

Air to Air Heat exchanger with DX-coil, Humidifier Type

(European market only)



Contents

Technical Data

1. MMD-VNKxx2HEXE (50Hz)

1-1. Specifications	3
1-2. Exchange Efficiency Correction	4
1-3. Sensible Capacity Table	5
1-4. Dimension	7
1-5. Wiring Diagram	10
1-6. Fan Characteristics	11
1-7. Sound Characteristics (NC Curve)	12

2. MMD-VNKxx2HEXE (60Hz)

2-1. Specifications	14
2-2. Exchange Efficiency Correction	15
2-3. Sensible Capacity Table	16
2-4. Dimension	18
2-5. Wiring Diagram	20
2-6. Fan Characteristics	21
2-7. Sound Characteristics (NC Curve)	22

1-1. Specifications

(50Hz)

Model name				MMD-VNK502HEXE	MMD-VNK802HEXE	MMD-VNK1002HEXE
Fresh air conditioning load	Cooling	(*1)	kW	4.10 (1.30)	6.56 (2.06)	8.25 (2.32)
	Heating	(*1)	kW	5.53 (2.33)	8.61 (3.61)	10.92 (4.32)
Power supply				1phase 50Hz 230V (220V-240V) (Separate power supply for indoor units is required.)		
Temperature exchange efficiency		Extra High	%	70.5	70.0	65.5
		High	%	70.5	70.0	65.5
		Low	%	71.5	72.5	67.5
Enthalpy exchange efficiency	Cooling	Extra High	%	56.5	56.0	52.0
		High	%	56.5	56.0	52.0
		Low	%	57.5	59.0	54.5
	Heating	Extra High	%	68.5	70.0	66.0
		High	%	68.5	70.0	66.0
		Low	%	69.0	73.0	68.5
Power input (Heat exchange mode)		Extra High	kW	0.305	0.530	0.575
		High	kW	0.285	0.485	0.565
		Low	kW	0.240	0.350	0.520
Running current		Extra High	A	1.33	2.37	2.56
		High	A	1.24	2.14	2.51
		Low	A	1.03	1.54	2.31
Fan unit	Standard air flow	Extra High	m³/h	500	800	950
		High	m³/h	500	800	950
		Low	m³/h	440	640	820
	External static pressure	Extra High	Pa	95	105	110
		High	Pa	85	85	90
		Low	Pa	95	90	115
	Air flow limit	Lower limit	m³/h	330	480	640
		Upper limit	m³/h	600	960	1140
Humidifier	System			Permeable film humidifier		
	Amount		kg/h	3.0	5.0	6.0
	(*2) Feed water pressure		MPa	0.02~0.49		
Sound pressure		Extra High	dB	36.5	40.0	42.0
		High	dB	35.5	39.0	41.0
		Low	dB	33.5	38.0	39.0
Appearance				Zinc hot dipping steel plate		
Outer dimension	Height		mm	430	430	430
	Width		mm	1140	1189	1189
	Depth		mm	1690	1739	1739
Total weight			kg	91	111	112
Heat exchanger				Finned tube		
Heat-insulating material				Flexible urethane foam		
Air filter				Standard filter (Gravitational method 82%) & High efficiency filter (Colorimetric method 65%)		
Controller				Remote controller (Separately sold parts)		
Connecting piping	Gas side		mm	Ø9.5	Ø12.7	Ø12.7
	Liquid side		mm	Ø6.4	Ø6.4	Ø6.4
Drain port (Nominal dia. mm)				25 (Polyvinyl chloride tube)		
Water supply connection (Port size)				R1/2		

(*1) Cooling and heating capacities are based on the following conditions:

Cooling capacities are based on: indoor temperature: 27 °CDB/19°CWB, Outdoor temperature: 35°CDB

Heating capacities are based on: indoor temperature: 20°CDB, Outdoor temperature: 7 °CDB/6°CWB

Fan is based on Extra High and High

(): The figures in () indicate the heat reclaimed from the heat recovery ventilator.

When calculating the capacity code as indoor units ,please use as below.

MMD-VNK502HEXE: 1HP, MMD-VNK802HEXE: 1.7HP,

MMD-VNK1002HEXE: 2.0HP

(*2) Water with a hardness of no more than 100 mg/liter must be used as the water which is supplied to the humidifier.

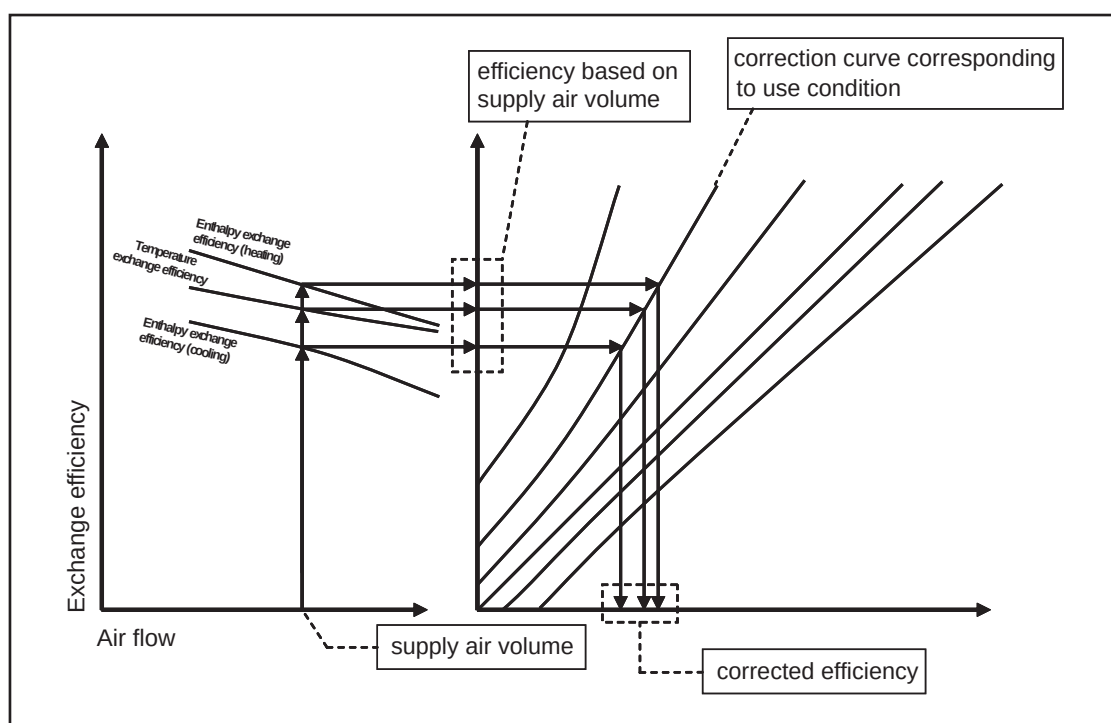
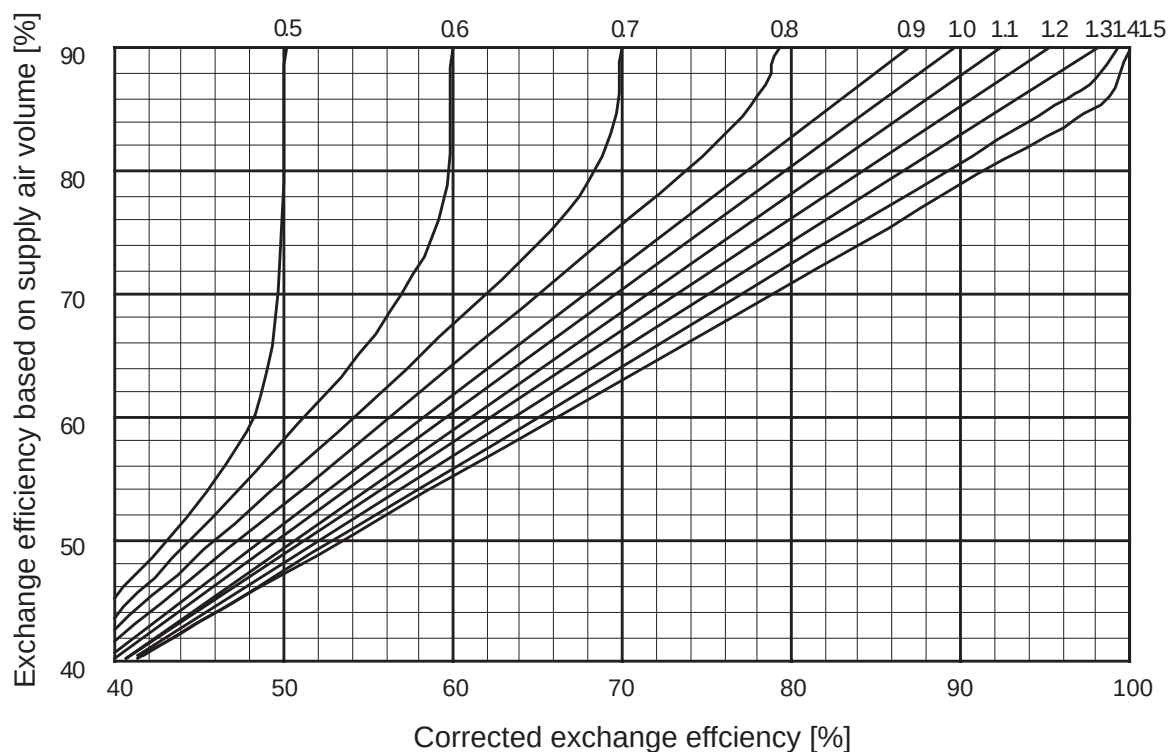
A water softener must be installed if the water to be supplied has a hardness of more than 100 mg/liter.

