

SAMSUNG

VRF Technical Data Book

Wind-Free 1Way Cassette for Latin America
(R410A, 60Hz)

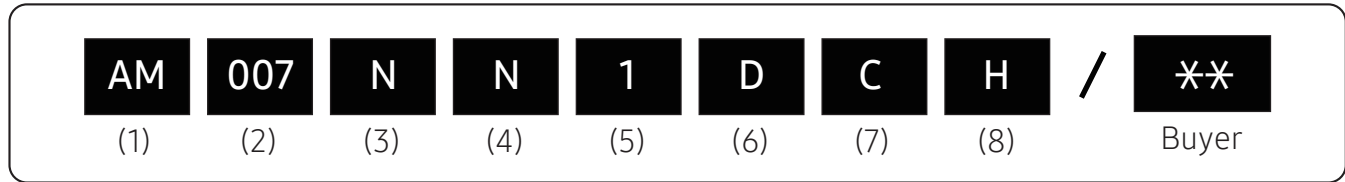


Model : AM***NN1DCH/AZ

Nomenclature

Indoor Units

Model Names



(1) Classification

AM	DVM
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(2) Capacity

X kBtu/h (3 digits)

(3) Version

K	2016
M	2017
N	2018

(4) Product Type

N	Indoor Unit
X	Outdoor Unit

(5) Product Notation

1	1Way Cassette
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(6) Feature

D	Deluxe
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(7) Rating Voltage

C	1Ø, 208~230V, 60Hz
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(8) Mode

H	Heat Pump (R410A)
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2. Specification

Wind-Free 1 Way Cassette

Type				1Way CASSETTE	1Way CASSETTE	1Way CASSETTE
Model Name				AM012NN1DCH/AZ	AM018NN1DCH/AZ	AM024NN1DCH/AZ
Power Supply			Φ, #, V, Hz	1,208-230,60	1,208-230,60	1,208-230,60
Mode			-	HP/HR	HP/HR	HP/HR
Performance	Capacity	Cooling	Btu/h	12,000	18,000	24,000
			US RT	1.00	1.50	2.00
		Heating	Btu/h	13,500	20,000	27,000
			US RT	1.12	1.67	2.25
Power	Power Input	Cooling	W	50.0	55.00	80.00
		Heating		50.0	55.00	80.00
	Current Input	Cooling	A	0.28	0.28	0.40
		Heating		0.28	0.28	0.40
	Current	MCA	A	0.35	0.35	0.50
		MFA		15	15	15
Heat exchanger	Type		-	Fin & Tube	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al	Al
		Tube	-	Cu	Cu	Cu
	Fin Treatment		-	Green Hydrophile	Green Hydrophile	Green Hydrophile
Fan	Type		-	Crossflow Fan	Crossflow Fan	Crossflow Fan
	Quantity		ea	1	1	1
	Air Flow Rate	H/M/L	CMM	8.0 / 7.0 / 6.0	16.0 / 14.0 / 12.5	17.0 / 15.5 / 14.0
			CFM	282.53/247.21/211.90	529.74/459.11/388.48	582.71/512.08/423.79
Fan Motor	Model		-	AC Motor	BLDC Motor	BLDC Motor
	Output x n		W	17 x 1	54 x 1	54 x 1
Piping Connections	Liquid Pipe	Type	-	Flare Connection	Flare Connection	Flare Connection
		Φ, mm	-	6.35	6.35	9.52
		Φ, inch	-	1/4"	1/4"	3/8"
	Gas Pipe	Type	-	Flare Connection	Flare Connection	Flare Connection
		Φ, mm	-	12.70	12.70	15.88
		Φ, inch	-	1/2"	1/2"	5/8"
Drain Pipe		Φ, mm	-	VP20 (OD 25,ID 20)	VP20 (OD 25,ID 20)	VP20 (OD 25,ID 20)
Wiring connections	Communication	Minimum	mm ²	0.75	0.75	0.75
		Remark	-	F1, F2	F1, F2	F1, F2
Refrigerant	Type		-	R410A	R410A	R410A
	Electronic Expansion Valve		-	EEV INCLUDED	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure	High / Mid / Low	dB(A)	37 / 33 / 30	41 / 38 / 35	42 / 39 / 36
	Sound Power	Cooling	-	55	59	60
Dimension	Net Weight		kg	10.00	13.5	13.5
			lbs	22.05	29.76	29.76
	Shipping Weight		kg	12.80	17.3	17.3
			lbs	28.22	38.14	38.14
	Net Dimensions (WxHxD)		mm	970 x 135 x 410	1200 x 138 x 450	1200 x 138 x 450
			inch	38.19 x 5.31 x 16.14	47.24 x 5.43 x 17.72	47.24 x 5.43 x 17.72
Shipping Dimensions (WxHxD)		mm	1,173 x 231 x 478	1435 x 224 x 525	1435 x 224 x 525	
		inch	46.18 x 9.09 x 18.82	56.50 x 8.82 x 20.67	56.50 x 8.82 x 20.67	
Casing	Material		-	ABS	ABS	ABS

