

HEAT RECOVERY VENTILATION



Residential Warranty

TOSHIBA

VN-U**SY

VENTILATION

It is a fact that people spend nearly 80% of their time indoors; this increases their exposure to harmful biological substances like bacteria, viruses, mould, pollen, and also chemicals such as formaldehyde and carbon dioxide. Even everyday products such as deodorant, hairspray, air fresheners, and cleaning products impact indoor air quality and health. These substances, known as Volatile Organic Compounds (VOC), are the cause of “sick building syndrome,” an issue first recognised in the 1970s. The consequences for building occupants include irritant effects, sleepiness, dizziness, respiratory issues like asthma and other allergies. Indoor air needs to be exhausted and effectively replaced by new fresh air to keep oxygen levels correct and remove most pollutants. The use of a Toshiba air-to-air heat exchanger, to complete both functions of stale air removal and fresh air intake, limits heat dispersion (recovering up to 80% of the heat energy being expelled), therefore reducing the load on the air conditioning/source of heat.

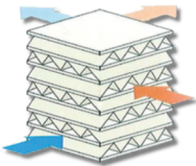
ENERGY SAVINGS

For energy savings on those hot summer nights, the system will bypass the heat exchange core and bring in cooler night air, reducing the load on air conditioning systems or eliminating the need for air conditioning altogether. The Toshiba ‘HEX’ can be used as a standalone system or connected to any of Toshiba’s ‘RAV’ series heat pump air conditioners with a wired controller.

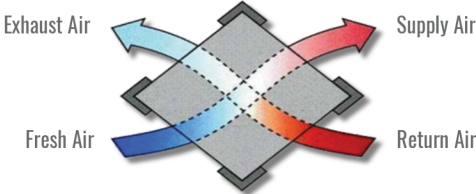
For commercial applications, the ‘HEX’ can be group controlled and comes with ‘U’ terminals for connection to TCC link, allowing integration with BACnet®, LonWorks®, or Modbus. For increased installation flexibility, the ‘HEX’ system can be configured as balanced, positive, or negative pressure.



Heat Exchange Core Cross flow



Heat Exchanger Core Side View



Suggested Residential Sizing

Model	Dwelling Size
VN-U00151SY-E	Up to 80sqm
VN-U00251SY-E	Up to 125sqm
VN-U00501SY-E	Up to 200sqm

Technical Specifications

Model	Height (mm)	Length (mm)	Width (mm)	Weight (KG)	Airflow (L\S)	Duct Spigot (mm)	Number of Cores	Electrical Supply	*Temperature Exchange %	Operational Range (OA)	Operational Range (RA)
VN-U00151SY-E	278	778	735	29	42	100	2	230 VAC 50-60 Hz	84.5	-20°C to +52°C R/H 80% or less	+5°C to 40°C R/H 80% or less
VN-U00251SY-E	278	778	735	29	69	150	2	230 VAC 50-60 Hz	82	-20°C to +52°C R/H 80% or less	+5°C to 40°C R/H 80% or less
VN-U00351SY-E	305	880	880	40	97	150	2	230 VAC 50-60 Hz	84	-20°C to +52°C R/H 80% or less	+5°C to 40°C R/H 80% or less
VN-U00501SY-E	337	920	1020	47	140	150	2	230 VAC 50-60 Hz	80	-20°C to +52°C R/H 80% or less	+5°C to 40°C R/H 80% or less
VN-U00651SY-E	337	920	1020	47	181	150	2	230 VAC 50-60 Hz	78	-20°C to +52°C R/H 80% or less	+5°C to 40°C R/H 80% or less
VN-U00801SY-E	386	1230	1130	63	222	250	2	230 VAC 50-60 Hz	84	-20°C to +52°C R/H 80% or less	+5°C to 40°C R/H 80% or less
VN-U001001SY-E	386	1230	1130	63	278	250	2	230 VAC 50-60 Hz	80	-20°C to +52°C R/H 80% or less	+5°C to 40°C R/H 80% or less
**VN-M1500HE	810	1189	1189	143	417	250	4	230 VAC 50-60 Hz	76.5	-20°C to +52°C R/H 80% or less	+5°C to 40°C R/H 80% or less
**VN-M2000HE	810	1189	1189	143	555	250	4	230 VAC 50-60 Hz	73.5	-20°C to +52°C R/H 80% or less	+5°C to 40°C R/H 80% or less

Toshiba Air to Air heat exchange ventilation complies with NZS 4303:1990.
** uses wired controller NRC-01HE

*Temperature Exchange % on Medium fan speed for heating.

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YEARS
WARRANTY
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