1-2. Exchange Efficiency Correction

Exchange efficiency correction when supply air volume and exhaust air volume are different

Exchange efficiency correction curve

Exhaust to supply ratio = Exhaust air volume / Supply air volume



1-3. Sensible Capacity Table

Cooling capacity tables

TC: Total Capacity [kW] SHC: Sensible Heat Capacity [kW]

MMD-VNK ***HEXE

Class	DX-coil capacity [kW]	Outdoor temp. [°CDB]	DX-coil inlet temp. [°CWB]											
			16.0		18.0		19.0		20.0		22.0		24.0	
			TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
502	2.8	10.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		12.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		14.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		16.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		18.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		20.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		21.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		23.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		25.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		27.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		29.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		31.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		33.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		35.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		37.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.7
		39.0	2.4	1.7	2.6	1.8	2.7	1.8	2.8	1.8	2.9	1.8	3.1	1.7
802	4.5	10.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		12.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		14.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		16.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		18.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		20.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		21.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		23.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		25.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		27.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		29.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		31.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		33.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		35.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		37.0	4.0	2.7	4.3	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		39.0	3.9	2.7	4.2	2.8	4.4	2.8	4.5	2.9	4.7	2.8	5.0	2.7
1002	5.93	10.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		12.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		14.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		16.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		18.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		20.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		21.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		23.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		25.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		27.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		29.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		31.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		33.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		35.0	5.3	3.7	5.7	4.0	5.9	4.0	6.1	4.0	6.4	3.9	6.8	3.8
		37.0	5.3	3.7	5.7	3.9	5.9	3.9	6.1	3.9	6.4	3.9	6.7	3.8
		39.0	5.2	3.6	5.6	3.8	5.7	3.8	5.9	3.8	6.2	3.8	6.5	3.7

Heating capacity tables

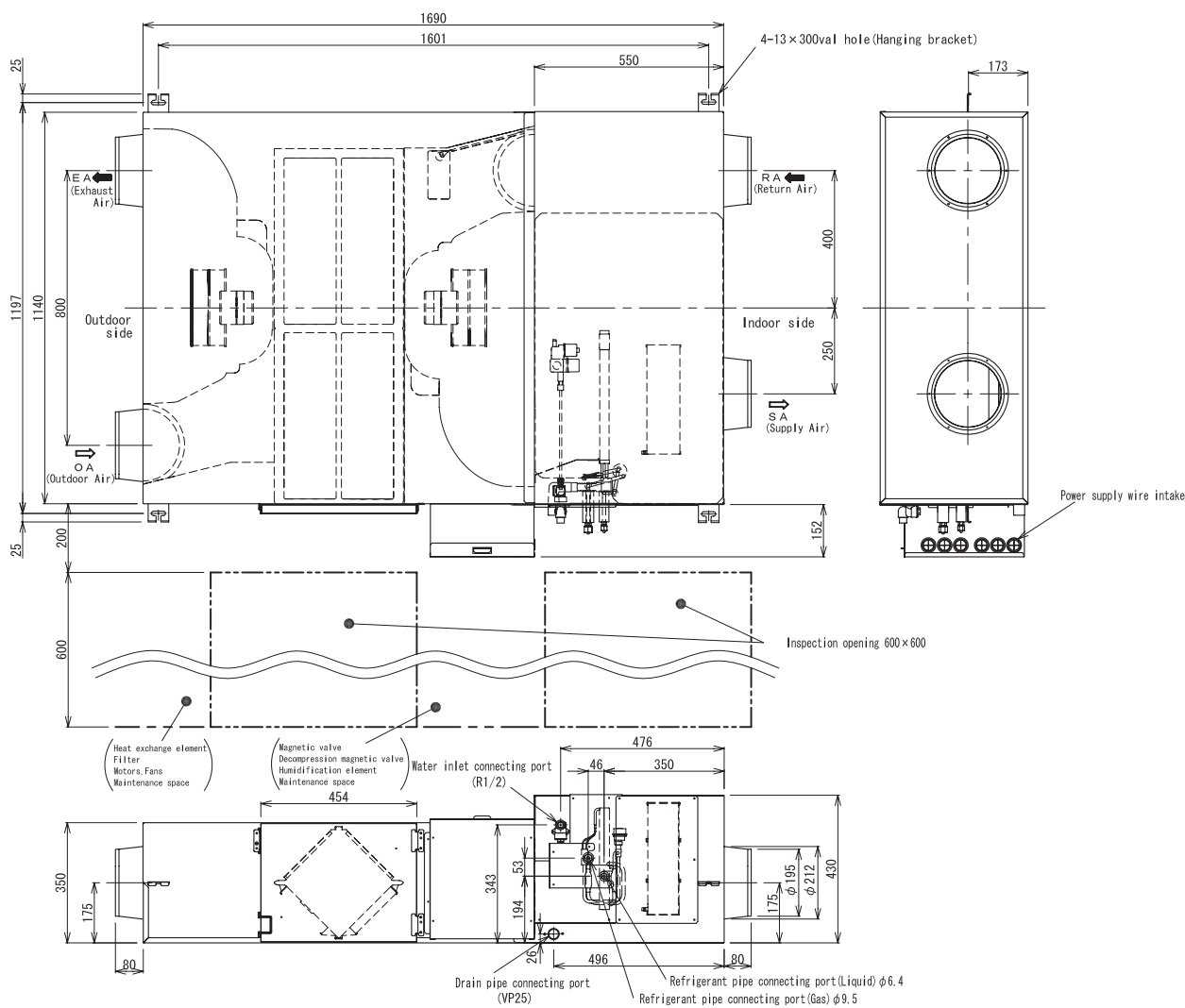
TC: Total Capacity [kW] SHC: Sensible Heat Capacity [kW]

MMD-VNK ***HEXE

Class	DX-coil capacity [kW]	Outdoor temp. [°CWB]	DX-coil inlet temp. [°CDB]				
			16.0	18.0	20.0	22.0	24.0
			SHC	SHC	SHC	SHC	SHC
502	3.2	-15.0	1.9	1.8	1.8	1.8	1.7
		-13.0	2.0	2.0	2.0	1.9	1.9
		-11.0	2.2	2.1	2.1	2.0	2.0
		-10.0	2.2	2.2	2.2	2.1	2.1
		-8.0	2.4	2.3	2.3	2.2	2.2
		-6.0	2.5	2.4	2.4	2.3	2.3
		-4.0	2.5	2.4	2.3	2.3	2.2
		-2.0	2.5	2.5	2.4	2.4	2.3
		0.0	2.6	2.7	2.6	2.5	2.5
		2.0	2.8	2.8	2.7	2.6	2.6
		4.0	3.2	3.1	3.0	3.0	2.9
		6.0	3.3	3.3	3.2	3.1	3.0
		8.0	3.3	3.3	3.2	3.1	3.0
		10.0	3.3	3.3	3.2	3.1	3.0
		12.0	3.3	3.3	3.2	3.1	3.0
		14.0	3.3	3.3	3.2	3.1	3.0
802	4.8	-15.0	2.8	2.8	2.7	2.6	2.6
		-13.0	3.0	3.0	2.9	2.9	2.8
		-11.0	3.3	3.2	3.1	3.1	3.0
		-10.0	3.4	3.3	3.2	3.2	3.1
		-8.0	3.6	3.5	3.4	3.3	3.3
		-6.0	3.7	3.6	3.6	3.5	3.4
		-4.0	3.7	3.5	3.5	3.4	3.3
		-2.0	3.8	3.7	3.6	3.5	3.4
		0.0	3.9	4.0	3.9	3.8	3.7
		2.0	4.2	4.1	4.1	4.0	3.9
		4.0	4.7	4.7	4.6	4.5	4.3
		6.0	5.0	4.9	4.8	4.7	4.6
		8.0	5.0	4.9	4.8	4.7	4.6
		10.0	5.0	4.9	4.8	4.7	4.6
		12.0	5.0	4.9	4.8	4.7	4.6
		14.0	5.0	4.9	4.8	4.7	4.6
1002	6.6	-15.0	3.9	3.8	3.7	3.6	3.5
		-13.0	4.2	4.1	4.0	3.9	3.8
		-11.0	4.5	4.4	4.3	4.2	4.1
		-10.0	4.6	4.5	4.4	4.3	4.2
		-8.0	4.9	4.8	4.7	4.6	4.5
		-6.0	5.1	5.0	4.9	4.8	4.6
		-4.0	5.1	4.9	4.8	4.7	4.5
		-2.0	5.2	5.1	5.0	4.9	4.7
		0.0	5.4	5.5	5.4	5.2	5.1
		2.0	5.8	5.7	5.6	5.4	5.3
		4.0	6.5	6.4	6.3	6.1	6.0
		6.0	6.9	6.7	6.6	6.4	6.3
		8.0	6.9	6.7	6.6	6.4	6.3
		10.0	6.9	6.7	6.6	6.4	6.3
		12.0	6.9	6.7	6.6	6.4	6.3
		14.0	6.9	6.7	6.6	6.4	6.3

