

DVM

Technical Data Book

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

SAMSUNG

Nomenclature

Indoor Units

Model Names

AM	045	H	N	4	D	E	H	/	TK
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)		Buyer

(1) Classification

AM	DVM
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(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 Dimensional drawing

3 Electrical wiring diagram

4 Sound pressure level

5 Sound power level

6 Recommended operation range

1 Specifications

OAP Duct

Type			OAP Duct	OAP Duct	OAP Duct		
Model Name			AM140HNEPEH/TK	AM220HNEPEH/TK	AM280HNEPEH/TK		
Power Supply			Ø, #, V, Hz	1,2,220-240,50	1,2,220-240,50		
Mode			-	HP/HR	HP/HR		
Performance	Ton		TON	3.98	6.37	7.96	
			kW	14.00	22.40	28.00	
	Capacity (Nominal)	Cooling		Btu/h	47,800	76,400	95,500
				US RT	3.98	6.37	7.96
		Heating		kW	8.90	13.90	17.40
				Btu/h	30,400	47,400	59,400
	US RT	2.53	3.95	4.95			
Power	Power Input	Cooling	kW	220.00	300.00	370.00	
		Heating	kW	220.00	300.00	370.00	
	Current Input	Cooling	A	1.60	2.20	3.00	
		Heating	A	1.60	2.20	3.00	
Fan	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	
			CFM	635.69	988.85	1,236.06	
	External Static Pressure	Min / Std / Max	Pa	49.00 / 199.82 / 245.00	98.00 / 229.81 / 245.00	98.00 / 249.80 / 269.50	
			In Wg	0.20 / 0.80 / 0.98	0.39 / 0.92 / 0.98	0.39 / 1.00 / 1.08	
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		mm ²	1.5 - 2.5	1.5 - 2.5	1.5 - 2.5	
	Transmission Cable		mm ²	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	dB(A)	63.0	64.0	68.0	
Dimensions	Net Weight		kg	51.00	85.00	85.00	
			lbs	112.44	187.39	187.39	
	Shipping Weight		kg	61.00	95.00	95.00	
			lbs	134.48	209.44	209.44	
	Net Dimensions (WxHxD)		mm	1,110 x 390 x 650	1,240 x 470 x 1,040	1,240 x 470 x 1,040	
			inch	43.70 x 15.35 x 25.59	48.82 x 18.50 x 40.94	48.82 x 18.50 x 40.94	
Shipping Dimensions (WxHxD)		mm	1,335 x 512 x 829	1,507 x 558 x 1,155	1,507 x 558 x 1,155		
		inch	52.56 x 20.16 x 32.64	59.33 x 21.97 x 45.47	59.33 x 21.97 x 45.47		
Panel Size	Panel model		-	-	-	-	
	Panel Net Weight		kg	-	-	-	
			lbs	-	-	-	
	Shipping Weight		kg	-	-	-	
			lbs	-	-	-	
	Net Dimensions (WxHxD)		mm	-	-	-	
inch			-	-	-		
Shipping Dimensions (WxHxD)		mm	-	-	-		
		inch	-	-	-		
Additional Accessories	Drain pump	Drain pump	-	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

1 Specifications

OAP Duct

1) AM140HNEPEH/TK

(1) Cooling

Cooling Capacity(kW)										
Outdoor Temperature	°C, WB									
°C, DB	15	17	20	23	26	28	30	32	36	
20	3.7	3.9	-	-	-	-	-	-	-	
22	3.7	3.9	5.2	-	-	-	-	-	-	
25	3.7	3.9	5.2	6.8	-	-	-	-	-	
27	-	3.8	5.2	6.8	-	-	-	-	-	
29	-	-	5.2	6.8	11.1	-	-	-	-	
31	-	-	5.1	6.7	11.1	14.2	-	-	-	
33	-	-	5.1	6.7	11.0	14.0	16.3	-	-	
35	-	-	-	6.7	11.0	14.0	16.2	17.5	-	
37	-	-	-	6.6	10.8	13.3	15.2	16.3	16.8	
40	-	-	-	-	10.4	11.4	11.9	13.1	13.4	
45	-	-	-	-	9.7	10.4	10.7	11.6	12.0	

