

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	1, 2, 220-240, 50				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)	
	Heating *2) (DX Coil/Element)			-	6.5(4.0/2.5)	
Fan	Airflow rate		Turbo/High/Low(UL)	CMH	500/500/360	
				l/s	138.9/138.9/100	
	External Static pressure		Turbo/High/Low	mmAq	16.3/10.2/8.7	
				Pa	160/100/85	
	Motor		Type	-	BLDC	
			Output	W	180	
			Number of unit	EA	2	
Power	Power Input		Turbo	-	220	
			high	-	140	
			low	-	90	
	Current Input		Turbo	-	1.70	
			high	-	1.00	
			low	-	0.60	
Option Code				-	015617152380	
Piping Connections	Liquid Pipe			Ø, mm	6.35	
				Ø, inch	1/4	
	Gas Pipe			Ø, mm	12.7	
				Ø, inch	1/2	
	Drain Pipe			Ø, mm	VP25 (OD32, ID25)	
				Ø, inch	VP25 (OD 1-1/4", ID 1")	
Field Wiring	Water Supply			Ø, mm	VP25 (OD32, ID25)	
				Ø, inch	VP25 (OD 1-1/4", ID 1")	
	Power Source Wire			Ø, mm	12.7	
				Ø, inch	1/2	
	Transmission Cable			mm ²	1.5/2.5	
				mm ²	0.75~1.5	
Refrigerant	Type			-	R410A	
	Control Method			-	EEV	
Sound Pressure	Sound Level*4)	Turbo / High / Low	dBA	36 / 32 / 28	36 / 33 / 31	
Dimensions	Net Weight			kg	61.0	
	Shipping Weight			kg	75.2	
	Net Dimensions (W×H×D)			mm	1,553 x 270 x 1,000	
	Shipping Dimensions (W×H×D)			mm	1,847 x 349 x 1,300	
	Supply/Return/Exhaust/Outside Duct Flange (Ø)			mm	200	
Accessory	Air Filter			-	High Efficiency Filter(PP)	
Optional Accessory	S-Plasma ion kit			-	MSD-EAN1	
	CO ₂ sensor			-	MOS-C1	
	Humidity Sensor			-	Option	
Ambient Condition	Around Unit			-	0~40°C DB, 80%RH or less	
	OA *5)			-	-15~40°C DB, 80%RH or less	
	RA *5)			-	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) Sound pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

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

*5) 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)

Capacity Index	Outdoor Air Temp.	Indoor temperature													
		14.0		16.0		18.0		19.0		20.0		22.0		24.0	
		TC kW	SHC kW	TC kW	SHC kW	TC kW	SHC kW	TC kW	SHC kW	TC kW	SHC kW	TC kW	SHC kW	TC kW	SHC kW
050	10	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	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	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	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	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	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	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	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	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	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	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	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
	33	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	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
	37	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
	39	2.5	2.2	2.9	2.5	3.4	2.7	3.6	2.8	3.7	2.8	3.8	2.7	4.0	2.4
	42	2.5	2.2	2.9	2.5	3.4	2.7	3.5	2.7	3.6	2.7	3.8	2.6	3.9	2.4
	44	2.5	2.2	2.9	2.5	3.3	2.6	3.4	2.6	3.5	2.7	3.6	2.5	3.8	2.3
	46	2.5	2.2	2.9	2.5	3.2	2.5	3.3	2.6	3.4	2.6	3.5	2.4	3.7	2.2
	48	2.5	2.2	2.8	2.4	3.2	2.5	3.2	2.5	3.3	2.5	3.4	2.4	3.5	2.2
100	10	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	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	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	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	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	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	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	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	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	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	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	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
	33	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	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
	37	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
	39	4.9	4.3	5.8	5.0	6.7	5.2	7.0	5.3	7.2	5.4	7.6	5.3	7.9	5.0
	42	4.9	4.3	5.8	5.0	6.6	5.1	6.9	5.3	7.1	5.4	7.4	5.2	7.7	4.8
	44	4.9	4.3	5.8	5.0	6.4	5.0	6.7	5.1	6.9	5.2	7.1	5.0	7.4	4.7
	46	4.9	4.3	5.7	5.0	6.3	4.9	6.5	4.9	6.7	5.1	6.9	4.8	7.2	4.6
	48	4.8	4.2	5.7	4.9	6.2	4.8	6.3	4.8	6.6	5.0	6.7	4.7	7.0	4.4

