

VRF

Technical Data Book

OAP Duct For Turkey (50Hz, 14/22/28kW)

SAMSUNG

[illegible]

Nomenclature

Indoor Units

Modle Names

AM

(1)

045

(2)

H

(3)

N

(4)

4

(5)

D

(6)

E

(7)

H

(8)

/

TK

Buyer

(1) Classification

AM	DVM
----	-----

(2) Capacity

x 1/10 kW (3 digits)

(3) Version

E	2012
F	2013
H	2014
J	2015

(4) Product Type

X	Outdoor Unit
N	Indoor Unit

(5) Product Notation

1	1 way cassette
2	2 way cassette
N	4 way cassette (600 x 600)
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
E	Outdoor Air Processing Duct

(6) Feature

F	Flagship
P	Premium
D	Deluxe
G(EHS)	Cascade (EEV)

(7) Rating Voltage

E	1Ø, 220~240V, 50Hz
G	3Ø, 380~415V, 50Hz
K	1Ø, 220~240V, 50/60Hz
C	1Ø, 208~230V, 60Hz

(8) Mode

H	Heat Pump (R410A)
R	Heat Recovery (R410A)

OAP Duct

1 Specifications

2 Capacity table

3 Dimensional drawing

4 Electrical wiring diagram

5 Sound pressure level

6 Sound power level

7 Recommended operation range

1 Specifications

OAP Duct

Type				OAP Duct		OAP Duct		OAP Duct		
Model				AM140HNEPEH/TK		AM220HNEPEH/TK		AM280HNEPEH/TK		
Power Supply			Ø, #, V, Hz		1,2,220-240,50		1,2,220-240,50		1,2,220-240,50	
Mode			-		HP		HP		HP	
Performance	Capacity (Nominal)	Cooling	kW		14.00		22.40		28.00	
			Btu/h		47,800		76,400		95,500	
		Heating	kW		8.90		13.90		17.40	
			Btu/h		30,400		47,400		59,400	
Power	Power Input (Nominal)	Cooling	W	220.00		300.00		370.00		
		Heating		220.00		300.00		370.00		
	Current Input (Nominal)	Cooling	A	1.60		2.20		3.00		
		Heating		1.60		2.20		3.00		
Fan	Motor	Type	-	Sirocco Fan		Sirocco Fan		Sirocco Fan		
		Output x n	w	183 x 1		400 x 1		400 x 1		
	Air Flow Rate	H/M/L (UL)	CMM	18.00		28.00		35.00		
			l/s	300.00		466.67		583.33		
	External Pressure	Min/Std/Max	mmAq	5.00 / 20.39 / 25.00		10.00 / 23.45 / 25.00		10.00 / 25.49 / 27.50		
			Pa	49.00 / 199.82 / 245.00		98.00 / 229.81 / 245.00		98.00 / 249.80 / 269.50		
Piping Connections	Liquid Pipe		Ø, mm	9.52		9.52		9.52		
			Ø, inch	3/8"		3/8"		3/8"		
	Gas Pipe		Ø, mm	15.88		19.05		22.22		
			Ø, inch	5/8"		3/4"		7/8"		
	Drain Pipe		Ø, mm	VP25 (OD 32,ID 25)		VP25 (OD 32,ID 25)		VP25 (OD 32,ID 25)		
Field Wiring	Power Source Wire		mm²	1.5 - 2.5		1.5 - 2.5		1.5 - 2.5		
	Transmission Cable		mm²	0.75 - 1.50		0.75 - 1.50		0.75 - 1.50		
Refrigerant	Type		-	R410A		R410A		R410A		
	Control Method		-	EEV(O)		EEV(O)		EEV(O)		
Sound	Pressure	High / Mid / Low	dB(A)	42.0		46.0		47.0		
	Power	Cooling		63.0		64.0		68.0		
Dimension	Net Weight		kg	51.00		85.00		85.00		
	Shipping Weight		kg	61.00		95.00		95.00		
	Net Dimensions (WxHxD)		mm	1,110 x 390 x 650		1,240 x 470 x 1,040		1,240 x 470 x 1,040		
	Shipping Dimensions (WxHxD)		mm	1,335 x 512 x 829		1,507 x 558 x 1,155		1,507 x 558 x 1,155		
Panel Size	Panel model		-	-		-		-		
	Panel Net Weight		kg	-		-		-		
	Shipping Weight		kg	-		-		-		
	Net Dimensions (WxHxD)		mm	-		-		-		
	Shipping Dimensions (WxHxD)		mm	-		-		-		
Additional Accessories	Drain Pump	Drain Pump	- / Model	MDP-N047SNC0D		MDP-N047SNC1D		MDP-N047SNC1D		
		Max. lifting Height / Displacement	mm/liter/h	-		-		-		
	Air Filter		-	-		-		-		

