

# AIR-TO-AIR HEAT EXCHANGER

## VN-U-SY-E



The Carrier VN Model helps reduce the overall capacity of the system. To do this, it uses exhaust air to precondition incoming air and lower the cooling load on the system.

AIRFLOW



150m<sup>3</sup>/h-2,000m<sup>3</sup>/h

SOUND PRESSURE LEVEL



20dB(A)

LOCAL CONTROLS



NRC-01HE

### Specifications

Model name	VN-	U00151SY-E	U00251SY-E	U00351SY-E	U00501SY-E	U00651SY-E	U00801SY-E	U01001SY-E	U01501SY-E	U02001SY-E	
<b>Air volume</b> (Extra High/High/Low)	m <sup>3</sup> /h	150/150/110	250/250/155	350/350/210	500/500/390	650/650/520	800/800/700	1,000/1,000/755	1,500/1,500/1,200	2,000/2,000/1,400	
<b>Power consumption</b>	Extra high	W	68-78	123-138	165-182	214-238	262-290	360-383	532-569	751-786	1,084-1,154
	High	W	59-67	99-111	135-145	176-192	240-258	339-353	494-538	708-784	1,032-1,080
	Low	W	42-47	52-69	82-88	128-142	178-191	286-300	353-370	570-607	702-742
<b>External static pressure</b>	Extra High	Pa	82-102	80-98	114-125	134-150	91-107	142-158	130-150	135-156	124-143
	High	Pa	52-78	34-65	56-83	69-99	58-82	102-132	97-122	103-129	92-116
	Low	Pa	47-64	28-40	65-94	62-92	61-96	76-112	84-127	112-142	110-143
<b>Sound pressure level</b>	Extra High	dB(A)	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	dB(A)	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	dB(A)	20-22	21-22	27-29	26-29	31-32.5	33.5-35	34-35.5	36-37.5	37-38
<b>Temperature exchange efficiency (%)</b>	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
<b>Enthalpy exchange efficiency (%)</b>	Extra High	Heating	74.5	70	65	72	69.5	71	68.5	71	68.5
	High	Heating	74.5	70	65	72	69.5	71	68.5	71	68.5
	Low	Heating	76	74	71.5	73.5	71.5	71.5	71.5	73.5	72
	Extra High	Cooling	69.5	65	60.5	64.5	61.5	64	60.5	64	60.5
	High	Cooling	69.5	65	60.5	64.5	61.5	64	60.5	64	60.5
	Low	Cooling	71	69	67	66.5	64	65.5	64.5	67	65.5
<b>Power supply</b>		1 phase 50Hz 230V (220-240V) / 1 phase 60Hz (220V)									
<b>Dimensions (HxWxD)</b>	mm	900x900x290			1,140x1,140x350		1,189x1,189x400		1,189x1,189x810		
<b>Weight</b>	kgs	36	36	38	53	53	70	70	143	143	
<b>Duct diameter</b>	mm	100	150		200		250		Inside: 250 / Outside: 283x730		
<b>Filtration efficiency grade (%)</b>		82									
<b>Operating range</b>	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									

\*1: This model only supports old communication protocol. Please contact your local distributor to connect these indoor units.

\* 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.

\* Values of sound pressure levels usually become higher than above due to the influence of actual installation conditions such as reflected sound and peripheral noise.

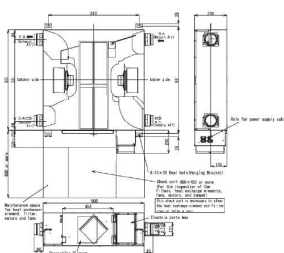
\* Sound power level is the value of casing.

\*1) When the temperature of outside air is below -10°C, the unit runs in 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 also the ventilator for air exhaust can be stopped by this setting.

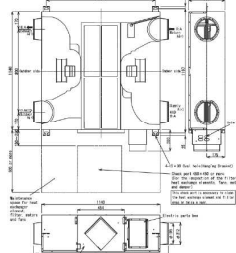
### Drawings

Unit: mm

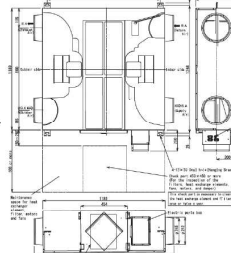
VN-U00151SY-E to  
VN-U00251SY-E



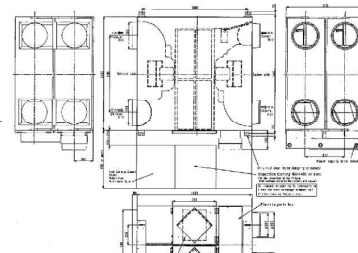
VN-U00501SY-E to  
VN-U00651SY-E



VN-U00801SY-E to  
VN-U01001SY-E




VN-U01501SY-E to  
VN-U02001SY-E



# AIR-TO-AIR HEAT EXCHANGER

## Accessories

Part name	Model name	Description	Appearance	Remarks
Control	NRC-01HE	Dedicated remote control for all Air-to-Air Heat Exchangers		Integrated functions: Fan Speed, Free Cooling, Air Balance Volume Rate, Temperature Management and Timer
	NRB-1HE	All Air-to-Air Heat Exchangers On/Off additional PCB		On/Off optional PCB for Air-to-Air Heat Exchanger

## Other Information

