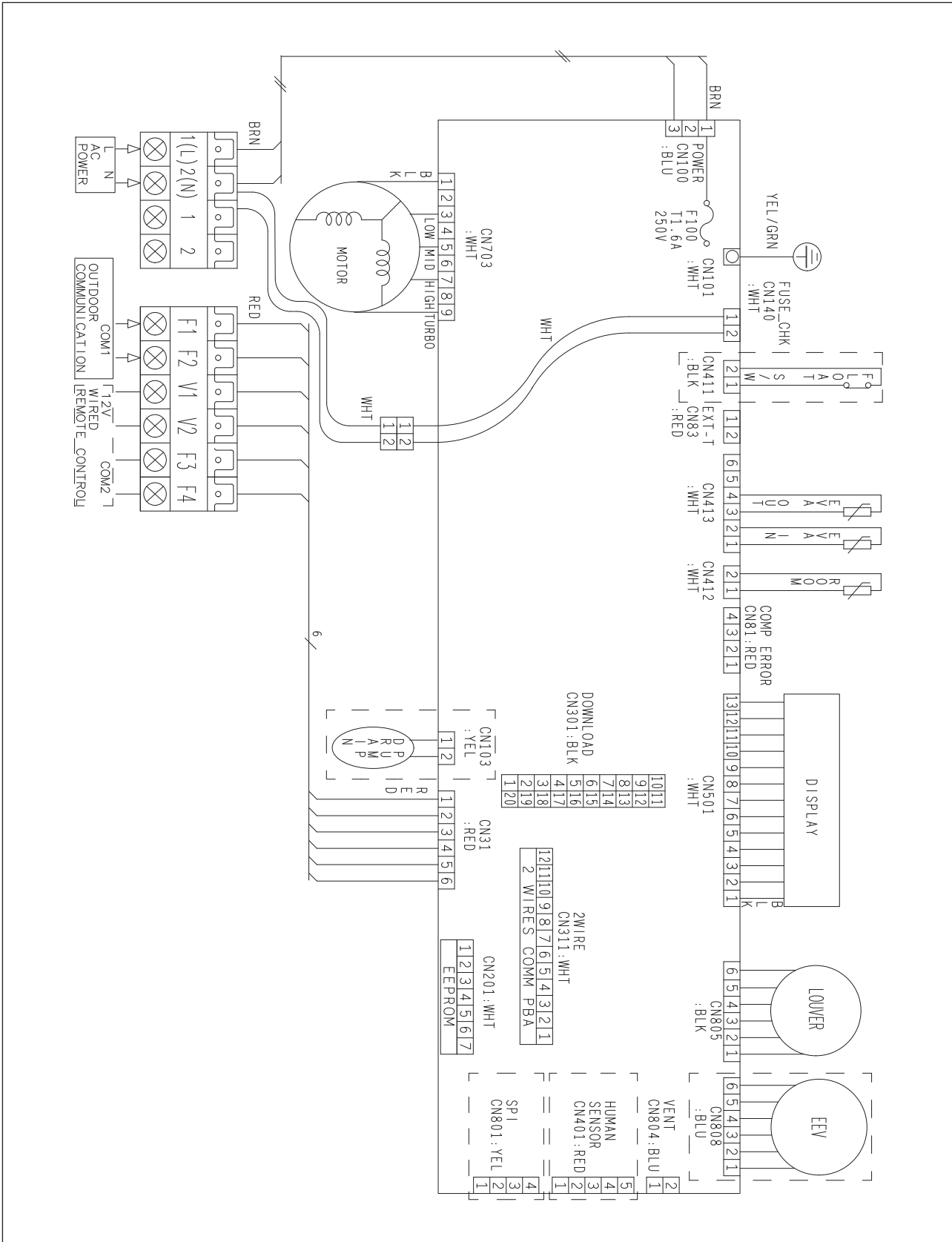
Unit: mm(inch)



No.	Name	Description	
		18.0 MBH	24.0 MBH
①	Liquid pipe connection	$\varnothing 6.35(1/4)$ " Flare	$\varnothing 9.52(3/8)$ " Flare
②	Gas pipe connection	$\varnothing 12.70(1/2)$ " Flare	$\varnothing 15.88(5/8)$ " Flare
③	Drain pipe connection	ID18 Hose/ID11/16" Hose	
④	Conduit for power supply & communication wiring	-	
⑤	Air inlet grille	-	
⑥	Air outlet louver	-	

