

ERV Plus

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1 Specifications

ERV Plus

1) Technical specifications

*Refer to following capacities when using the product with outdoor unit: AM050FNKDEH : 3.6kW , AM100FNKDEH : 7.1 kW

Model				AM050FNKDEH***	AM100FNKDEH***	
Power Supply				Ø, #, V, Hz	1, 2, 220~240, 50	
Performance	Temp. Exchange Efficiency	Cooling	Turbo	-	70	
			high	-	70	
			low	-	74	
		Heating	Turbo	-	75	
			high	-	75	
			low	-	79	
	Effective Enthalpy Exchange Efficiency	Cooling	Turbo	-	60	
			high	-	60	
			low	-	66	
		Heating	Turbo	-	73	
			high	-	73	
			low	-	79	
Outside Air Processing Capacity		Cooling *1) (DX Coil/Element)	-	5.1(3.6/1.5)	10.5(7.1/3.4)	
		Heating *2) (DX Coil/Element)	-	6.5(4.0/2.5)	13.2(8.0/5.2)	
Fan	Airflow rate		Turbo/High/Low(UL)	CMH	500/500/360	1000/1000/690
				l/s	8333/8333/6000	16666/16666/11500
	External Static pressure		Turbo/High/Low	mmAq	16.3/10.2/8.7	15.3/9.2/7.6
				Pa	160/100/85	150/90/75
	Motor		Type	-	BLDC	BLDC
			Output	W	180	70
Number of unit			EA	2	2	
Power	Power Input		Turbo	W	220	510
			high		140	350
			low		90	235
	Current Input		Turbo	A	1.70	3.70
			high		1.00	2.40
			low		0.60	1.60
Option Code				-	015617152380	0156171C2373
Piping Connections	Liquid Pipe		Ø, mm		6.35	6.35
			Ø, inch		1/4	1/4
	Gas Pipe		Ø, mm		12.7	12.7
			Ø, inch		1/2	1/2
	Drain Pipe		Ø, mm		VP25 (OD32, ID25)	VP25 (OD32, ID25)
			Ø, inch		VP25 (OD 1-1/4", ID 1")	VP25 (OD 1-1/4", ID 1")
Water Supply		Ø, mm		12.7	12.7	
		Ø, inch		1/2	1/2	
Field Wiring	Power Source Wire		mm ²		1.5/2.5	1.5/2.5
	Transmission Cable		mm ²		0.75~1.5	0.75~1.5
Refrigerant	Type		-		R410A	R410A
	Control Method		-		EEV	EEV
Sound Pressure	Sound Level ^{*4)}	Turbo / High / Low	dB(A)		36 / 32 / 28	36 / 33 / 31
Dimensions	Net Weight		kg		61.0	90.0
	Shipping Weight		kg		75.2	107.5
	Net Dimensions (WxHxD)		mm		1,553 x 270 x 1,000	1,763 x 340 x 1,135
	Shipping Dimensions (WxHxD)		mm		1,847 x 349 x 1,300	2,027 x 428 x 1,424
	Supply/Return/Exhaust/Outside Duct Flange (Ø)		mm		200	250
Accessory	Air Filter		-		High Efficiency Filter(PP)	High Efficiency Filter(PP)
Optional Accessory	Humidifier ^{*3)}		Type	-	Natural Evaporating Type	Natural Evaporating Type
			Qty	EA	1	1
			Amount	kg/h	2.7	5.4
			Pressure Feed Water	MPa	0.02~0.49	0.02~0.49
	S-Plasma ion kit		-		MSD-EAN1	MSD-EAN1
	CO ₂ sensor		-		MOS-C1	MOS-C1
Humidity Sensor		-		Option	Option	
Ambient Condition	Around Unit		-		0~40°C DB, 80%RH or less	0~40°C DB, 80%RH or less
	OA ^{*5)}		-		-15~40°C DB, 80%RH or less	-15~40°C DB, 80%RH or less
	RA ^{*5)}		-		0~40°C DB, 80%RH or less	0~40°C DB, 80%RH or less

* Specifications may be subject to change without prior notice for product improvement.

