SAMSUNG

VRF Technical Data Book

Wind-Free 4Way Cassette for South East/West Asia

(R410A, HP)



Model : AM170TN4DKH/**

Nomenclature

Indoor Unit

Model Name

AM	170	T	N	4	D	K	H	/	**
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		Buyer

(1) Classification

AM	DVM

(2) Capacity

X 100 Watt (3 digits)

(3) Version

T	2020

(4) Product Type

N	Indoor Unit
X	Outdoor Unit

(5) Product Notation

N	(Wind-Free) 4Way Cassette(600x600)
4	(Wind-Free) 4Way Cassette

(6) Feature

P	Premium
D	Deluxe

(7) Rating Voltage

K	1Φ, 220~240V, 50/60Hz

(8) Mode

H	Heat Pump (R410A)

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1. Specification

Wind-Free 4Way Cassette

Model Name				AM170TN4DKH/TS	AM170TN4DKH/EA
Power Supply			Φ, #, V, Hz	1,2,220-240,50	1,2,220-240,50/60
Mode			-	HP/HR	HP/HR
Performance	Capacity	Cooling	kW	17.0	17.0
			Btu/h	58,000	58,000
		Heating	kW	19.0	19.0
			Btu/h	64,800	64,800
Power	Power Input	Cooling	W	98.0	98.0
		Heating		98.0	98.0
	Current Input	Cooling	A	0.83	0.83
		Heating		0.83	0.83
	Current	MCA	A	0.80	0.80
		MFA		15	15
Heat exchanger	Type		-	Fin & Tube	Fin & Tube
	Material	Fin	-	Al	Al
		Tube	-	Cu	Cu
	Fin Treatment		-	Green Hydrophile	Green Hydrophile
Fan	Type	Type	-	Turbo Fan	Turbo Fan
	Quantity		ea	1	1
	Air Flow Rate	H/M/L	CMM	34.0 / 29.0 / 26.0	34.0 / 29.0 / 26.0
			l/s	566.7 / 483.3 / 433.3	566.7 / 483.3 / 433.3
Fan Motor	Model		-	BLDC Motor	BLDC Motor
	Output x n		W	97 x 1	97 x 1
Piping Connections	Liquid Pipe		Type	Flare connection	Flare connection
			Φ,mm	9.52	9.52
			Φ, inch	3/8	3/8
	Gas Pipe		Type	Flare connection	Flare connection
			Φ,mm	19.05	19.05
			Φ, inch	3/4	3/4
	Heat insulation		-	Both liquid & gas pipes	Both liquid & gas pipes
	Drain Pipe		Φ,mm	VP25 (OD 32,ID 25)	VP25 (OD 32,ID 25)
Wiring connections	Communication	Min.	mm^2	0.75	0.75
		Remark	-	F1, F2	F1, F2
Refrigerant	Type		-	R410A	R410A
	Electronic Expansion Valve		-	EEV INCLUDED	EEV INCLUDED
Sound	Sound Pressure	H/M/L	dB(A)	45 / 43 / 40	45 / 43 / 40
Dimensions	Net Weight		kg	25.0	25.0
	Shipping Weight		kg	28.9	28.9
	Net Dimensions (W×H×D)		mm	840 x 372 x 840	840 x 372 x 840
	Shipping Dimensions (W×H×D)		mm	898 x 440 x 898	898 x 440 x 898

1. Specification

Wind-Free 4Way Cassette

Model Name			AM170TN4DKH/TS	AM170TN4DKH/EA
Panel 1	Model Name	-	PC4NUFMAN	PC4NUFMAN
	Type	-	Wind-Free Type	Wind-Free Type
	Material	-	HIPS	HIPS
	Color	-	White	White
	Net Weight	kg	6.3	6.3
	Shipping Weight	kg	8.7	8.7
	Net Dimensions (W×H×D)	mm	950 x 64 x 950	950 x 64 x 950
	Shipping Dimensions (W×H×D)	mm	1,010 x 117 x 1,000	1,010 x 117 x 1,000
Panel 2	Model Name	-	PC4NUSKAN	PC4NUSKAN
	Type	-	Waffle type	Waffle type
	Material	-	HIPS	HIPS
	Color	-	Victory Gray	Victory Gray
	Net Weight	kg	5.8	5.8
	Shipping Weight	kg	8.4	8.4
	Net Dimensions (W×H×D)	mm	950 x 45 x 950	950 x 45 x 950
	Shipping Dimensions (W×H×D)	mm	1,005 x 100 x 1,005	1,005 x 100 x 1,005
Drain Pump	Drain Pump	-	INCLUDED	INCLUDED
	Max. lifting Height / Displacement	mm / Liter/h	750 / 24	750 / 24

