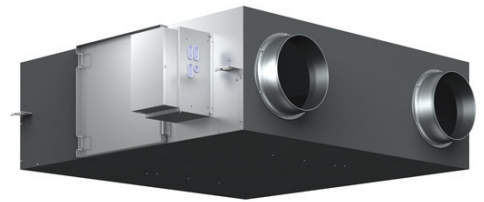


Air to Air Heat exchanger Type

VN-M150HE / VN-M250HE
VN-M350HE / VN-M500HE
VN-M650HE / VN-M800HE
VN-M1000HE / VN-M1500HE
VN-M2000HE



Contents

1. Specifications
2. Dimensions
3. Wiring diagram
4. Center of gravity
5. Electrical characteristics
6. Fan characteristics
7. Sound characteristics (NC curve)

1. Specifications

(50Hz)

Item		Model	VN- M150HE	VN- M250HE	VN- M350HE	VN- M500HE	VN- M650HE	VN- M800HE	VN- M1000HE	VN- M1500HE	VN- M2000HE	
		Fan speed										
Power supply (V)			Single phase 220-240V~, 50Hz									
Power consumption (W)		(Extra high)	68-78	123-138	165-182	214-238	262-290	360-383	532-569	751-786	1084-1154	
		High	59-67	99-111	135-145	176-192	240-258	339-353	494-538	708-784	1032-1080	
		Low	42-47	52-59	82-88	128-142	178-191	286-300	353-370	570-607	702-742	
Air volume (m³/h)		(Extra high)	150	250	350	500	650	800	1000	1500	2000	
		High	150	250	350	500	650	800	1000	1500	2000	
		Low	110	155	210	390	520	700	755	1200	1400	
External static pressure (Pa)		(Extra high)	82-102	80-98	114-125	134-150	91-107	142-158	130-150	135-156	124-143	
		High	52-78	34-65	56-83	69-99	58-82	102-132	97-122	103-129	92-116	
		Low	47-64	28-40	65-94	62-92	61-96	76-112	84-127	112-142	110-143	
Sound pressure level (dB(A))		(Extra high)	26-28	29.5-30	34-35	32.5-34	34-36	37-38.5	39.5-40.5	38-39	41-42.5	
		High	24-25.5	25-27	30-32	29.5-31	33-34	35.5-37	38.5-40	36.5-37.5	39.5-41	
		Low	20-22	21-22	27-29	26-29	31-32.5	33.5-35	34-35.5	36-37.5	37-38	
Temperature exchange efficiency (%)		(Extra high)	81.5	78	74.5	76.5	75	76.5	73.5	76.5	73.5	
		High	81.5	78	74.5	76.5	75	76.5	73.5	76.5	73.5	
		Low	83	81.5	79.5	78	76.5	77.5	77	79	77.5	
Enthalpy exchange efficiency (%)		For heating	(Extra high)	74.5	70	65	72	69.5	71	68.5	71	68.5
			High	74.5	70	65	72	69.5	71	68.5	71	68.5
			Low	76	74	71.5	73.5	71.5	71.5	71.5	73.5	72
		For cooling	(Extra high)	69.5	65	60.5	64.5	61.5	64	60.5	64	60.5
			High	69.5	65	60.5	64.5	61.5	64	60.5	64	60.5
			Low	71	69	67	66.5	64	65.5	64.5	67	65.5
Dimensions (Length x Width x Height) (mm)			900 x 900 x 290			1140 x 1140 x 350		1189 x 1189 x 400		1189 x 1189 x 810		
Weight (kg)			36	36	38	53	53	70	70	143	143	
Duct diameter (mm)			Ø100	Ø150		Ø200		Ø250		Inside:Ø250, Outside:283x730		
Filtration efficiency grade (%)			82									
Operating range		Around unit	-10°C~40°C 80%RH or less									
		Outdoor Air (OA)	-15°C(*1)~43°C 80%RH or less									
		Return Air (RA)	5°C~40°C 80%RH or less									

* Air volume can be changed over to high (extra high) mode or low mode at both heat exchange and normal ventilation modes.

* Sound pressure level is measured 1.5m below the center of the unit, and the value which was measured at the acoustic room.

* Sound pressure levels usually become higher than above values by the influence of actual installation condition such as reflected sound and peripheral noise.

*1) When the temperature of the outdoor air is below -10°C, the unit runs cold operation mode (intermittent operation of the ventilation for air supply).
The unit cannot be used at -15°C or less.

The ventilator for air supply stops, and the ventilator for air exhaust also can be stopped by the setting.

(60Hz)

Item		Model	VN- M150HE	VN- M250HE	VN- M350HE	VN- M500HE	VN- M650HE	VN- M800HE	VN- M1000HE	VN- M1500HE	VN- M2000HE
		Fan speed									
Power supply (V)			Single phase 220V~, 60Hz								
Power consumption (W)		(Extra high)	76	131	209	260	307	446	622	928	1294
		High	65	105	162	206	283	408	589	830	1220
		Low	45	54	94	144	206	333	411	660	818
Air volume (m³/h)		(Extra high)	150	250	350	500	650	800	1000	1500	2000
		High	150	250	350	500	650	800	1000	1500	2000
		Low	110	155	210	390	520	700	755	1200	1400
External static pressure (Pa)		(Extra high)	99	97	167	181	134	171	185	165	165
		High	59	38	33	63	68	102	120	108	102
		Low	46	22	39	44	52	58	55	109	87
Sound pressure level (dB(A))		(Extra high)	27.5	31.5	35.5	33.5	35.5	38	41.5	39.5	42.5
		High	24.5	25	29.5	29	34	35	39	36.5	40
		Low	20	21	23.5	24.5	29.5	32.5	33.5	35.5	36.5
Temperature exchange efficiency (%)		(Extra high)	81.5	78	74.5	76.5	75	76.5	73.5	76.5	73.5
		High	81.5	78	74.5	76.5	75	76.5	73.5	76.5	73.5
		Low	83	81.5	79.5	78	76.5	77.5	77	79	77.5
Enthalpy exchange efficiency (%)	For heating	(Extra high)	74.5	70	65	72	69.5	71	68.5	71	68.5
		High	74.5	70	65	72	69.5	71	68.5	71	68.5
		Low	76	74	71.5	73.5	71.5	71.5	71.5	73.5	72
	For cooling	(Extra high)	69.5	65	60.5	64.5	61.5	64	60.5	64	60.5
		High	69.5	65	60.5	64.5	61.5	64	60.5	64	60.5
		Low	71	69	67	66.5	64	65.5	64.5	67	65.5
Dimensions (Length x Width x Height) (mm)			900 x 900 x 290			1140 x 1140 x 350		1189 x 1189 x 400		1189 x 1189 x 810	
Weight (kg)			36	36	38	53	53	70	70	143	143
Duct diameter (mm)			Ø100	Ø150		Ø200		Ø250		Inside:Ø250, Outside:283x730	
Filtration efficiency grade (%)			82								
Operating range		Around unit	-10℃~-40℃ 80%RH or less								
		Outdoor Air (OA)	-15℃(*1)~43℃ 80%RH or less								
		Return Air (RA)	5℃~40℃ 80%RH or less								

* Air volume can be changed over to high (extra high) mode or low mode at both heat exchange and normal ventilation modes.

* Sound pressure level is measured 1.5m below the center of the unit, and the value which was measured at the acoustic room.

* Sound pressure levels usually become higher than above values by the influence of actual installation condition such as reflected sound and peripheral noise.

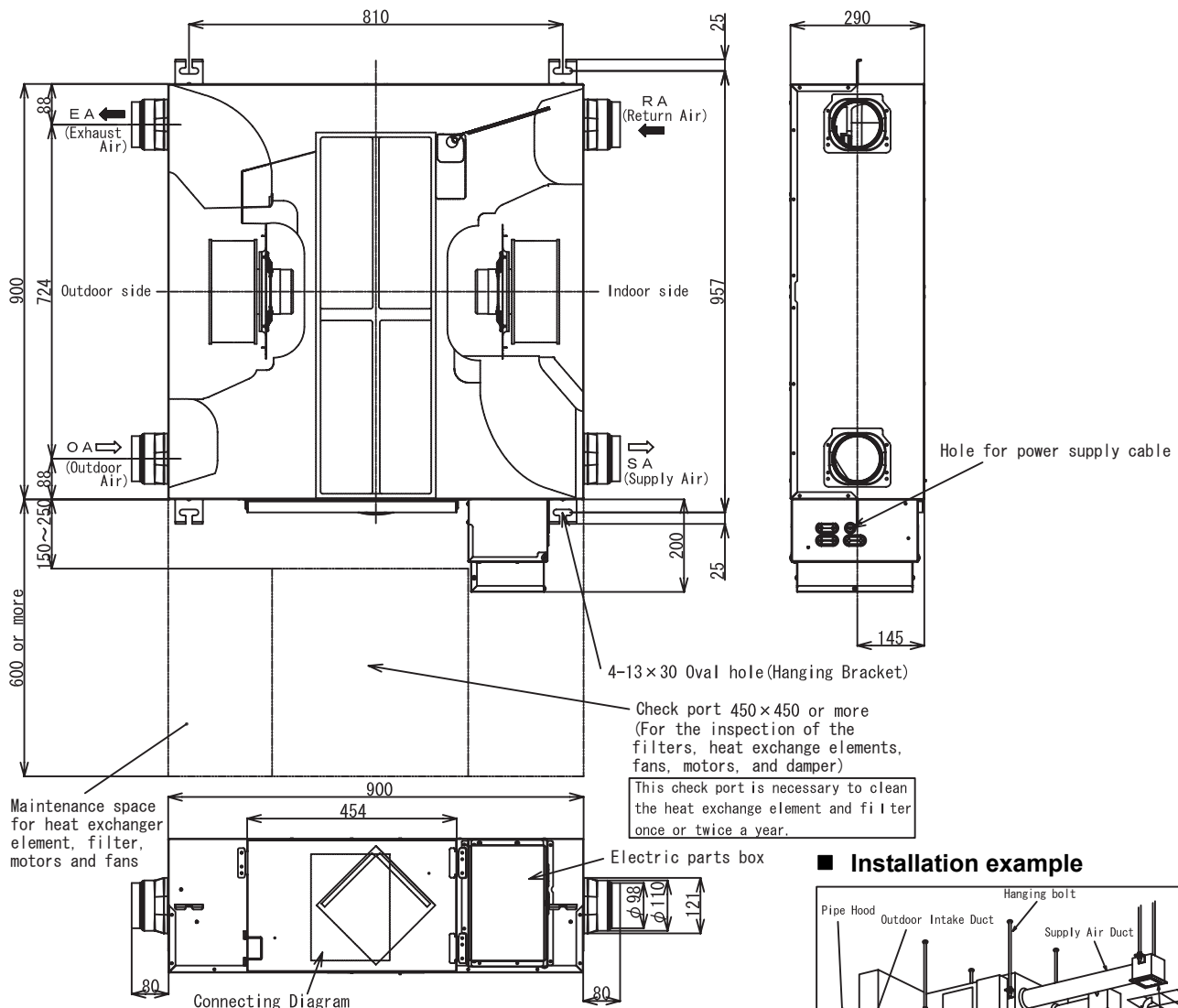
*1) When the temperature of the outdoor air is below -10°C, the unit runs cold operation mode (intermittent operation of the ventilation for air supply).

The unit cannot be used at -15°C or less.

The ventilator for air supply stops, and the ventilator for air exhaust also can be stopped by the setting.

2. Dimensions

VN-M150HE



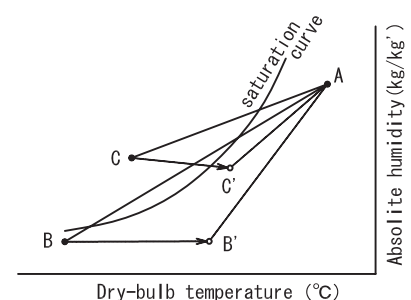
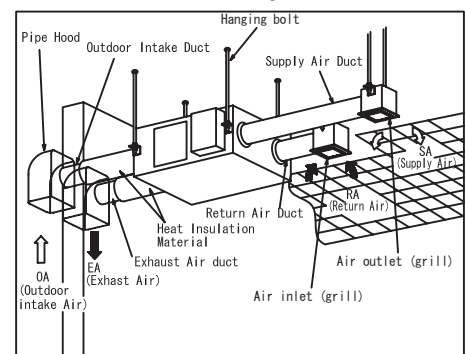
■ Attention

1. Duct size (Nominal Diameter): $\phi 100$
2. The above dimensions do not include the thickness (5 mm) of the insulation material on the unit body.

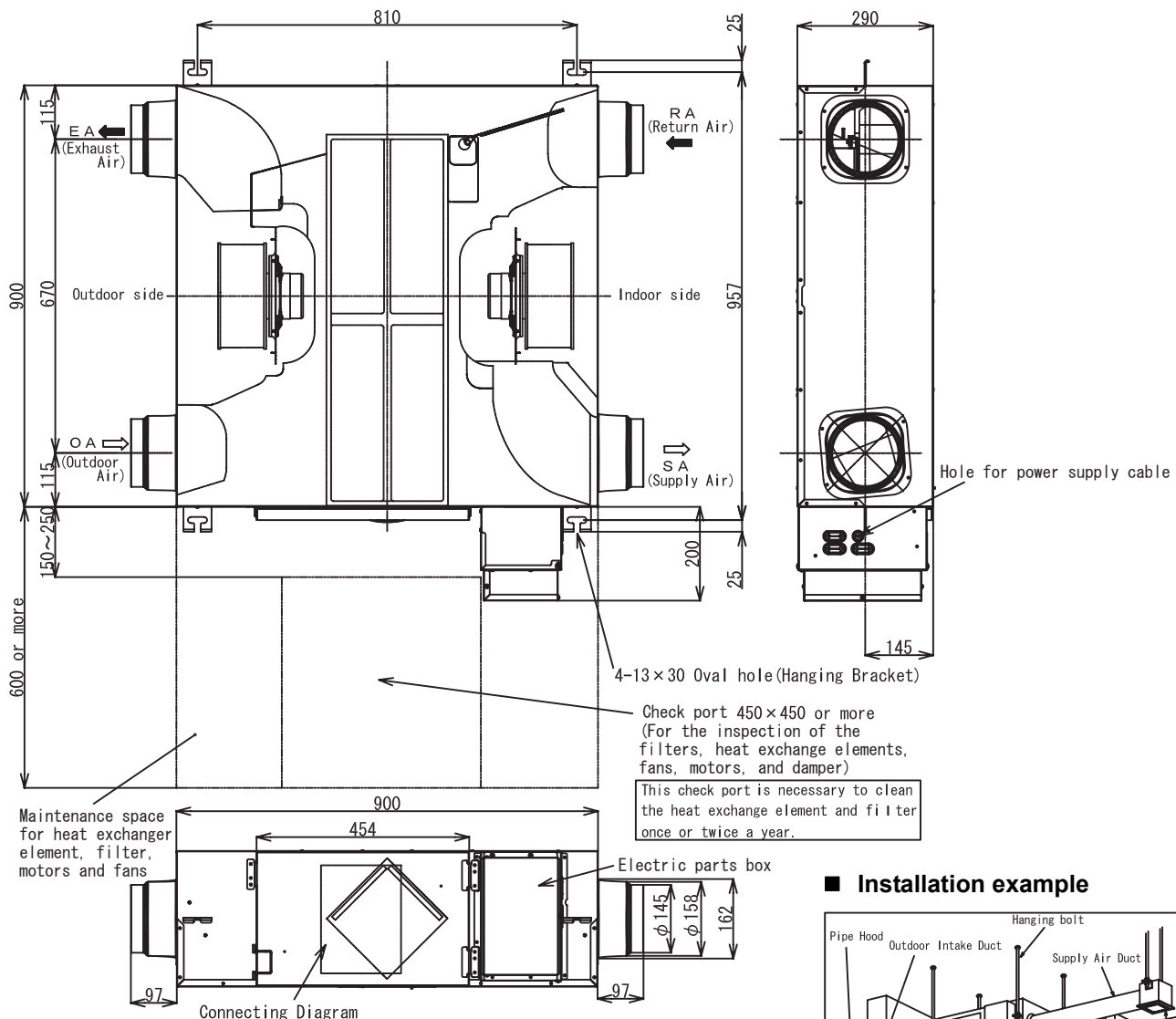
■ Attention

1. The two outdoor ducts (the Outdoor air Duct and the Exhaust air Duct) must be insulated to prevent condensation (Material: Glass wool, Thickness: 25 mm)
2. It is recommended that you use an electric damper together with the Air to Air Heat Exchanger, as wind may enter the room while the unit is not in operation in the cold or windy region.
3. As shown in the psychrometric chart, Point A is suction air condition in high temperature, Point B is discharge air condition in low temperature and Point C is the air condition that exchanged heat. If C is located at the left of the saturation curve as shown, it is dewed or frosted in the heat exchanger element of the unit. In this case to prevent the dew or frost, be sure to heat B up to B' for making C C' (right side of saturation curve).