2) Heating

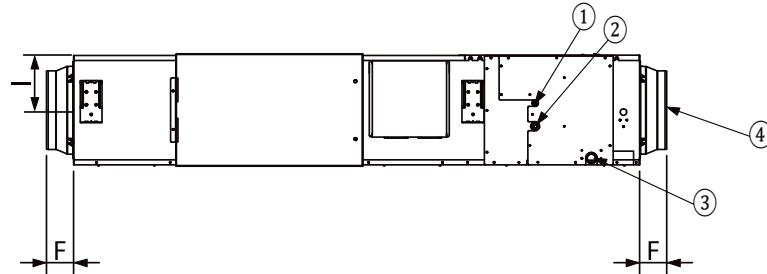
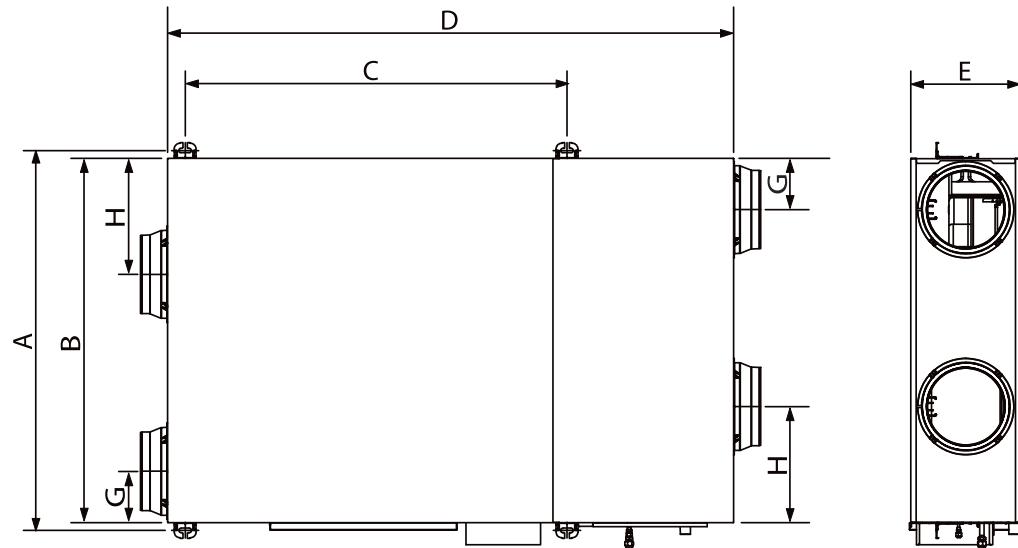
TC : Total Capacity(kW)