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NOTE

- Specification may be subject to change without prior notice.
  1) Mode : HP(Heat Pump), HR(Heat Recovery)
  2) Capacities are based on (Equivalent refrigerant piping 7.5m, Level differences 0m);
     - Cooling : Indoor temperature 27°C DB, 19°C WB / Outdoor temperature 35°C DB, 24°C WB
     - Heating : Indoor temperature 20°C DB, 15°C WB / Outdoor temperature 7°C DB, 6°C WB
  3) Sound level was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.
  4) These products contain R410A (GWP=2,088) which is fluorinated greenhouse gas.
  5) Select wire size based on the value of MCA

2. Summary Table

Wind-Free 4Way Cassette

Performance Characteristics

Model Code	Net Weight (kg)	Fan Speed	Capacity			Airflow (CMM)	Sound Pressure (dBA)
			Cooling	Sensible	Heating		
AM170TN4DKH/TS	25.0	High	17.0	11.5	19.0	34.0	45
		Mid	11.3	8.7	17.5	29.0	43
		Low	8.5	7.2	16.6	26.0	40
		W/Free	7.5	6.3	-	11.5	38
AM170TN4DKH/EA	25.0	High	17.0	11.5	19.0	34.0	45
		Mid	11.3	8.7	17.5	29.0	43
		Low	8.5	7.2	16.6	26.0	40
		W/Free	7.5	6.3	-	11.5	38

NOTE

- Sound data is based on cooling operation.

Electric Characteristics

Indoor Unit	Power Supply (Ø, #, V, Hz)	Power Input (W)	Current Input (A)	MCA (A)	MFA (A)	FLA (A)
AM170TN4DKH/TS	1,2,220~240,50	98.0	0.83	0.80	15	0.65
AM170TN4DKH/EA	1,2,220~240,50/60	98.0	0.83	0.80	15	0.65

NOTE

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

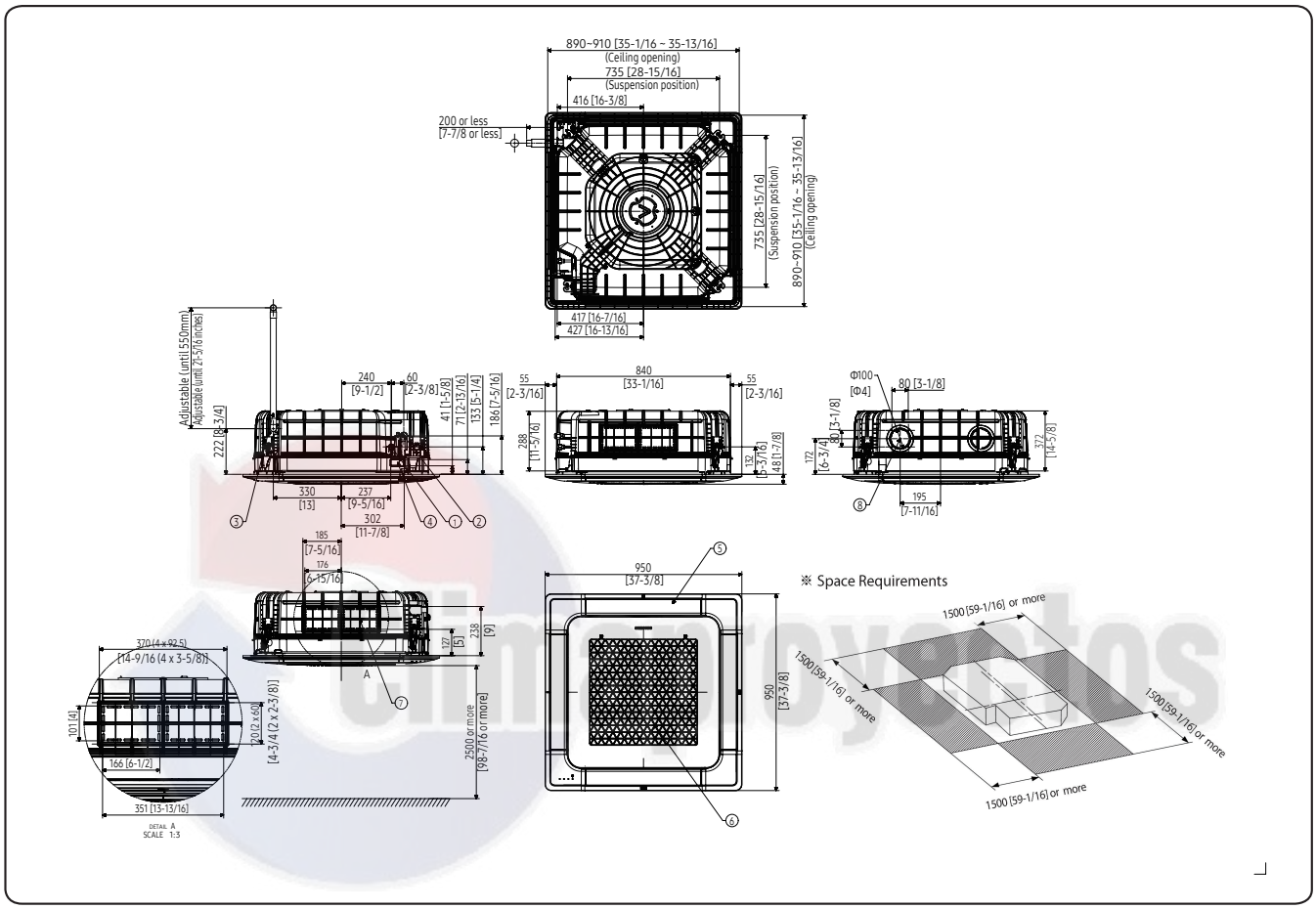
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4. Dimensional Drawing