- Specifications may be subject to change without prior notice.

- Nominal cooling capacities are based on;

Outdoor temperature : 35°C DB, 28°C WB, Refrigerant pipe length : 7.5m, Level differences : 0m

Factory setting temperature for cooling mode : 18°C

- Nominal heating capacities are based on;

Outdoor temperature : 0°C DB, -2.9°C WB, Refrigerant pipe length : 7.5m, Level differences : 0m

Factory setting temperature for heating mode : 25°C

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

2 Capacity table

1) Cooling

Capacity Index	Outdoor Air Temperature (°C, DB)	Outdoor Air Temperature (°C, WB)																	
		17		17		20		23		26		28		30		32		36	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
140	20	3.7	2.7	3.9	2.3														
	22	3.7	2.9	3.9	2.5	5.2	2.1												
	25	3.7	3.0	3.9	2.6	5.2	2.6	6.8	2.6										
	27			3.8	3.3	5.2	3.4	6.8	3.4										
	29					5.2	4.2	6.8	4.1	11.1	4.2								
	31					5.1	4.8	6.7	4.8	11.1	4.9	14.2	5.0						
	33					5.1	5.1	6.7	5.5	11.0	5.6	14.0	5.6	16.3	5.3				
	35							6.7	6.3	11.0	6.4	14.0	6.4	16.2	5.9	17.5	5.3		
	37							6.6	6.6	10.8	6.8	13.3	6.8	15.2	6.2	16.3	5.6	16.8	3.7
224	40									10.4	6.9	11.4	7.0	11.9	6.1	13.1	5.6	13.4	3.8
	45									9.7	7.4	10.4	7.3	10.7	6.3	11.6	5.8	12.0	4.0
	20	5.7	4.2	6.1	3.5														
	22	5.7	4.4	6.1	3.8	8.2	3.3												
	25	5.7	4.6	6.1	4.1	8.2	4.1	10.8	4.2										
	27			6.1	5.2	8.1	5.3	10.7	5.3										
	29					8.1	6.4	10.5	6.4	17.6	6.6								
	31					8.0	7.5	10.5	7.6	17.6	7.7	22.6	7.8						
	33					8.0	8.0	10.6	8.7	17.5	8.9	22.4	9.0	26.2	8.5				
280	35							10.6	9.8	17.5	10.0	22.4	10.2	26.2	9.5	27.8	8.3		
	37							10.6	10.5	17.2	10.7	21.4	10.8	24.4	9.8	16.1	8.8	26.8	5.8
	40									16.7	11.0	18.2	11.1	19.0	9.6	21.0	8.8	21.4	6.0
	45									15.5	11.7	16.6	11.6	17.2	10.0	18.5	9.2	19.2	6.3
	20	7.1	5.2	7.6	4.4														
	22	7.1	5.5	7.6	4.8	10.3	4.1												
	25	7.1	5.8	7.6	5.1	10.2	5.2	13.5	5.2										
	27			7.6	6.5	10.1	6.6	13.4	6.6										
	29					10.1	8.0	13.4	8.1	22.0	8.2								
280	31					10.0	9.4	13.3	9.5	21.9	9.7	28.2	9.8						
	33					10.0	10.0	13.3	10.9	21.9	11.1	28.0	11.2	32.8	10.6				
	35							13.2	12.3	21.8	12.5	28.0	12.7	32.7	11.8	34.8	10.4		
	37							13.2	13.2	21.6	13.4	26.7	13.6	30.5	12.3	32.7	11.1	33.5	7.3
	40									20.8	13.8	22.8	13.9	23.7	12.1	26.2	11.0	26.8	7.5
	45									19.4	14.7	20.8	14.6	21.5	12.6	23.2	11.5	24.0	7.9