(2) Heating

Heating Capacity(kW)										
Outdoor Temperature	°C, WB									
°C, DB	-7	-5	-2.9	0	2	4	6	10	14	
-5	9.9	9.9	-	-	-	-	-	-	-	
0	-	-	8.9	-	-	-	-	-	-	
3	-	-	7.9	7.9	-	-	-	-	-	
7	-	-	-	-	6.4	6.4	6.4	-	-	
11	-	-	-	-	-	5.0	5.0	5.0	-	
15	-	-	-	-	-	-	3.6	3.6	3.6	

2) AM220HNEPEH/TK

(1) Cooling

Cooling Capacity(kW)										
Outdoor Temperature	°C, WB									
°C, DB	15	17	20	23	26	28	30	32	36	
20	5.7	6.1	-	-	-	-	-	-	-	
22	5.7	6.1	8.2	-	-	-	-	-	-	
25	5.7	6.1	8.2	10.8	-	-	-	-	-	
27	-	6.1	8.1	10.7	-	-	-	-	-	
29	-	-	8.1	10.5	17.6	-	-	-	-	
31	-	-	8.0	10.5	17.6	22.6	-	-	-	
33	-	-	8.0	10.6	17.5	22.4	26.2	-	-	
35	-	-	-	10.6	17.5	22.4	26.2	27.8	-	
37	-	-	-	10.6	17.2	21.4	24.4	26.1	26.8	
40	-	-	-	-	16.7	18.2	19.0	21.0	21.4	
45	-	-	-	-	15.5	16.6	17.2	18.5	19.2	

(2) Heating

Heating Capacity(kW)										
Outdoor Temperature	°C, WB									
°C, DB	-7	-5	-2.9	0	2	4	6	10	14	
-5	15.5	15.5	-	-	-	-	-	-	-	
0	-	-	13.9	-	-	-	-	-	-	
3	-	-	12.2	12.2	-	-	-	-	-	
7	-	-	-	-	10.0	10.0	10.0	-	-	
11	-	-	-	-	-	7.8	7.8	7.8	-	
15	-	-	-	-	-	-	5.6	5.6	5.6	

3) AM280HNEPEH/TK

(1) Cooling

Cooling Capacity(kW)										
Outdoor Temperature	°C, WB									
°C, DB	15	17	20	23	26	28	30	32	36	
20	7.1	7.6	-	-	-	-	-	-	-	
22	7.1	7.6	10.3	-	-	-	-	-	-	
25	7.1	7.6	10.2	13.5	-	-	-	-	-	
27	-	7.6	10.1	13.4	-	-	-	-	-	
29	-	-	10.1	13.4	22.0	-	-	-	-	
31	-	-	10.0	13.3	21.9	28.2	-	-	-	
33	-	-	10.0	13.3	21.9	28.0	32.8	-	-	
35	-	-	-	13.2	21.8	28.0	32.7	34.8	-	
37	-	-	-	13.2	21.6	26.7	30.5	32.7	33.5	
40	-	-	-	-	20.8	22.8	23.7	26.2	26.8	
45	-	-	-	-	19.4	20.8	21.5	23.2	24.0	

(2) Heating

Heating Capacity(kW)										
Outdoor Temperature	°C, WB									
°C, DB	-7	-5	-2.9	0	2	4	6	10	14	
-5	19.2	19.2	-	-	-	-	-	-	-	
0	-	-	17.4	-	-	-	-	-	-	
3	-	-	15.3	15.3	-	-	-	-	-	
7	-	-	-	-	12.5	12.5	12.5	-	-	
11	-	-	-	-	-	9.8	9.8	9.8	-	
15	-	-	-	-	-	-	7.0	7.0	7.0	

