

VS500 SQ

PRODUCT SHEET

VENTACITY SYSTEMS
—◆—
ALWAYS HEALTHY • ALWAYS EFFICIENT™

An ultra-efficient heat recovery ventilator (HRV) and intelligent dedicated outdoor air system (DOAS) for ductless installation, the Ventacity VS500 SQ is a ductless HRV for decentralized applications. Its minimal noise level makes it a perfect choice for classrooms, offices and conference rooms. The VS500 SQ optimizes for energy efficiency and healthy indoor air quality, while offering ultra-quiet operation and no drafts.



A part of the

HVAC² NEXTGEN BUILDING SYSTEM™

Our ventilation equipment connects seamlessly to our building controls and cloud-based user interface to take HVAC systems to the next level of energy efficiency and control. We call this new system HVAC².

1-888-VENTIL8 (888-836-8458)
ventacity.com

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PERFORMANCE



Exceptional energy efficiency performance puts the VS500 SQ in a class by itself.

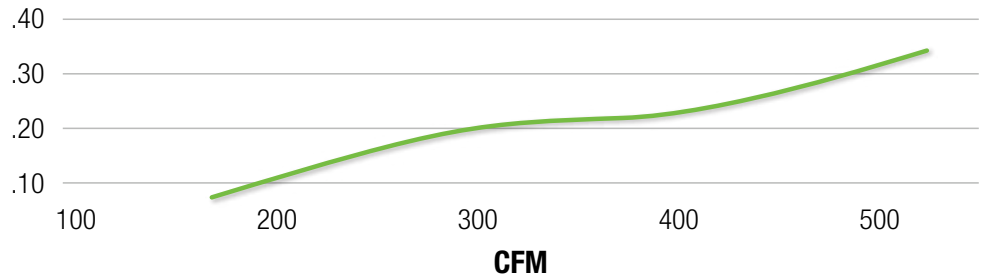


With its aluminum counterflow heat exchanger core, the VS500 SQ transfers 81% to 90% of the heat between fresh and exhaust air streams.

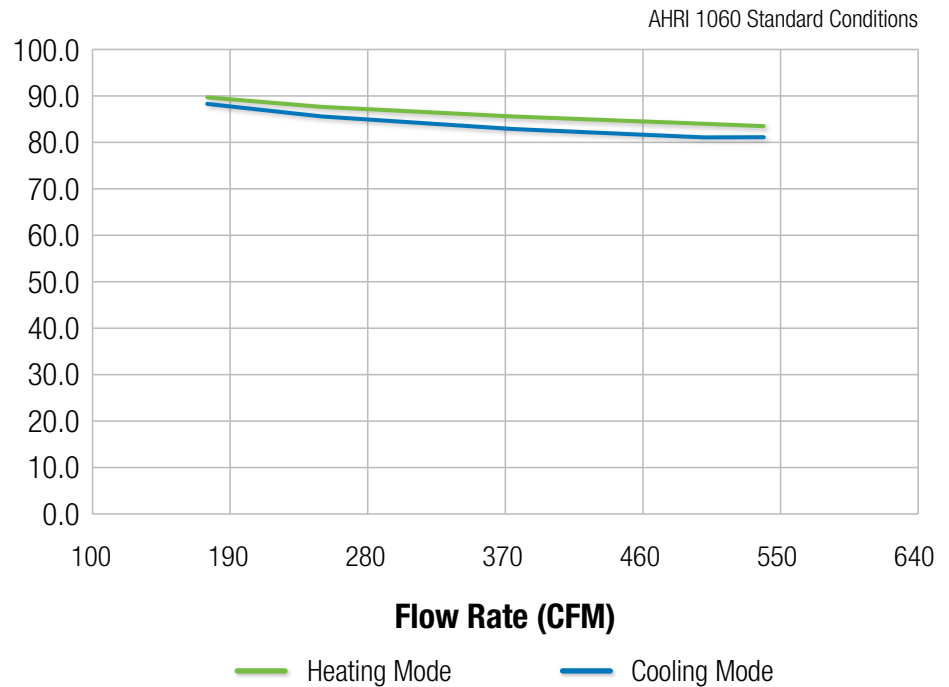


Our fans incorporate electronically commutated motors (ECMs) and backward curving fan blades, reducing the power required for air movement.