2) Heating

Capacity Index	Outdoor Air Temperature (°C, DB)	Outdoor Air Temperature (°C, WB)									
		-7	-5	-2.9	0	2	4	6	10	14	
		TC	TC	TC	TC	TC	TC	TC	TC	TC	
140	-5	9.9	9.9								
	0			8.9							
	3			7.9	7.9	7.9					
	7					6.4	6.4	6.4			
	11						5.0	5.0	5.0		
224	15							3.6	3.6	3.6	
	-5	15.5	15.5								
	0			13.9							
	3			12.2	12.2	12.2					
	7					10.0	10.0	10.0			
280	11						7.8	7.8	7.8		
	15							5.6	5.6	5.6	
	-5	19.2	19.2								
	0			17.4							
	3			15.3	15.3	15.3					
280	7					12.5	12.5	12.5			
	11						9.8	9.8	9.8		
	15							7.0	7.0	7.0	

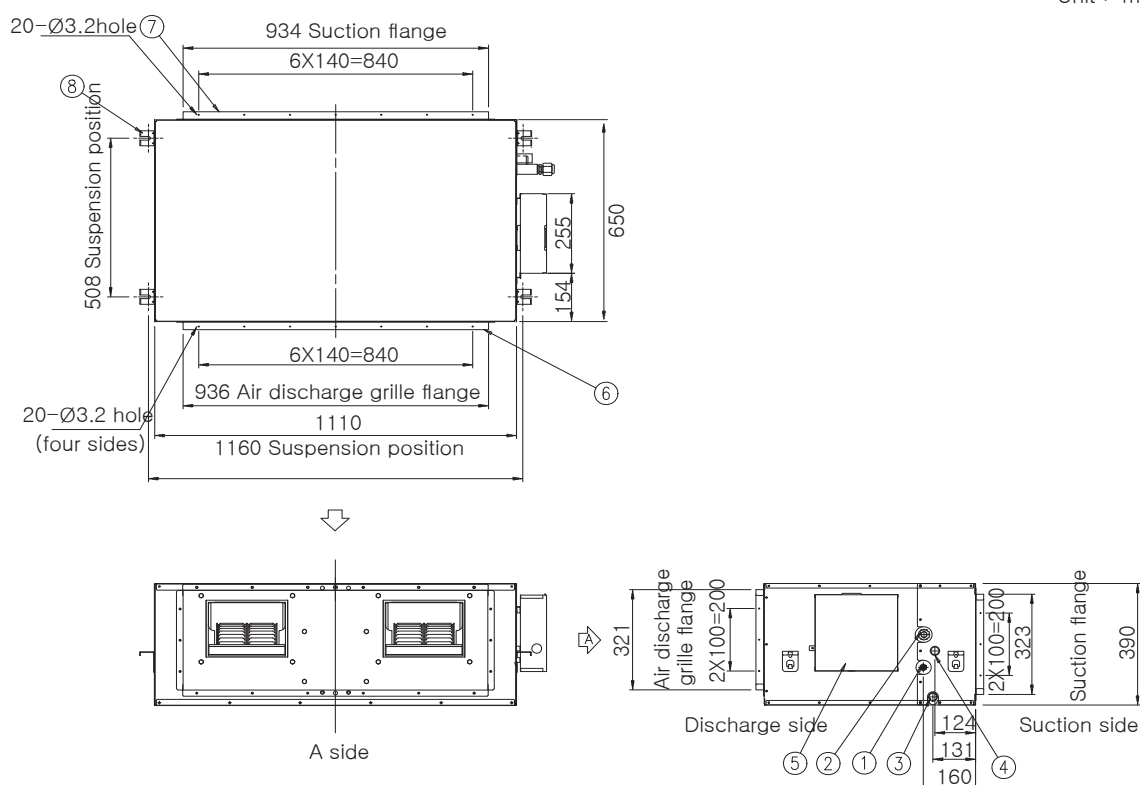
- Capacity Table data may be subject to change without prior notice.
- Tested under following conditions
 - .Temperature setting for cooling : 18°C
 - .Temperature setting for heating : 25°C
- Heating capacity was tested under non-frost condition.