*1) Nominal cooling capacities are based on;

- Indoor temperature : 27°C DB, 19°C WB - Outdoor temperature : 35°C DB, 24°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

*2) Nominal heating capacities are based on;

- Indoor temperature : 20°C DB, 15°C WB

- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

*3) Humidifying capacity is based on;

- Indoor temperature : 20°C DB, 15°C WB

- Outdoor temperature : 7°C DB, 6°C WB, Equivalent refrigerant piping : 7.5m, Level differences : 0m

*4) Sound pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

*5) OA: fresh air from outdoor. RA: return air from room.

*6) These products contain R410A which is fluorinated greenhouse gas.

* Heat Exchanger type : Fin & Tube (Fin : Al, Tube : Cu)

2 Capacity table

ERV Plus

1) Cooling

TC : Total Capacity(kW), SHC : Sensible Heat Capacity(kW)

Model	Outdoor temperature (°C)		Indoor temperature															
			20 (°C, DB)		23 (°C, DB)		26 (°C, DB)		27 (°C, DB)		28 (°C, DB)		30 (°C, DB)		32 (°C, DB)			
	DB	WB	14 (°C, WB)		16 (°C, WB)		18 (°C, WB)		19 (°C, WB)		20 (°C, WB)		22 (°C, WB)		24 (°C, WB)			
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	
500	10	4	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.3	2.7		
	12	5.5	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.3	2.7		
	14	7	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.3	2.7		
	16	8.5	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.3	2.7		
	18	10.5	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.3	2.7		
	20	12	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.2	2.6		
	21	14	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.2	2.6		
	23	15	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.2	2.6		
	25	16	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.2	2.6		
	27	18	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.2	2.6		
	29	19	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.2	2.6		
	31	22	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.2	2.6		
	35	24	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	4.0	2.8	4.2	2.6		
	37	26	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	3.9	2.7	4.2	2.6		
39	28	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	3.9	2.7	4.1	2.5			
1000	10	4	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	8.0	5.7	8.5	5.4		
	12	5.5	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.5	5.4		
	14	7	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.5	5.4		
	16	8.5	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.4	5.3		
	18	10.5	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.4	5.3		
	20	12	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.4	5.3		
	21	14	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.4	5.3		
	23	15	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.4	5.3		
	25	16	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.4	5.3		
	27	18	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.4	5.3		
	29	19	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.4	5.3		
	31	22	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.4	5.3		
	35	24	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.4	5.6	7.9	5.6	8.4	5.3		
	37	26	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.3	5.5	7.8	5.5	8.2	5.2		
39	28	4.9	4.3	5.8	5.0	6.7	5.2	7.1	5.4	7.3	5.5	7.7	5.4	8.1	5.1			