2. Specification

Wind-Free 1 Way Cassette

Type			1Way CASSETTE	1Way CASSETTE	1Way CASSETTE	
Model Name			AM012NN1DCH/AZ	AM018NN1DCH/AZ	AM024NN1DCH/AZ	
Panel	Model Name	-	PC1NWFMAN	PC1BWFMAN	PC1BWFMAN	
	Type	-	Wind Free	Wind Free	Wind Free	
	Material	-	HIPS	HIPS	HIPS	
	Color	-	White	White	White	
	Net Weight	kg		4.30	5.0	5.0
		lbs		9.48	11.02	11.02
	Shipping Weight	kg		6.30	7.0	7.0
		lbs		13.89	15.43	15.43
	Net Dimensions (W×H×D)	mm		1198 x 35 x 500	1410 x 35 x 500	1410 x 35 x 500
		inch		47.17 x 1.38 x 19.69	55.51 x 1.38 x 19.69	55.51 x 1.38 x 19.69
Shipping Dimensions (W×H×D)	mm		1262 x 122 x 566	1474 x 122 x 566	1474 x 122 x 566	
	inch		49.69 x 4.80 x 22.28	58.03 x 4.80 x 22.28	58.03 x 4.80 x 22.28	
		-	INCLUDED	INCLUDED	INCLUDED	
Drain pump	Max. lifting Height / Displacement	mm / Liter/h	750 / 24	750 / 24	750 / 24	

NOTE

- Mode : HP(Heat Pump), HR(Heat Recovery)
- Cooling : Indoor temperature 27°C DB / 19°C WB, Outdoor temperature 35°C DB/24°C WB, Refrigerant pipe length 7.5m, Level difference 0m.
- Heating : Indoor temperature 20°C DB / 15°C WB, Outdoor temperature 7°C DB / 6°C WB, Refrigerant pipe length 7.5m, Level difference 0m.
- Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.
- These products contain R410A which is fluorinated greenhouse gas.
- Specifications may be subject to change without prior notice.
- Select wire size based on the value of MCA
- Drain pump included (check valve included)

3. Summary Table

Wind-Free 1 Way Cassette

Performance Characteristics

Model Code	Net Weight (kg)	Fan Speed	Nominal Capacity(Btu/h)			Airflow (CMM)	Sound Pressure (dBA)	Sound Power (dBA)
			Cooling	Sensible	Heating			
AM007NN1DCH/AZ	10.0	High	7,500	5,100	8,500	6.00	29.0	47
		Mid	6,850	4,660	7,760	5.00	26.0	-
		Low	6,120	4,160	6,940	4.00	24.0	-
AM009NN1DCH/AZ	10.0	High	9,500	6,400	10,500	7.00	32.0	50
		Mid	8,800	5,930	9,720	6.00	28.0	-
		Low	8,030	5,410	8,870	5.00	24.0	-
AM012NN1DCH/AZ	10.0	High	12,000	8,700	13,500	8.00	37.0	55
		Mid	11,200	8,140	12,600	7.00	33.0	-
		Low	10,400	7,530	11,700	6.00	30.0	-
AM018NN1DCH/AZ	13.5	High	18,000	13,500	20,000	16.00	41.0	59
		Mid	16,850	12,640	19,270	14.00	38.0	-
		Low	14,890	11,160	17,780	12.50	35.0	-
AM024NN1DCH/AZ	13.5	High	24,000	16,920	27,000	17.00	42.0	60
		Mid	22,940	16,150	25,990	15.50	39.0	-
		Low	20,610	14,650	24,070	14.00	36.0	-

NOTE

- Sound data is based on cooling operation.