3 Dimensional drawing

OAP Duct

AM140HNEPEH/TK

Unit : mm



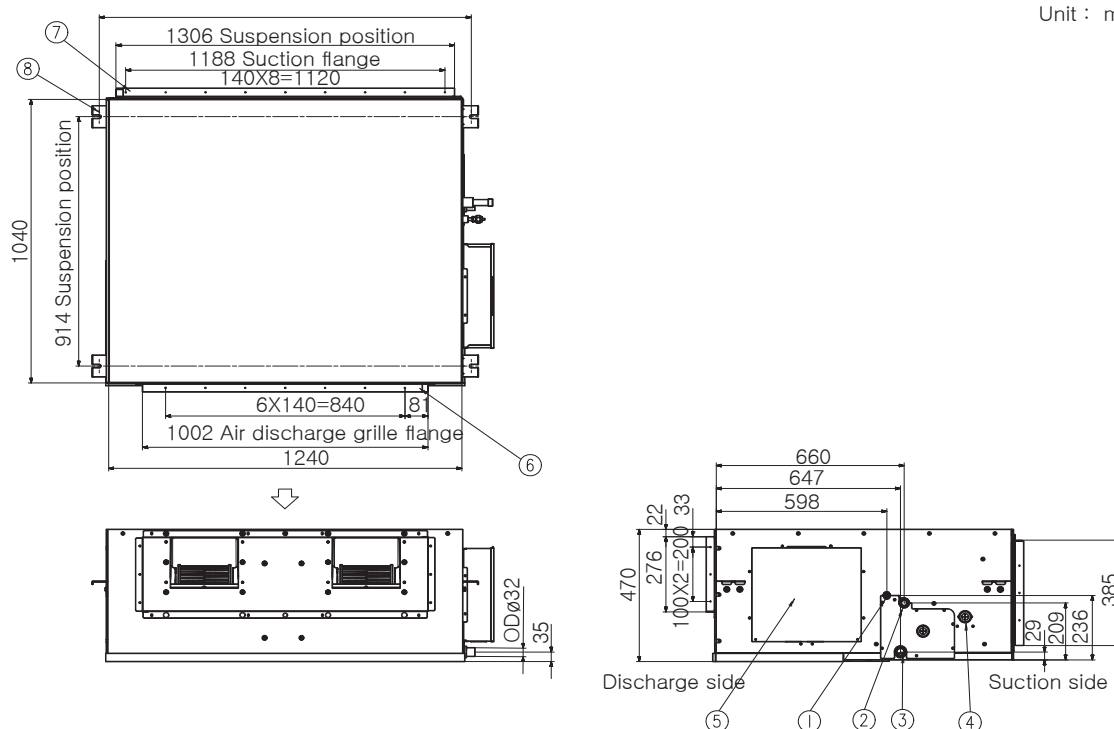
No.	Name	Description
1	Diameter of liquid pipe	ø9.52
2	Diameter of air pipe	ø15.88
3	Diameter of drain pipe	VP25 (OD ø32, ID ø25)
4	Diameter of drain pipe (Option drain pump)	VP25 (OD ø32, ID ø25)
5	Power supply / Communication connection	
6	Air discharge grille flange	
7	Suction flange	
8	Hook	ø9.52 or M10