SPECIFIC FAN POWER



HEAT RECOVERY EFFICIENCY



SOUND PERFORMANCE FROM EXHAUST AIR DUCT

Fan Speed	CFM	Sound Power Per Frequency Band (Hz)								Overall
		63	125	250	500	1k	2k	4k	8k	LWA [dB]
25%	180	32.0	38.9	37.6	31.4	26.9	25.3	23.8	23.4	42.4
50%	307	39.7	48.2	53.0	44.3	42.4	45.4	37.9	35.6	55.6
75%	464	46.6	55.5	63.9	54.3	53.3	58.7	50.0	47.5	66.2
Boost	539	49.2	56.9	64.2	56.0	53.4	57.2	54.3	53.8	66.8

SOUND PERFORMANCE RADIATED FROM CASE

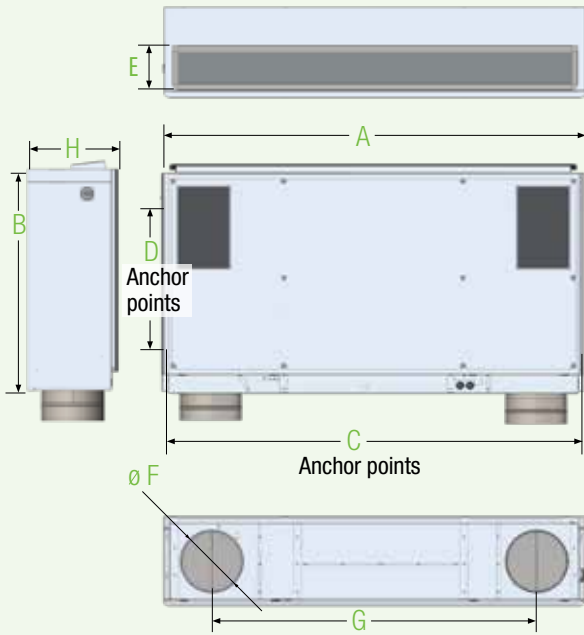
Fan Speed	CFM	Sound Power Per Frequency Band (Hz)								Overall		
		63	125	250	500	1k	2k	4k	8k	LWA [dB]	LPA [dB] ¹	LPA [dB] ²
25%	180	20.0	38.0	46.6	28.3	22.4	21.9	28.1	27.0	47.3	32.6	24.7
50%	307	34.5	41.1	43.2	33.3	31.9	29.6	27.4	25.9	46.2	31.5	23.6
75%	464	40.5	44.1	48.7	41.5	40.0	37.5	29.8	26.6	51.5	36.8	28.9
Boost	539	44.4	48.4	51.0	46.5	44.9	42.4	34.2	27.9	55.0	40.3	32.4

¹Sound pressure levels calculated at 1 meter for Q = 4

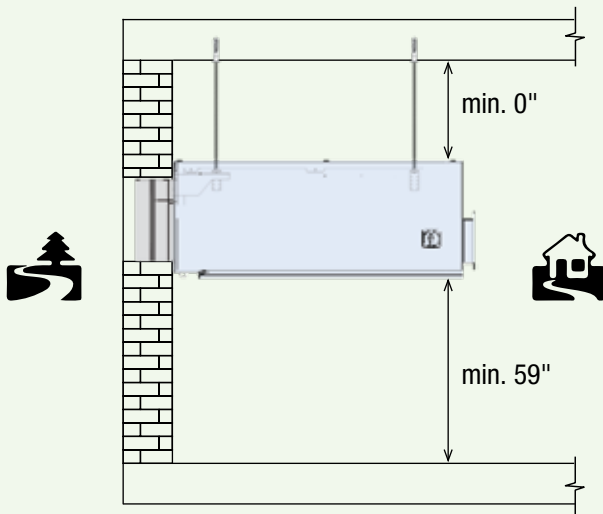
²Sound pressure levels calculated at 3 meters for Q = 4

