

MMD-VN(K)

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



SHRVI-e

LOCAL CONTROLS



RBC-AMTU31-E

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

Performance and physical data

Model	MMD-		VN502HEX1E/TR	VN802HEX1E/TR	VN1002HEX1E/TR	VNK502HEX1E/TR	VNK802HEX1E/TR	VNK1002HEX1E/TR
Fresh air conditioning capacity	CO	kW	4.10 (1.30)	6.56 (2.06)	8.25 (2.32)	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)	5.53 (2.33)	8.61 (3.61)	10.92 (4.32)
Air volume	(EH/H/L)	m³/h	500/500/440	800/800/640	950/950/820	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	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	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	52/52/54.0	56.5/56.5/57.5	56/56/59	52/52/54.5
Sound pressure level***	(EH/H/L)	dB(A)	37.5/36.5/34.5	41/40/38	43/42/40	36.5/35.5/33.5	40/39/38	42/41/39
Power consumption***	(EH/H/L)	W	300/280/235	505/465/335	550/545/485	305/285/240	530/485/350	575/565/520
External static pressure***	(EH/H/L)	Pa	120/105/115	120/100/100	135/120/105	95/85/95	105/85/90	110/90/115
Heat exchanger			Finned tube - R410A			Finned tube - R410A		
Gas line diameter		mm	9.5	12.7	12.7	9.5	12.7	12.7
Liquid line diameter		mm	6.4	6.4	6.4	6.4	6.4	6.4
Drain port diameter		mm	25	25	25	25	25	25
Humidifier technology						Permeable film humidifier		
water pressure			0.02 to 0.49					
water flow			3					

* 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