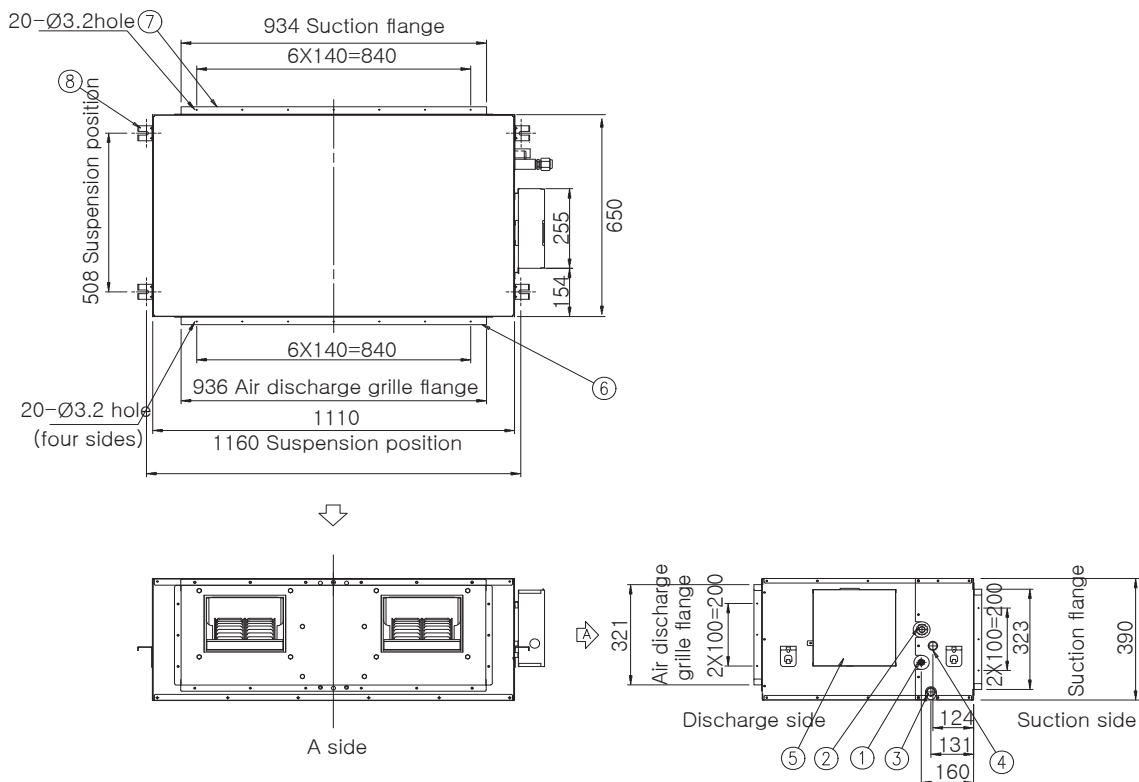
- Tested under following conditions:
 Temperature setting for cooling : 18°C
 Temperature setting for heating : 25°C
 Height difference : 0m.
- Heating capacity was tested under non-frost condition.

2 Dimensional drawing

OAP Duct

AM140HNEPEH/TK

Unit : mm



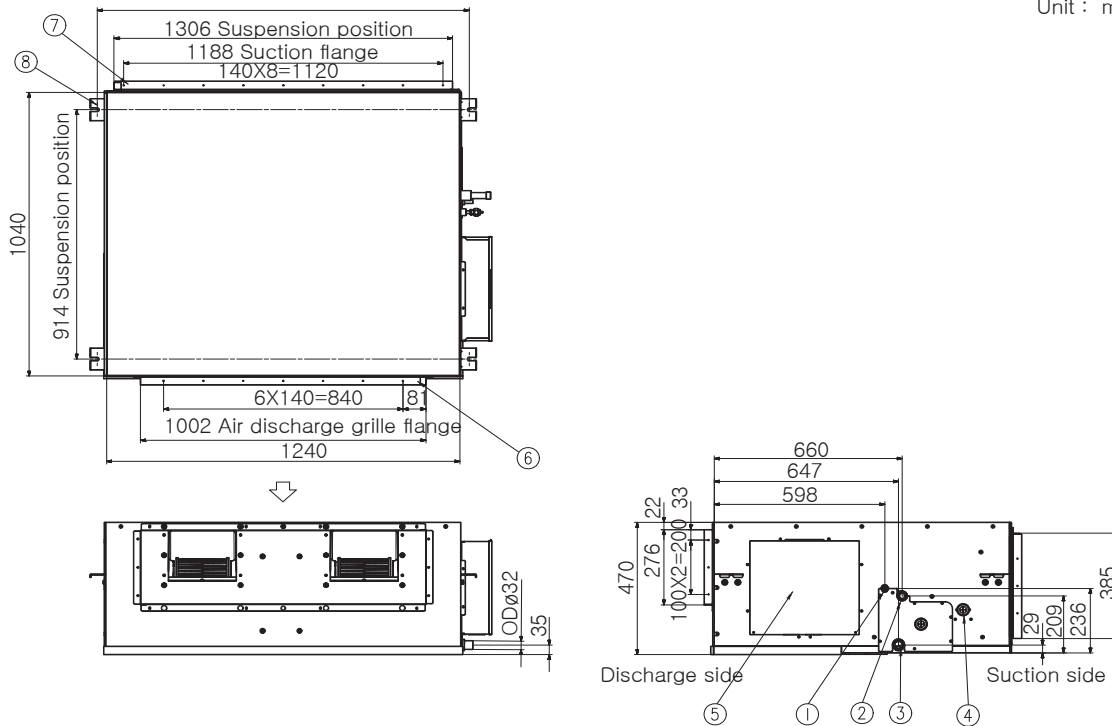
No.	Name	Description
1	Diameter of liquid pipe	ø9.52
2	Diameter of air pipe	ø15.88
3	Diameter of drain pipe	VP25 (OD ø32, ID ø25)
4	Diameter of drain pipe (Option drain pump)	VP25 (OD ø32, ID ø25)
5	Power supply / Communication connection	
6	Air discharge grille flange	
7	Suction flange	
8	Hook	ø9.52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