Wind-Free 4Way Cassette

AM170TN4DKH/TS, AM170TN4DKH/EA

Units : mm [inches]



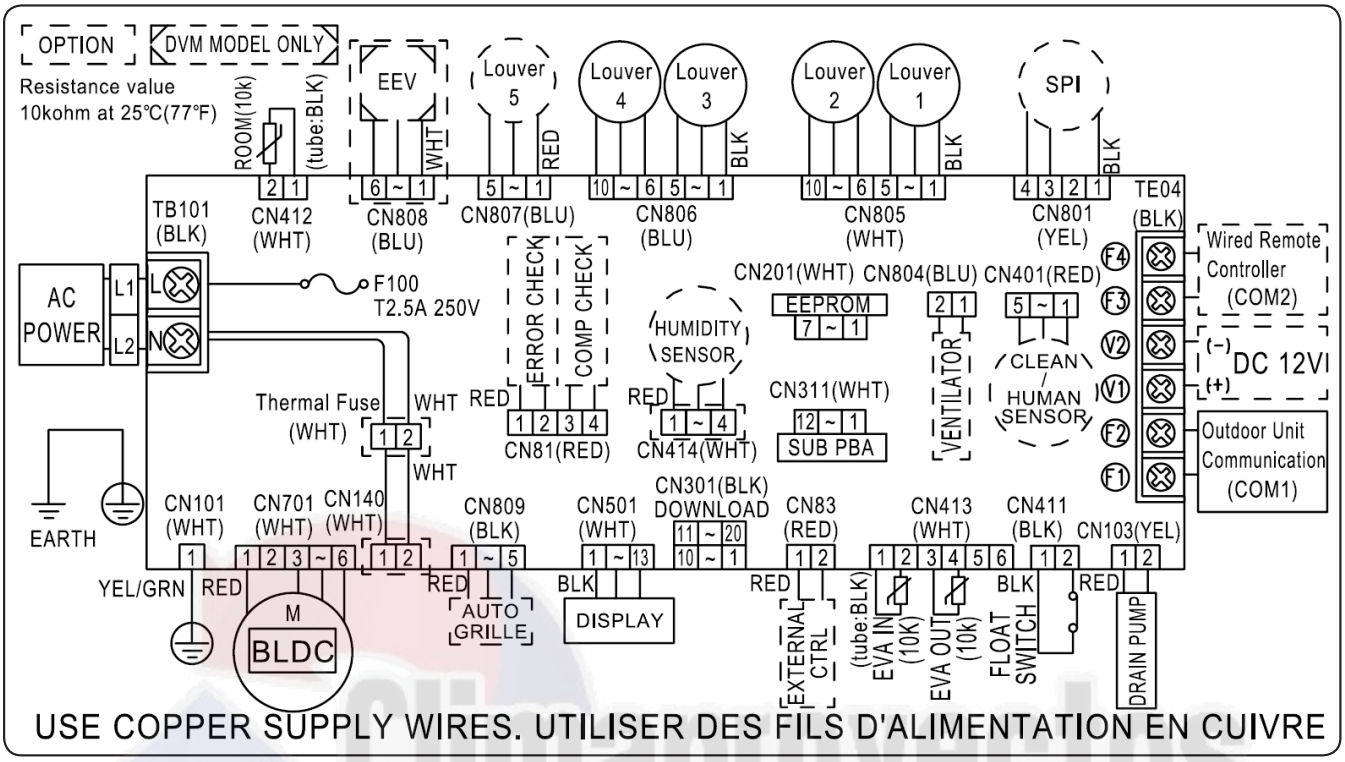
No.	Name	Description
1	Gas pipe connection	Φ15.88(5/8)
2	Liquid pipe connection	Φ9.52(3/8)
3	Drain pipe connection	VP-25(OD32, ID25)
4	Power supply & Communication wiring conduit	-
5	Air outlet louver	-
6	Air inlet grille	-
7	Sub-duct	* The sub duct is not applicable to the Wind-Free Panel.
8	Fresh air intake knockout hole	Φ100(40) , Use M4 Screw

