



Remote controller  
NRC-01HE

## Air to Air Heat Exchanger

### Greater comfort and reduced load

Easily integrated into air conditioning systems of 150m<sup>3</sup>/h to 2000m<sup>3</sup>/h air volume, the air-to-air heat exchangers use exhaust air to pre-condition the incoming air, thus reducing the cooling or heating load and the overall size of the required system.

### Easy maintenance

The heat exchange element can be washed in water.

### Free cooling at night

When the air outdoors is cooler at night, the system expels warm air from the room. This reduces the air conditioning load the next day for improved energy efficiency.

### Flexible control

Supply and exhaust fan speed ratios can be changed for improved air volume control that best matches the needs of the environment and location.

\*3 Does not connect to refrigerant piping from outdoor unit. Control wires can be connected.

## VNM\*\*\*HE

### Technical specifications

Model name	VN-	M150HE	M250HE	M350HE	M500HE	M650HE	M800HE	M1000HE	M1500HE	M2000HE	
Power supply (V)	Fan speed	1-phase 50Hz 230V (220–240V) / 1-phase 60Hz 220V (Separate power supply for indoor units required.)									
Power consumption 50Hz/60Hz (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 (m <sup>3</sup> /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	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		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		38		53		70		143	
Duct diameter (mm)		100		150		200		250		inside: 250, outside: 283 x 730	
Filtration efficiency grade %		82									
Operating range	Around unit	-10°C – 40°C 80% RH or less									
	Outdoor Air (OA)	-15°C (*1) – 43°C RH									
	Return Air (RA)	5°C – 40°C 0% RH or less									

\* Air volume can be changed over to high (extra high) mode or low mode.

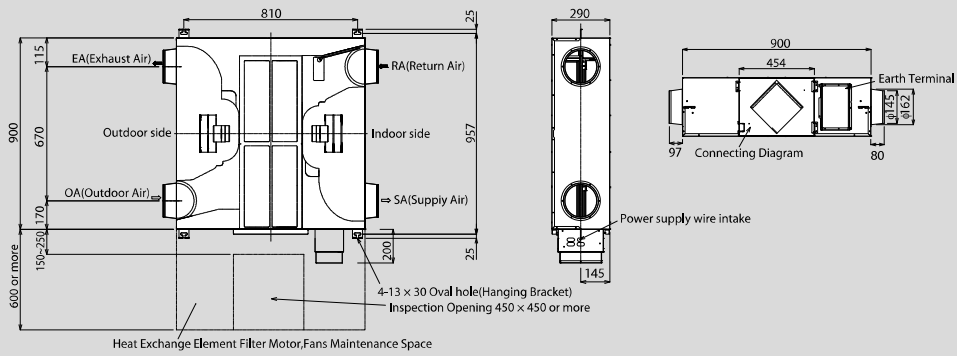
\* Sound pressure level is measured 1.5m below the center of the unit.

\* Sound pressure level is the value which was measured at the acoustic room.

\* The actual values in an external operating environment are generally higher than the indicated values due to the contribution from ambient noise.

\* Sound pressure level is less than 70 dBA

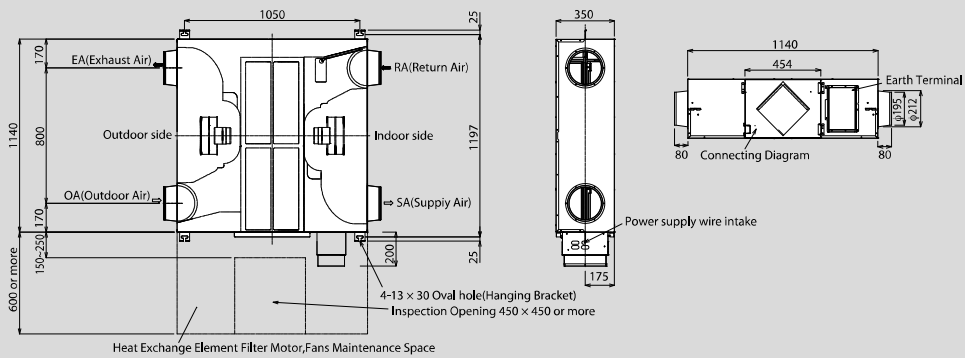
### MMD-VNM150HE to VNM350HE



Duct size (Nominal Diameter):  $\phi 150$

(Unit: mm)

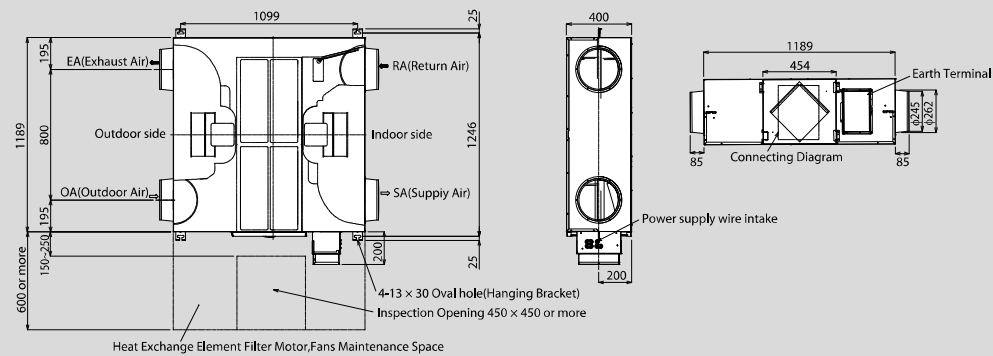
### MMD-VNM500HE, VNM650HE



Duct size (Nominal Diameter):  $\phi 200$

(Unit: mm)

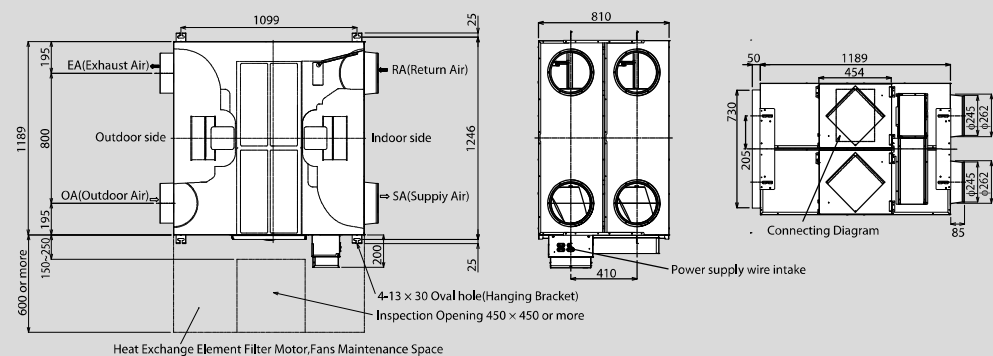
### MMD-VNM800HE, VNM1000HE



Duct size (Nominal Diameter):  $\phi 250$

(Unit: mm)

### MMD-VNM1500HE, VNM2000HE



Duct size (Nominal Diameter):  $\phi 250$

(Unit: mm)