Capacity Index	Outdoor Air Temp. (°C)	Indoor temperature				
		16.0	18.0	20.0	22.0	24.0
		TC	TC	TC	TC	TC
050	-9.5	-10.0	2.9	2.9	2.8	2.8
	-8.5	-9.1	3.0	3.0	2.9	2.9
	-7.0	-7.6	3.1	3.1	3.0	2.9
	-5.0	-5.6	3.3	3.2	3.1	3.0
	-3.0	-3.7	3.4	3.4	3.2	3.1
	0.0	-0.7	3.6	3.6	3.4	3.2
	3.0	2.2	3.8	3.7	3.5	3.4
	5.0	4.1	3.9	3.9	3.6	3.4
	7.0	6.0	4.1	4.1	3.7	3.4
	9.0	7.9	4.2	4.1	3.7	3.4
	11.0	9.8	4.4	4.2	3.7	3.4
	13.0	11.8	4.5	4.2	3.7	3.4
	15.0	13.7	4.6	4.3	3.7	3.4
	-9.5	-10.0	6.0	5.9	5.7	5.6
	-8.5	-9.1	6.1	6.0	5.8	5.7
100	-7.0	-7.6	6.2	6.1	5.9	5.8
	-5.0	-5.6	6.5	6.5	6.2	6.0
	-3.0	-3.7	6.9	6.8	6.4	6.2
	0.0	-0.7	7.2	7.1	6.7	6.4
	3.0	2.2	7.6	7.5	7.1	6.8
	5.0	4.1	7.9	7.8	7.2	6.8
	7.0	6.0	8.2	8.1	7.4	6.8
	9.0	7.9	8.5	8.2	7.4	6.8
	11.0	9.8	8.7	8.4	7.4	6.8
	13.0	11.8	9.0	8.5	7.4	6.8
	15.0	13.7	9.2	8.6	7.4	6.8

3 Dimensional drawing

ERV Plus

Unit:mm



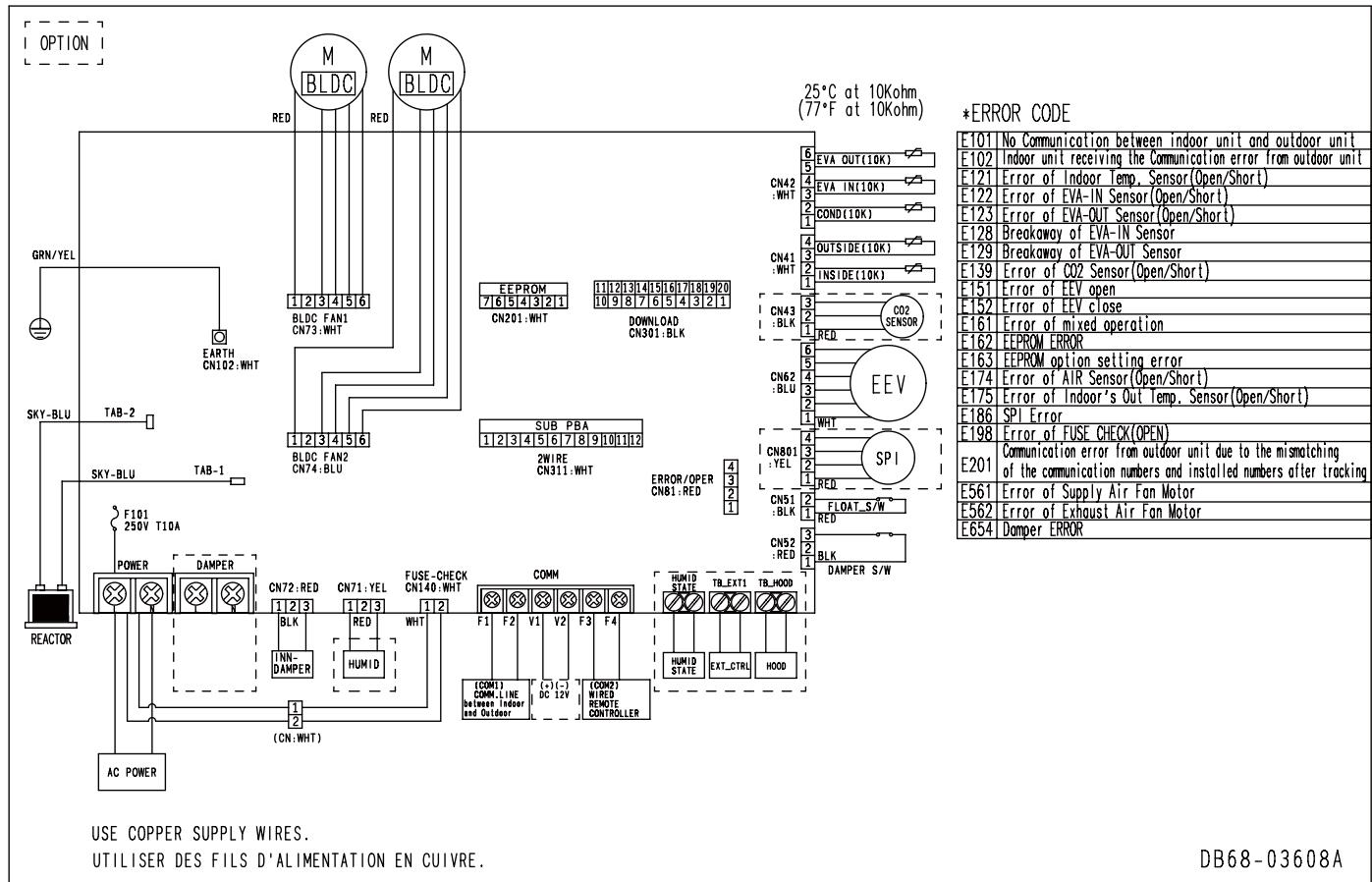
Model	A	B	C	D	E	F	G	H	I
AM050FNKDEH	1036	1000	987	1553	270	99	130	253	135
AM100FNKDEH	1183	1135	1189	1763	340	84	160	362	170