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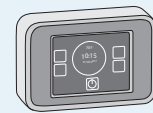
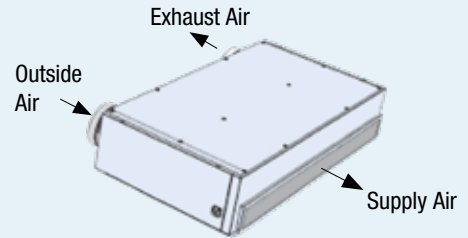
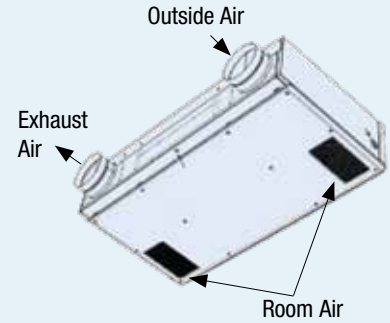
DIMENSIONS



A	84.3"	E	8.8"
B	43.9"	F	12.4"
C	82.9"	G	64.9"
D	30.0"	H	17.9"



PARTS



Control Panel



Condensate Drain Siphon

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SPECIFICATIONS

Ventilation Flow – Max	539 cfm
Ventilation Flow – Typical	117 to 500 cfm
Ventilation Type	Heat Recovery Ventilator (HRV)
Heat Exchanger	Counterflow Aluminum Static Plate
Fan Type	Backward Curved, Centrifugal, EC
Heat Recovery – Max	90%
Temperature Range	40° F to 104° F
Humidity – Inside Max	90% RH
Operation Modes	CAV, DCV, Economizer
Noise	31 – 40 dBA
Duct Connection (Room Air, Supply Air)	None
Duct Connection (Outside Air, Exhaust Air)	12.4" Dia. (121 in ²) Min.
Temperature Control	Continuously Variable Bypass

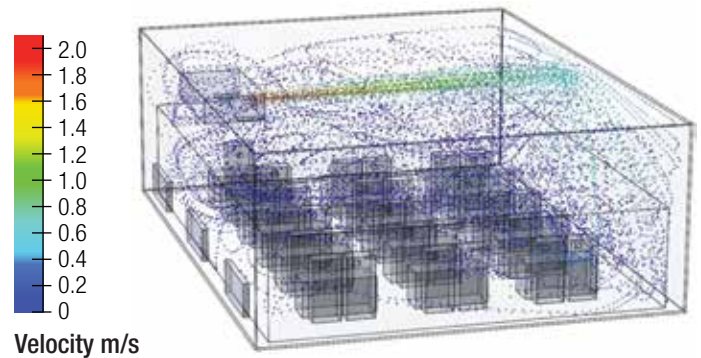
MECHANICAL

Weight	280 lbs
Shipping Weight	424 lbs
Dimensions	84.3" L x 44.0" W x 17.9" H
Shipping Dimensions	92" L x 60" W x 29" H
OA Filter (Actual Size)	18.9" x 19.7" W x 3.8" MERV13
RA Filter (Actual Size)	10.6" L x 16.7" MERV8
Mounting Dimension	30.1" x 82.9"
External Finish	Powder Coat Over Aluminum

ELECTRICAL

Power Supply	2.34 kW
Voltage	240 VAC 1Φ, 60Hz
FLA – Max	11.4 A, 1Φ
De-Ice Preheater	3.0 kW
Fan Motor Type	EC
Maximum Power – 1 Fan	170W (.23hp)

EXAMPLE CLASSROOM AIR FLOW



ACCESSORIES

- PIR Presence Sensor
- Room CO₂ Sensor
- Room RH Sensor
- VOC Sensor
- Smart Building Gateway

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 Portland, OR 97201
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