

## Specification Sheet

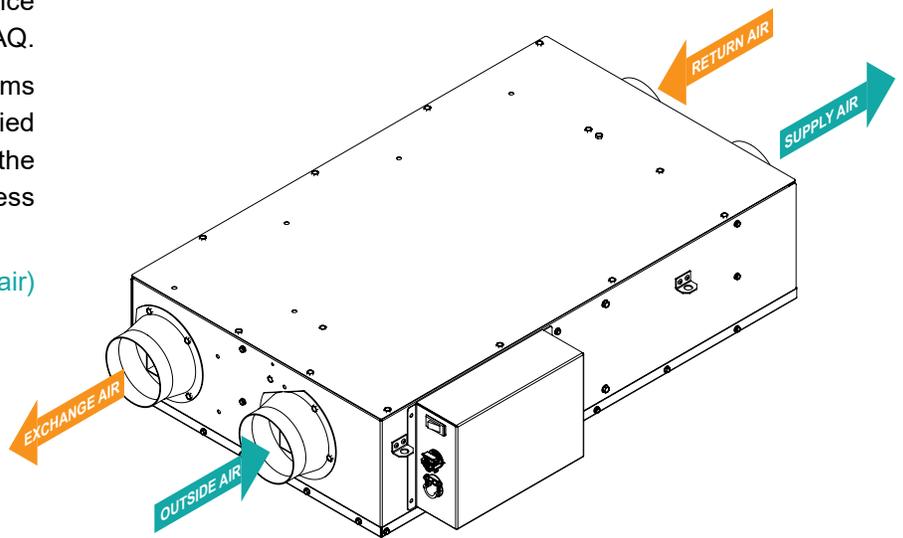
# Energy Recovery Ventilator

### Description

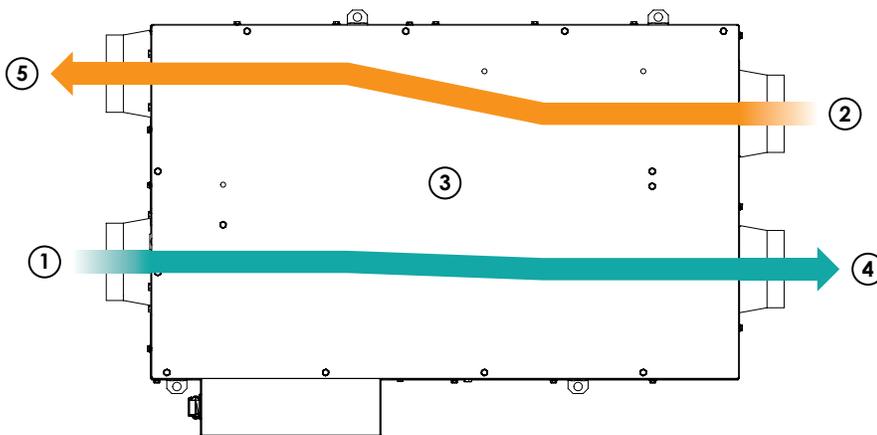
Indoor Air Quality (IAQ) is becoming a growing concern, as modern construction practices adapt to meet more stringent building energy codes. As building envelopes become tighter to improve energy efficiency, the unfortunate consequence is less air ventilation that promotes poor IAQ.

AirFixture Energy Recovery Ventilator systems not only increase ventilation to the occupied space and improve IAQ, they also optimize the efficiency of HVAC systems through a process called...

Sensible (dry air) or Latent (dry and humid air) heat exchange



### Concept of Energy Recovery



1. Outside Air (OA): Fresh unconditioned air enters ERV core where temperature and humidity are altered.
2. Return Air (RA): Heat and moisture are recovered from stale indoor/return air through Total Heat Exchange prior to being discharged to the outside air.
3. Total Energy Exchange (ERV): Stale indoor air is replenished with fresh, conditioned and filtered outdoor air presenting high quality supply air to the occupied space through sensible or latent energy exchange. Airstreams and air pollutants do not intermingle between static plates.
4. Supply Air (SA): Fresh conditioned supply air enters the occupied space through air ducts.
5. Exchange Air (EA): Polluted indoor air is discharged to the outdoors through air ducts.

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# Energy Recovery Ventilator

### Features

- Power rating: 100V/60Hz
- Two-way equivalent ventilation
- Sensible / latent energy recovery core
- Air flow: 50–100 cfm (85–170 m<sup>3</sup>/hr) (3-speed)
- Auto Defrost function
- Double primary filters
- Options for direct BMS or FEC control
- Meets all ETL standards and building code requirements
- Simple ceiling installation
- Simple maintenance
- 20 gauge galvanized steel casing, pre-painted black
- “Bathroom Light Switch” full ventilation control (optional)



Two-way equipment ventilation filters outdoor fresh air to the inside, while discharging indoor dirty air to the outside