1-4. Dimension

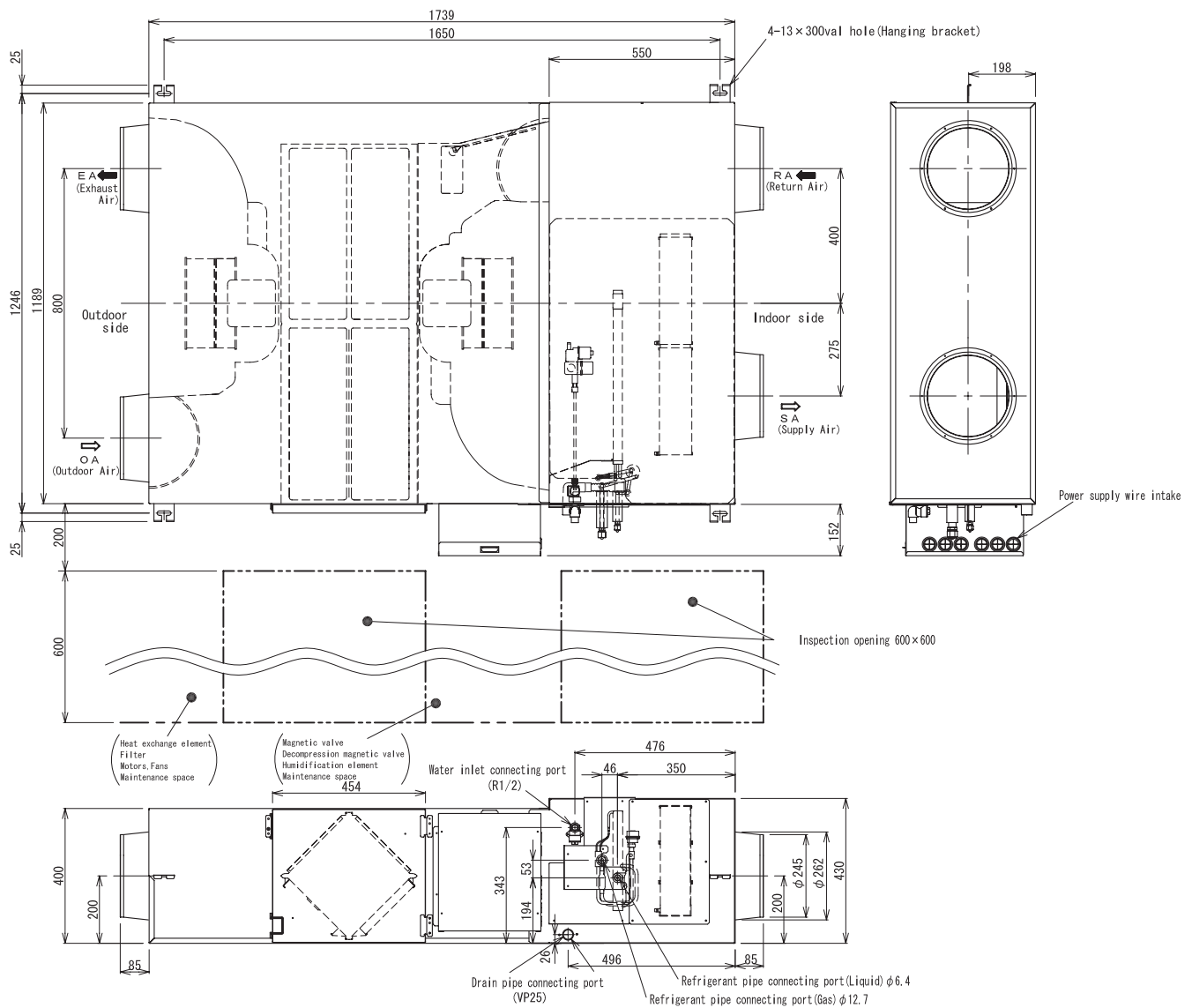
MMD-VNK502HEXE



■ Attention

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

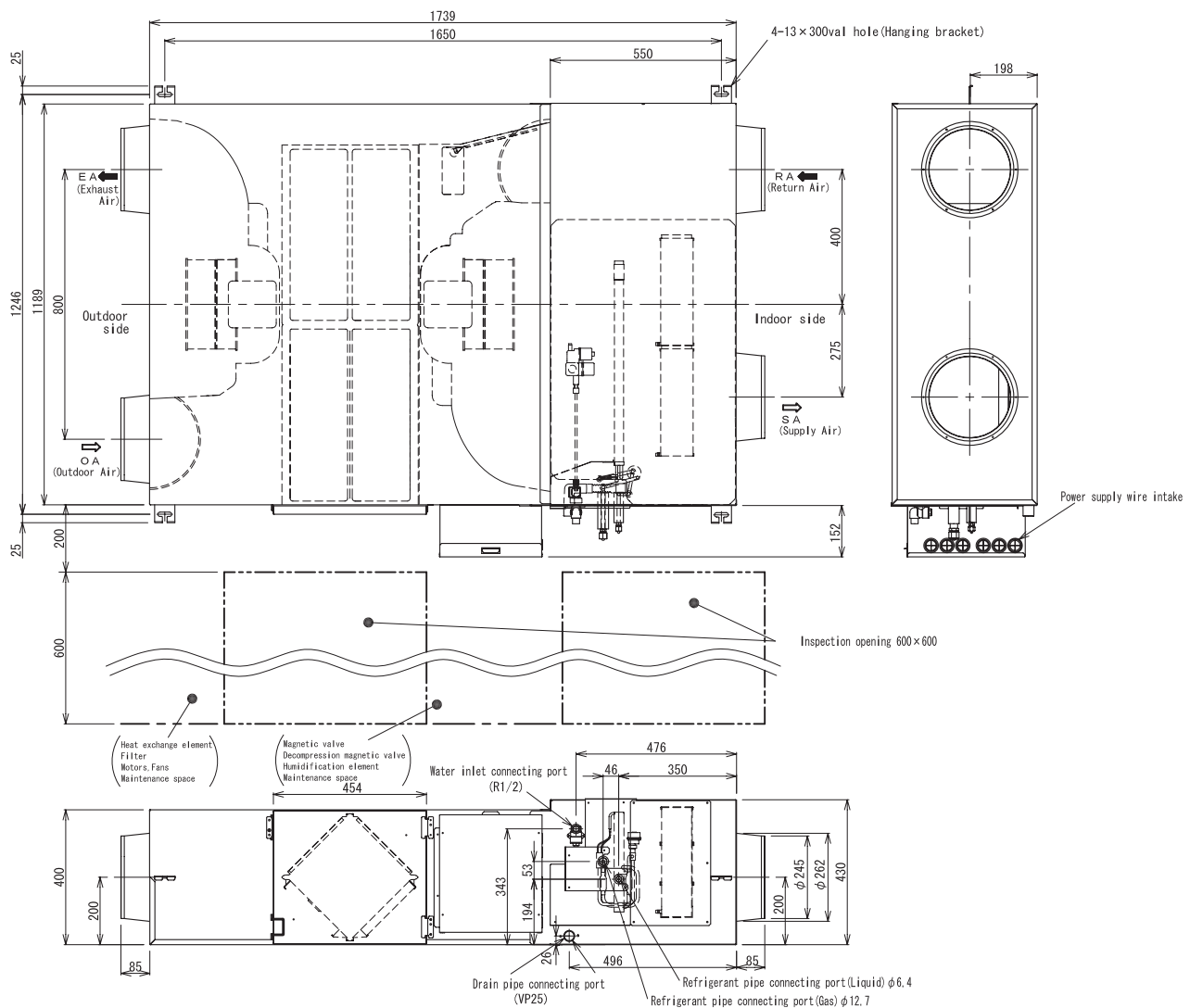
MMD-VNK802HEXE



■ **Attention**

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

MMD-VNK1002HEXE

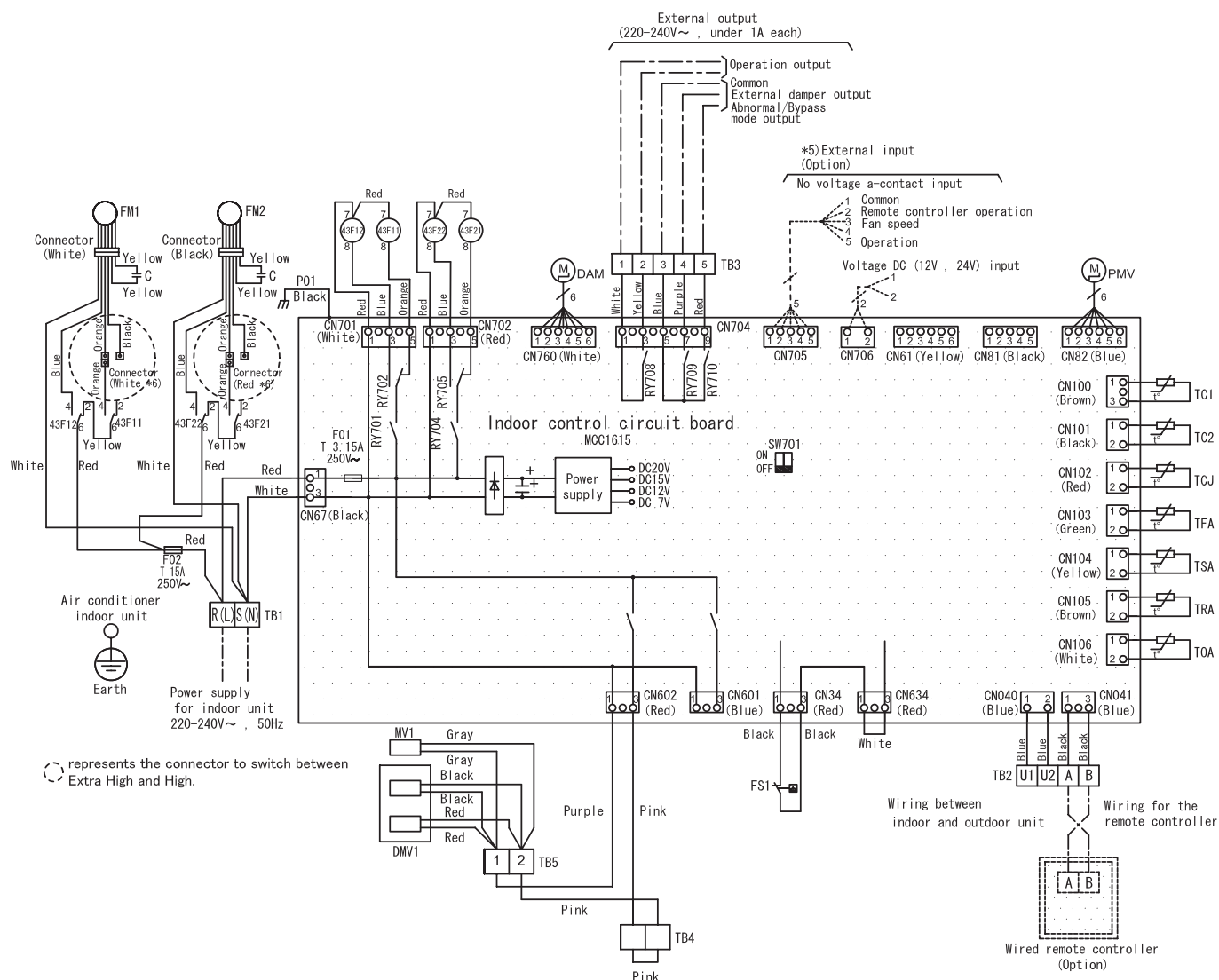


■ **Attention**

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

1-5. Wiring Diagram

MMD-VNK502HEXE, MMD-VNK802HEXE, MMD-VNK1002HEXE



Code	Parts name
CN***	Connector
F01	Fuse (Printed circuit board)
F02	Fuse (Motor)
FM1	Air supplying motor
FM2	Air exhausting motor
DAM	Damper motor
TRA	TRA sensor
TOA	TOA sensor
TSA	TSA sensor
TFA	TFA sensor
TCJ, TC1, TC2	Indoor coil sensor
TB1	Terminal block (Power source)
TB2	Terminal block (Communication)

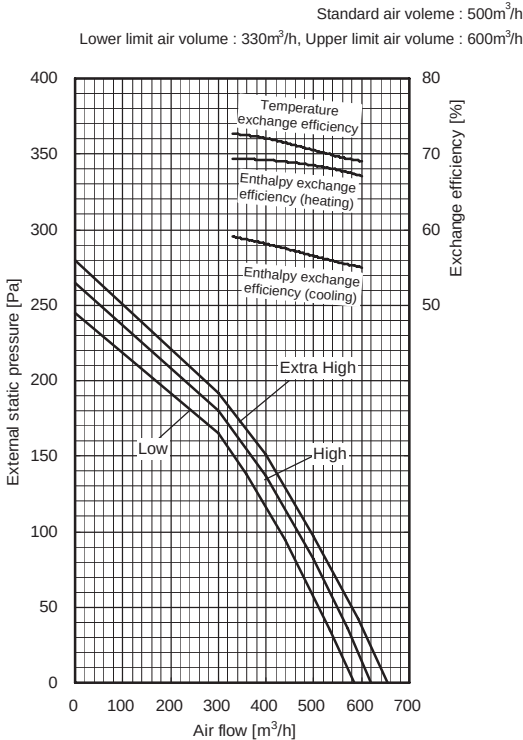
Code	Parts name
TB3	Terminal block (External output)
TB4	Terminal block (Humidistat)
TB5	Terminal block (Magnetic value)
TS1	Float switch
MV1	Magnetic value
DMV1	Decompression magnetic value
PMV	Pulse modulating value
SW701	Dip switch
43F11, 43F12	Relay for air supplying motor
43F21, 43F22	Relay for air exhausting motor
RY701, RY702	Relay for air supplying motor