Electrical Characteristics

Model Code	Power Supply (Φ, #, V, Hz)	Power Input (W)	Current Input (A)	MCA (A)	MFA (A)	FLA (A)
AM007NN1DCH/AZ	1,2,208-230,60	40.00	0.23	0.29	15.0	0.23
AM009NN1DCH/AZ	1,2,208-230,60	45.00	0.25	0.31	15.0	0.25
AM012NN1DCH/AZ	1,2,208-230,60	50.00	0.28	0.35	15.0	0.28
AM018NN1DCH/AZ	1,2,208-230,60	55.00	0.28	0.35	15.0	0.28
AM024NN1DCH/AZ	1,2,208-230,60	80.00	0.40	0.5	15.0	0.40

NOTE

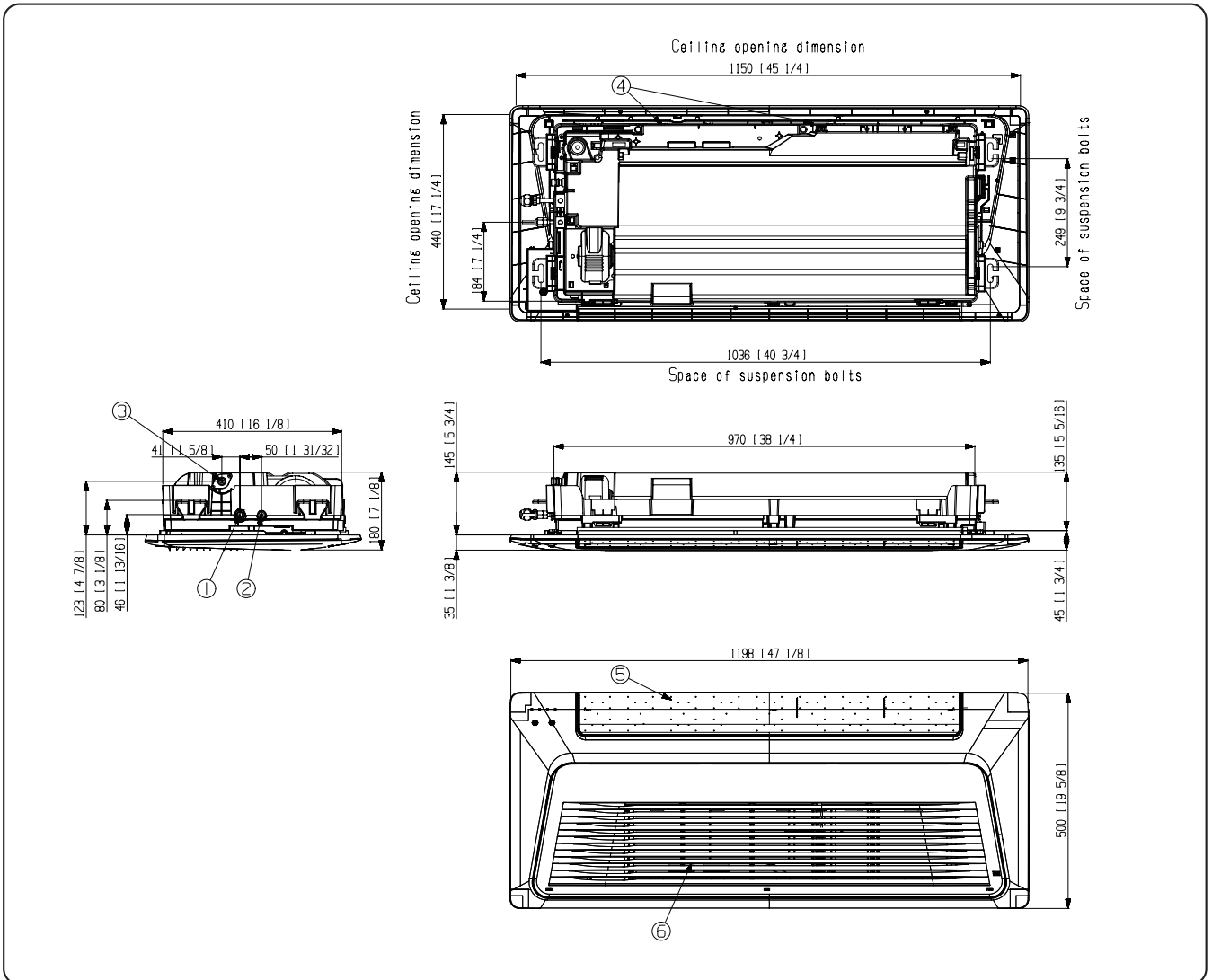
- MCA: Minimum circuit amperes
- MFA: Maximum fuse amperes
- FLA: Full load amperes
- Select wire size based on the value of MCA