■ Installation example



VN-M250HE, VN-M350HE



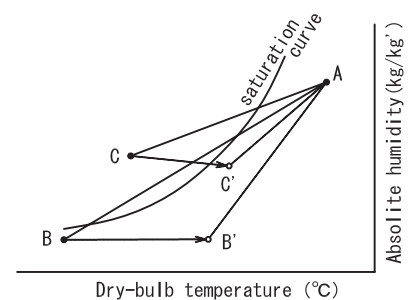
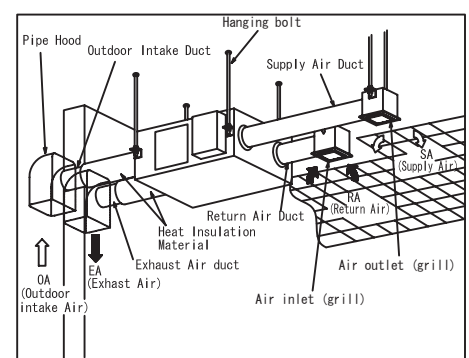
■ Attention

1. Duct size (Nominal Diameter): $\phi 150$
2. The above dimensions do not include the thickness (5 mm) of the insulation material on the unit body.

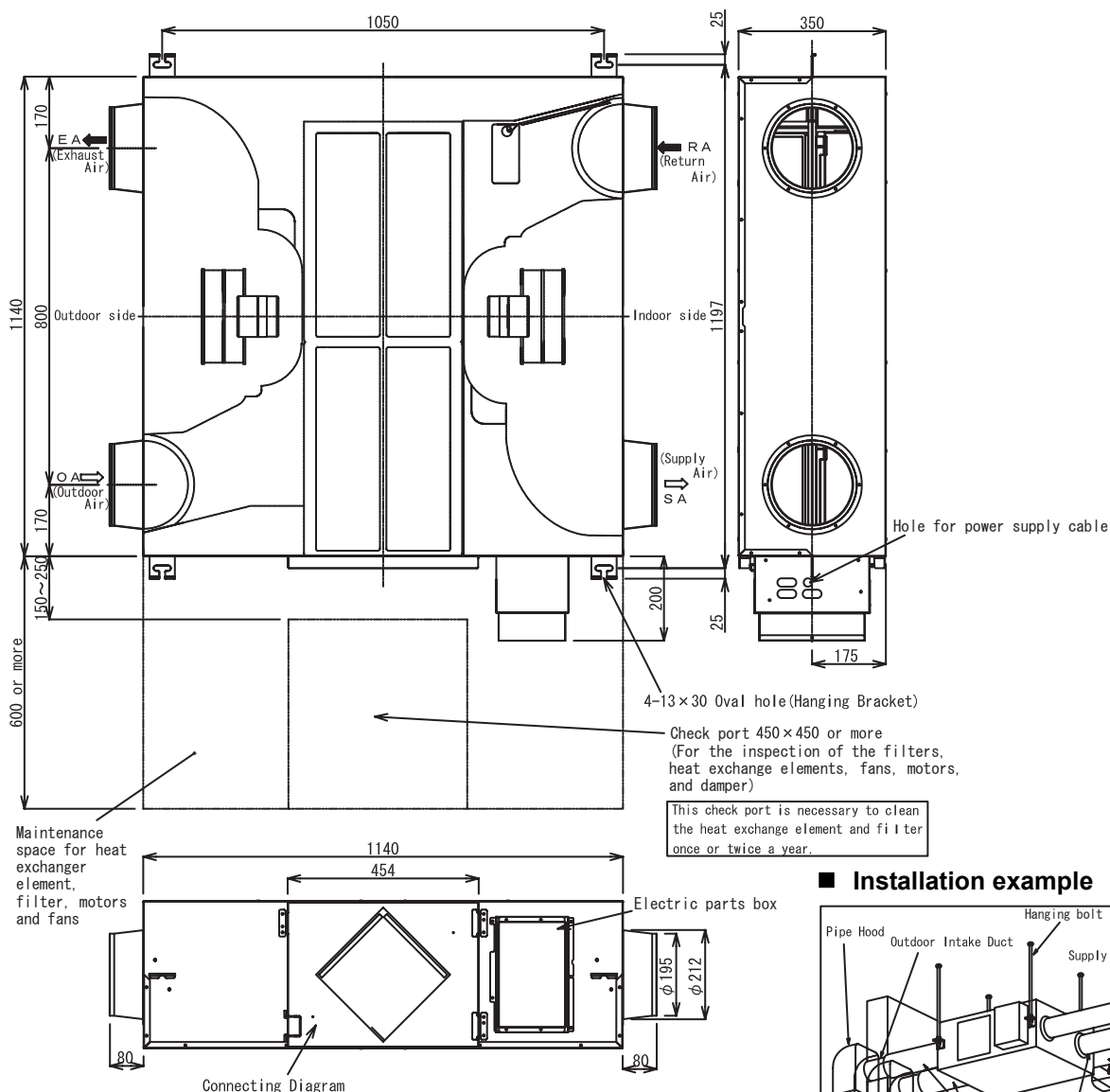
■ Attention

1. The two outdoor ducts (the Outdoor air Duct and the Exhaust air Duct) must be insulated to prevent condensation (Material: Glass wool, Thickness: 25 mm)
2. It is recommended that you use an electric damper together with the Air to Air Heat Exchanger, as wind may enter the room while the unit is not in operation in the cold or windy region.
3. As shown in the psychrometric chart, Point A is suction air condition in high temperature, Point B is discharge air condition in low temperature and Point C is the air condition that exchanged heat. If C is located at the left of the saturation curve as shown, it is dewed or frosted in the heat exchanger element of the unit. In this case to prevent the dew or frost, be sure to heat B up to B' for making C C' (right side of saturation curve).

■ Installation example



VN-M500HE, VN-M650HE



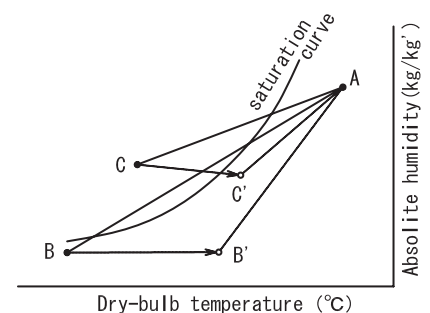
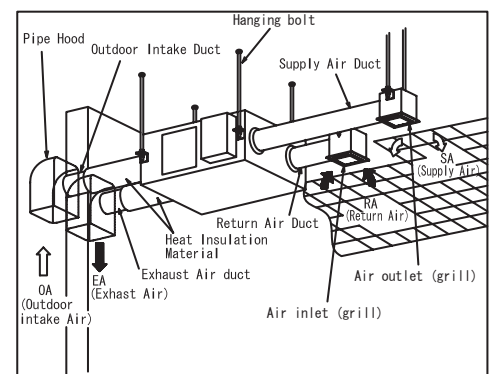
■ Attention

1. Duct size (Nominal Diameter): $\phi 200$
2. The above dimensions do not include the thickness (5 mm) of the insulation material on the unit body.

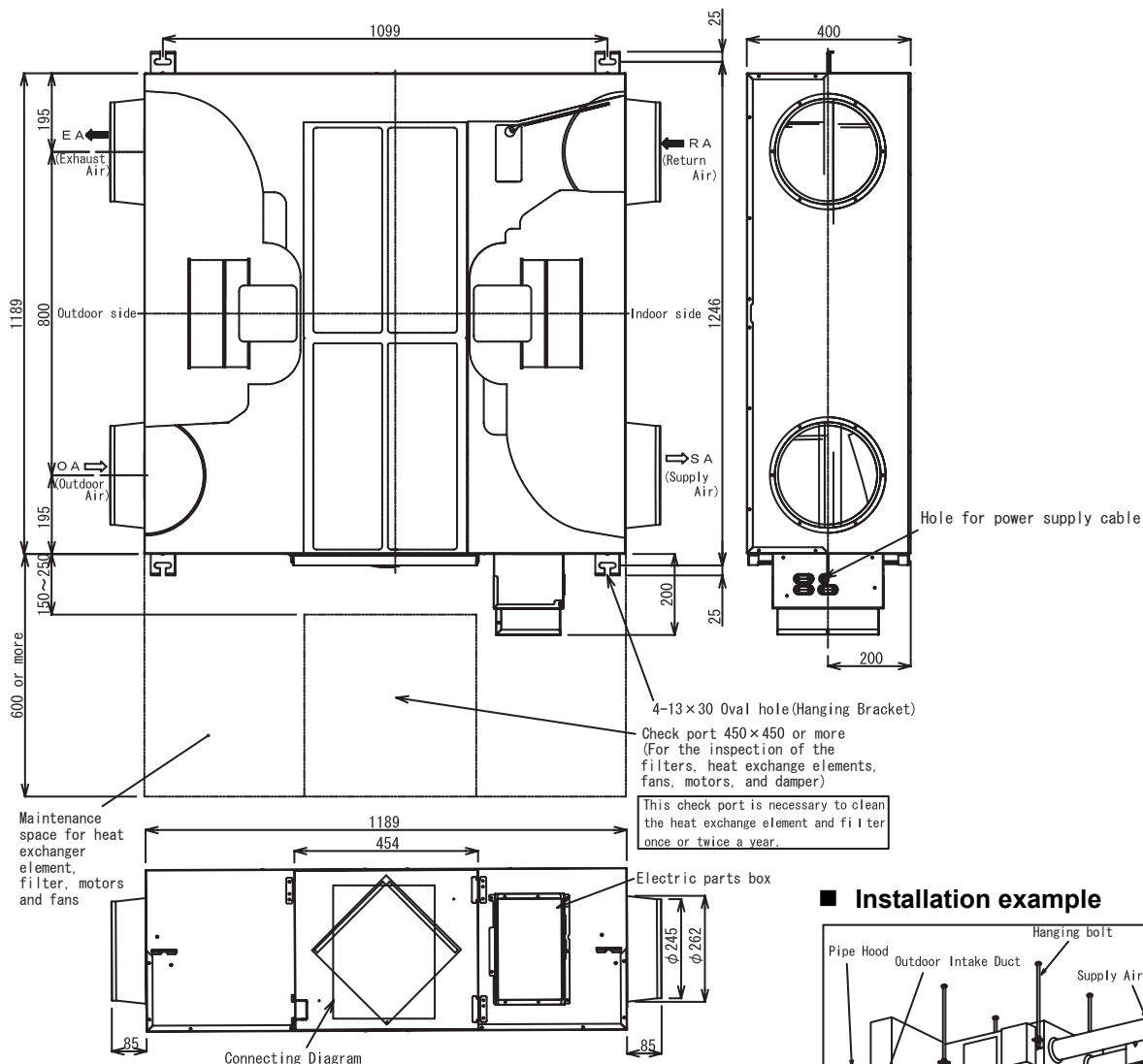
■ Attention

1. The two outdoor ducts (the Outdoor air Duct and the Exhaust air Duct) must be insulated to prevent condensation (Material: Glass wool, Thickness: 25 mm)
2. It is recommended that you use an electric damper together with the Air to Air Heat Exchanger, as wind may enter the room while the unit is not in operation in the cold or windy region.
3. As shown in the psychrometric chart, Point A is suction air condition in high temperature, Point B is discharge air condition in low temperature and Point C is the air condition that exchanged heat. If C is located at the left of the saturation curve as shown, it is dewed or frosted in the heat exchanger element of the unit. In this case to prevent the dew or frost, be sure to heat B up to B' for making C C' (right side of saturation curve).

■ Installation example



VN-M800HE, VN-M1000HE



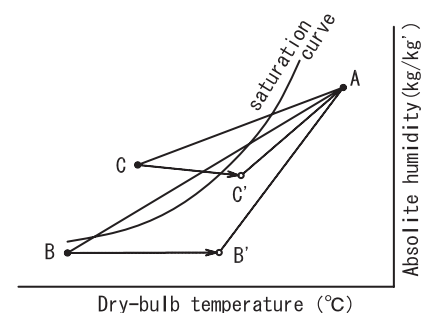
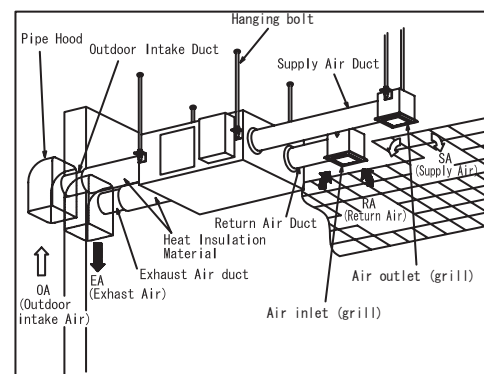
■ Attention

1. Duct size (Nominal Diameter): $\phi 250$
2. The above dimensions do not include the thickness (5 mm) of the insulation material on the unit body.

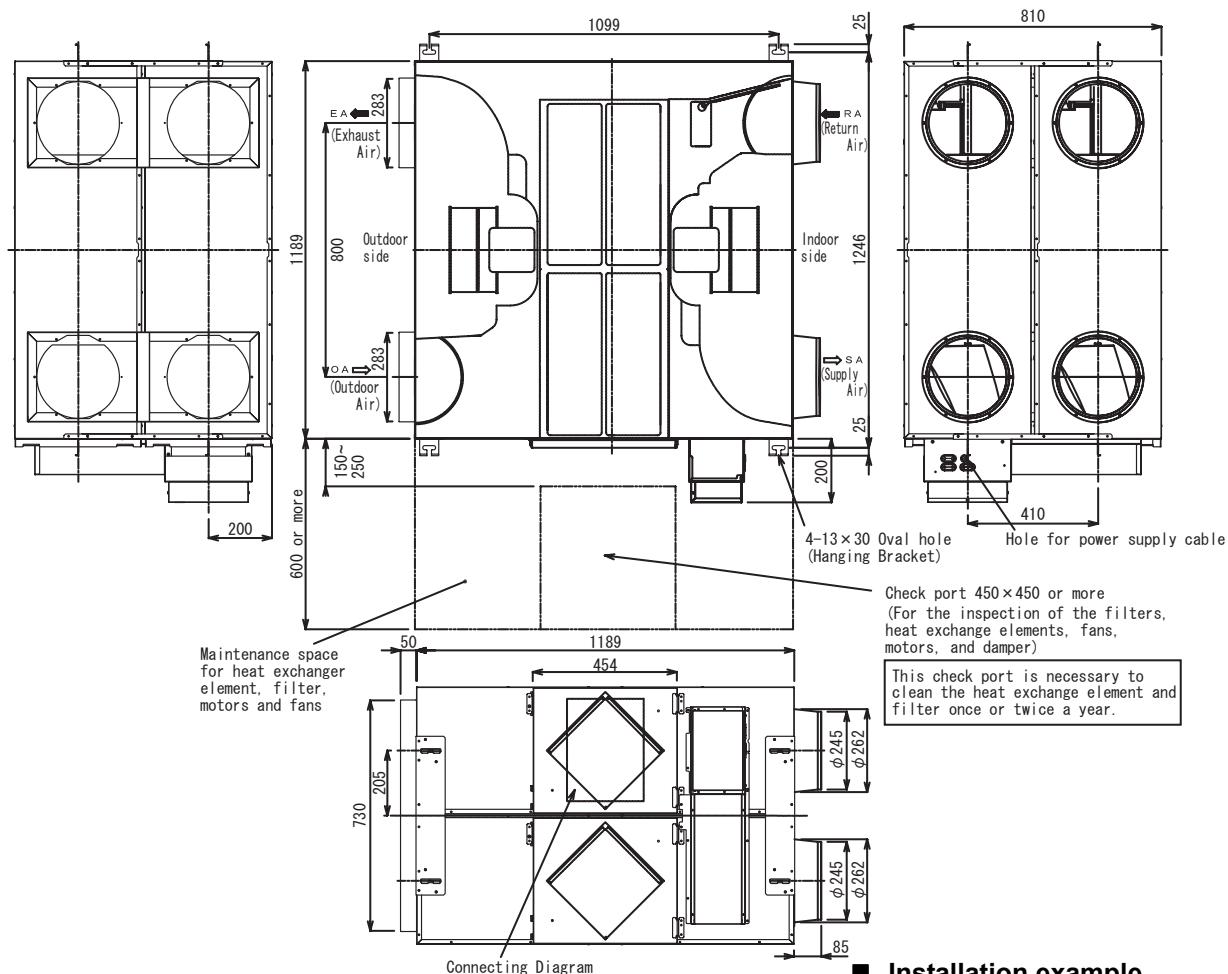
■ Attention

1. The two outdoor ducts (the Outdoor air Duct and the Exhaust air Duct) must be insulated to prevent condensation (Material: Glass wool, Thickness: 25 mm)
2. It is recommended that you use an electric damper together with the Air to Air Heat Exchanger, as wind may enter the room while the unit is not in operation in the cold or windy region.
3. As shown in the psychrometric chart, Point A is suction air condition in high temperature, Point B is discharge air condition in low temperature and Point C is the air condition that exchanged heat. If C is located at the left of the saturation curve as shown, it is dewed or frosted in the heat exchanger element of the unit. In this case to prevent the dew or frost, be sure to heat B up to B' for making C C' (right side of saturation curve).

■ Installation example



VN-M1500HE, VN-M2000HE



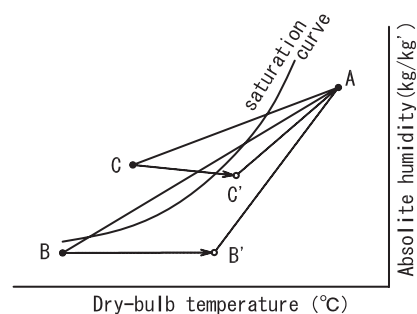
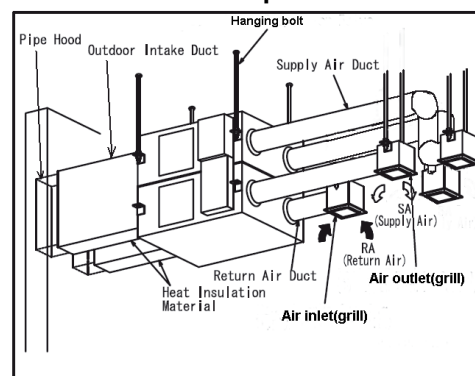
■ Attention

1. Duct size (Nominal Diameter) Indoor side: $\phi 250$
Outdoor side: 283x730
2. The above dimensions do not include the thickness (5 mm) of the insulation material on the unit body.