RY704, RY705	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, □ represents a connector on the printed circuit board and □ represents a short circuit connector.
- ⊕ represents a protective earth.
- represents a printed circuit board.
- Using a no voltage a-contact input of the external input (option), the following operations are available.
Between 1 and 2: Selecting the remote controller operation (Invalid/Valid)
Between 1 and 3: Adjusting the fan speed (Low/High)
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.
- Orange wire (High) is connected as factory default. To switch to "Extra High", connect black wire's connector instead of orange.

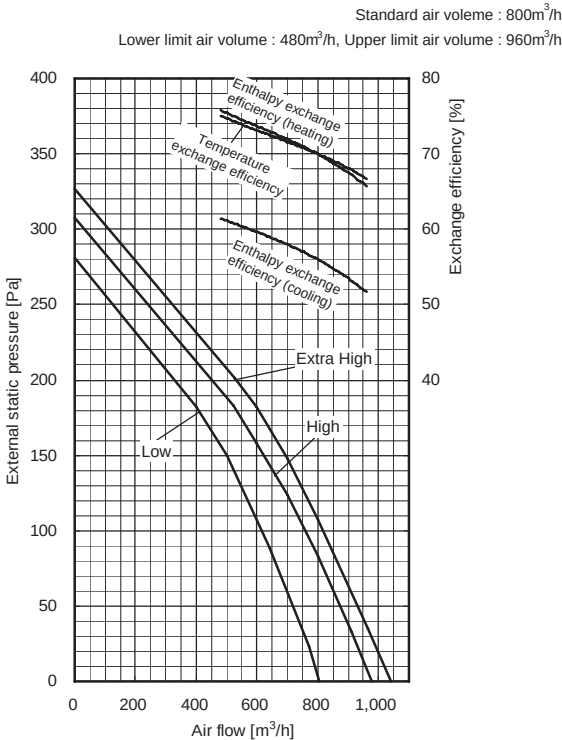
1-6. Fan Characteristics

----- 230V, 50Hz

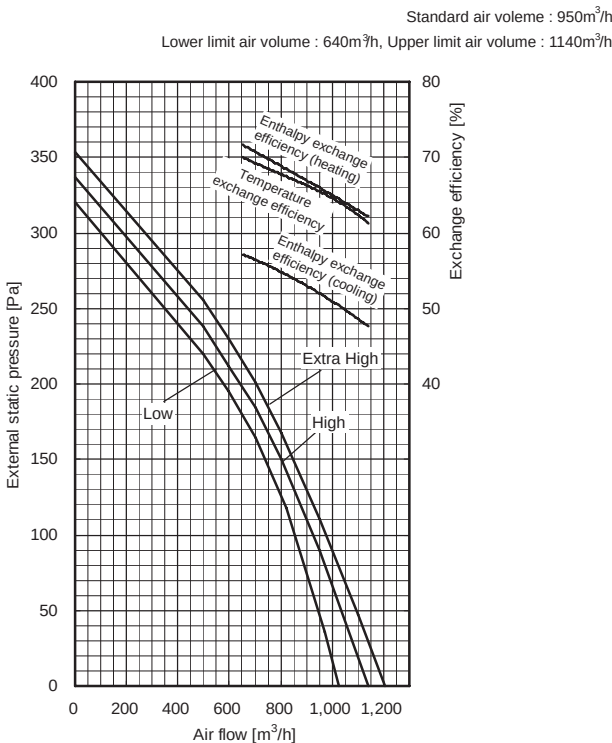
MMD-VNK502HEXE



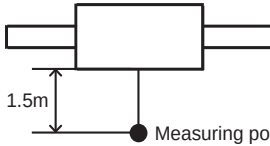
MMD-VNK802HEXE



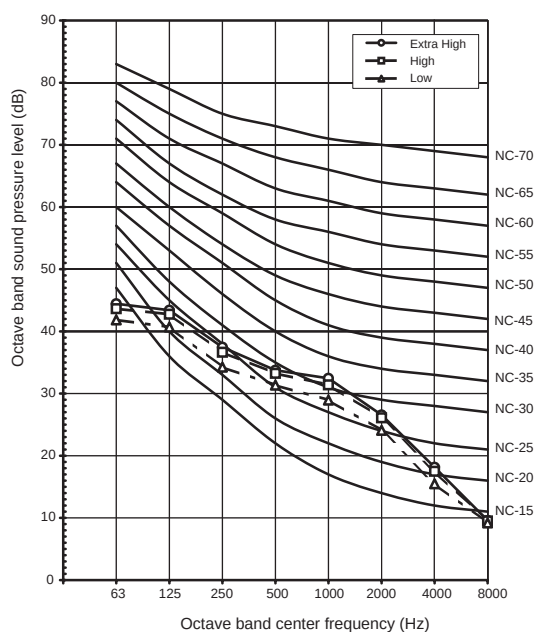
MMD-VNK1002HEXE



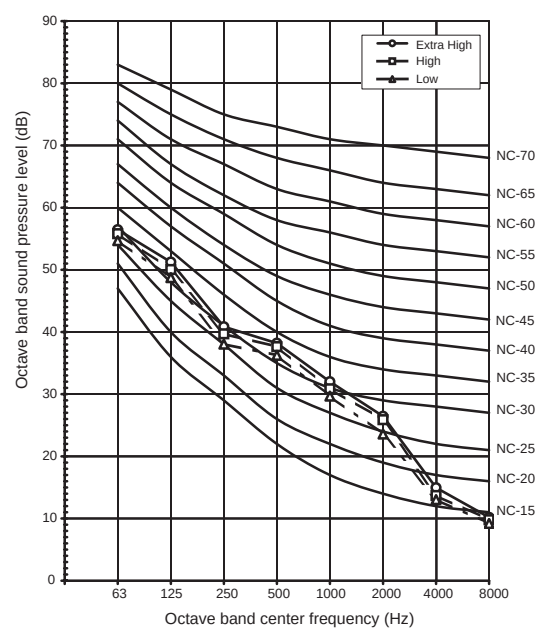
1-7. Sound Characteristics (NC Curve)

Model name	Power supply (phase/Hz/V)		Sound pressure level (dB)		
			Extra High	High	Low
MMD-VNK502HEXE	1 phase / 50Hz / 220V-240V	Under from body 1.5m 	36.5	35.5	33.5
MMD-VNK802HEXE			40.0	39.0	38.0
MMD-VNK1002HEXE			42.0	41.0	39.0