5 Electrical Wiring Diagram

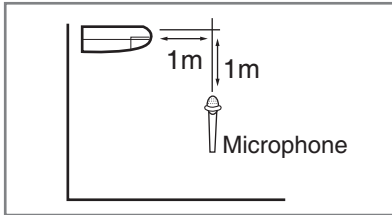
Electrical wiring diagram



6 Sound Pressure Level

Sound pressure level

1) Operation sound level



Unit : dB(A)

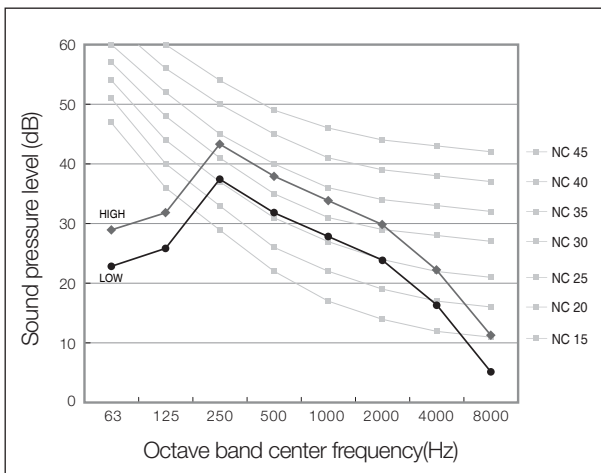
Model	High	Low
AM018FNCDCH/AA	40	34
AM024FNCDCH/AA	44	40

Note

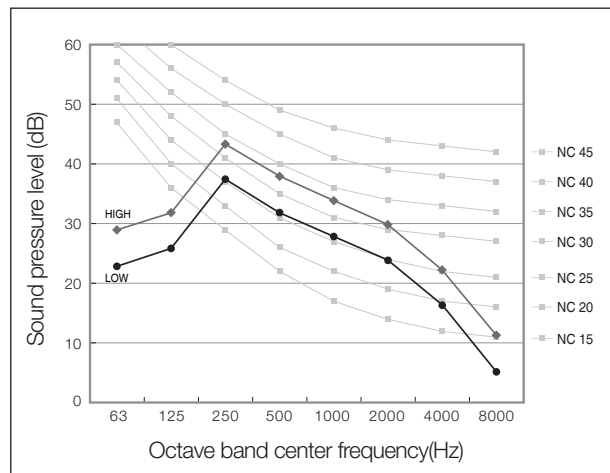
- ◆ These operation values were obtained in an anechoic room. Sound pressure level will vary depending on a range of factors such as the construction of the particular room where the equipment is installed.
- ◆ Operation sound level may differ depending on operation and ambient conditions.

2) NC curves

(1) AM018FNCDCH/AA



(2) AM024FNCDCH/AA



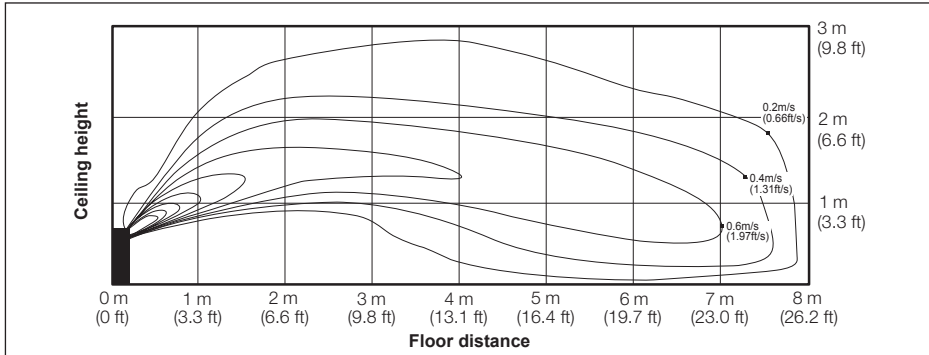
7 Temperature and Air Flow Distribution

Temperature and air flow distribution

1) AM024FNCDCH*** (Floor installation)