■ Attention

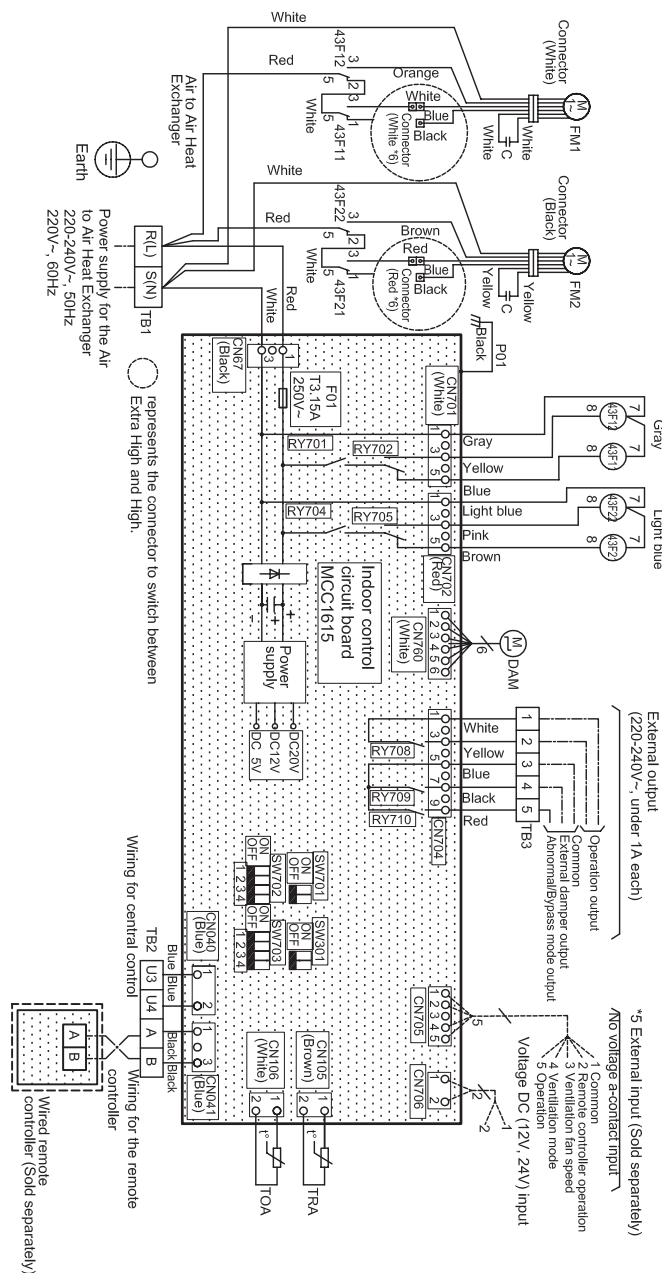
1. The two outdoor ducts (the Outdoor air Duct and the Exhaust air Duct) must be insulated to prevent condensation (Material: Glass wool, Thickness: 25 mm)
2. It is recommended that you use an electric damper together with the Air to Air Heat Exchanger, as wind may enter the room while the unit is not in operation in the cold or windy region.
3. As shown in the psychrometric chart, Point A is suction air condition in high temperature, Point B is discharge air condition in low temperature and Point C is the air condition that exchanged heat. If C is located at the left of the saturation curve as shown, it is dewed or frosted in the heat exchanger element of the unit. In this case to prevent the dew or frost, be sure to heat B up to B' for making C C' (right side of saturation curve).

■ Installation example



3. Wiring diagram

VN-M150HE, VN-M250HE, VN-M350HE, VN-M500HE, VN-M650HE, VN-M800HE, VN-M1000HE



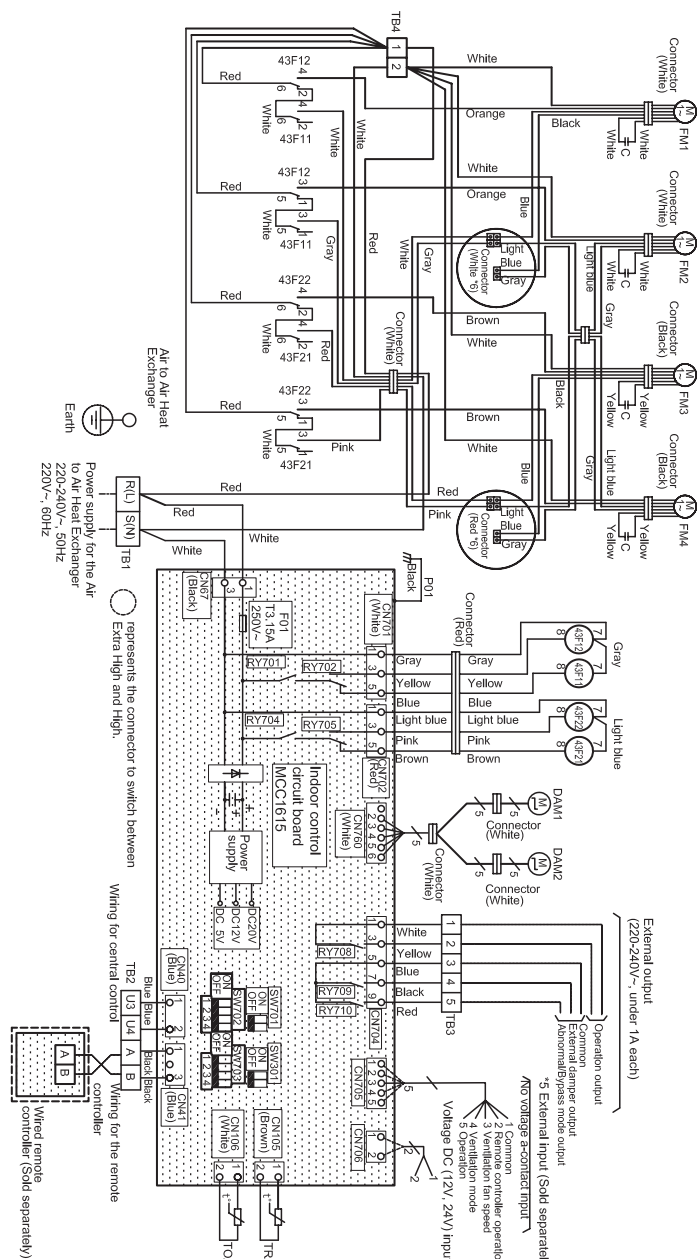
Code	Part name
CN***	Connector
F01	Fuse
FM1	Air supplying motor
FM2	Air exhausting motor
DAM	Damper motor
TRA	TRA sensor

Code	Part name
TOA	TOA sensor
RY701, RY702	Relay for air supplying motor
RY704, RY705	Relay for air exhausting motor
TB1	Terminal block (power supply)
TB2	Terminal block (communication)
TB3	Terminal block (external output)

Code	Part name
SW301, SW701 SW702, SW703	DIP switch
43F11, 43F12	Relay for air supplying motor
43F21, 43F22	Relay for air exhausting motor

- The dotted line represents a wire procured locally, and the dashed line represents an option sold separately.
- represents a terminal block, —○— represents a connection terminal, and ○ represents a connector on the printed circuit board.
- ⊕ represents a protective earth.
- PCB represents a printed circuit board.
- Using a no voltage a-contact input of the external input (Sold separately), the following operations are available:
 - Between 1 and 2: Selecting the remote controller operation (Invalid/Valid)
 - Between 1 and 3: Adjusting the ventilation fan speed (Low/High)
 - Between 1 and 4: Selecting the ventilation mode (Bypass mode/Heat exchange mode)
 - Between 1 and 5: Operation (ON/OFF)
 Use a microcurrent contact (DC12V, 1mA). In addition, ON/OFF operation is possible when using a voltage of DC12V or 24V.
- Blue wire (High) is connected as factory default. To switch to "Extra High", connect black wire's connector instead of blue.
- When the temperature of the outdoor air is below -10°C, the unit runs in the cold mode (the ventilator for air supply runs intermittently). The unit cannot run when the temperature of the outdoor air is below -15°C. The ventilator for air supply stops running and the ventilator for air exhaust also stops depending on the settings.
- Even if "Bypass mode" is selected manually, the unit switches to "Heat exchange mode" automatically to prevent condensation when the temperature of the outdoor air is below 15°C. However, "Bypass mode" is still displayed.

VN-M1500HE, VN-M2000HE



Code	Part name
CN***	Connector
F01	Fuse
FM1, FM3	Air supplying motor
FM2, FM4	Air exhausting motor
DAM1, DAM2	Damper motor
TRA	TRA sensor

Code	Part name
TOA	TOA sensor
RY701, RY702	Relay for air supplying motor
RY704, RY705	Relay for air exhausting motor
TB1	Terminal block (power supply)
TB2	Terminal block (communication)
TB3	Terminal block (external output)

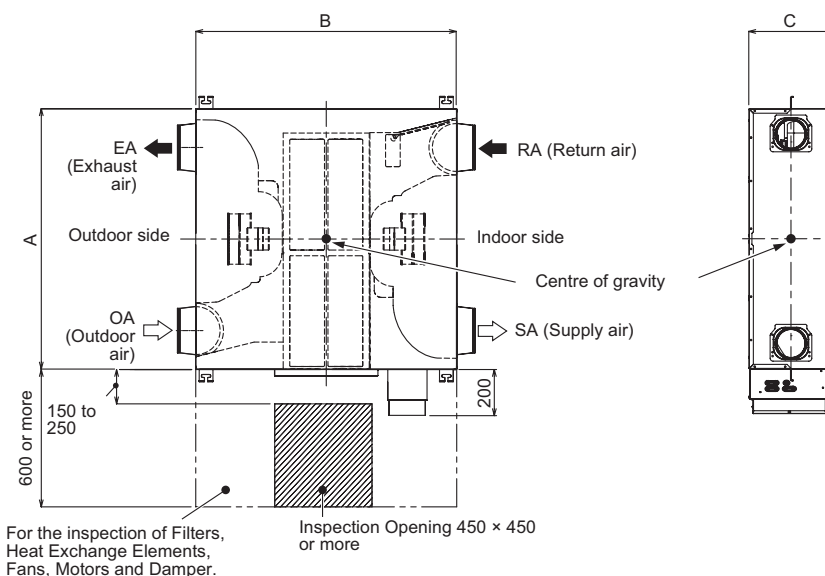
Code	Part name
TB4	Terminal block
SW301, SW701	DIP switch
SW702, SW703	DIP switch
43F11, 43F12	Relay for air supplying motor
43F21, 43F22	Relay for air exhausting motor

- The dotted line represents a wire procured locally, and the dashed line represents an option sold separately.
- represents a terminal block, —○— represents a connection terminal, and □ represents a connector on the printed circuit board.
- ⊕ represents a protective earth.
- represents a printed circuit board.
- Using a no voltage a-contact input of the external input (Sold separately), the following operations are available:
 - Between 1 and 2: Selecting the remote controller operation (Invalid/Valid)
 - Between 1 and 3: Adjusting the ventilation fan speed (Low/High)
 - Between 1 and 4: Selecting the ventilation mode (Bypass mode/Heat exchange mode)
 - Between 1 and 5: Operation (ON/OFF)
 Use a microcurrent contact (DC12V, 1mA). In addition, ON/OFF operation is possible when using a voltage of DC12V or 24V.
- Blue wire (High) is connected as factory default. To switch to "Extra High", connect black wire's connector instead of blue.
- When the temperature of the outdoor air is below -10°C, the unit runs in the cold mode (the ventilator for air supply runs intermittently). The unit cannot run when the temperature of the outdoor air is below -15°C. The ventilator for air supply stops running and the ventilator for air exhaust also stops depending on the settings.
- Even if "Bypass mode" is selected manually, the unit switches to "Heat exchange mode" automatically to prevent condensation when the temperature of the outdoor air is below 15°C. However, "Bypass mode" is still displayed.

4. Center of gravity

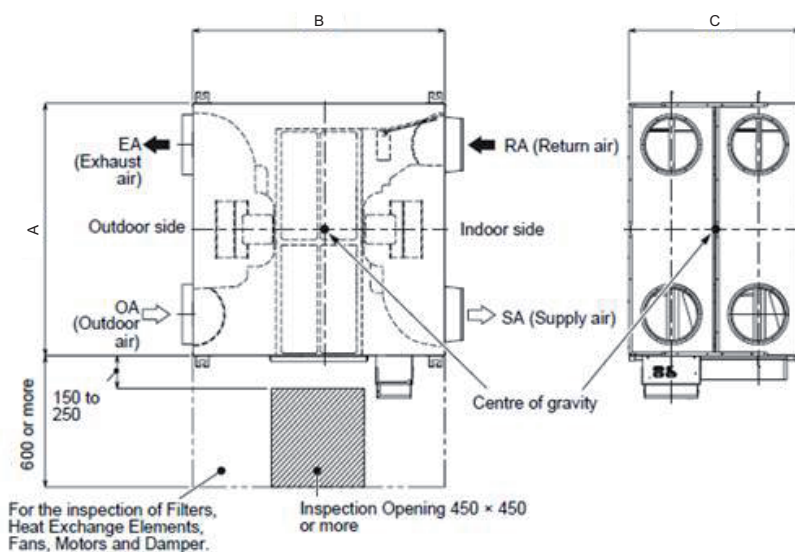
VN-M150 to 1000HE

Unit: mm



VN-M1500 and 2000HE

Unit: mm



Model Name	A (mm)	B (mm)	C (mm)	Weight (kg)	Heat exchange element
VN-M150HE, M250HE	900	900	290	36	2
VN-M350HE	900	900	290	38	2
VN-M500HE, M650HE	1140	1140	350	53	2
VN-M800HE, M1000HE	1189	1189	400	70	2
VN-M1500HE, M2000HE	1189	1189	810	143	4

5. Electrical characteristics

	Model	Nominal Voltage (V-Ph-Hz)	Voltage Range		Fan Motor		Power Supply	
			Min	Max	kW	FLA	MCA	MOCP
50Hz	VN-M150HE	220-1-50	198	242	0.013 x 2	0.28	0.32	15
		230-1-50	207	253	0.014 x 2	0.29	0.33	15
		240-1-50	216	264	0.017 x 2	0.31	0.33	15
	VN-M250HE	220-1-50	198	242	0.024 x 2	0.56	0.61	15
		230-1-50	207	253	0.025 x 2	0.59	0.63	15
		240-1-50	216	264	0.024 x 2	0.58	0.65	15
	VN-M350HE	220-1-50	198	242	0.055 x 2	0.75	0.81	15
		230-1-50	207	253	0.057 x 2	0.78	0.82	15
		240-1-50	216	264	0.058 x 2	1.01	0.82	15
	VN-M500HE	220-1-50	198	242	0.069 x 2	1.12	1.19	15
		230-1-50	207	253	0.072 x 2	1.17	1.21	15
		240-1-50	216	264	0.076 x 2	1.28	1.23	15
	VN-M650HE	220-1-50	198	242	0.078 x 2	1.29	1.37	15
		230-1-50	207	253	0.081 x 2	1.35	1.39	15
		240-1-50	216	264	0.092 x 2	1.49	1.41	15
	VN-M800HE	220-1-50	198	242	0.123 x 2	2.06	2.15	15
		230-1-50	207	253	0.129 x 2	2.15	2.19	15
		240-1-50	216	264	0.137 x 2	2.26	2.23	15
	VN-M1000HE	220-1-50	198	242	0.170 x 2	2.76	2.89	15
		230-1-50	207	253	0.178 x 2	2.88	2.92	15
		240-1-50	216	264	0.204 x 2	3.19	2.94	15
	VN-M1500HE	220-1-50	198	242	0.123 x 4	4.08	4.30	15
		230-1-50	207	253	0.129 x 4	4.26	4.30	15
		240-1-50	216	264	0.137 x 4	4.66	4.30	15
	VN-M2000HE	220-1-50	198	242	0.170 x 4	5.32	5.60	15
		230-1-50	207	253	0.178 x 4	5.56	5.60	15
		240-1-50	216	264	0.204 x 4	6.39	5.60	15
60Hz	VN-M150HE	220-1-60	198	242	0.018 x 2	0.32	0.36	15
	VN-M250HE	220-1-60	198	242	0.025 x 2	0.61	0.65	15
	VN-M350HE	220-1-60	198	242	0.061 x 2	1.05	1.09	15
	VN-M500HE	220-1-60	198	242	0.079 x 2	1.34	1.38	15
	VN-M650HE	220-1-60	198	242	0.096 x 2	1.55	1.59	15
	VN-M800HE	220-1-60	198	242	0.143 x 2	2.36	2.40	15
	VN-M1000HE	220-1-60	198	242	0.213 x 2	3.33	3.37	15
	VN-M1500HE	220-1-60	198	242	0.143 x 4	4.86	4.90	15
	VN-M2000HE	220-1-60	198	242	0.213 x 4	6.66	6.70	15



Fan Motor : 2(4)pcs/unit

MCA :Minimum Circuit Amps

MOCP :Maximum Overcurrent Protection (Amps)