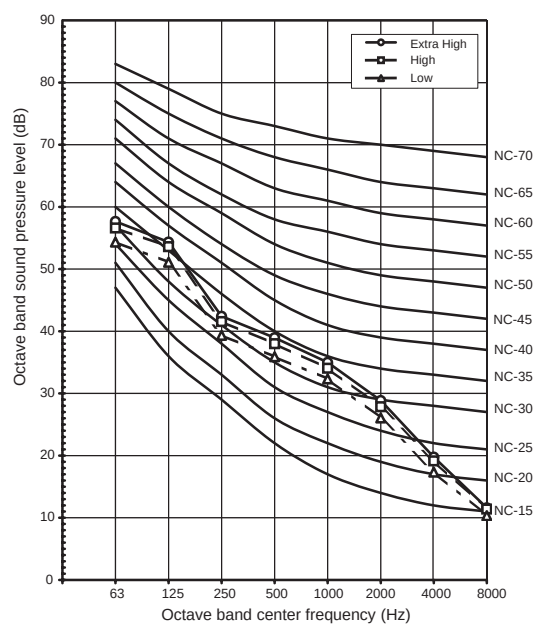
MMD-VNK502HEXE

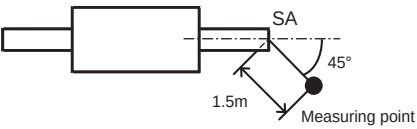


MMD-VNK802HEXE

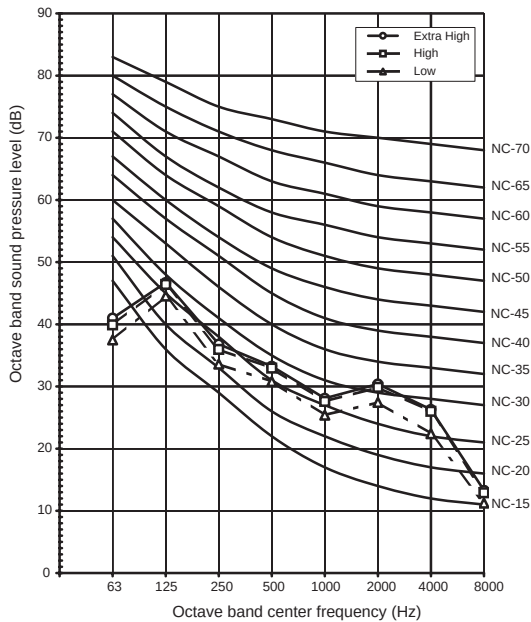


MMD-VNK1002HEXE

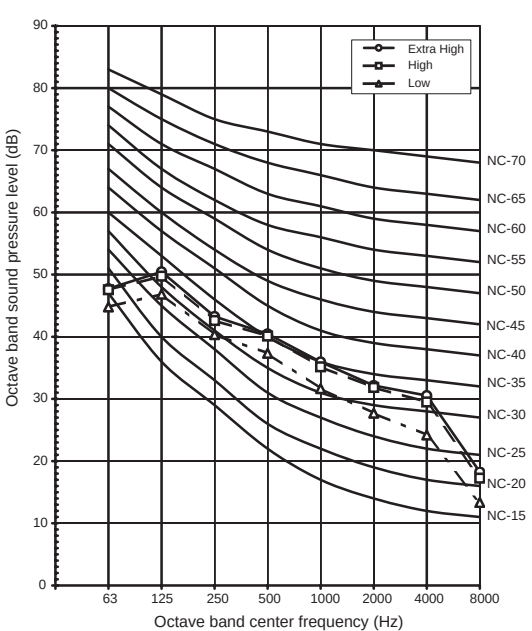


Model name	Power supply (phase/Hz/V)		Sound pressure level (dB)		
			Extra High	High	Low
MMD-VNK502HEXE	1 phase / 50Hz / 220V-240V		37.0	37.0	34.5
MMD-VNK802HEXE			42.5	42.0	38.5
MMD-VNK1002HEXE			45.0	45.0	42.5

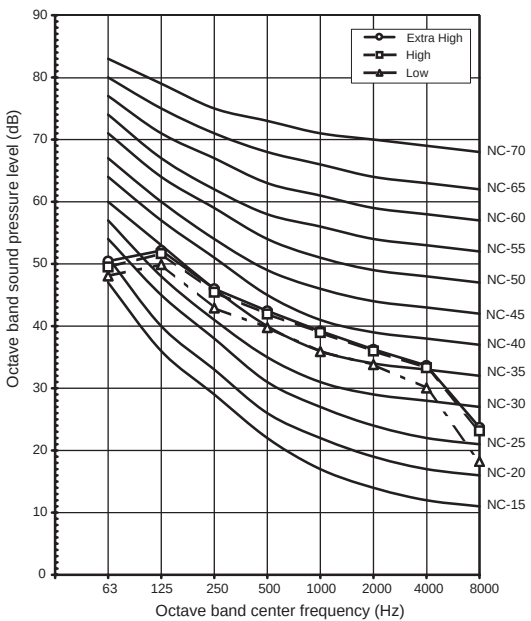
MMD-VNK502HEXE



MMD-VNK802HEXE



MMD-VNK1002HEXE



2-1. Specifications

(60Hz)

Model name				MMD-VNK502HEXE	MMD-VNK802HEXE
Fresh air conditioning load	Cooling	(*1)	kW	4.10 (1.30)	6.56 (2.06)
	Heating	(*1)	kW	5.53 (2.33)	8.61 (3.61)
Power supply				1phase 60Hz 220V (Separate power supply for indoor units is required.)	
Temperature exchange efficiency		Extra High	%	70.5	70.0
		High	%	70.5	70.0
		Low	%	72.0	73.0
Enthalpy exchange efficiency	Cooling	Extra High	%	56.5	56.0
		High	%	56.5	56.0
		Low	%	58.0	59.5
	Heating	Extra High	%	68.5	70.0
		High	%	68.5	70.0
		Low	%	69.0	73.5
Power input (Heat exchange mode)		Extra High	kW	0.365	0.620
		High	kW	0.350	0.575
		Low	kW	0.290	0.400
Running current		Extra High	A	1.67	2.89
		High	A	1.60	2.69
		Low	A	1.31	1.85
Fan unit	Standard air flow	Extra High	m³/h	500	800
		High	m³/h	500	800
		Low	m³/h	410	600
	External static pressure	Extra High	Pa	175	165
		High	Pa	150	140
		Low	Pa	135	110
	Air flow limit	Lower limit	m³/h	330	480
		Upper limit	m³/h	600	960
Humidifier	System		Permeable film humidifier		
	Amount		kg/h	3.0	5.0
	(*2) Feed water pressure		MPa	0.02~0.49	
Sound pressure		Extra High	dB	39.0	42.0
		High	dB	37.0	41.0
		Low	dB	35.5	39.0
Appearance				Zinc hot dipping steel plate	
Outer dimension	Height		mm	430	430
	Width		mm	1140	1189
	Depth		mm	1690	1739
Total weight			kg	91	111
Heat exchanger				Finned tube	
Heat-insulating material				Flexible urethane foam	
Air filter				Standard filter (Gravitational method 82%) & High efficiency filter (Colorimetric method 65%)	
Controller				Remote controller (Separately sold parts)	
Connecting piping	Gas side		mm	Ø9.5	Ø12.7
	Liquid side		mm	Ø6.4	Ø6.4
Drain port (Nominal dia. mm)				25 (Polyvinyl chloride tube)	
Water supply connection (Port size)				R1/2	

(*1) Cooling and heating capacities are based on the following conditions:

Cooling capacities are based on: indoor temperature: 27 °CDB/19°CWB, Outdoor temperature: 35°CDB

Heating capacities are based on: indoor temperature: 20 °CDB, Outdoor temperature: 7 °CDB/6°CWB

Fan is based on Extra High and High

(): The figures in () indicate the heat reclaimed from the heat recovery ventilator.

When calculating the capacity code as indoor units, please use as below.

MMD-VNK502HEXE: 1HP, MMD-VNK802HEXE: 1.7HP,

MMD-VNK1002HEXE: 2.0HP

(*2) Water with a hardness of no more than 100 mg/liter must be used as the water which is supplied to the humidifier.