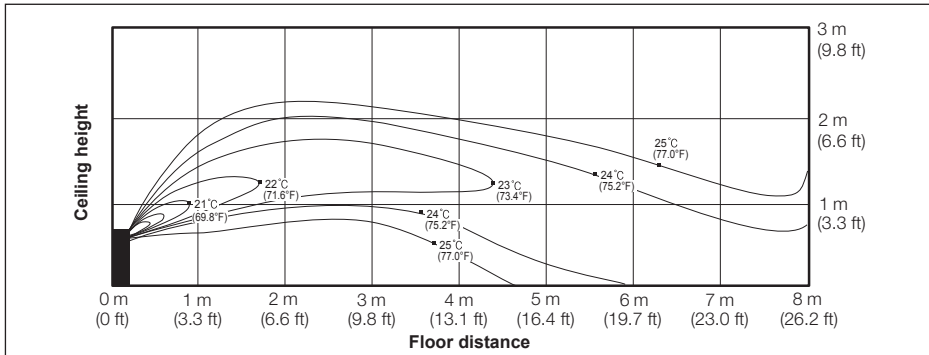
(1) Cooling air velocity distribution

◆ Discharge angle : 36°



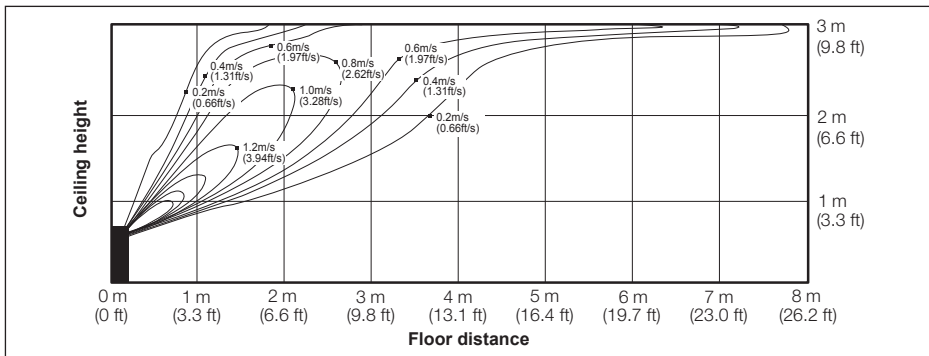
(2) Cooling temperature distribution

◆ Discharge angle : 36°



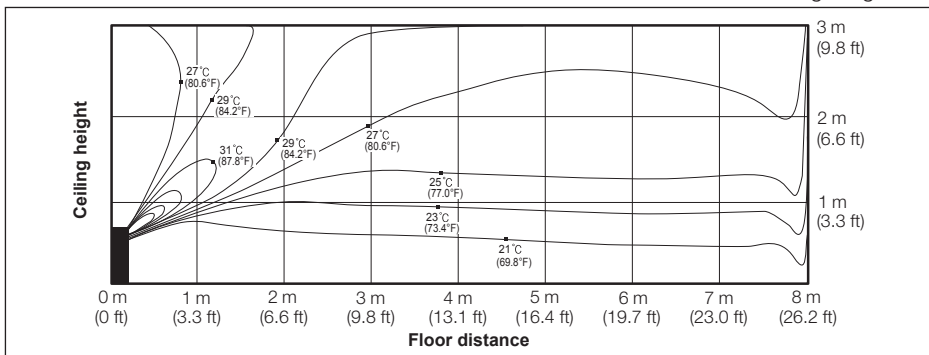
(3) Heating air velocity distribution

◆ Discharge angle : 54°



(4) Heating temperature distribution

◆ Discharge angle : 54°



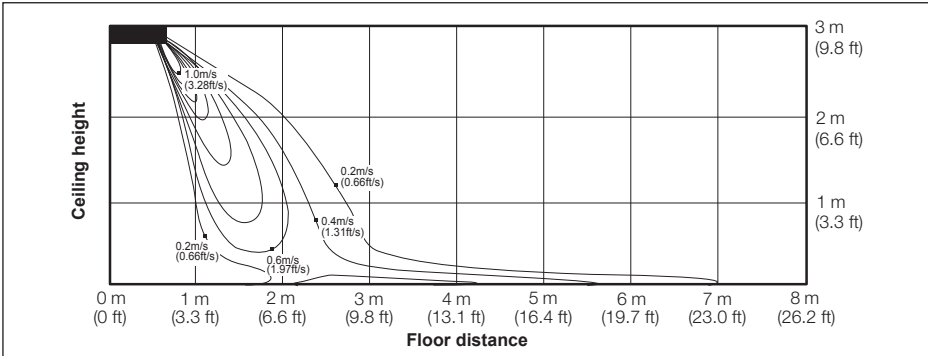
7 Temperature and Air Flow Distribution

Temperature and air flow distribution

2) AM024FNCDCH*** (Ceiling installation)