FLA :Full Load Amps

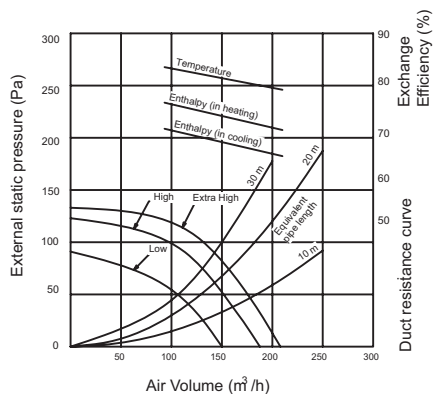
kW :Fan Motor Reated Output

6. Fan characteristics

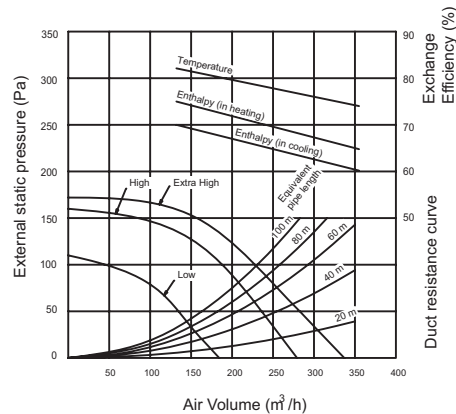
(220V~, 50Hz)

P-Q Curve * When friction coefficient of pipe (duct) : $\lambda = 0.02$

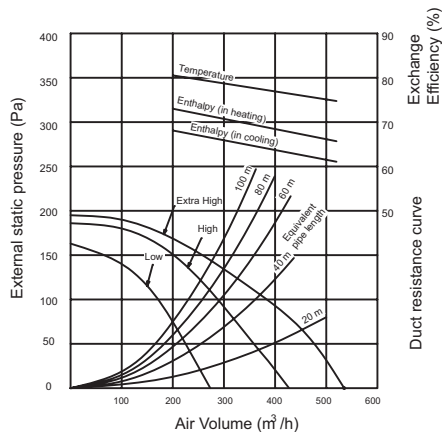
VN-M150HE



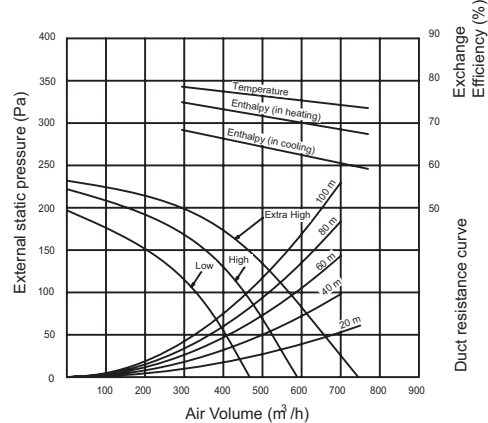
VN-M250HE



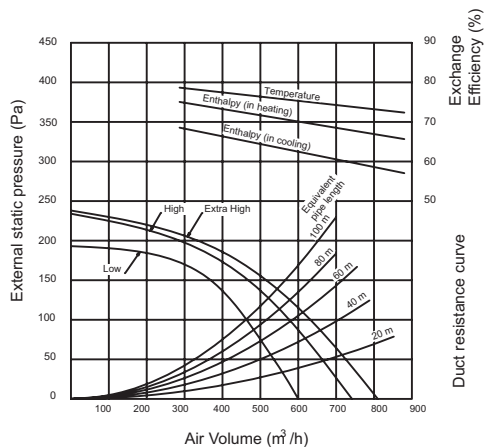
VN-M350HE



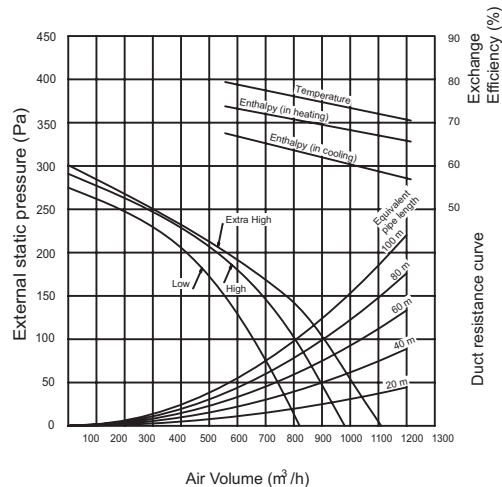
VN-M500HE



VN-M650HE



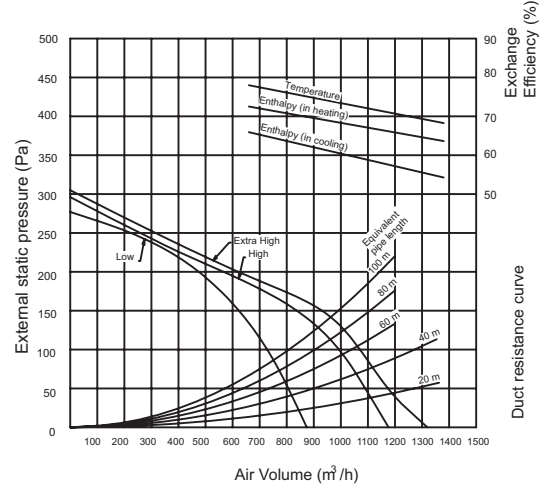
VN-M800HE



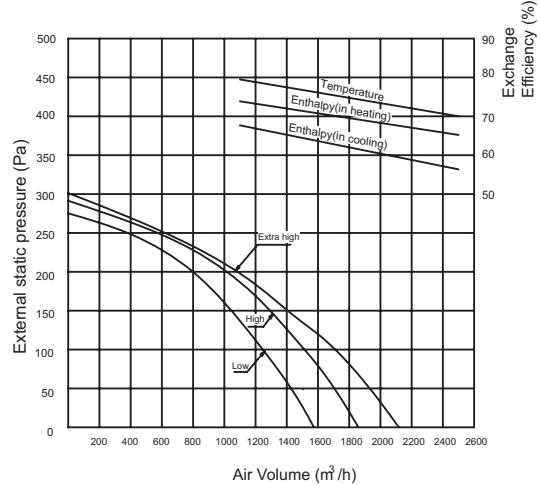
(220V~, 50Hz)

P-Q Curve * When friction coefficient of pipe (duct) : $\lambda = 0.02$

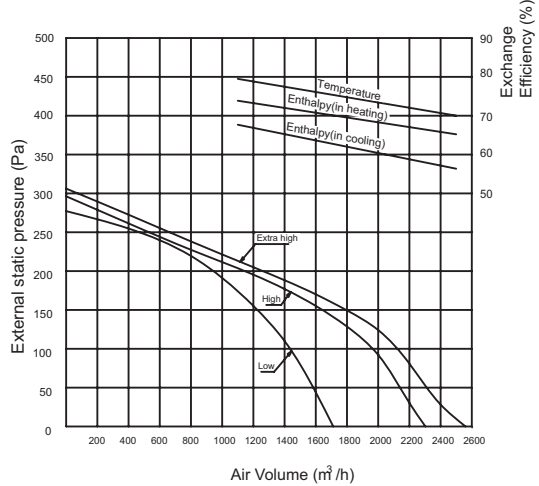
VN-M1000HE



VN-M1500HE



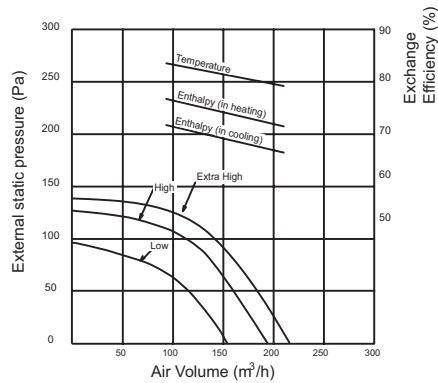
VN-M2000HE



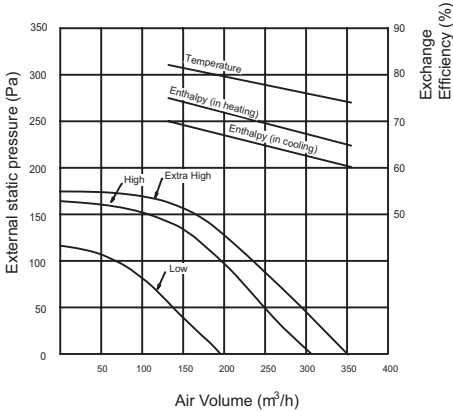
(230V~, 50Hz)

P-Q Curve * When friction coefficient of pipe (duct) : $\lambda = 0.02$

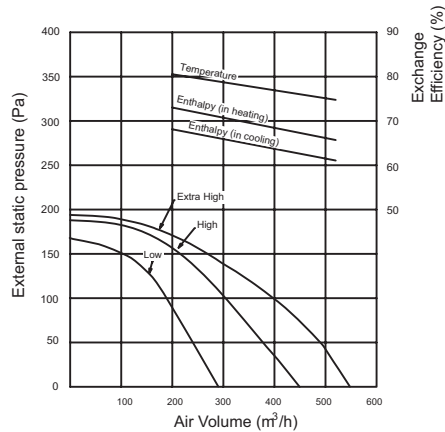
VN-M150HE



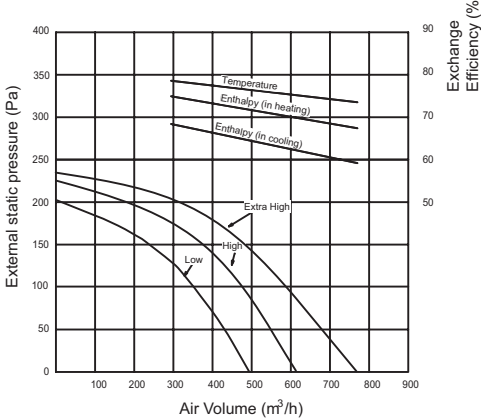
VN-M250HE



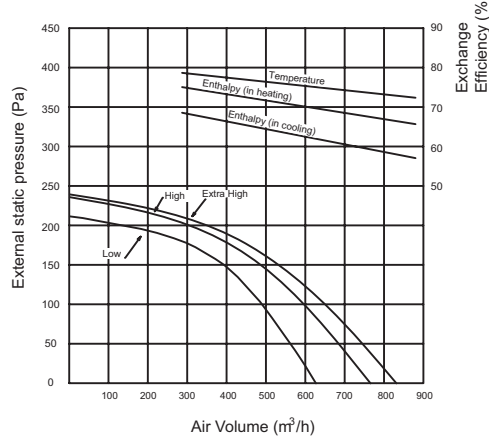
VN-M350HE



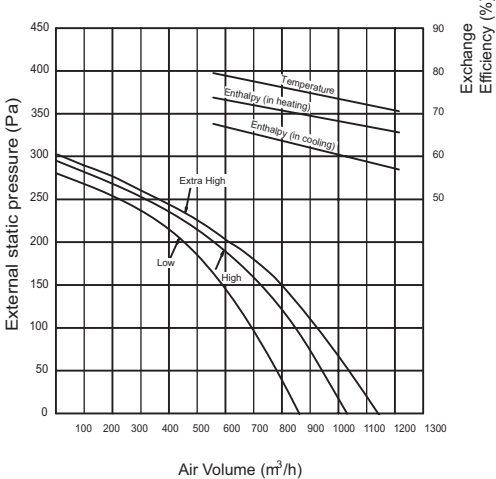
VN-M500HE



VN-M650HE



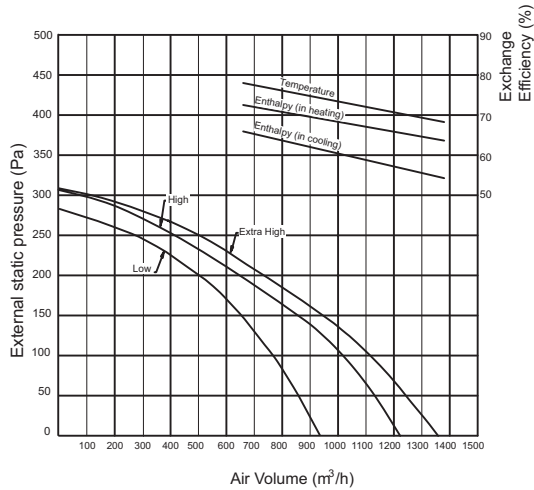
VN-M800HE



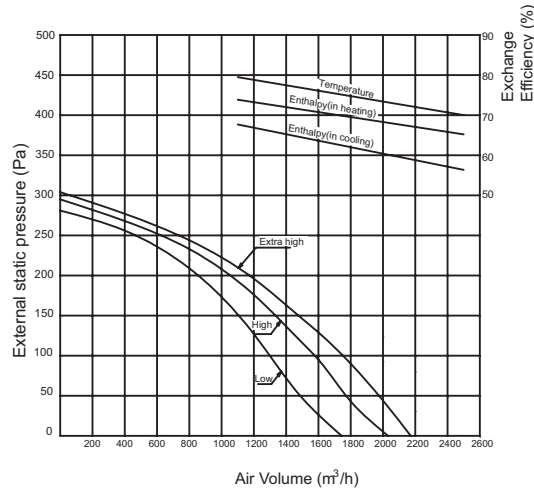
(230V~, 50Hz)

P-Q Curve * When friction coefficient of pipe (duct) : $\lambda = 0.02$

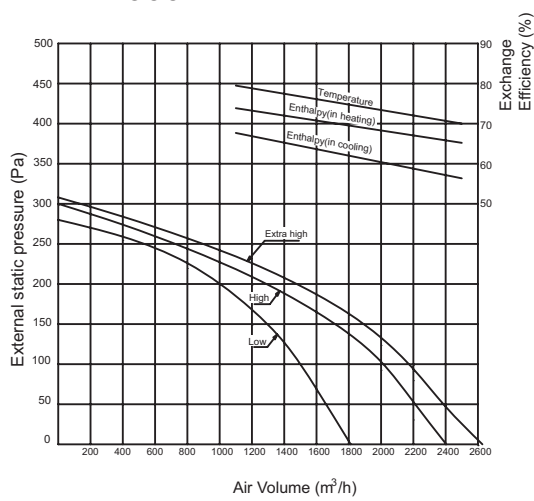
VN-M1000HE



VN-M1500HE



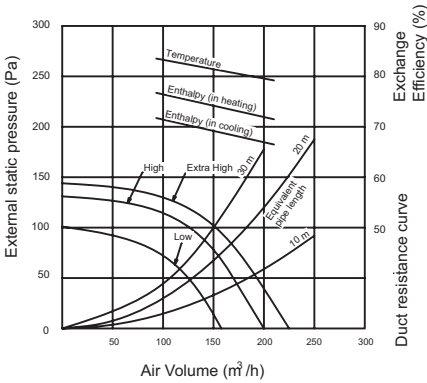
VN-M2000HE



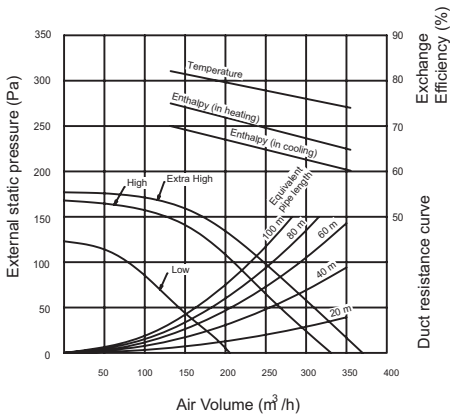
(240V~, 50Hz)