3 Dimensional drawing

OAP Duct

AM220HNEPEH/TK, AM280HNEPEH/TK

Unit : mm

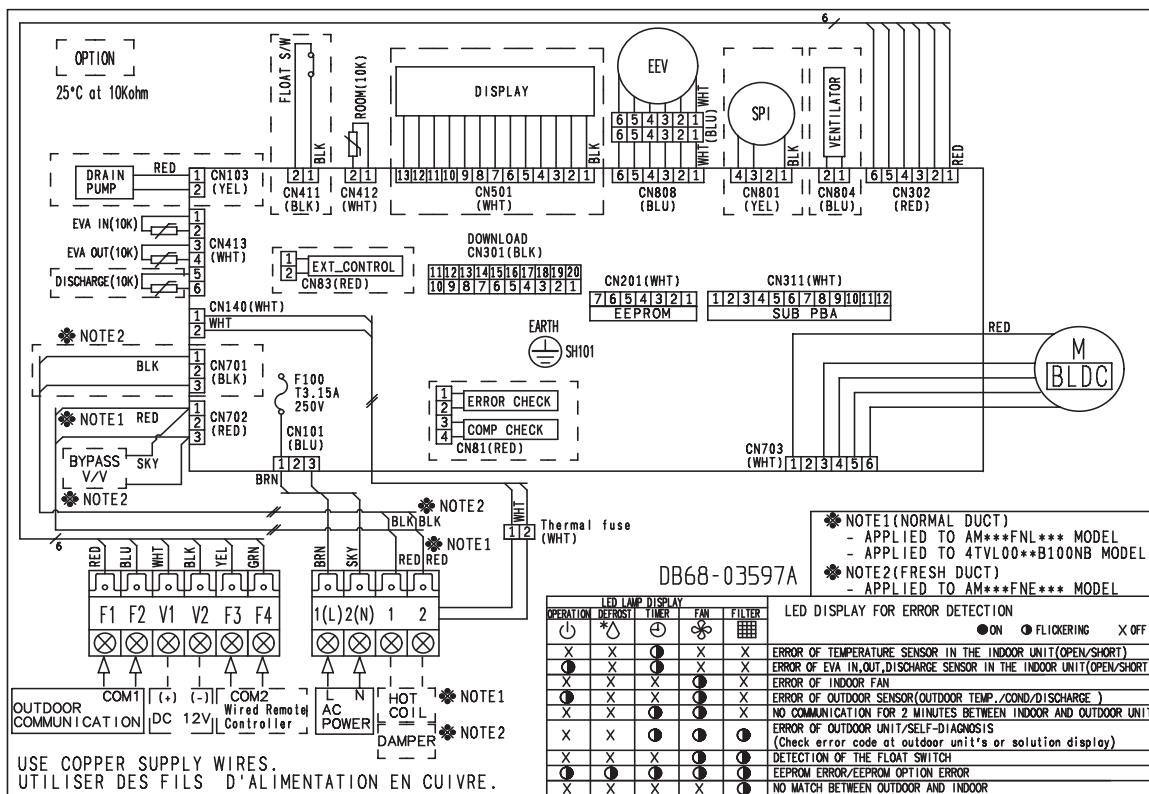


No.	Name	Description
1	Diameter of liquid pipe	ø9.52
2	Diameter of air pipe	ND220E** : ø19.05 ND280E** : ø22.22
3	Diameter of drain pipe	VP25 (OD ø32, ID ø25)
4	Diameter of drain pipe (Optional drain pump)	VP25 (OD ø32, ID ø25)
5	Power supply / Communication connection	
6	Air discharge grille flange	
7	Suction flange	
8	Hook	ø9.52 or M10