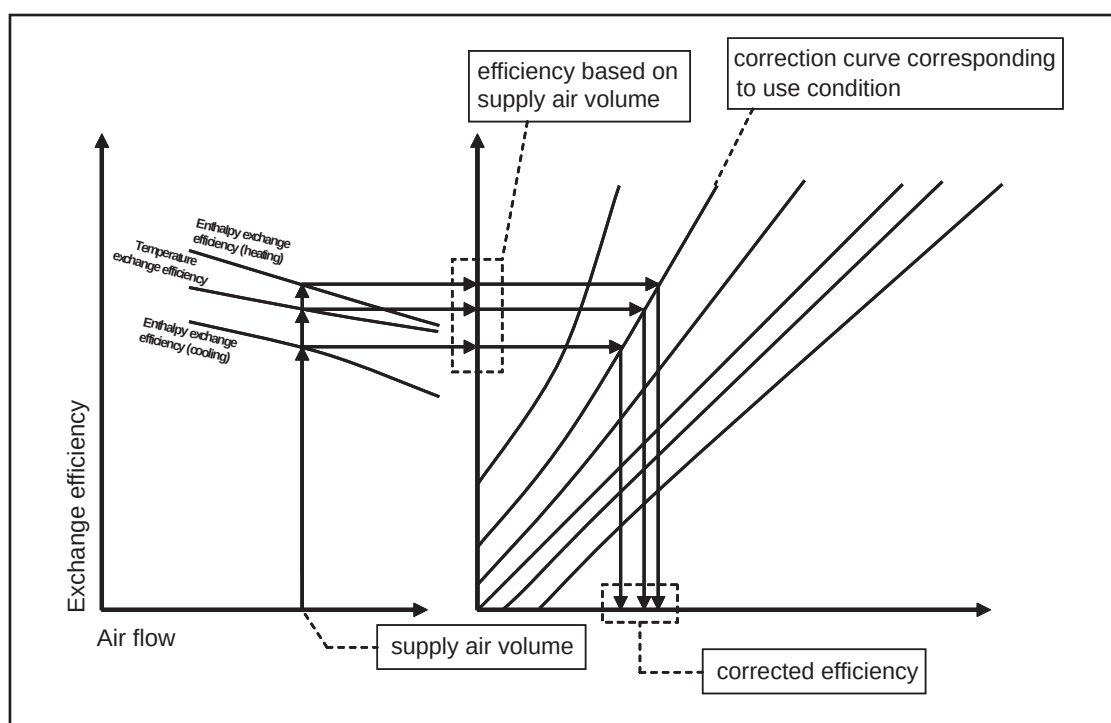
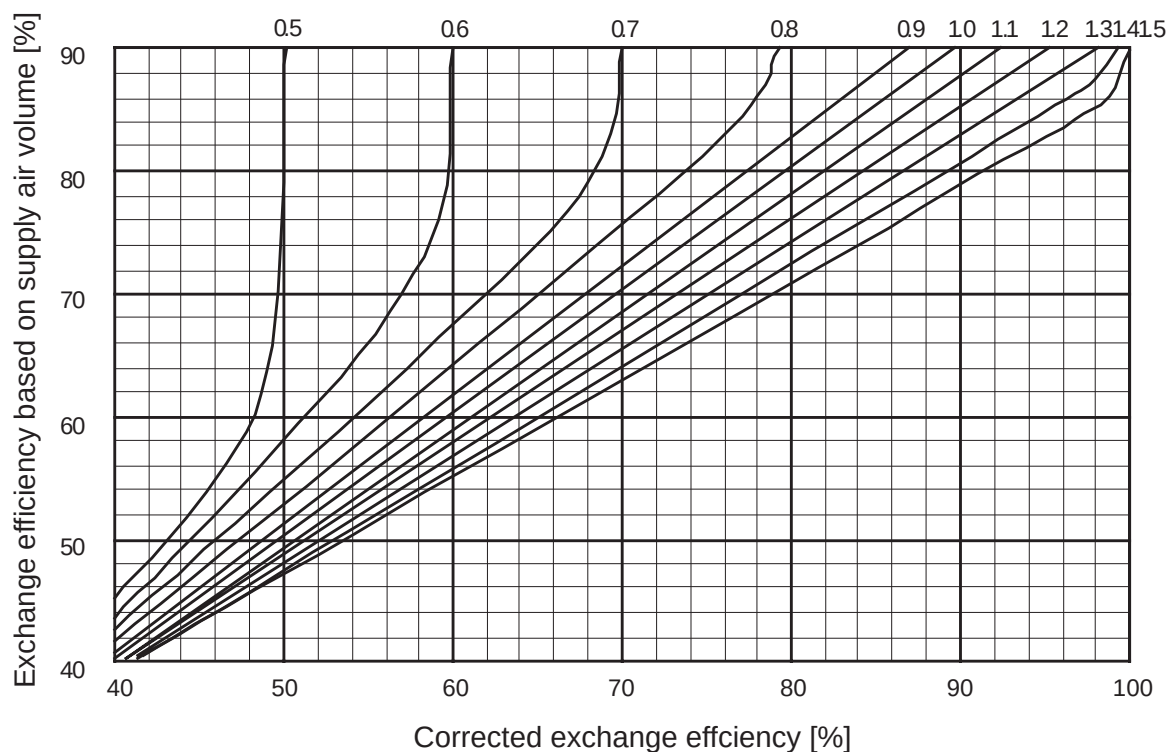
A water softener must be installed if the water to be supplied has a hardness of more than 100 mg/liter.

2-2. Exchange Efficiency Correction

Exchange efficiency correction when supply air volume and exhaust air volume are different

Exchange efficiency correction curve

Exhaust to supply ratio = Exhaust air volume / Supply air volume



2-3. Sensible Capacity Table

Cooling capacity tables

TC: Total Capacity [kW] SHC: Sensible Heat Capacity [kW]

MMD-VNK ***HEXE

Class	DX-coil capacity [kW]	Outdoor temp. [°CDB]	DX-coil inlet temp. [°CWB]											
			16.0		18.0		19.0		20.0		22.0		24.0	
			TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
502	2.8	10.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		12.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		14.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		16.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		18.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		20.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		21.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		23.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		25.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		27.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		29.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		31.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		33.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		35.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.8
		37.0	2.5	1.7	2.7	1.8	2.8	1.8	2.9	1.8	3.0	1.8	3.2	1.7
		39.0	2.4	1.7	2.6	1.8	2.7	1.8	2.8	1.8	2.9	1.8	3.1	1.7
802	4.5	10.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		12.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		14.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		16.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		18.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		20.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		21.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		23.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		25.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		27.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		29.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		31.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		33.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		35.0	4.1	2.8	4.4	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		37.0	4.0	2.7	4.3	2.9	4.5	2.9	4.6	2.9	4.9	2.9	5.1	2.8
		39.0	3.9	2.7	4.2	2.8	4.4	2.8	4.5	2.9	4.7	2.8	5.0	2.7

Heating capacity tables

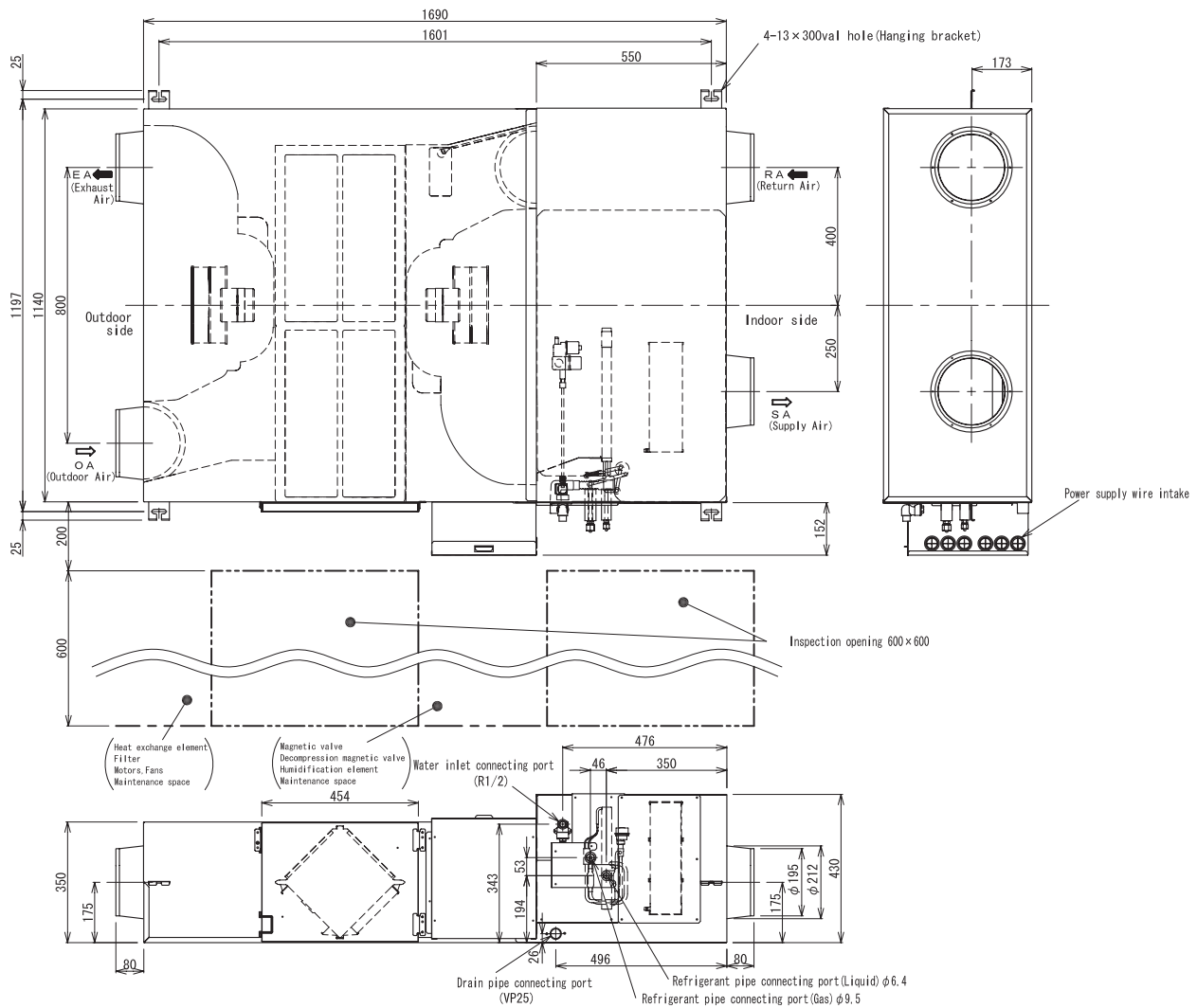
TC: Total Capacity [kW] SHC: Sensible Heat Capacity [kW]