2) Heating

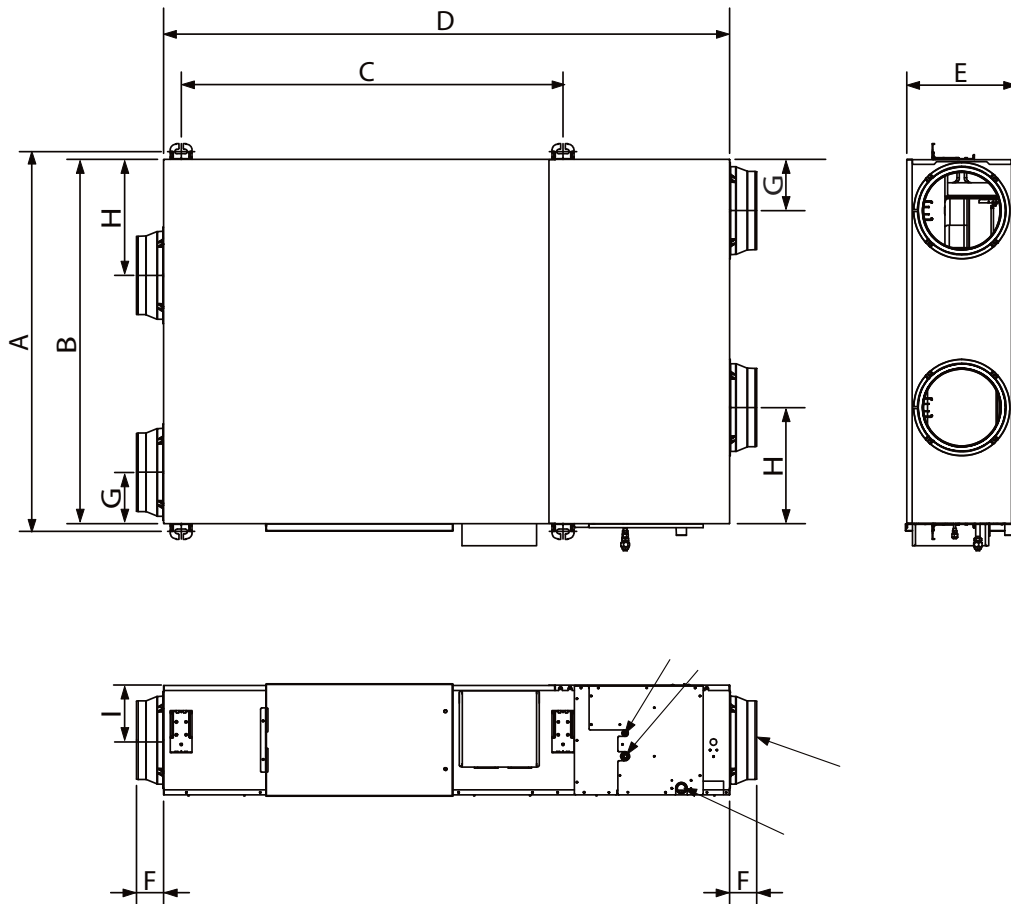
TC : Total Capacity(kW)

Model	Outdoor temperature (°C)		Indoor temperature (°C, DB)				
			16.0	18.0	20.0	22.0	24.0
	DB	WB	TC kW	TC kW	TC kW	TC kW	TC kW
500	-20	-21	-	-	-	-	-
	-17	-18	-	-	-	-	-
	-15	-16	-	-	-	-	-
	-12	-13	-	-	-	-	-
	-10	-11	2.9	2.9	2.9	2.8	2.8
	-7	-8	3.1	3.1	3.0	3.0	2.9
	-5	-6	3.3	3.2	3.2	3.1	3.0
	-3	-4	3.4	3.4	3.3	3.2	3.1
	0	-1	3.6	3.6	3.5	3.4	3.2
	3	2.2	3.8	3.7	3.7	3.5	3.4
	5	4.1	3.9	3.9	3.8	3.6	3.4
	7	6	4.1	4.1	4.0	3.7	3.4
	9	7.9	4.2	4.1	4.0	3.7	3.4
	11	9.8	4.4	4.2	4.0	3.7	3.4
13	12	4.5	4.2	4.0	3.7	3.4	
15	14	4.6	4.3	4.0	3.7	3.4	
1000	-20	-21	-	-	-	-	-
	-17	-18	-	-	-	-	-
	-15	-16	-	-	-	-	-
	-12	-13	-	-	-	-	-
	-10	-11	5.9	5.8	5.7	5.6	5.6
	-7	-8	6.2	6.1	6.0	5.9	5.8
	-5	-6	6.5	6.5	6.4	6.2	6.0
	-3	-4	6.9	6.8	6.7	6.4	6.2
	0	-1	7.2	7.1	7.0	6.7	6.4
	3	2.2	7.6	7.5	7.3	7.1	6.8
	5	4.1	7.9	7.8	7.7	7.2	6.8
	7	6	8.2	8.1	8.0	7.4	6.8
	9	7.9	8.5	8.2	8.0	7.4	6.8
	11	9.8	8.7	8.4	8.0	7.4	6.8
13	12	9.0	8.5	8.0	7.4	6.8	
15	14	9.2	8.6	8.0	7.4	6.8	