NOTE

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

6. Electrical Wiring Diagram

Wind-Free 4Way Cassette



F100	FUSE	SPI	S-Plasma ion	ROOM(10K)	Thermistor ROOM OUT(10K)
M-BLDC	BLDC Motor	EEV	Electronic Expansion Valve	EVA-IN(10K)	Thermistor EVA IN(10K)
		EXT_CONTROL	EXTERNAL_CONTROL	EVA-OUT(10K)	Thermistor EVA OUT(10K)

NOTE

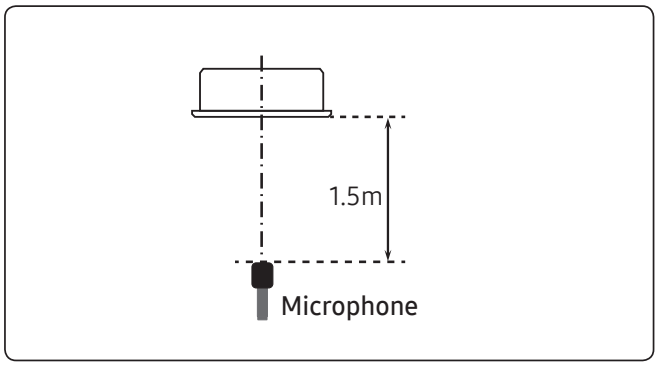
- This wiring diagram applies only to the Indoor unit.
- Symbols show as follow :
  blk: black, red: red, blu: blue, wht: white, yel: yellow, brn: brown, sky: skyblue: grn: green
- For connection wiring indoor-outdoor transmission F1-F2, indoor-wired remote controller transmission F3-F4.
- ⏚ Protective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

7. Sound Data

Wind-Free 4Way Cassette

Sound Pressure level

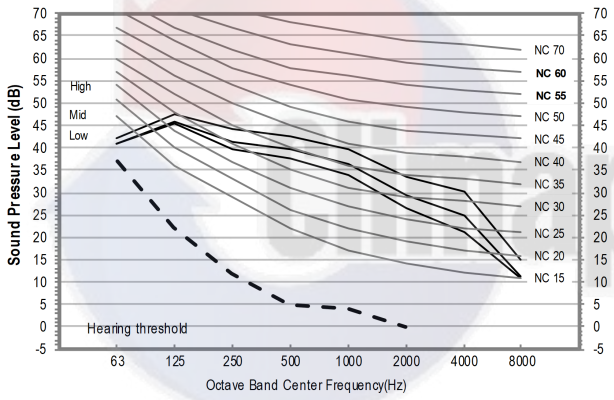
Unit: dB(A)