P-Q Curve * When friction coefficient of pipe (duct) : $\lambda = 0.02$

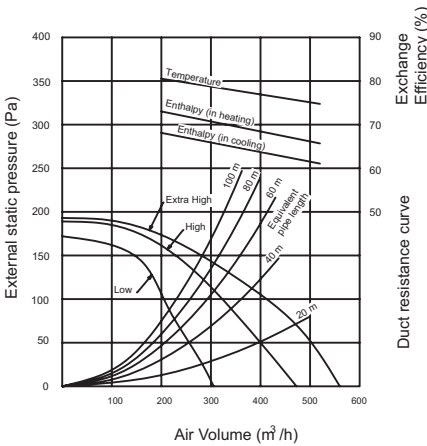
VN-M150HE



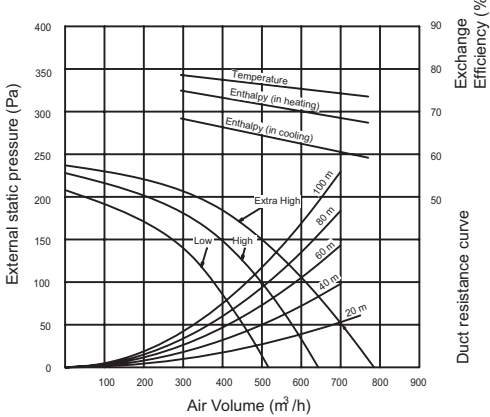
VN-M250HE



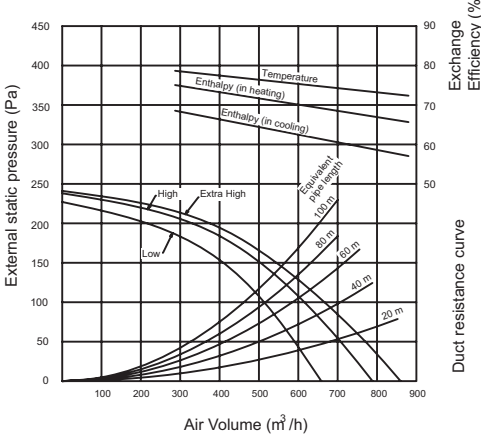
VN-M350HE



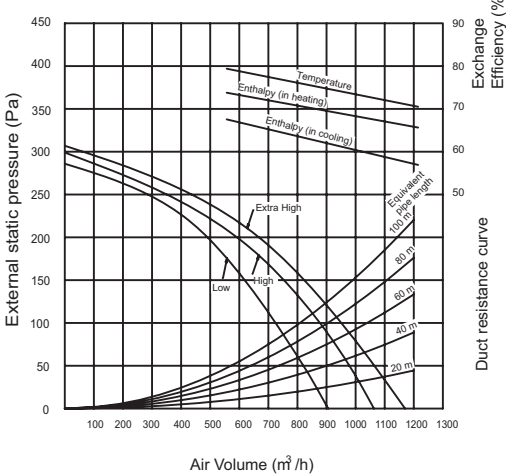
VN-M500HE



VN-M650HE



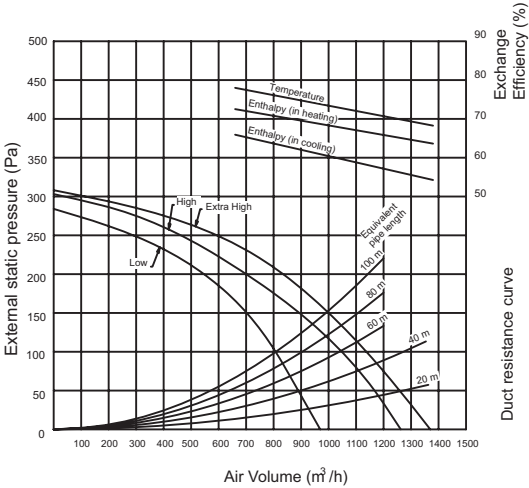
VN-M800HE



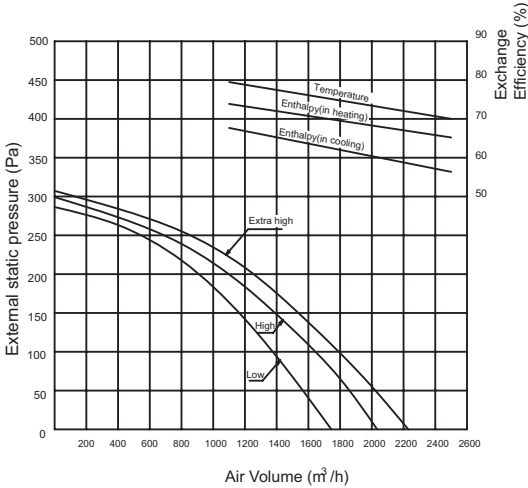
(240V~, 50Hz)

P-Q Curve * When friction coefficient of pipe (duct) : $\lambda = 0.02$

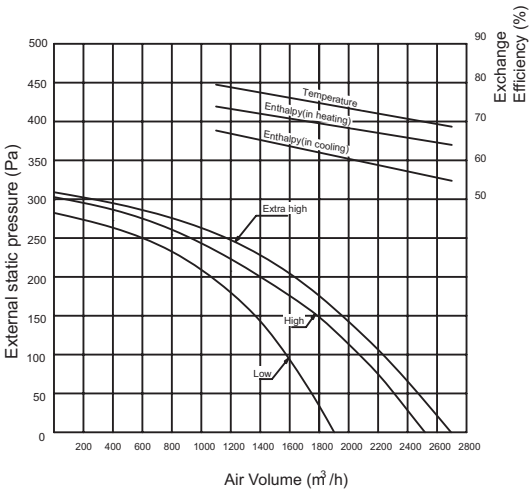
VN-M1000HE



VN-M1500HE



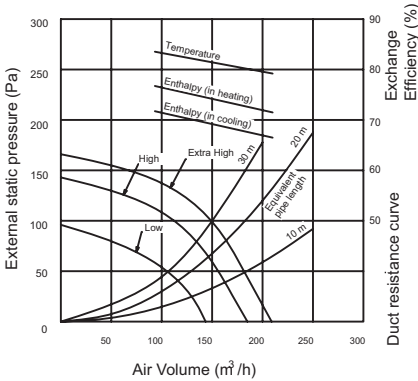
VN-M2000HE



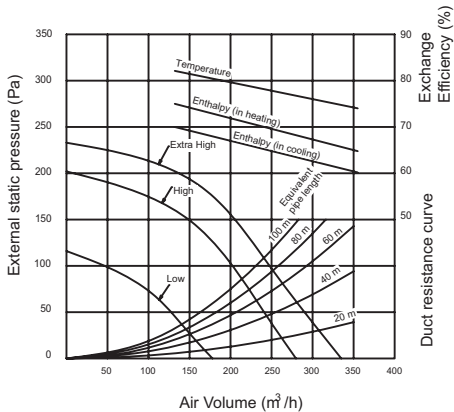
(220V~, 60Hz)

P-Q Curve * When friction coefficient of pipe (duct) : $\lambda = 0.02$

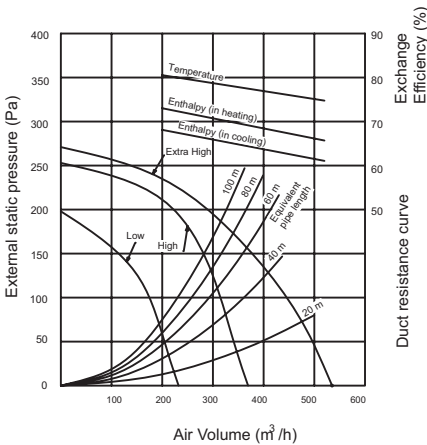
VN-M150HE



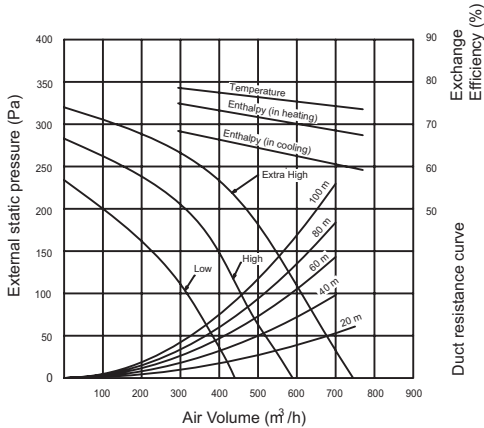
VN-M250HE



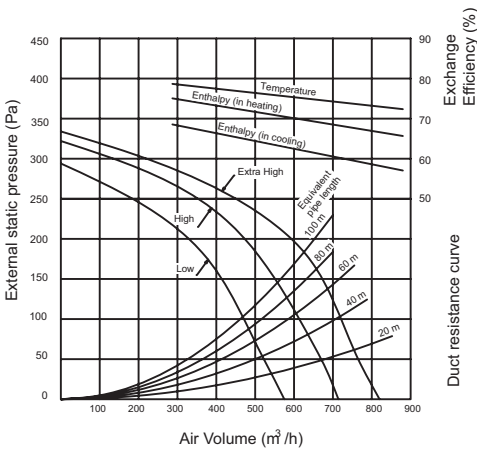
VN-M350HE



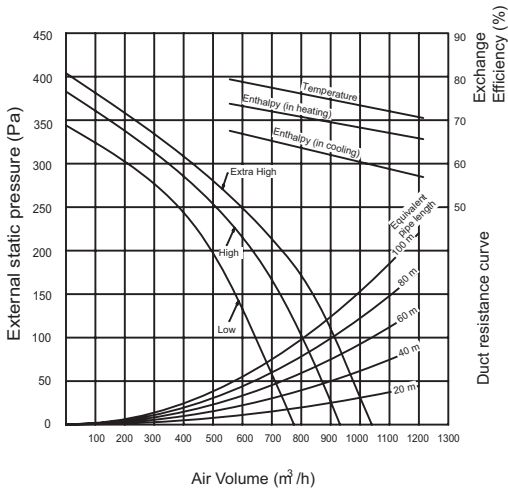
VN-M500HE



VN-M650HE



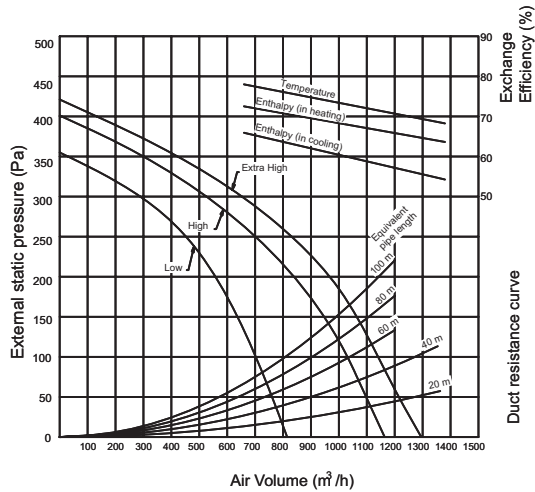
VN-M800HE



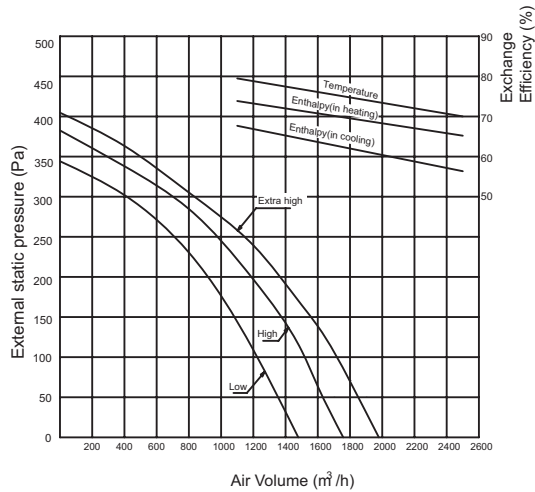
(220V~, 60Hz)

P-Q Curve * When friction coefficient of pipe (duct) : $\lambda = 0.02$

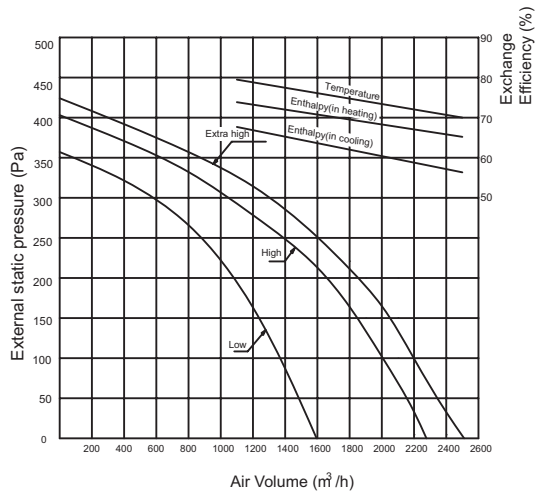
VN-M1000HE



VN-M1500HE

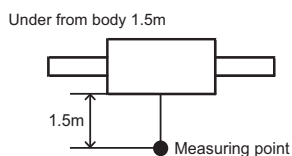


VN-M2000HE

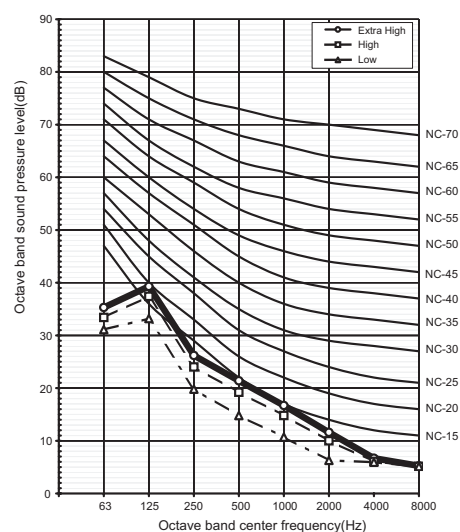


7. Sound characteristics (NC curve)

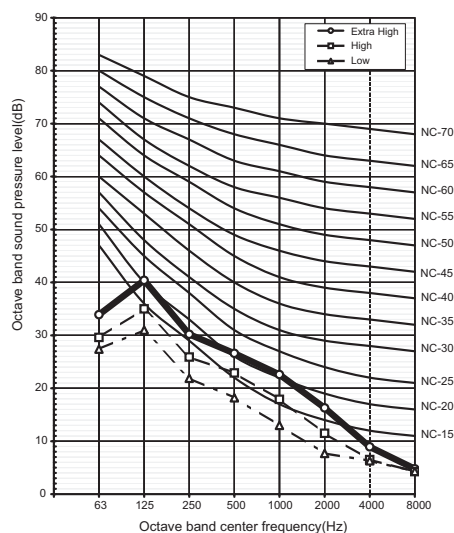
(220V~, 50Hz)



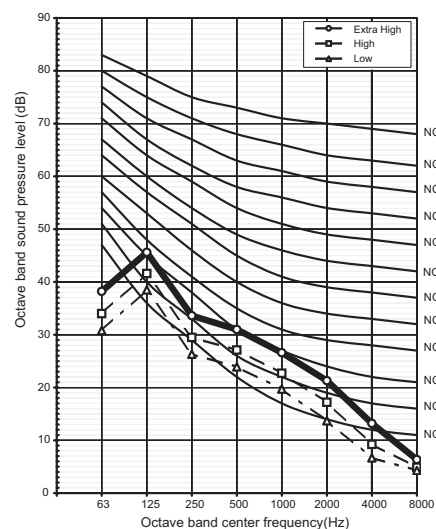
VN-M150HE



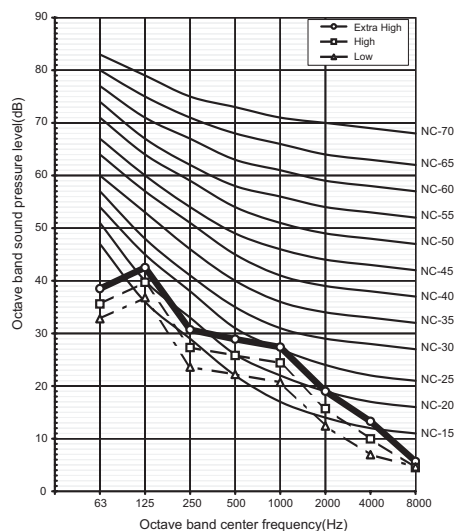
VN-M250HE



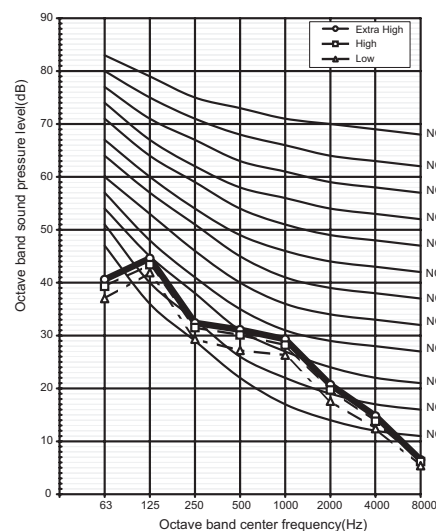
VN-M350HE



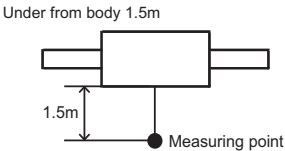
VN-M500HE



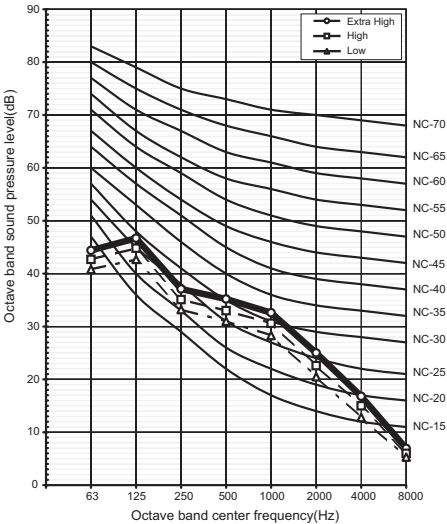
VN-M650HE



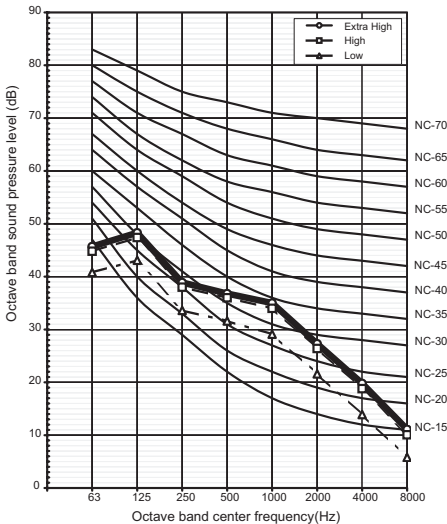
(220V~, 50Hz)