4

OAP Duct

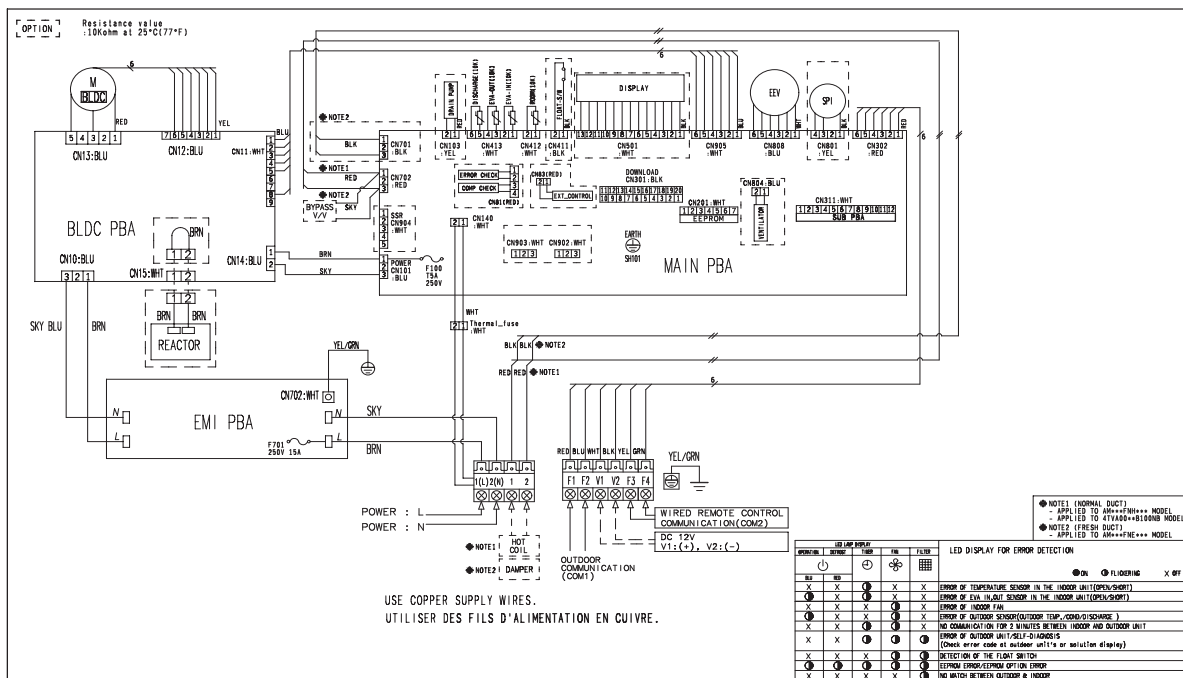
AM140HNEPEH/TK



4 Electrical wiring diagram

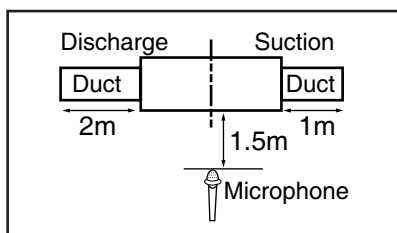
OAP Duct

AM220HNEPEH/TK, AM280HNEPEH/TK



5 Sound pressure level

OAP Duct



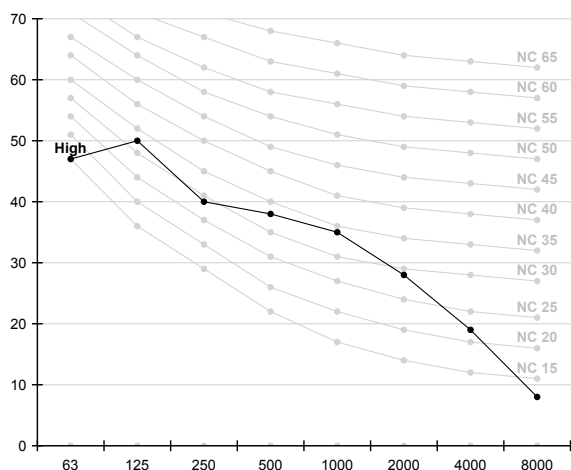
Model	Unit: dB(A)	
	High	Low
AM140HNEPEH/TK	42.0	
AM220HNEPEH/TK	46.0	
AM280HNEPEH/TK	47.0	

Note

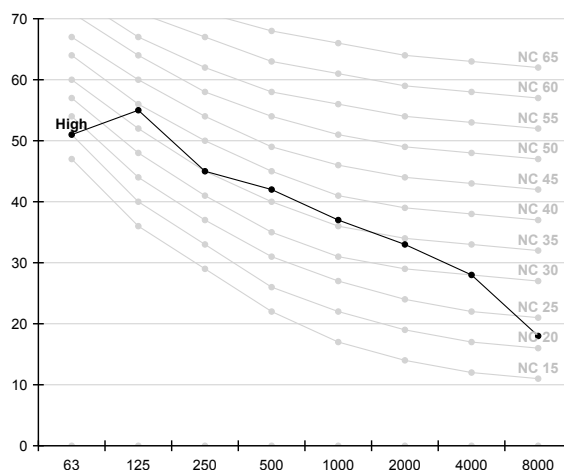
- These operation values were obtained in an anechoic room. Sound pressure level will vary depending on a factors such as the construction of the particular room where the equipment is installed.
- Operation sound level may differ depending on operation and ambient conditions.