2 Dimensional drawing

OAP Duct

AM220HNEPEH/TK, AM280HNEPEH/TK

Unit : mm

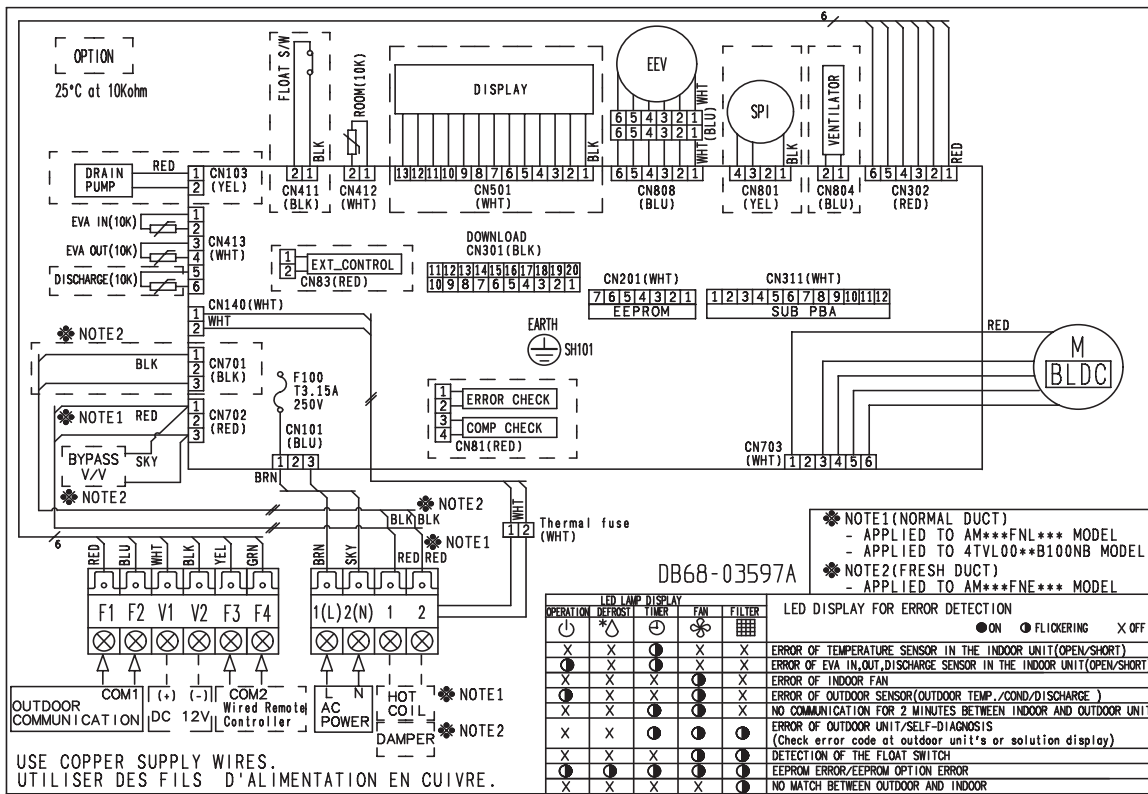


No.	Name	Description
1	Diameter of liquid pipe	ø9.52
2	Diameter of air pipe	ND220E** : ø19.05 ND280E** : ø22.22
3	Diameter of drain pipe	VP25 (OD ø32, ID ø25)
4	Diameter of drain pipe (Optional drain pump)	VP25 (OD ø32, ID ø25)
5	Power supply / Communication connection	
6	Air discharge grille flange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