5. Dimensional Drawing

Wind-Free 1Way Cassette

• AM007/009/012NN1DCH/AZ

Unit: mm(inch)

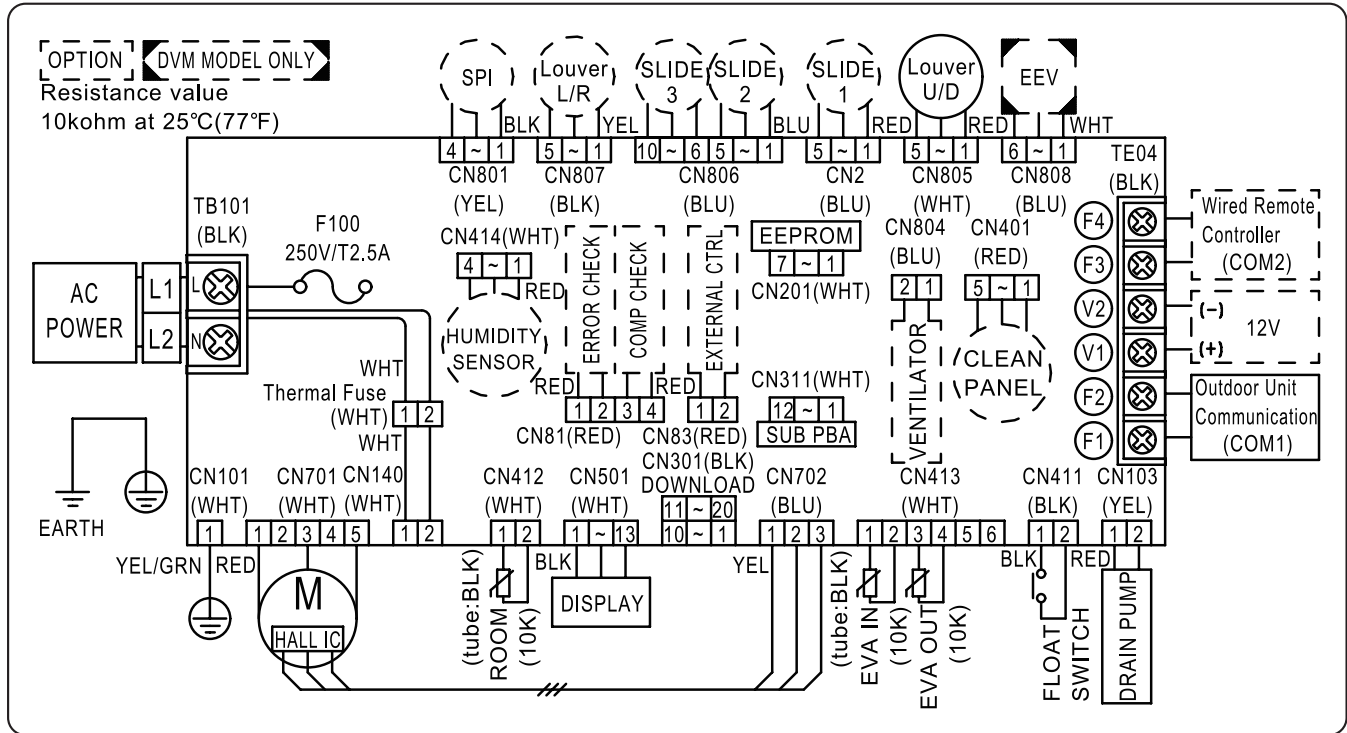


NO	Name	Description	NO	Name	Description
01	Gas pipe connection	Ø12.7 (1/2")	05	Air outlet louver	-
02	Liquid pipe connection	Ø6.35 (1/4")	06	Air inlet grille	-
03	Drain hose connection	VP20 (OD26, ID20)			
04	Power supply/Communication wiring conduit	-			