MMD-VNK ***HEXE

Class	DX-coil capacity [kW]	Outdoor temp. [°CWB]	DX-coil inlet temp. [°CDB]				
			16.0	18.0	20.0	22.0	24.0
			SHC	SHC	SHC	SHC	SHC
502	3.2	-15.0	1.9	1.8	1.8	1.8	1.7
		-13.0	2.0	2.0	2.0	1.9	1.9
		-11.0	2.2	2.1	2.1	2.0	2.0
		-10.0	2.2	2.2	2.2	2.1	2.1
		-8.0	2.4	2.3	2.3	2.2	2.2
		-6.0	2.5	2.4	2.4	2.3	2.3
		-4.0	2.5	2.4	2.3	2.3	2.2
		-2.0	2.5	2.5	2.4	2.4	2.3
		0.0	2.6	2.7	2.6	2.5	2.5
		2.0	2.8	2.8	2.7	2.6	2.6
		4.0	3.2	3.1	3.0	3.0	2.9
		6.0	3.3	3.3	3.2	3.1	3.0
		8.0	3.3	3.3	3.2	3.1	3.0
		10.0	3.3	3.3	3.2	3.1	3.0
		12.0	3.3	3.3	3.2	3.1	3.0
		14.0	3.3	3.3	3.2	3.1	3.0
802	4.8	-15.0	2.8	2.8	2.7	2.6	2.6
		-13.0	3.0	3.0	2.9	2.9	2.8
		-11.0	3.3	3.2	3.1	3.1	3.0
		-10.0	3.4	3.3	3.2	3.2	3.1
		-8.0	3.6	3.5	3.4	3.3	3.3
		-6.0	3.7	3.6	3.6	3.5	3.4
		-4.0	3.7	3.5	3.5	3.4	3.3
		-2.0	3.8	3.7	3.6	3.5	3.4
		0.0	3.9	4.0	3.9	3.8	3.7
		2.0	4.2	4.1	4.1	4.0	3.9
		4.0	4.7	4.7	4.6	4.5	4.3
		6.0	5.0	4.9	4.8	4.7	4.6
		8.0	5.0	4.9	4.8	4.7	4.6
		10.0	5.0	4.9	4.8	4.7	4.6
		12.0	5.0	4.9	4.8	4.7	4.6
		14.0	5.0	4.9	4.8	4.7	4.6

