

MMD-VNK

AIR-TO-AIR HEAT EXCHANGER WITH DX COIL



MMD-VN(K) ventilation products are using exhaust air + DX coil to pre-condition the incoming air, thus reducing the cooling or heating load and the overall size of the required air conditioning system.

Energy savings

- Recovers incoming heat and humidity up to 75% and transfers them to the outdoor fresh air.
- Up to 10kW coil capacity to reach intake air temperature close to ambient temperature: no extra load on the heating and cooling system
- Unit has the ability to automatically change operation mode of the air flow between heat exchanger mode (energy recovery) to normal standard ventilation mode (free cooling), based on the outdoor temperatures.
- Free cooling - Provides fresh outdoor cool air to reduce the indoor air temperature, when the outdoor temperature is lower than the indoor air conditioned temperature.

Multi-application

- 9 models available with air flow ranges from 150 to 2000 m³/h.
- Air balance volume rate can be varied to suit the usage environment and location.
- Version with humidifier is available for applications where humidity levels need to be controlled.

Fully integrated

- Air conditioners and heat exchangers are controlled with the same main bus system (TCC-LINK).

CAPACITY



4.1kW > 10.9kW

SOUND PRESSURE LEVEL



34dB(A)

AIR FLOW



500m³/h > 1000m³/h

OUTDOOR UNITS



MiNi SMMS-e



SMMS-e



SHRM-e

LOCAL CONTROLS



NRC-01 HE
RBC-AMT32E

Performance and physical data

AIR-TO-AIR HEAT EXCHANGER WITH DX COIL + HUMIDIFIER

Model	MMD-	VNK502HEX1E	VNK802HEX1E	VNK1002HEX1E	
Fresh air conditioning capacity	CO	kW	4.10 (1.30)	6.56 (2.06)	8.25 (2.32)
Fresh air conditioning capacity	HP	kW	5.53 (2.33)	8.61 (3.61)	10.92 (4.32)
Air volume	(EH/H/L)	m ³ /h	500/500/440	800/800/640	950/950/820
Temperature exchange efficiency	(EH/H/L)	%	70.5/70.5/71.5	70/70/72.5	65.5/65.5/67.5
Enthalpy exchange efficiency (Heating)	(EH/H/L)	%	68.5/68.5/69	70/70/73	66/66/68.5
Enthalpy exchange efficiency (Cooling)	(EH/H/L)	%	56.5/56.5/57.5	56/56/59	52/52/54.5
Sound pressure level* ***	(EH/H/L)	dB(A)	36.5/35.5/33.5	40/39/38	42/41/39
Power consumption***	(EH/H/L)	W	305/285/240	530/485/350	575/565/520
External static pressure***	(EH/H/L)	Pa	95/85/95	105/85/90	110/90/115
Heat exchanger	Finned tube - R410A				
Gas line diameter	mm	9.5	12.7	12.7	
Liquid line diameter	mm	6.4	6.4	6.4	
Drain port diameter	mm	25	25	25	
Humidifier technology	Permeable film humidifier				
water pressure	0.02 to 0.49				
water flow		3	5	6	
water supply		1/2"	1/2"	1/2"	
Dimensions (HxWxD)	mm	430x1140x1690	430x1189x1739	430x1189x1739	
Weight	kg	91	111	112	
Duct diameter	indoor side	mm	200	250	250
Power supply	V-ph-Hz		220-240 - 1 - 50		
Operating range	Around unit	-10 / 40°C . RH ≤80%			
	Outdoor Air (OA)	-15 / 43°C . RH ≤80%			
	Return Air (RA)	5 / 40°C . RH ≤80%			

* Sound pressure level is measured 1.5m below the center of the unit. *** Sound pressure level, power consumption and external static pressure values at 230 V. 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. The figures in () indicate the heat reclaimed from the heat recovery ventilator. EH/H/L = extra-high/high/low. C: cooling mode. H: heating mode