7. Electrical Wiring Diagram

Wind-Free 1Way Cassette

- AM007/009/012NN1DCH/AZ



F100	FUSE	EEV	Electronic expansion valve	EVA-IN(10K)	Thermistor EVA IN(10K)
M[HALL IC]	Motor (IDU fan)	SPI	S-Plasma ion	EVA-OUT(10K)	Thermistor EVA OUT(10K)
Thermal Fuse	Terminal Block thermal fuse	ROOM(10K)	Thermistor ROOM(10K)		

NOTE

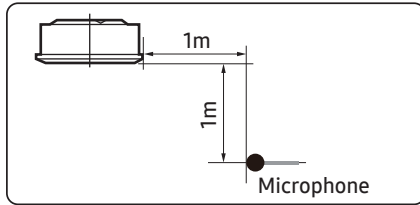
- This wiring diagram applies only to the indoor unit.
- Symbols show as follow :
BLK: black, RED: red, BLU: blue, WHT: white, YEL: yellow, BRN: brown, SKY: sky blue, GRN: green
- For connection wiring indoor-outdoor transmission F1-F2, indoor-wired remote controller transmission F3-F4.
- ⊕ Protective earth(SCREW)

8. Sound data

Wind-Free 1Way Cassette

Sound Pressure level

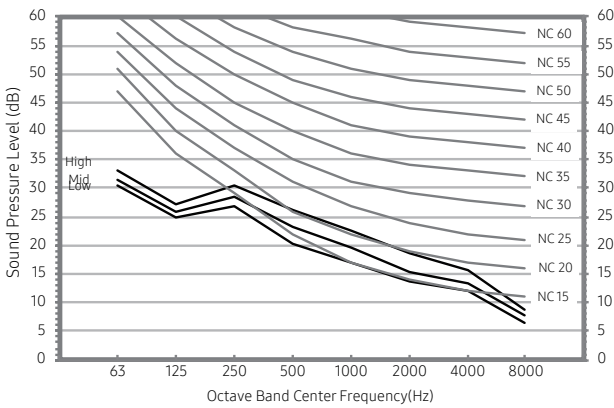
Unit: dB(A)



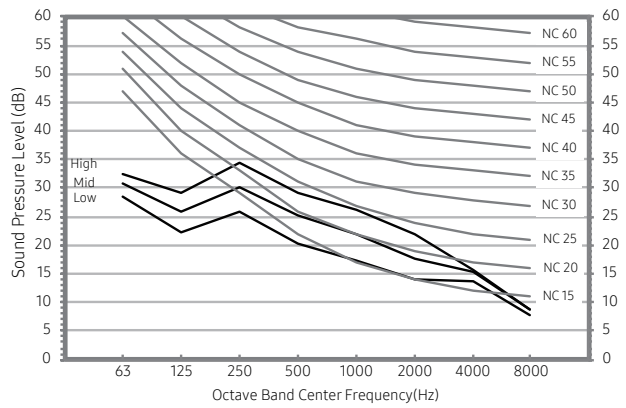
Model	High	Mid	Low
AM007NN1DCH/AZ	29	26	24
AM009NN1DCH/AZ	32	28	24
AM012NN1DCH/AZ	37	33	30