3 Electrical wiring diagram

OAP Duct

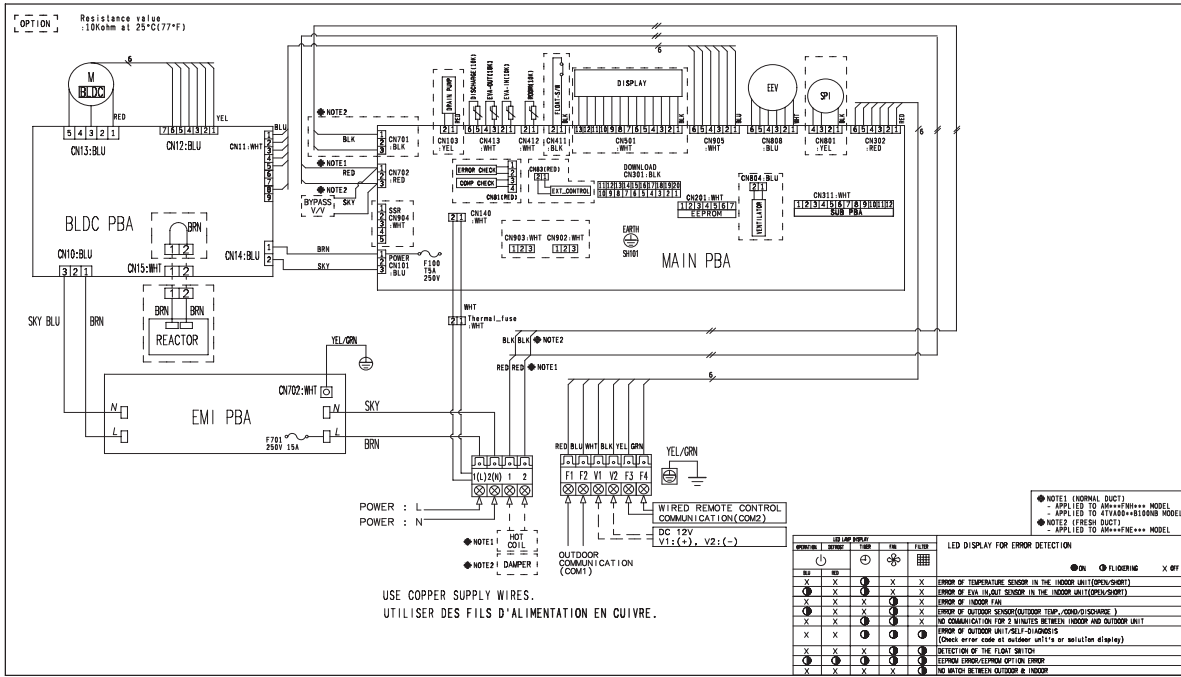
AM140HNEPEH/TK



3 Electrical wiring diagram

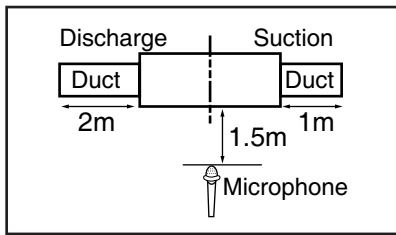
OAP Duct

AM220HNEPEH/TK, AM280HNEPEH/TK



4 Sound pressure level

OAP Duct



Unit: dB(A)

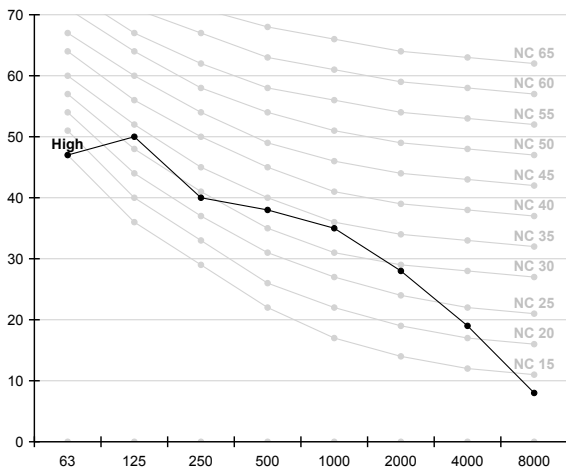
Model	High	Low
AM140HNEPEH/TK	42.0	
AM220HNEPEH/TK	46.0	
AM280HNEPEH/TK	47.0	