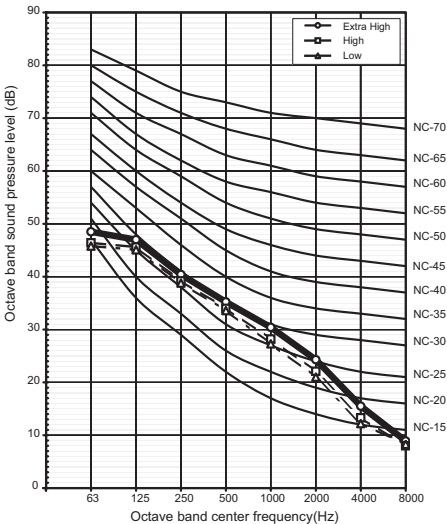
VN-M800HE



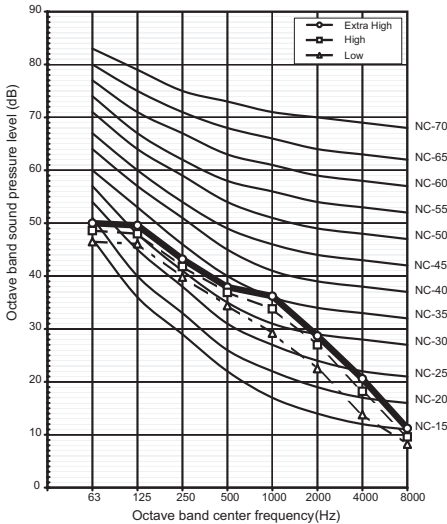
VN-M1000HE



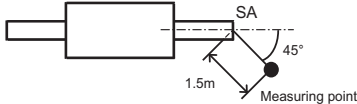
VN-M1500HE



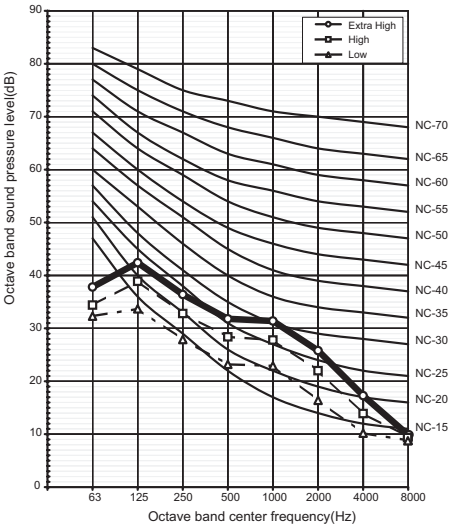
VN-M2000HE



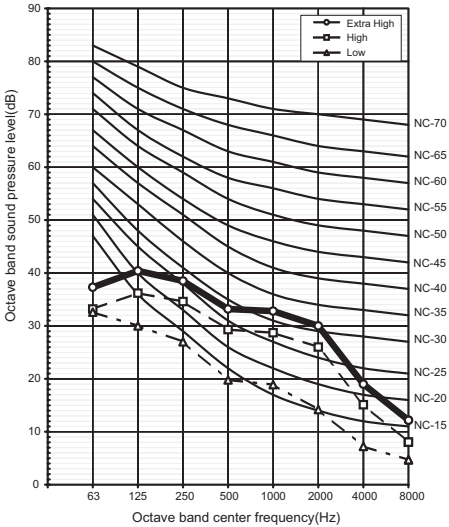
(220V~, 50Hz)



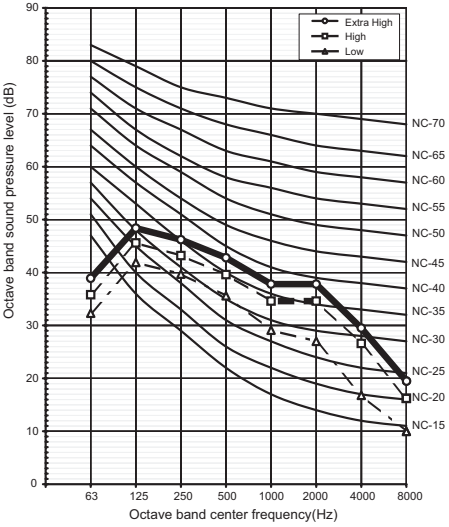
VN-M150HE



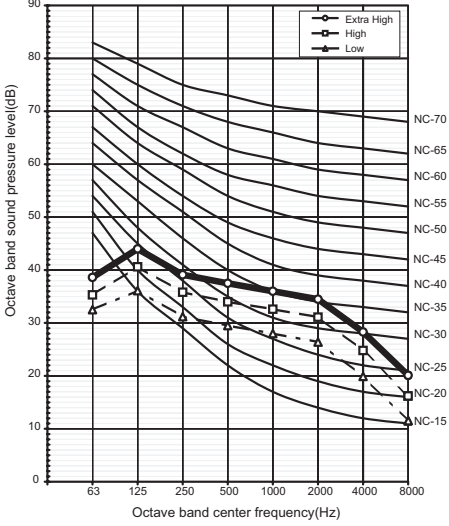
VN-M250HE



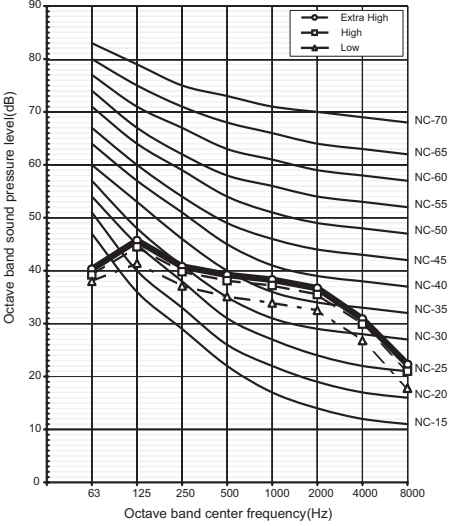
VN-M350HE



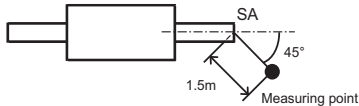
VN-M500HE



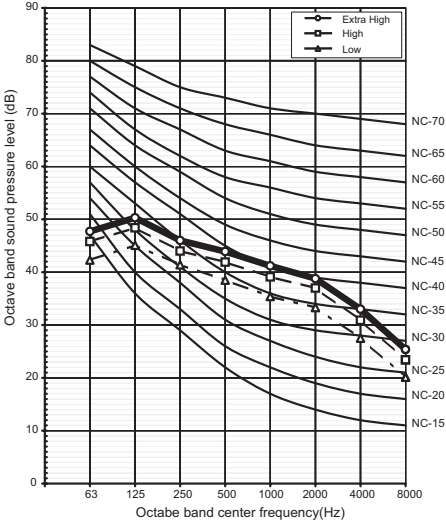
VN-M650HE



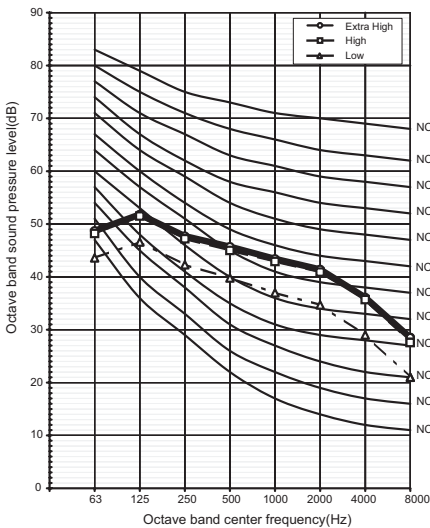
(220V~, 50Hz)



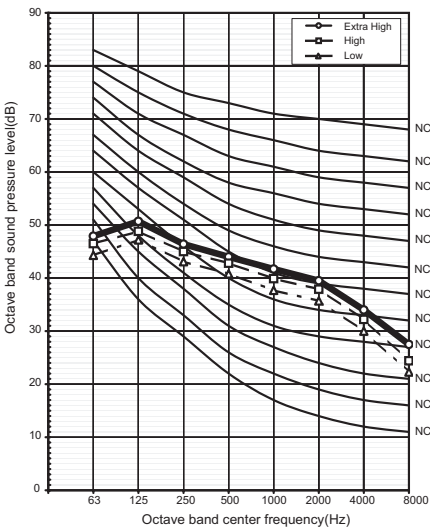
VN-M800HE



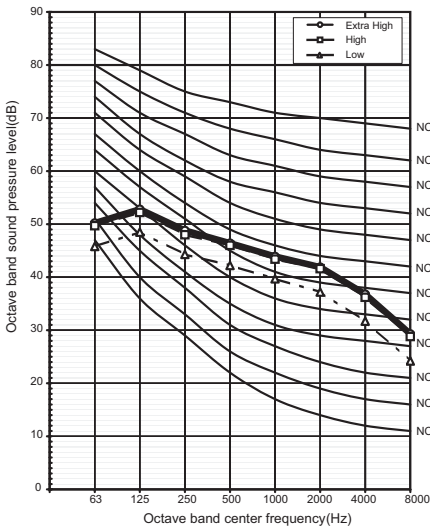
VN-M1000HE



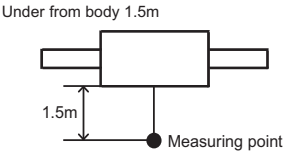
VN-M1500HE



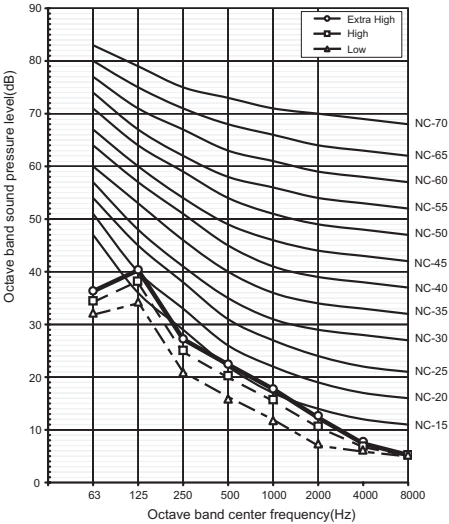
VN-M2000HE



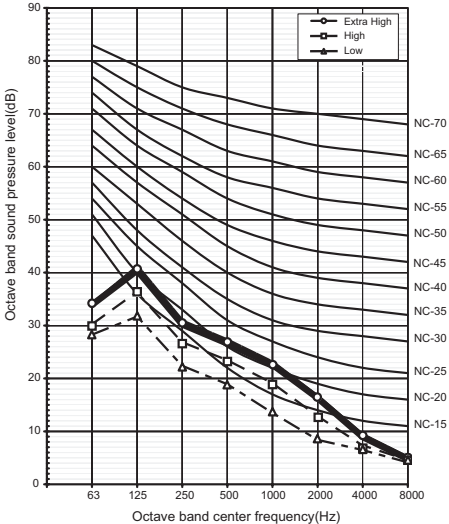
(230V~, 50Hz)



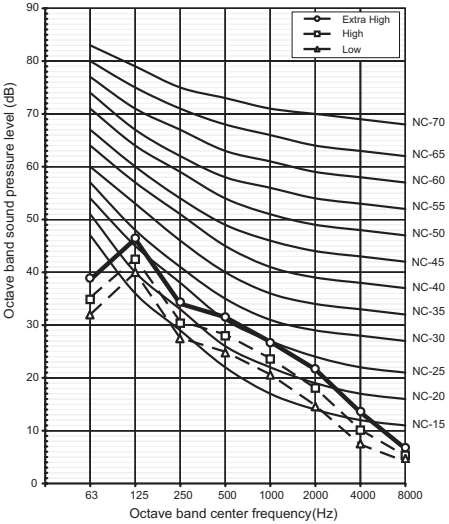
VN-M150HE



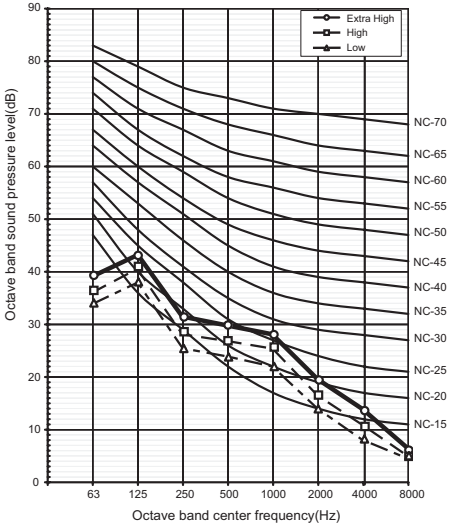
VN-M250HE



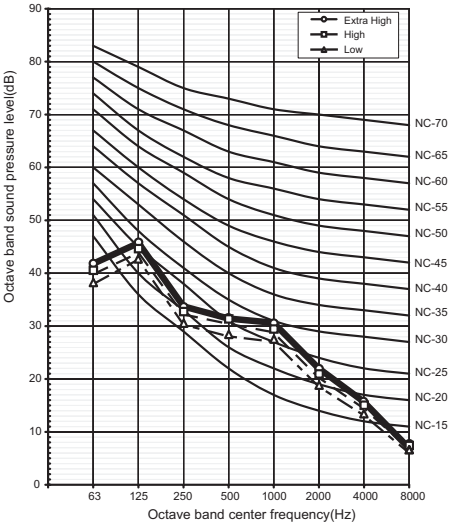
VN-M350HE



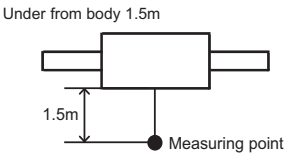
VN-M500HE



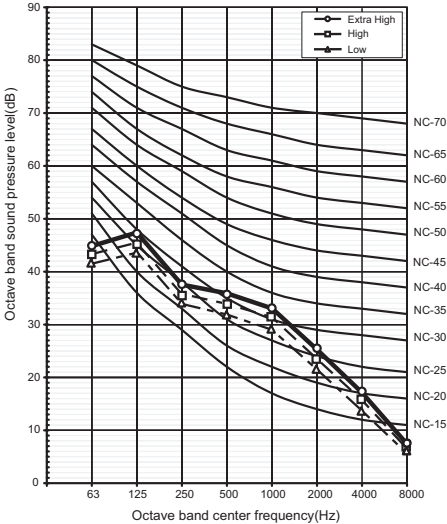
VN-M650HE



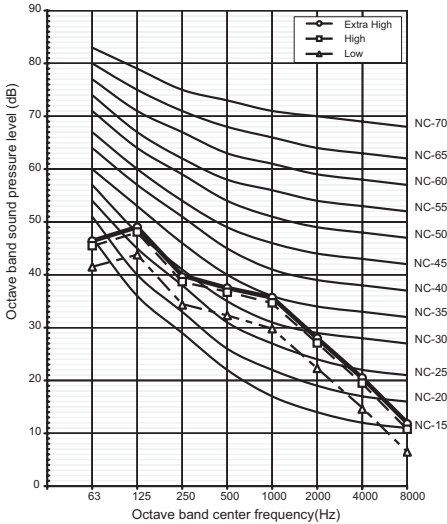
(230V~, 50Hz)



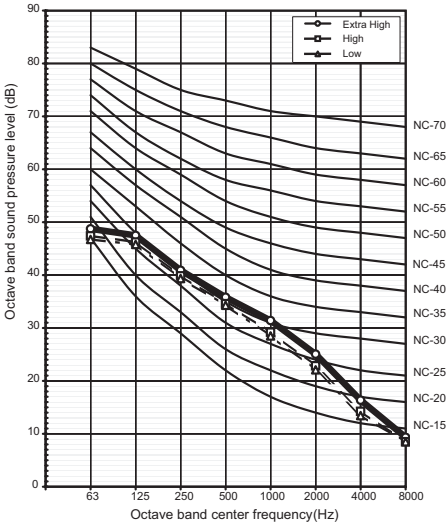
VN-M800HE



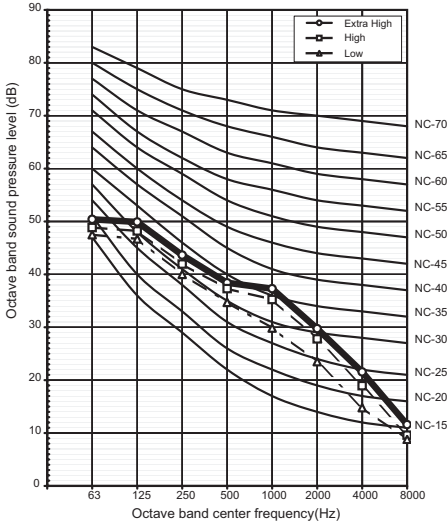
VN-M1000HE



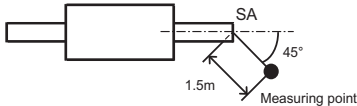
VN-M1500HE



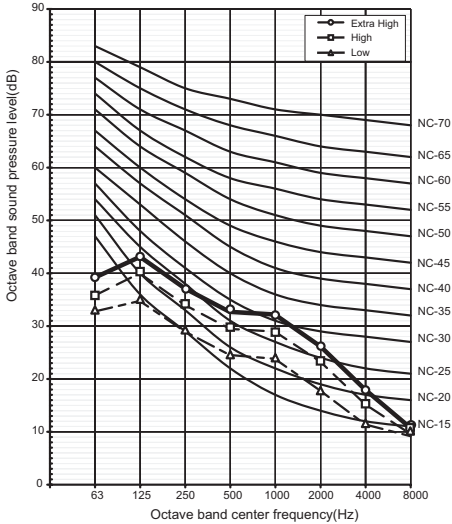
VN-M2000HE



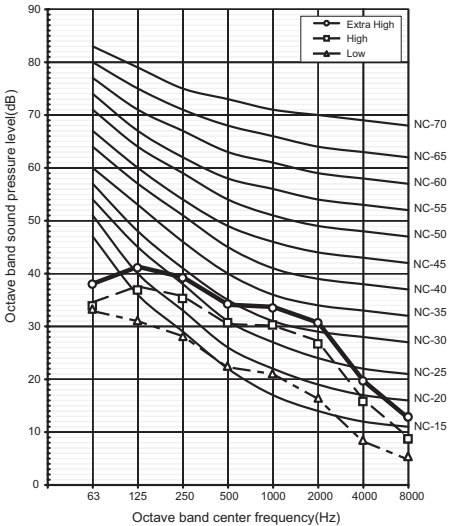
(230V~, 50Hz)