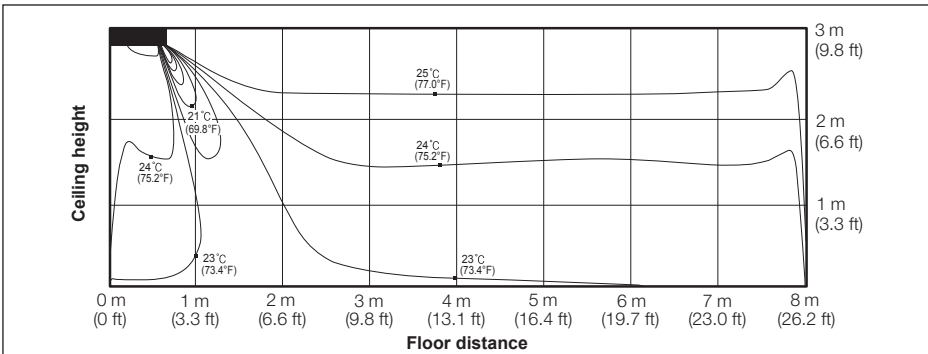
(1) Cooling air velocity distribution

◆ Discharge angle : 36°



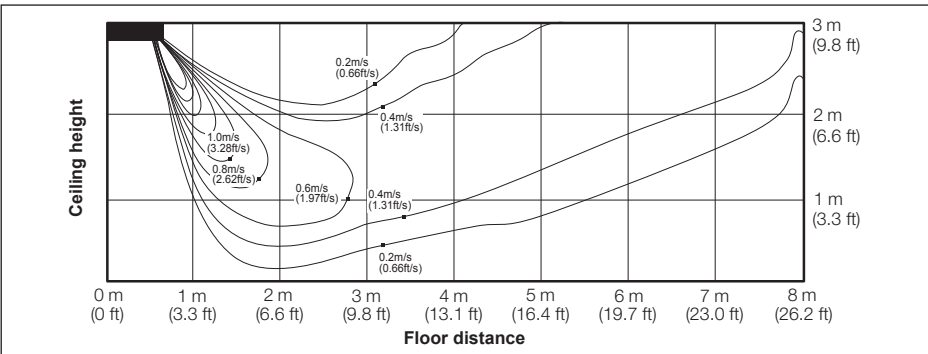
(2) Cooling temperature distribution

◆ Discharge angle : 36°



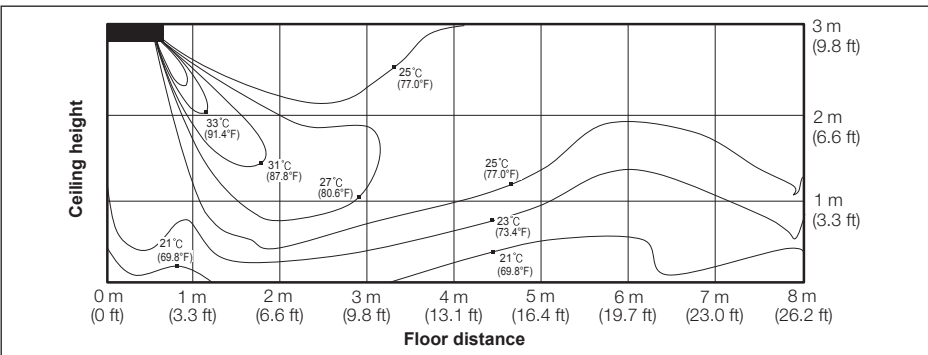
(3) Heating air velocity distribution

◆ Discharge angle : 54°



(4) Heating temperature distribution

◆ Discharge angle : 54°



SAMSUNG

2015.11
Ver 1.0

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B2B PM / SE

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