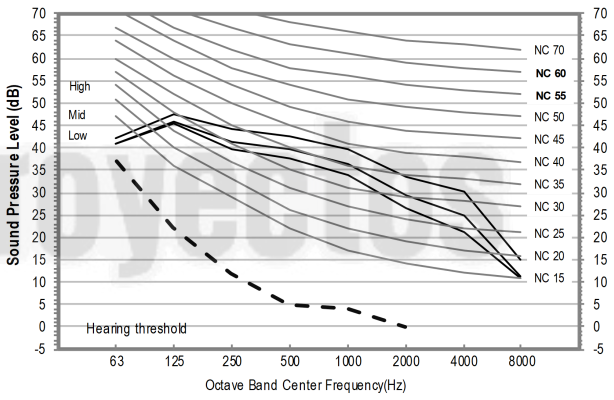
Model	High	MID	LOW
AM170TN4DKH/TS	45	43	40
AM170TN4DKH/EA	45	43	40

- NC Curve

1) AM170TN4DKH/TS



2) AM170TN4DKH/EA

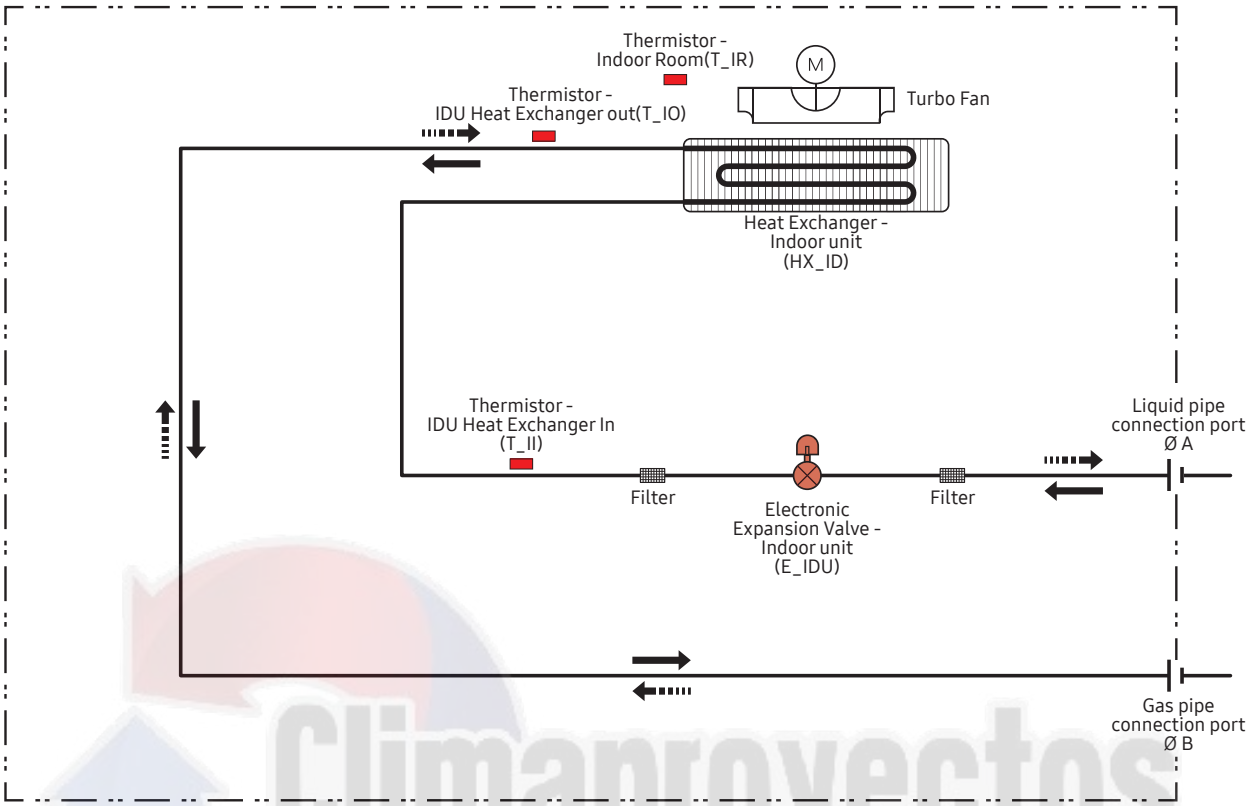


NOTE

- 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

9. Piping Diagram

Wind-Free 4Way Cassette



Refrigerant flow	
Cooling	Heating
→	⇢

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