3 Dimensional drawing

ERV Plus

Unit:mm



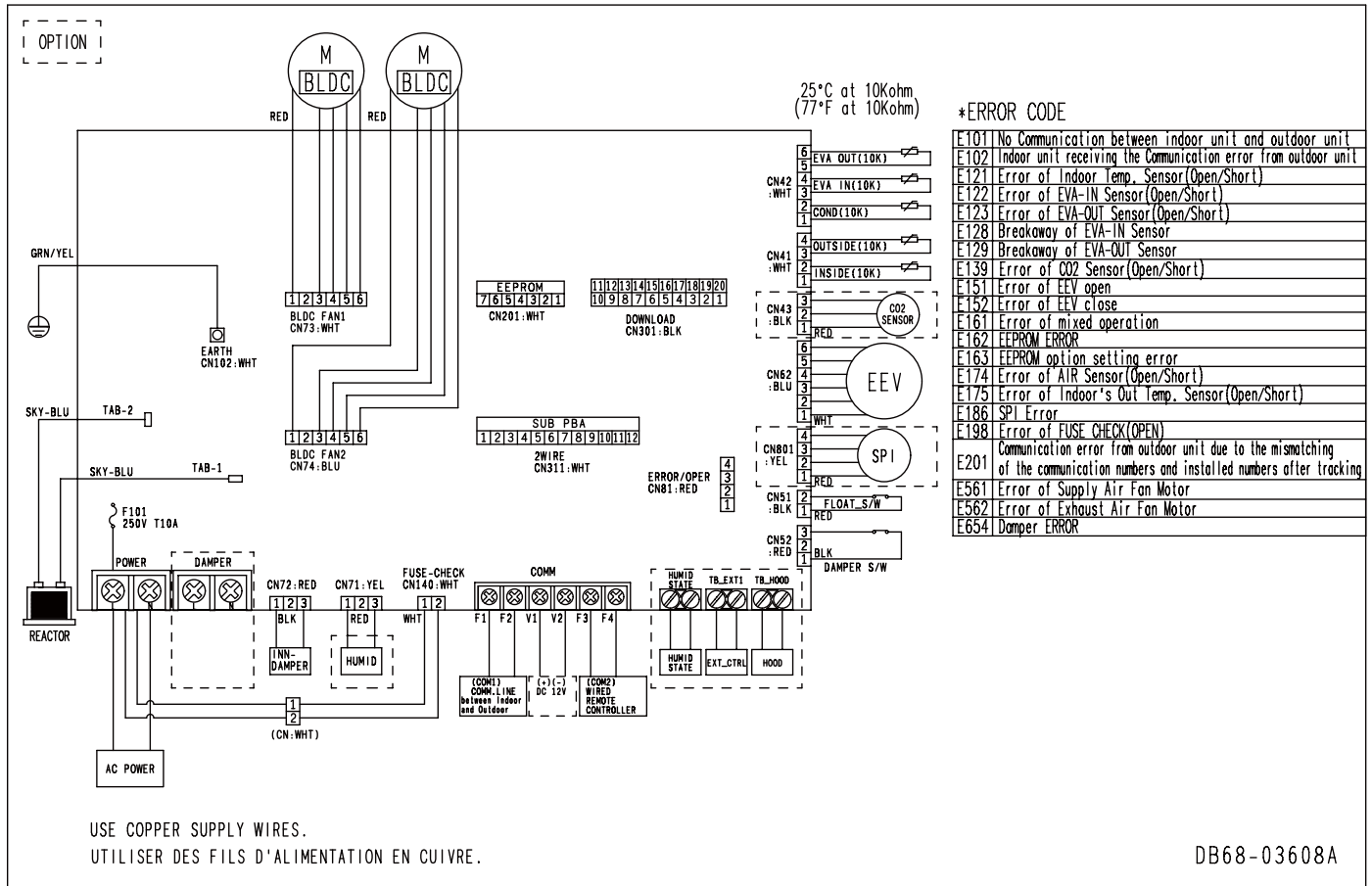
Model	A	B	C	D	E	F	G	H	I
AM050FNKDEH	1036	1000	987	1553	270	99	130	253	135
AM100FNKDEH	1183	1135	1189	1763	340	84	160	362	170