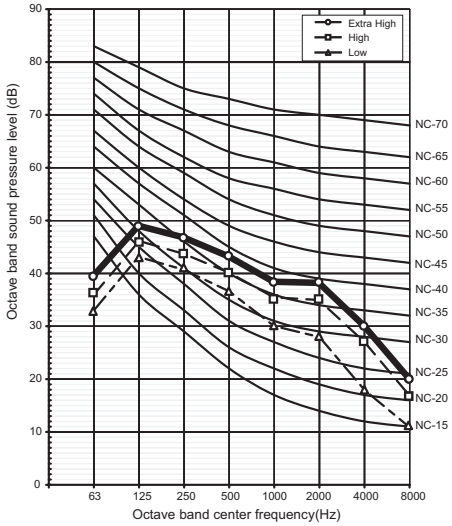
VN-M150HE



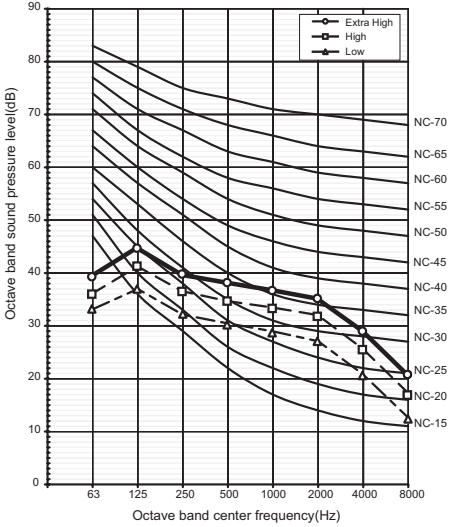
VN-M250HE



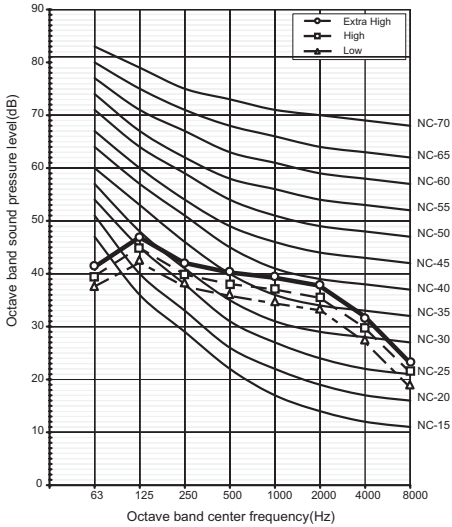
VN-M350HE



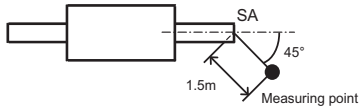
VN-M500HE



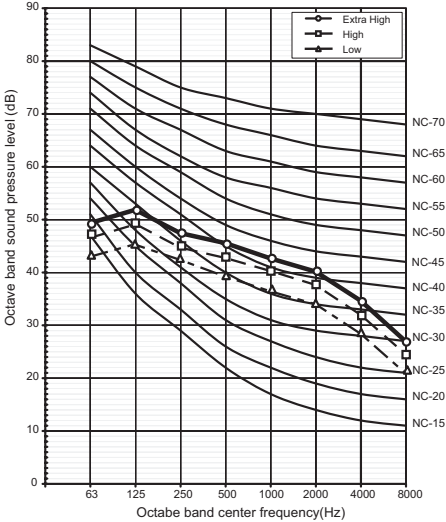
VN-M650HE



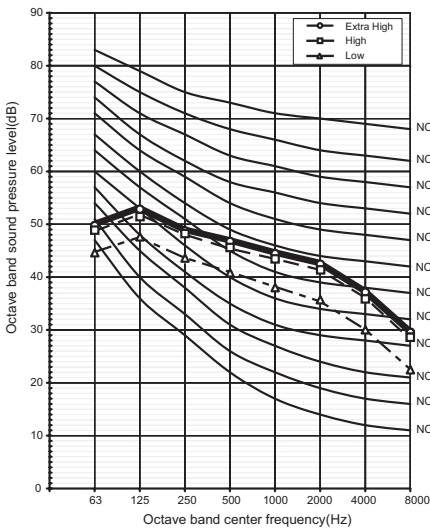
(230V~, 50Hz)



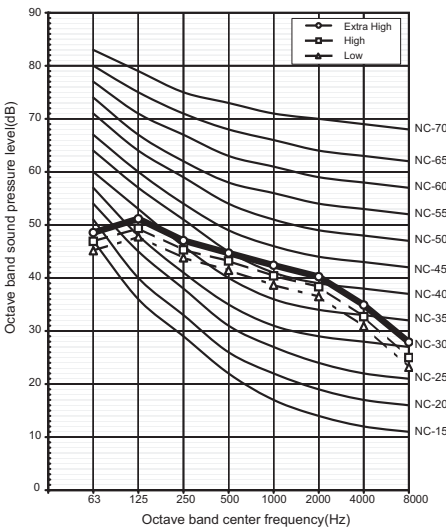
VN-M800HE



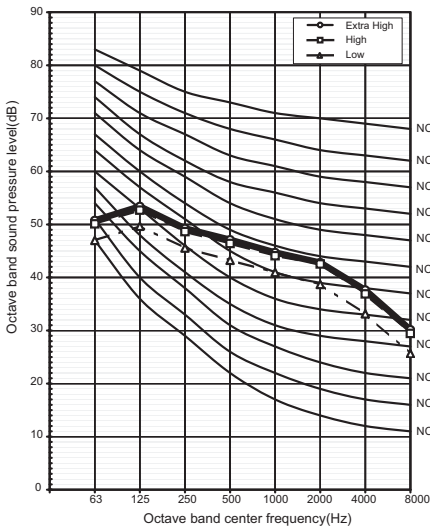
VN-M1000HE



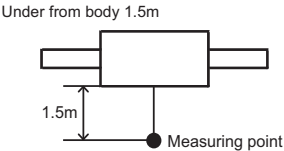
VN-M1500HE



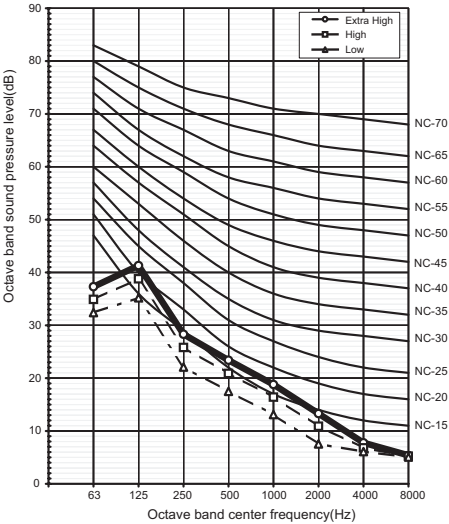
VN-M2000HE



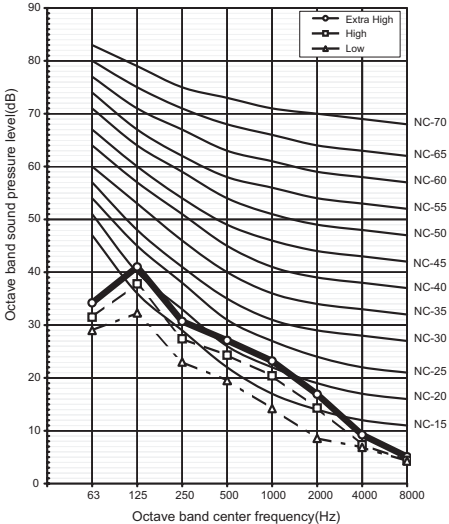
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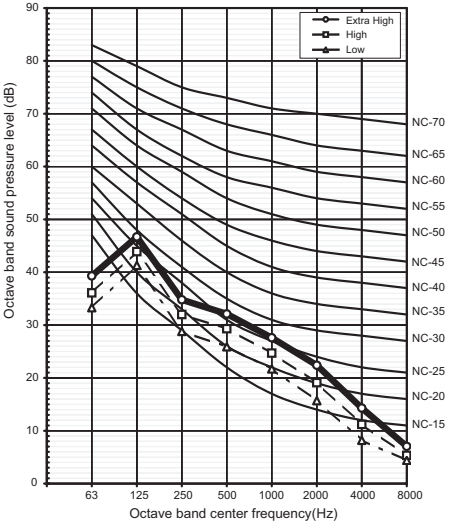
VN-M150HE