NC curve

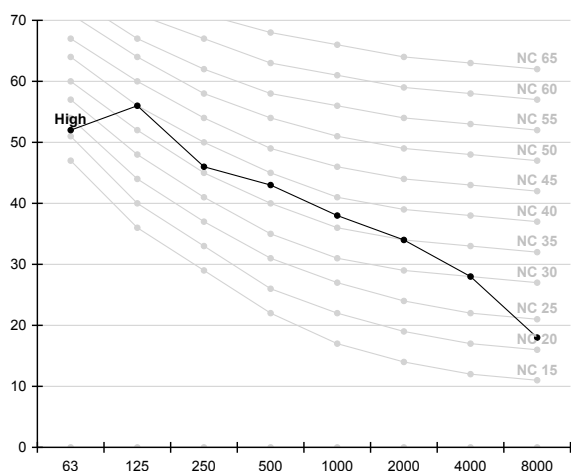
1) AM140HNEPEH/TK



2) AM220HNEPEH/TK



3) AM280HNEPEH/TK



6 Sound power level

OAP Duct

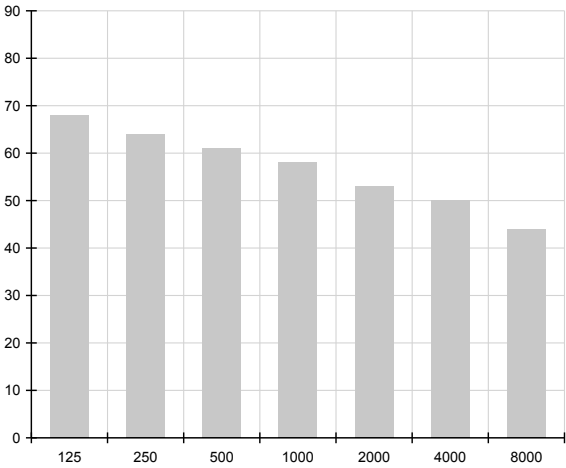
Note

- dBA = A-Weighted sound power level.
- Reference power : 1pW
- Measured according to ISO 3741.

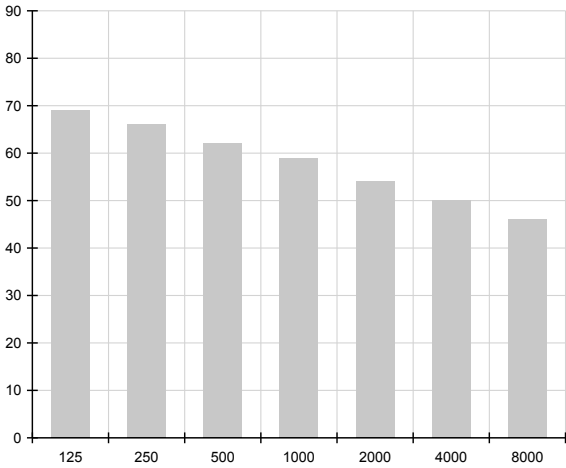
Unit: dB(A)