No.	Name	Description	
		500CMH	1000CMH
①	Liquid pipe connection	Ø6.35 (1/4")	
②	Gas pipe connection	Ø12.70 (1/2")	
③	Drain pipe connection	VP25 (OD32, ID25)	
④	Nominal diameter for duct	AM050FNKDEH	Ø200
		AM100FNKDEH	Ø250

4 Electrical Wiring Diagram

ERV Plus

AM050/100FNKDEH/EU



NOTE

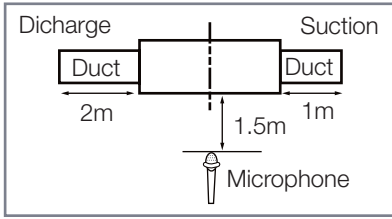
1. This wiring diagram applies only to the indoor unit.
2. Symbols show as follow;
BLK : black, RED : red, BLU : blue, WHT:white, YEL : yellow, BRN : brown, SKY : sky-blue, GRN : green
3. For connection wiring indoor-outdoor transmission F1-F2, indoor-wired remotecontroller transmission F3-F4.
4. : Protective earth(screw), : Connector, _n : The wire quantity

5 Sound pressure level

ERV Plus

1) Operation sound level

Unit : dB(A)



Model	Turbo	High	Low
AM050FNKDEH***	36	32	28
AM100FNKDEH***	36	33	31

✓ 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.

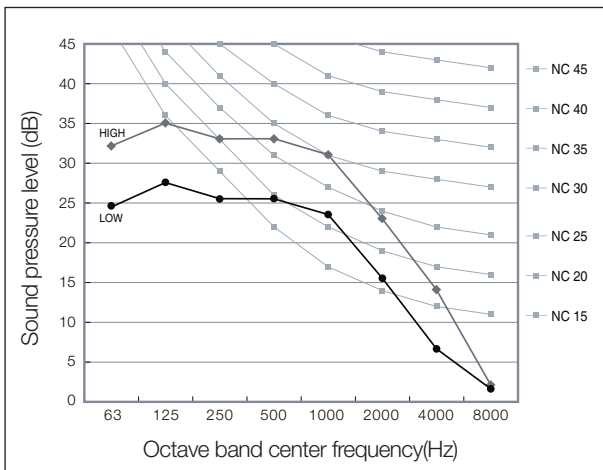
Sound pressure level may differ depending on operation condition.

dBA = A-weighted sound pressure level

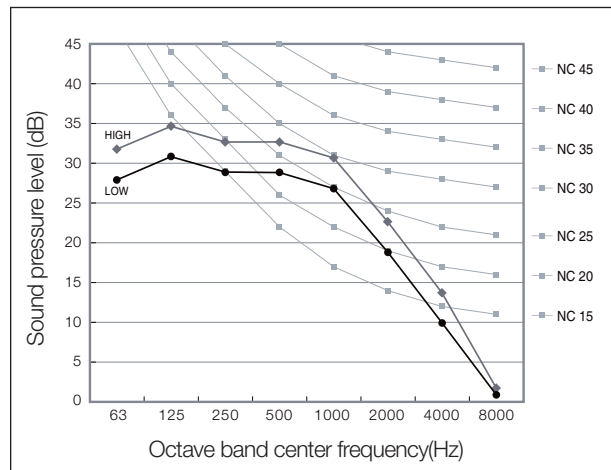
Reference acoustic pressure 0 dB= 20 uPa