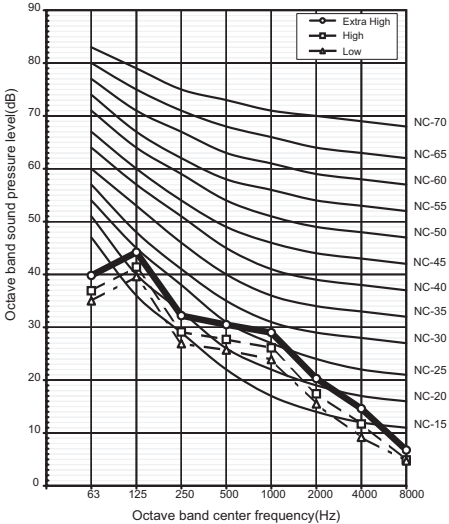
VN-M250HE



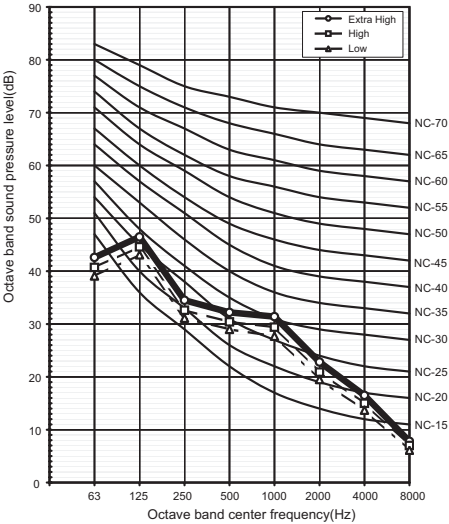
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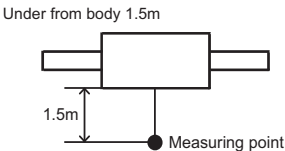
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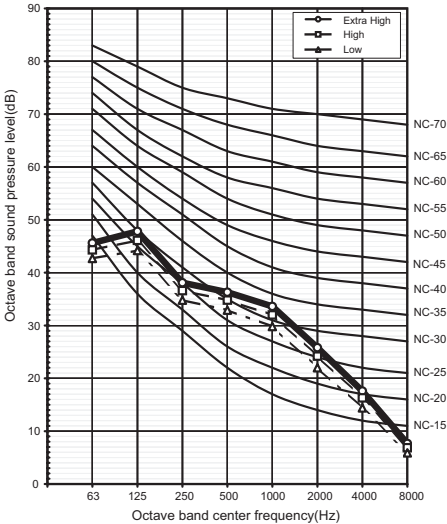
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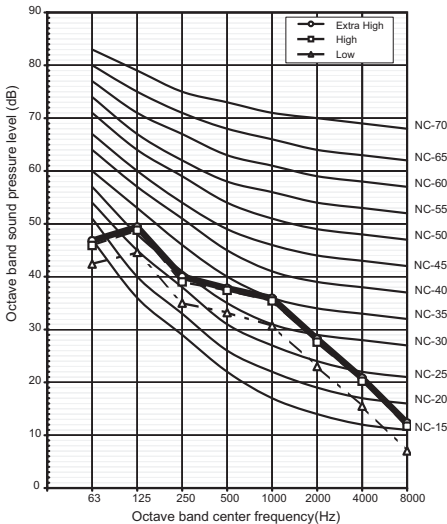
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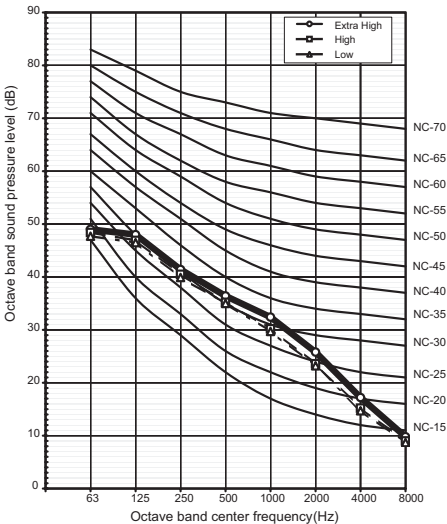
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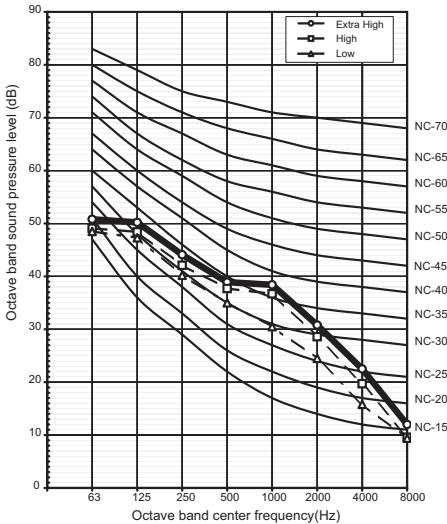
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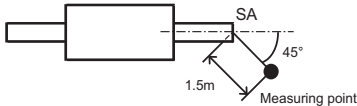
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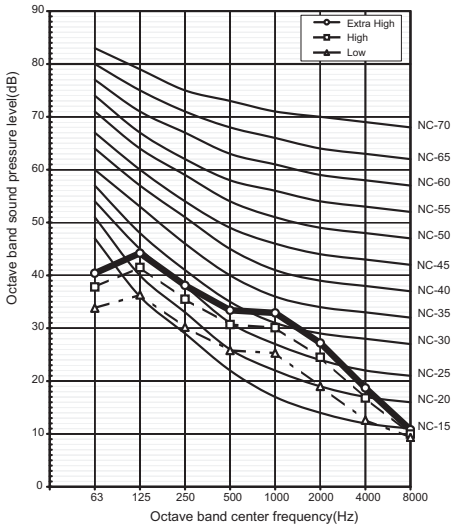
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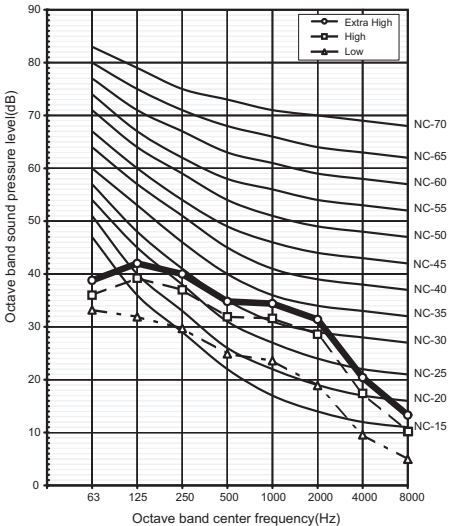
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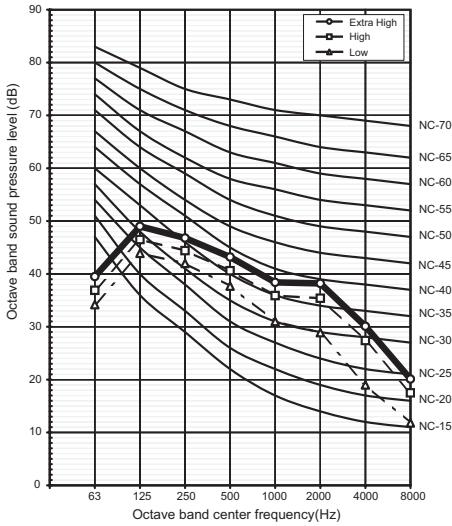
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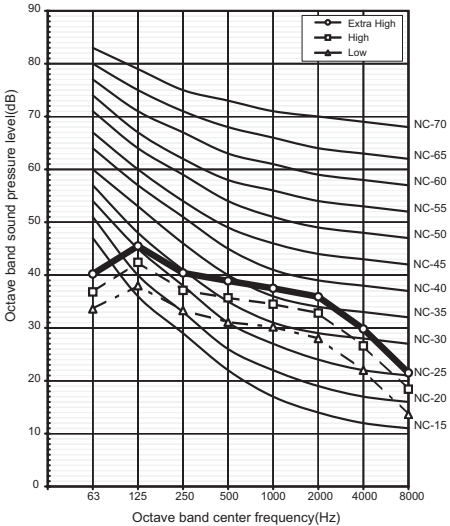
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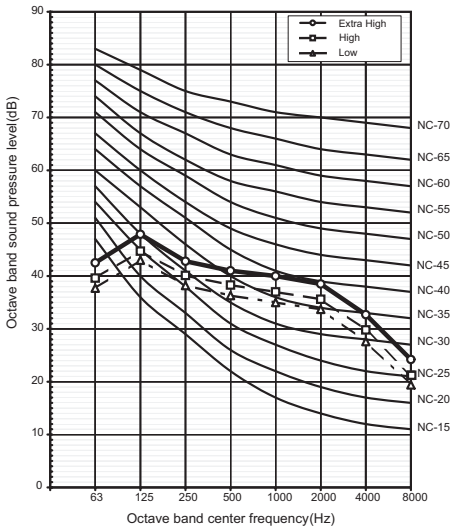
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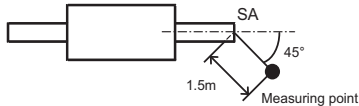
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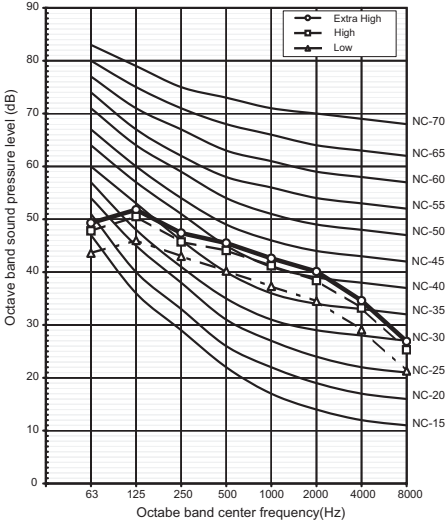
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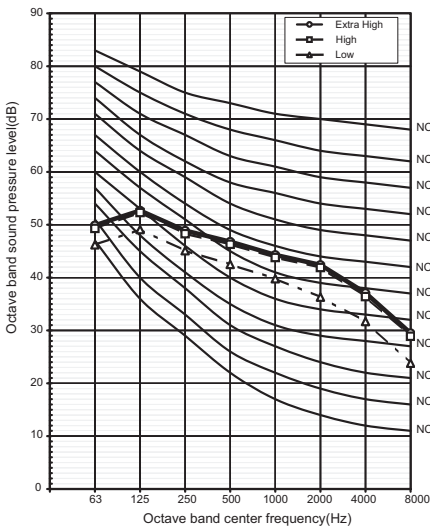
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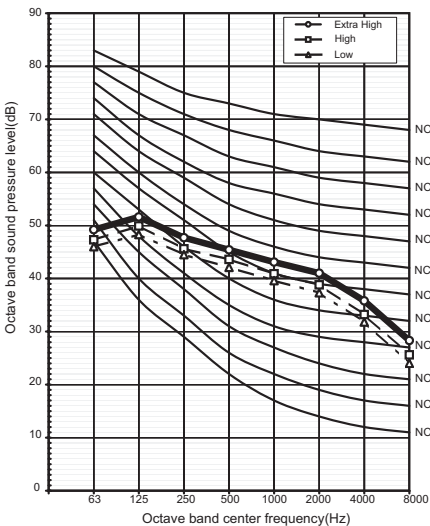
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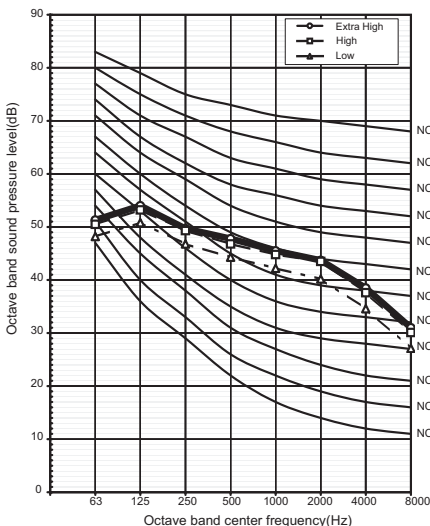
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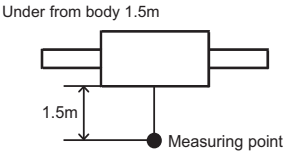
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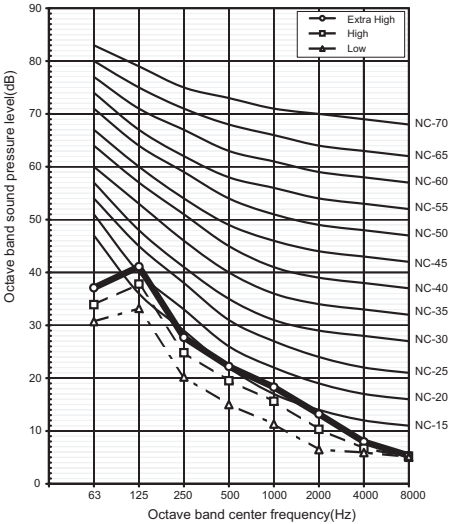
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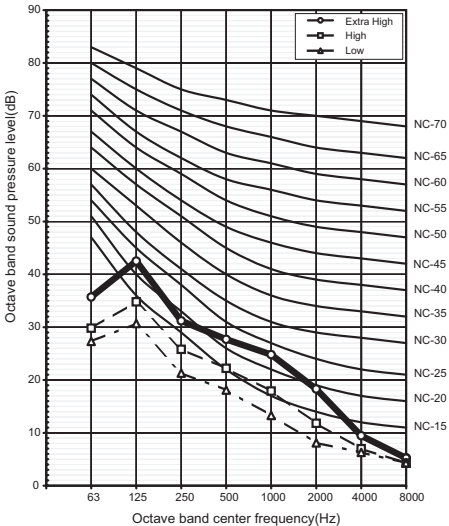
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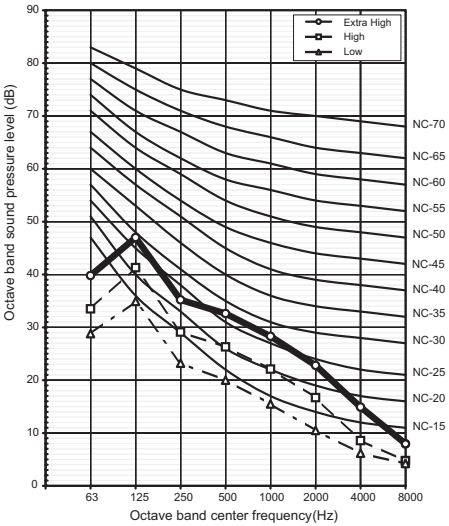
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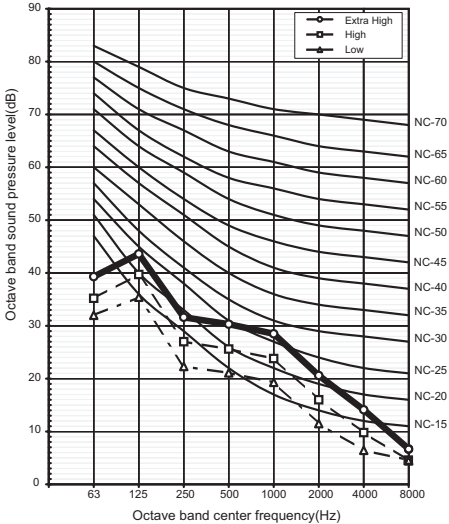
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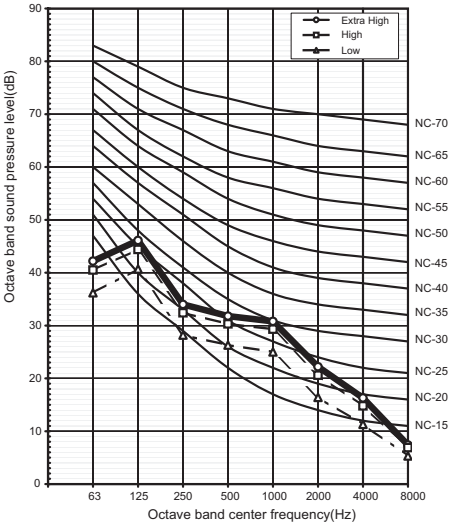
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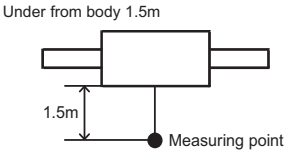
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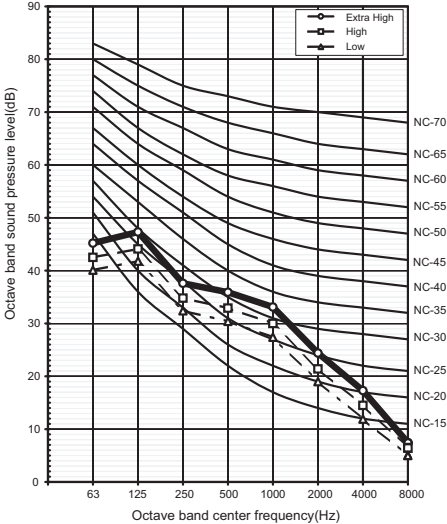
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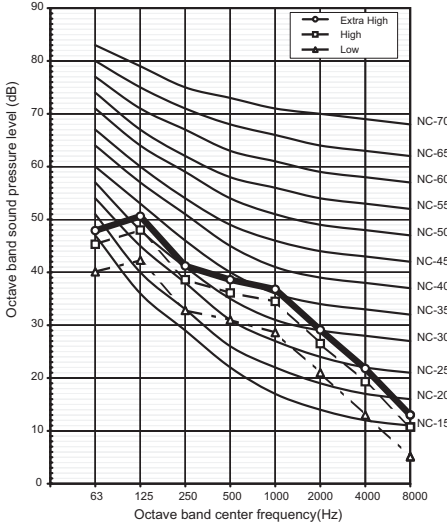
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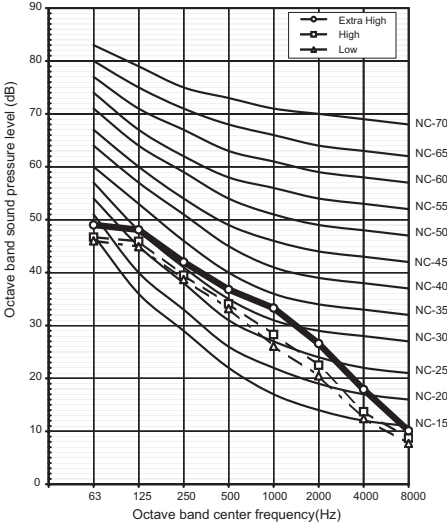
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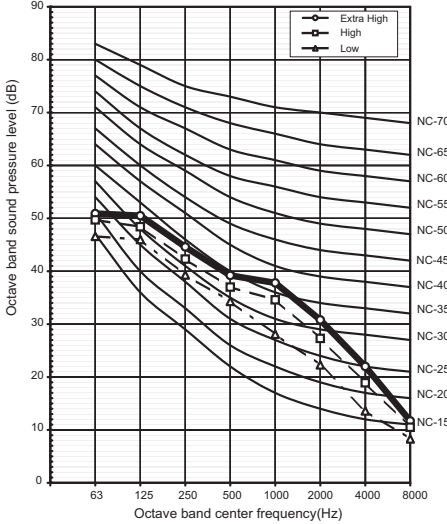
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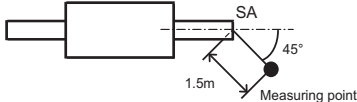
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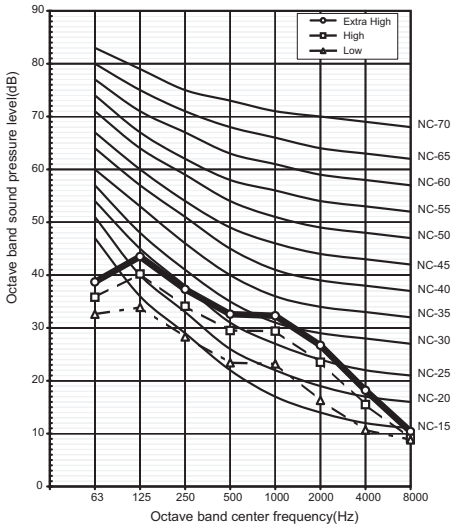
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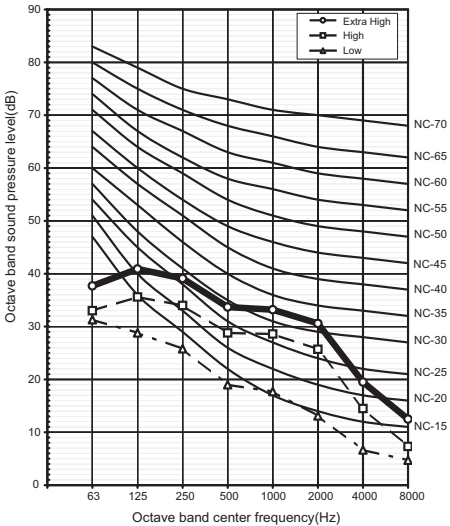
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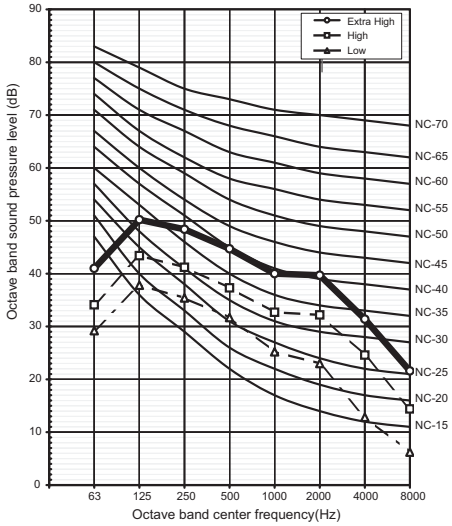
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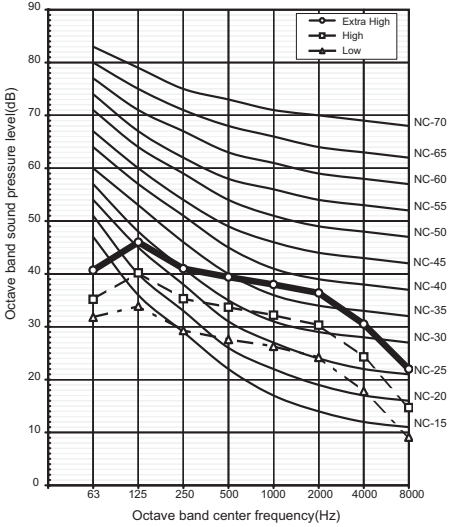
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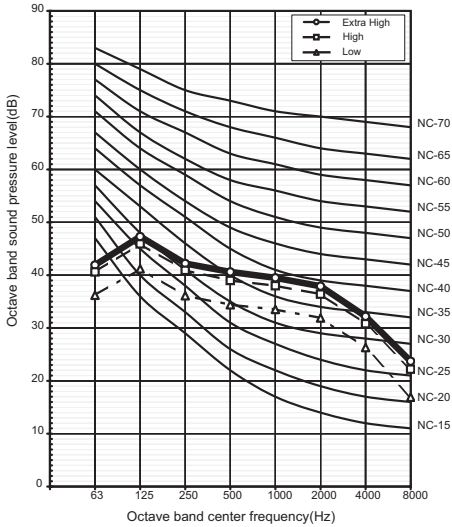
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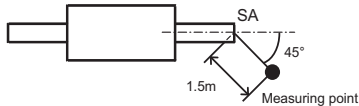
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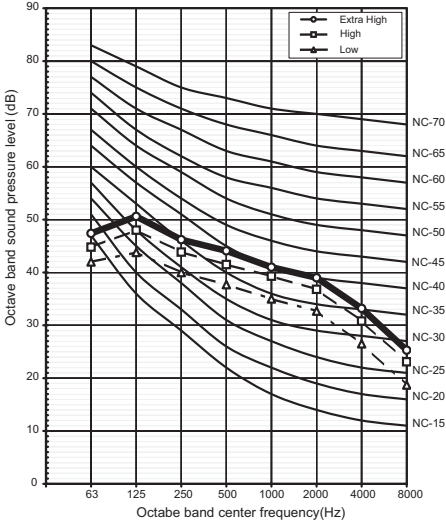
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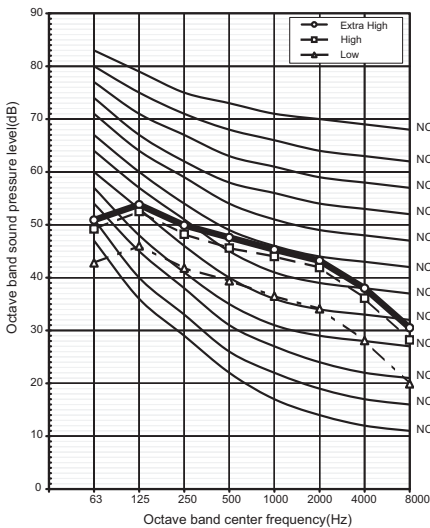
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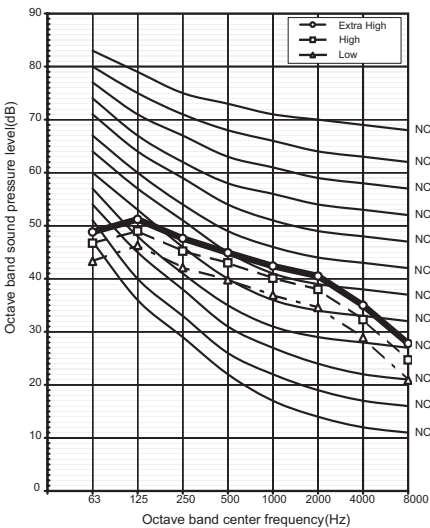
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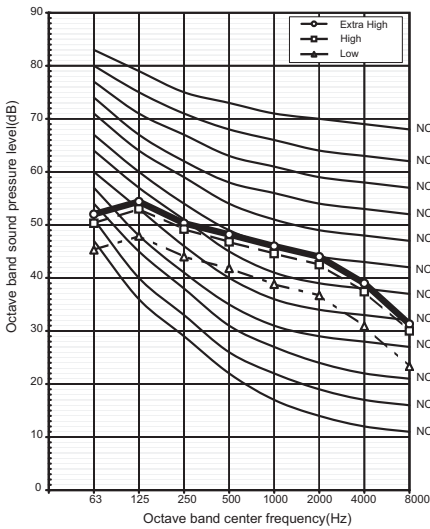
VN-M1000HE



VN-M1500HE



VN-M2000HE



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