Model	Power
AM140HNEPEH/TK	63.0
AM220HNEPEH/TK	64.0
AM280HNEPEH/TK	68.0

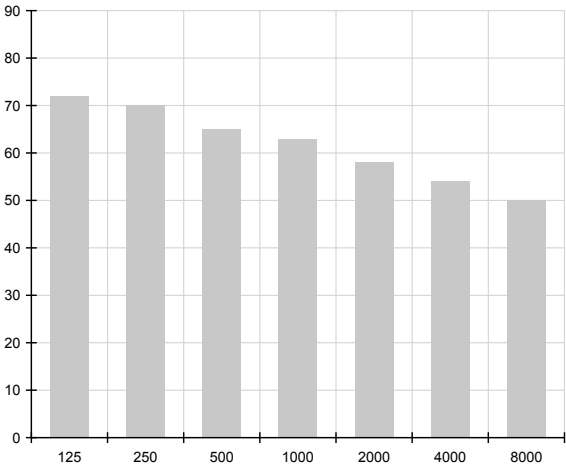
1)AM140HNEPEH/TK



2)AM220HNEPEH/TK



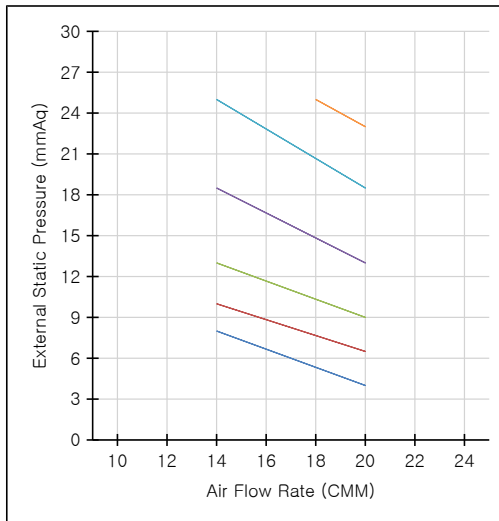
3)AM280HNEPEH/TK



7 Recommended operation range

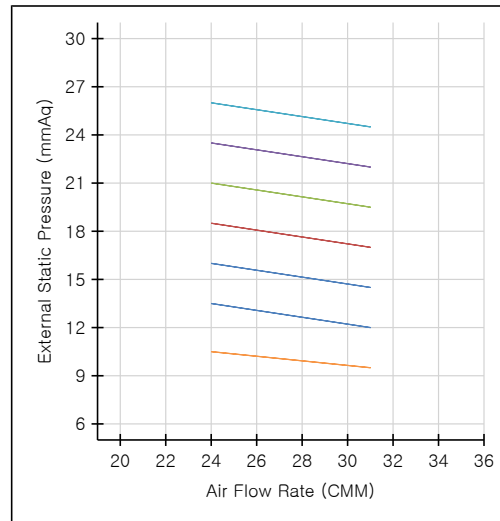
OAP Duct

1) AM140HNEPEH/TK



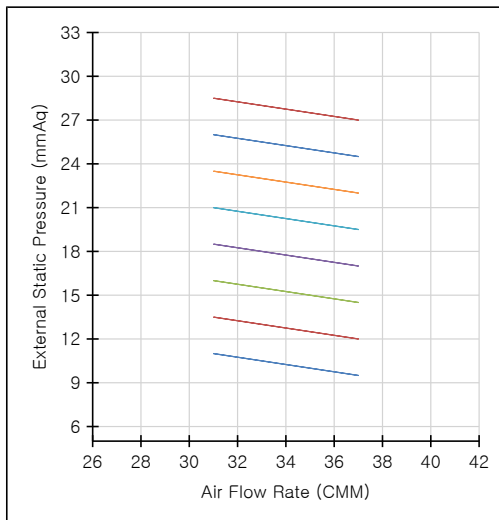
External Static Pressure (mmAq)	Option Code
4~8	01B064-1B490B-208C8C-333000
6.5~10	01B064-1B4A51-208C8C-333000
9~13	01B064-1B4AA6-208C8C-333000
13~18.5	01B064-1B4E2E-208C8C-333000
18.5~25 (Standard)	01B064-1B4F95-208C8C-333000
23~25	01B064-1B4FFB-208C8C-333000

2) AM220HNEPEH/TK



External Static Pressure (mmAq)	Option Code
9.5~10.5	01B064-194064-231616-333000
12~13.5	01B064-194075-231616-333000
14.5~16	01B064-1940CA-231616-333000
17~18.5	01B064-1940CA-231616-333000
19.5~21	01B064-1940EC-231616-333000
22~23.5 (Standard)	01B064-19441F-231616-333000
24.5~26	01B064-194530-231616-333000

3) AM280HNEPEH/TK



External Static Pressure (mmAq)	Option Code
9.5~10.5	01B064-194064-231C1C-333000
12~13.5	01B064-194086-231C1C-333000
14.5~16	01B064-1940A8-231C1C-333000
17~18.5	01B064-1940DB-231C1C-333000
19.5~21	01B064-19440E-231C1C-333000
22~23.5	01B064-194530-231C1C-333000
24.5~26 (Standard)	01B064-194550-231C1C-333000
27~28.5	01B064-194581-231C1C-333000

Note

- Adjust option code according to the actual installation condition (external static pressure).
- OAP duct is available only high fan speed mode.

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