2) NC curves

(1) AM050FNKDEH ***



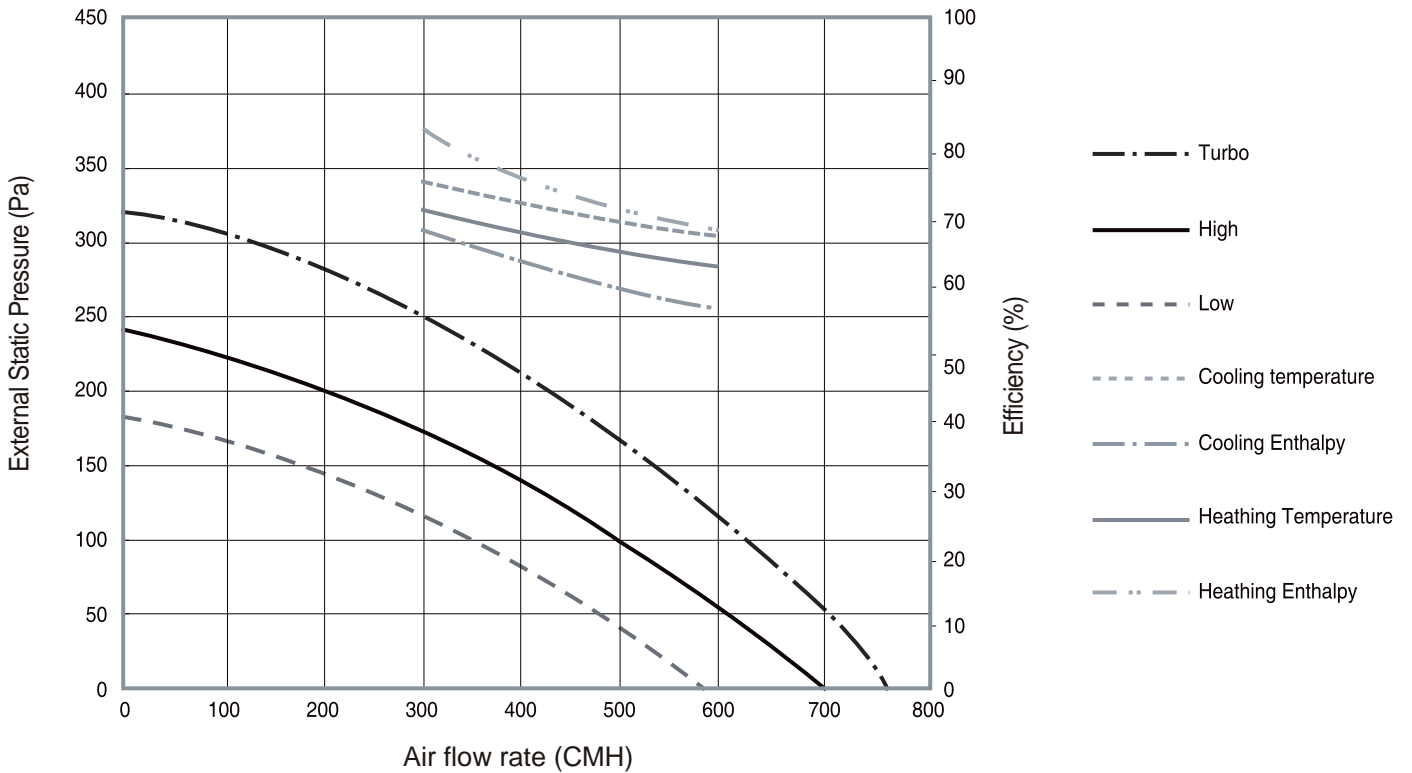
(2) AM100FNKDEH ***



6 Fan Characteristics

ERV Plus

1) AM050FNKDEH/EU



2) AM100FNKDEH/EU