• NC Curve

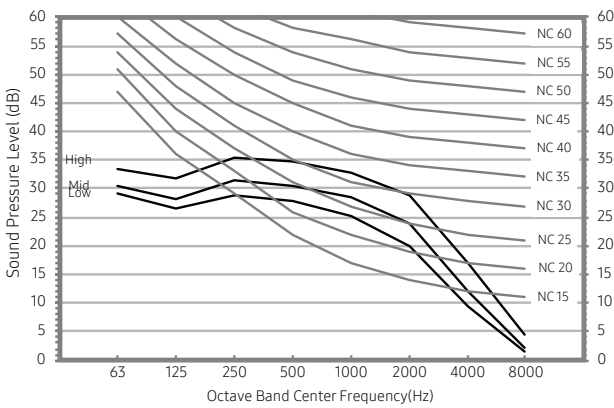
1) AM007NN1DCH/AZ



2) AM009NN1DCH/AZ



3) AM012NN1DCH/AZ

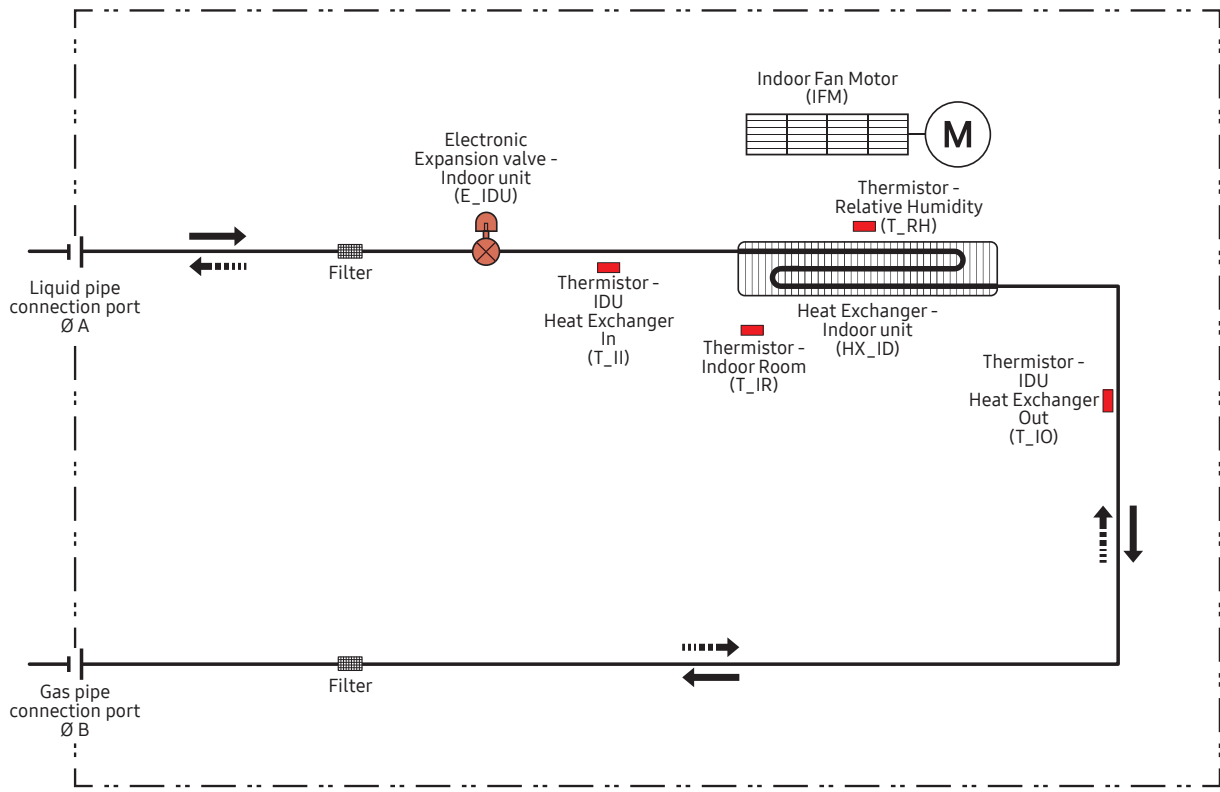


NOTE

- 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

10. Piping Diagram

Wind-Free 1Way Cassette



Refrigerant flow	
Cooling	Heating
→	- - - - - →

Unit : mm [Inches]

Model	A	B
AM007NN1DCH/AZ	6.35(1/4)	12.70(1/2)
AM009NN1DCH/AZ	6.35(1/4)	12.70(1/2)
AM012NN1DCH/AZ	6.35(1/4)	12.70(1/2)
AM018NN1DCH/AZ	6.35(1/4)	12.70(1/2)
AM024NN1DCH/AZ	9.52(3/8)	15.88(5/8)

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