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



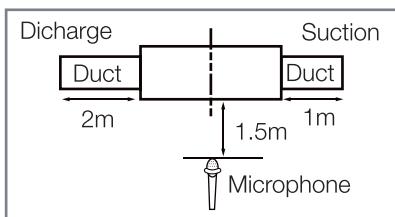
NOTE

- 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 remotecontroller transmission F3-F4.
- : Protective earth(screw), : Connector, n : The wire quantity

5 Sound pressure level

ERV Plus

1) Operation sound level



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.

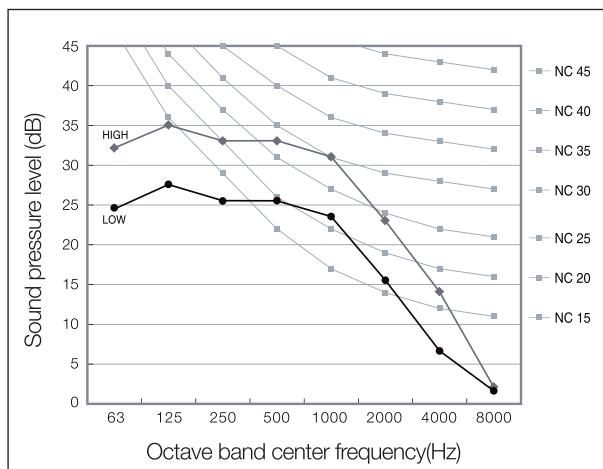
Sound pressure level may differ depending on operation condition.

dBA = A-weighted sound pressure level

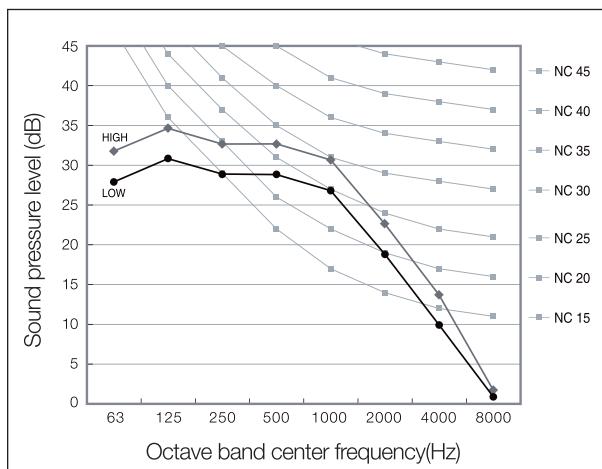
Reference acoustic pressure 0 dB = 20 uPa