2-4. Dimension

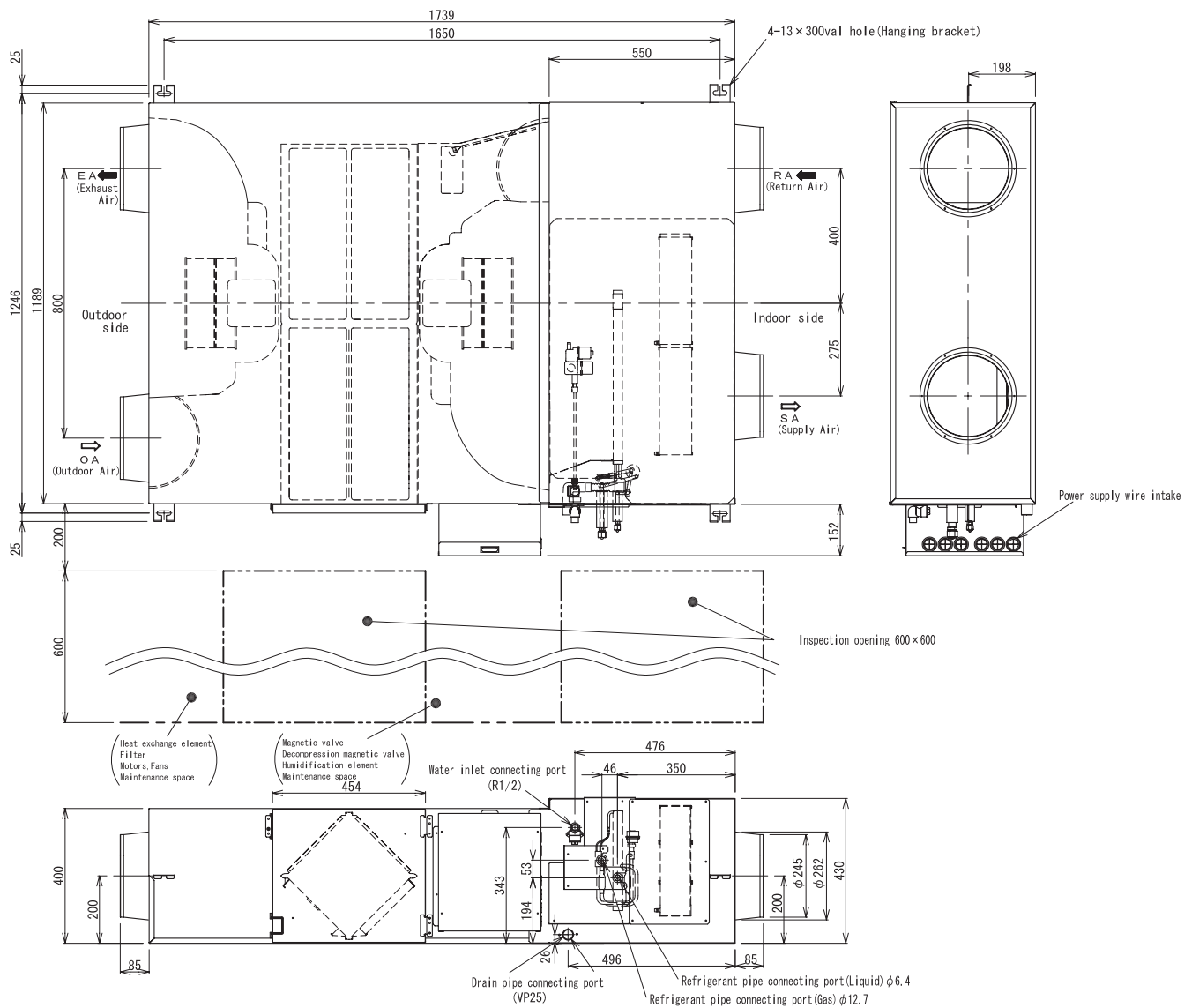
MMD-VNK502HEXE



■ Attention

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

MMD-VNK802HEXE

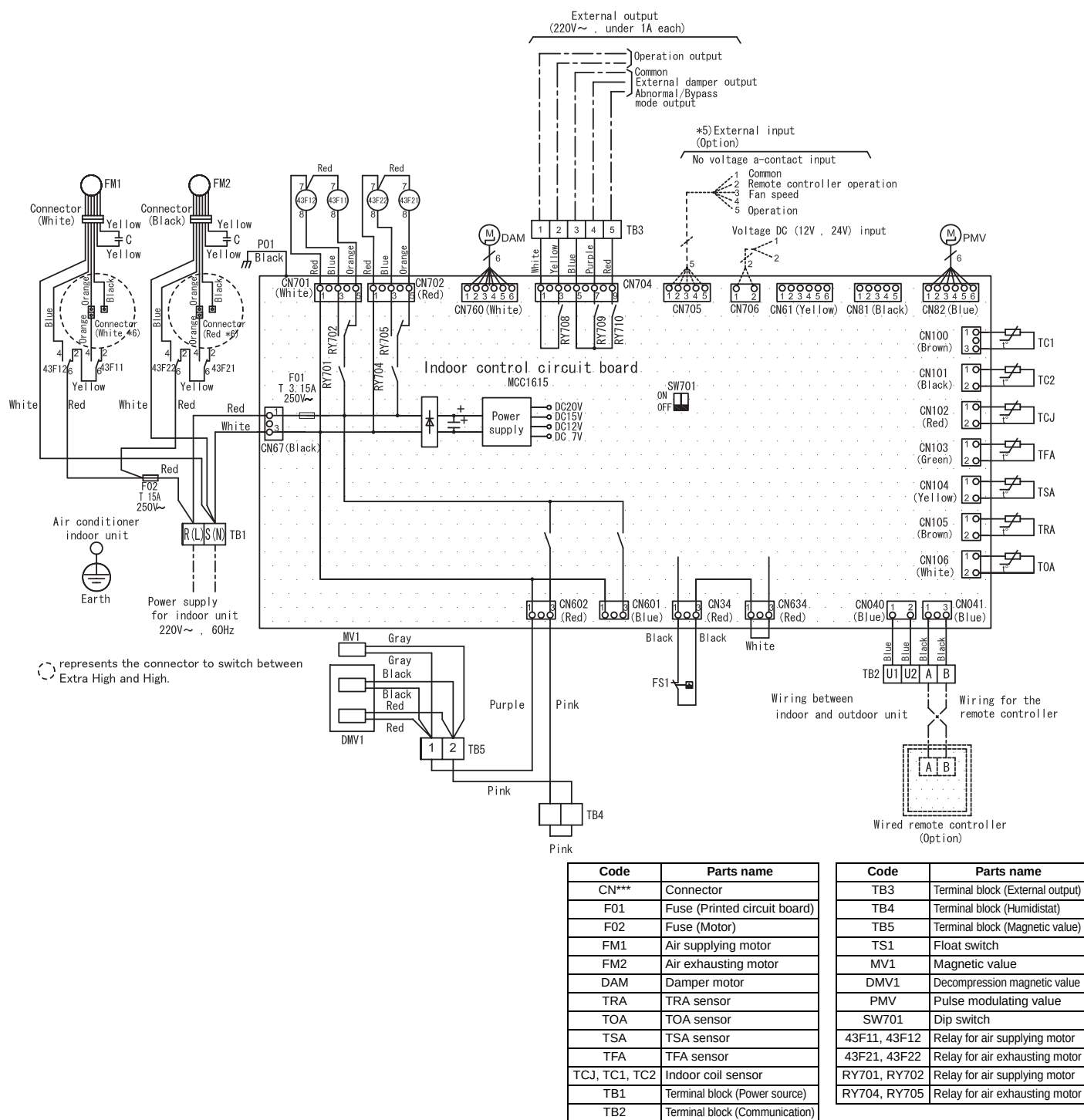


■ **Attention**

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

2-5. Wiring Diagram

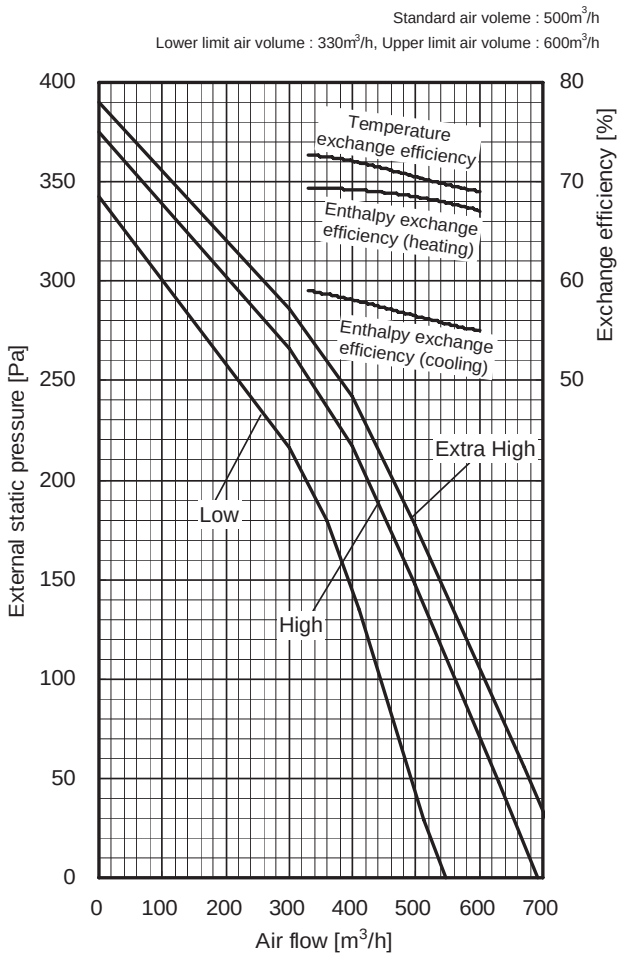
MMD-VNK502HEXE, MMD-VNK802HEXE



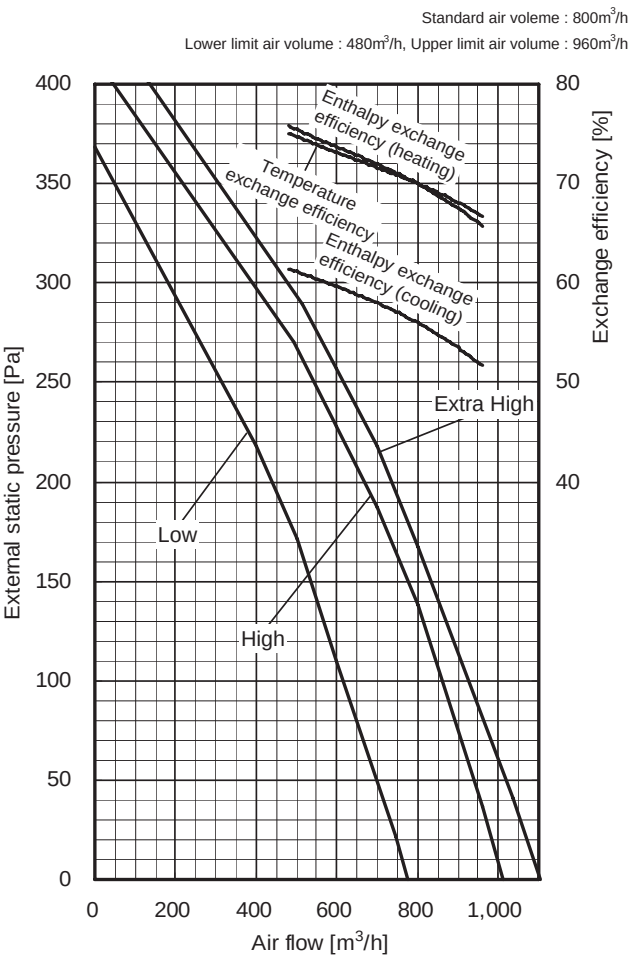
2-6. Fan Characteristics

220V, 60Hz

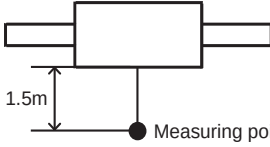
MMD-VNK502HEXE



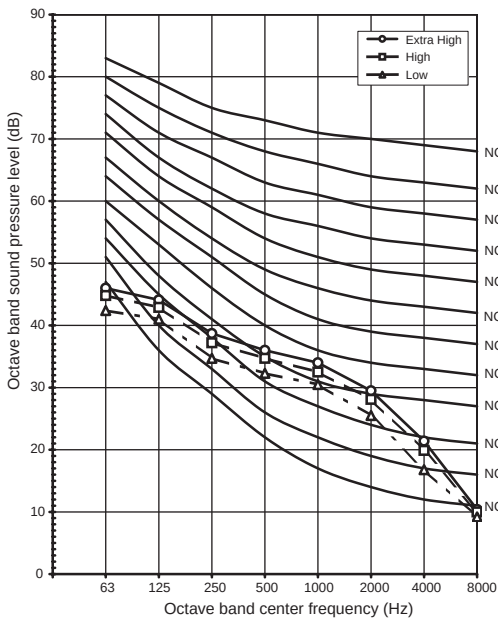
MMD-VNK802HEXE



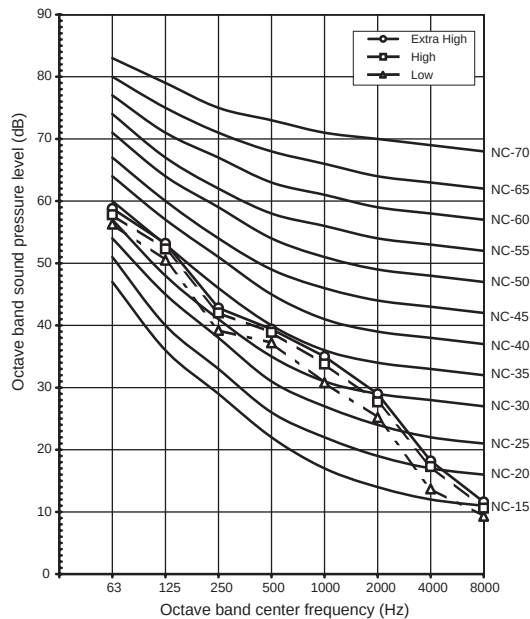
2-7. Sound Characteristics (NC Curve)

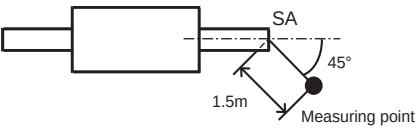
Model name	Power supply (phase/Hz/V)		Sound pressure level (dB)		
			Extra High	High	Low
MMD-VNK502HEXE	1 phase / 60Hz / 220V	Under from body 1.5m 	39.0	37.0	35.5
MMD-VNK802HEXE			42.0	41.0	39.0

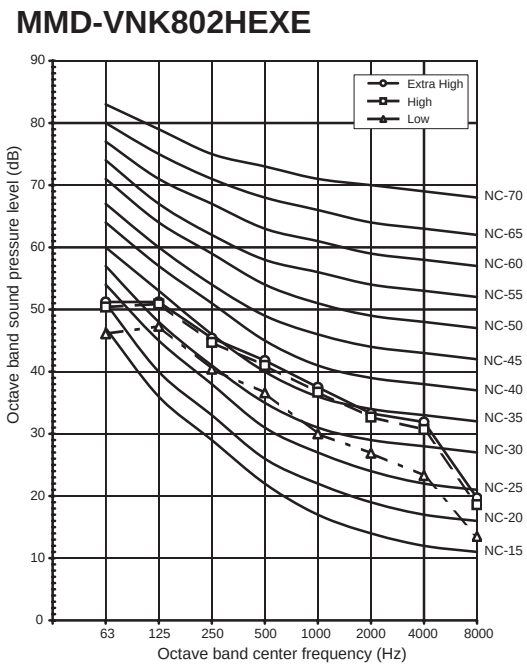
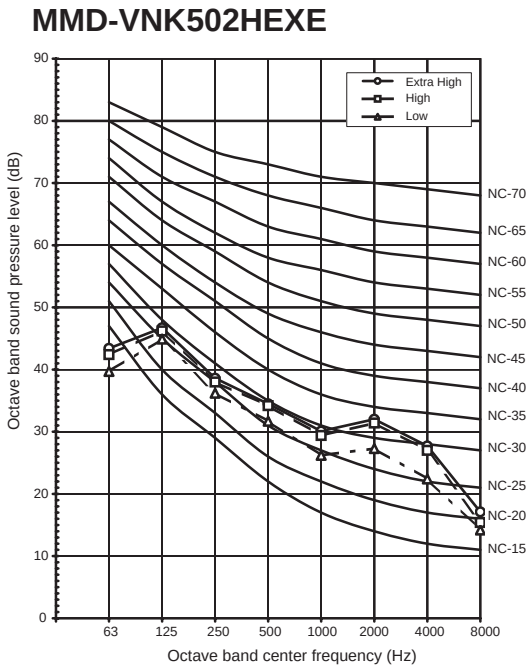
MMD-VNK502HEXE



MMD-VNK802HEXE



Model name	Power supply (phase/Hz/V)		Sound pressure level (dB)		
			Extra High	High	Low
MMD-VNK502HEXE	1 phase / 60Hz / 220V		38.5	38.5	36.0
MMD-VNK802HEXE			44.0	43.0	38.0



TOSHIBA AIR CONDITIONING

Advancing the **eco**-evolution

Air to Air Heat exchanger with DX-coil, Humidifier Type (European market only) Databook

Mar, 2011 First Edition

TOSHIBA CARRIER CORPORATION