Note

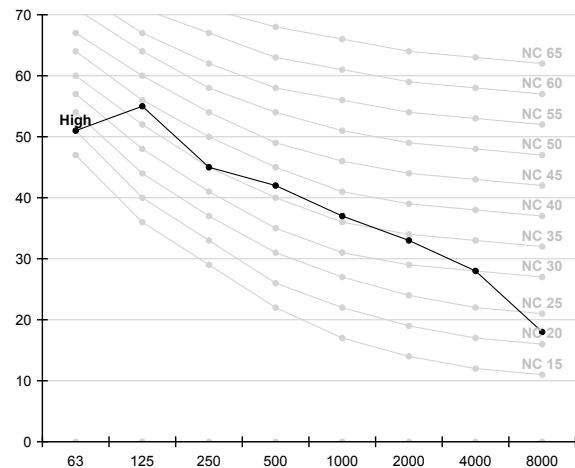
- These operation values were obtained in an anechoic room. Sound pressure level will vary depending on a factors such as the construction of the particular room where the equipment is installed.
- Operation sound level may differ depending on operation and ambient conditions.

NC curve

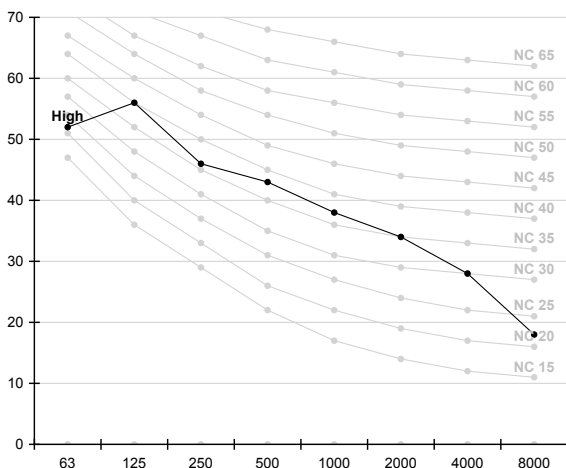
1) AM140HNEPEH/TK



2) AM220HNEPEH/TK



3) AM280HNEPEH/TK



5 Sound power level

OAP Duct

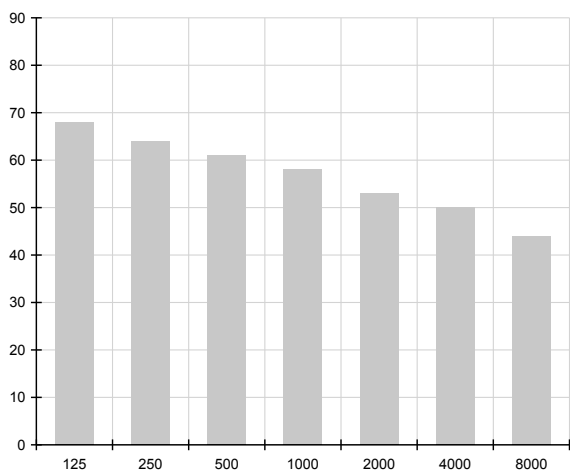
Note

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

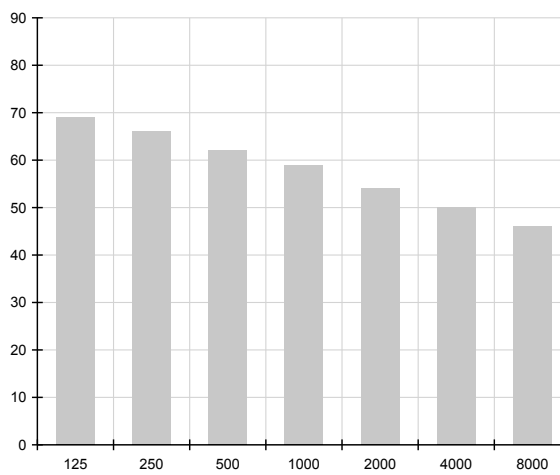
Unit: dB(A)