2) NC curves

(1) AM050FNKDEH ***



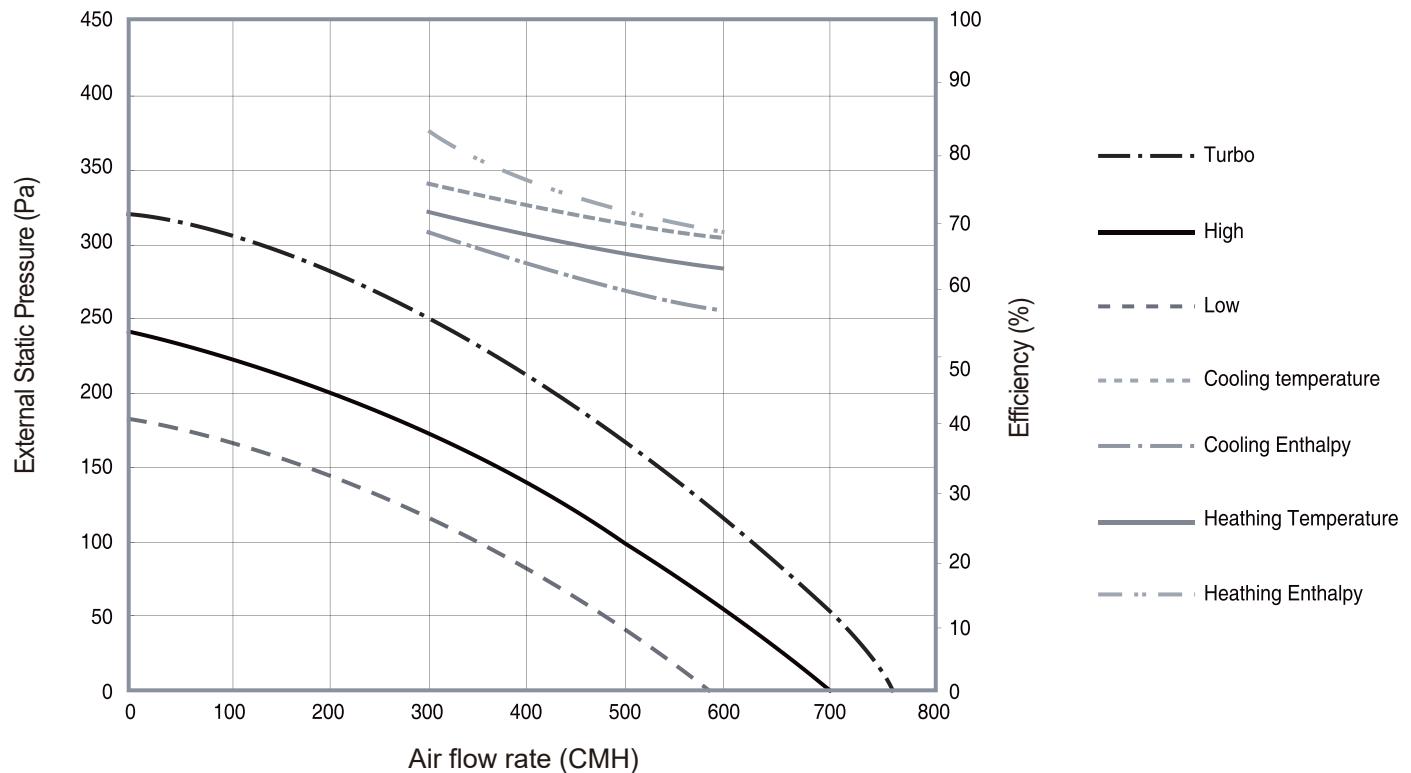
(2) AM100FNKDEH ***



6 Fan Characteristics

ERV Plus

1) AM050FNKDEH/EU



2) AM100FNKDEH/EU