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

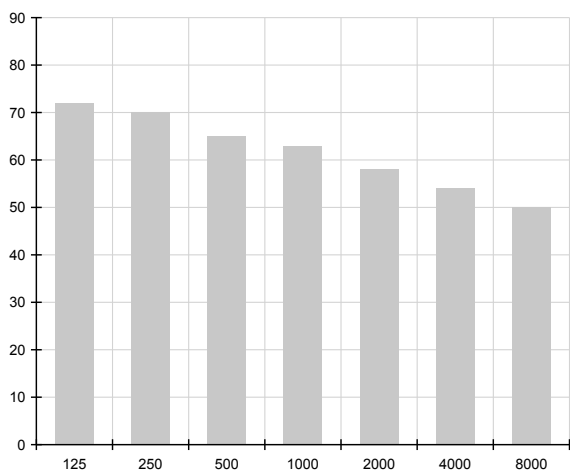
1)AM140HNEPEH/TK



2)AM220HNEPEH/TK



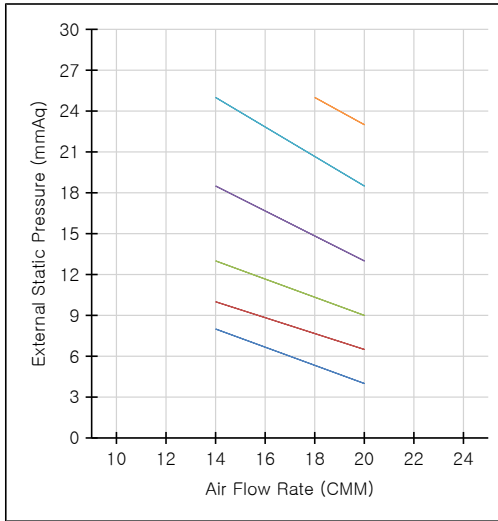
3)AM280HNEPEH/TK



6 Recommended operation range

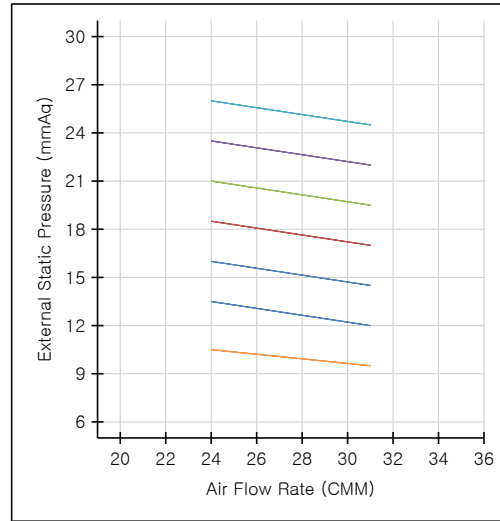
OAP Duct

1) AM140HNEPEH/TK



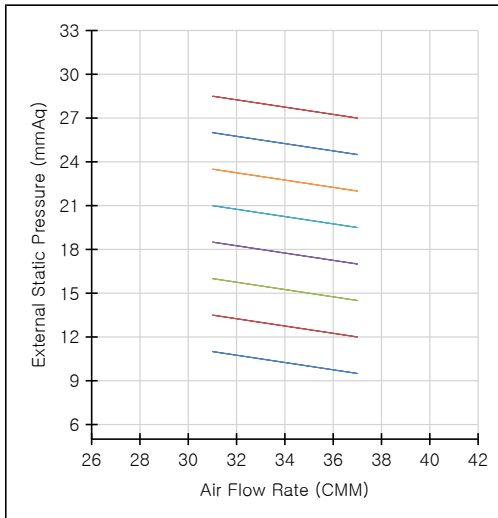
External Static Pressure (mmAq)	Option Code
4~8	01B064-1B490B-208C8C-333000
6.5~10	01B064-1B4A51-208C8C-333000
9~13	01B064-1B4AA6-208C8C-333000
13~18.5	01B064-1B4E2E-208C8C-333000
18.5~25	01B064-1B4F95-208C8C-333000
23~25	01B064-1B4FFB-208C8C-333000

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	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	01B064-194550-231C1C-333000
27~28.5	01B064-194550-231C1C-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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