High performance polymer membrane enthalpy cross flow core

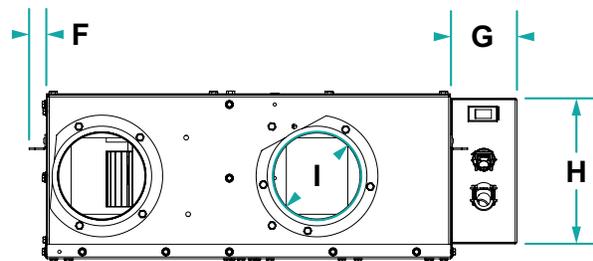
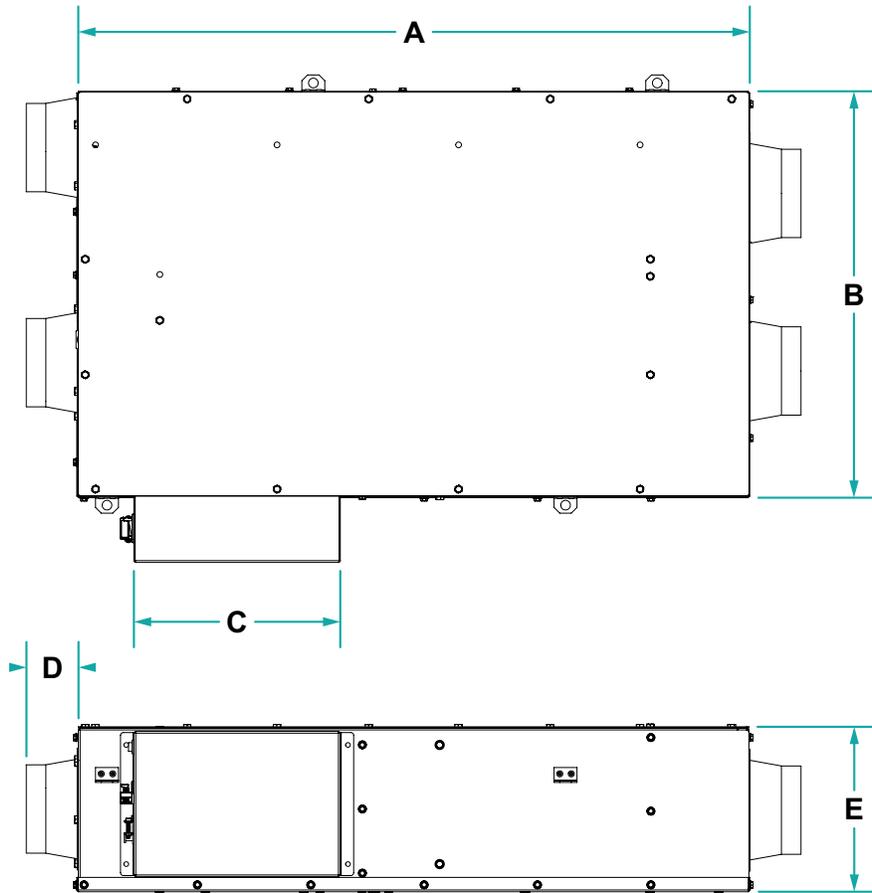


Primary filter captures hair, foreign bodies, and other large debris and particulates

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Dimensions

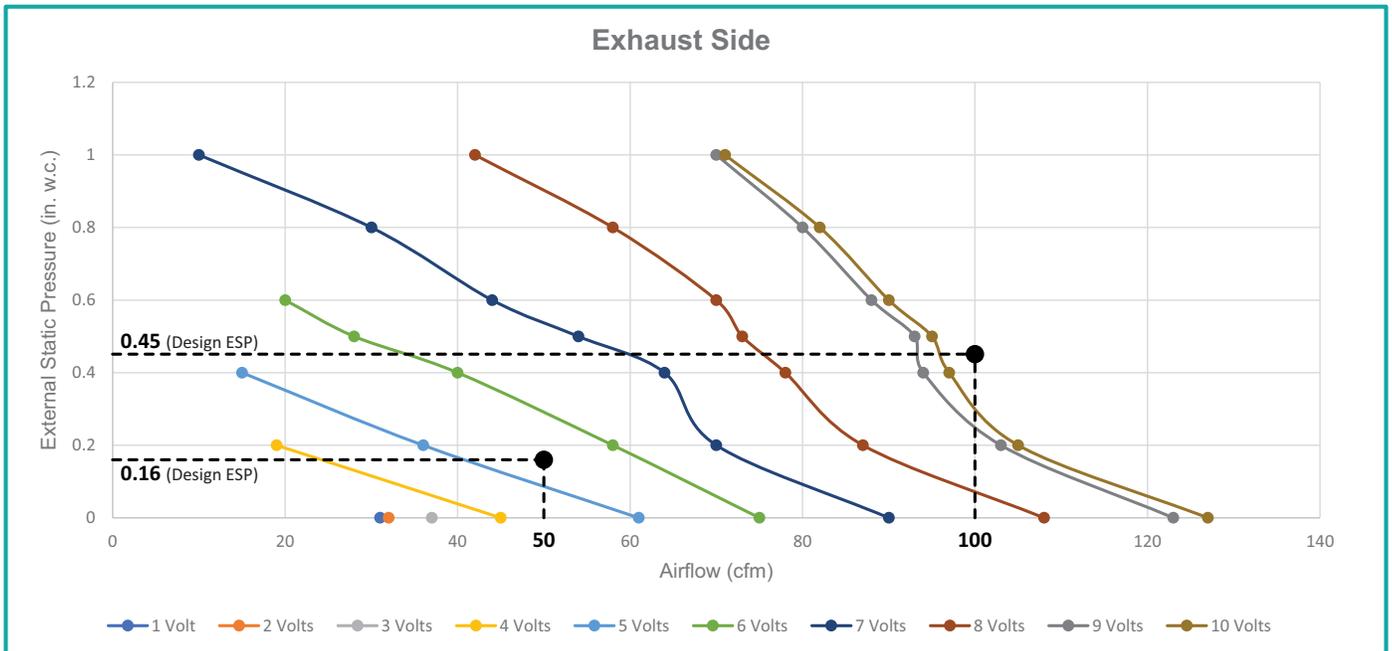
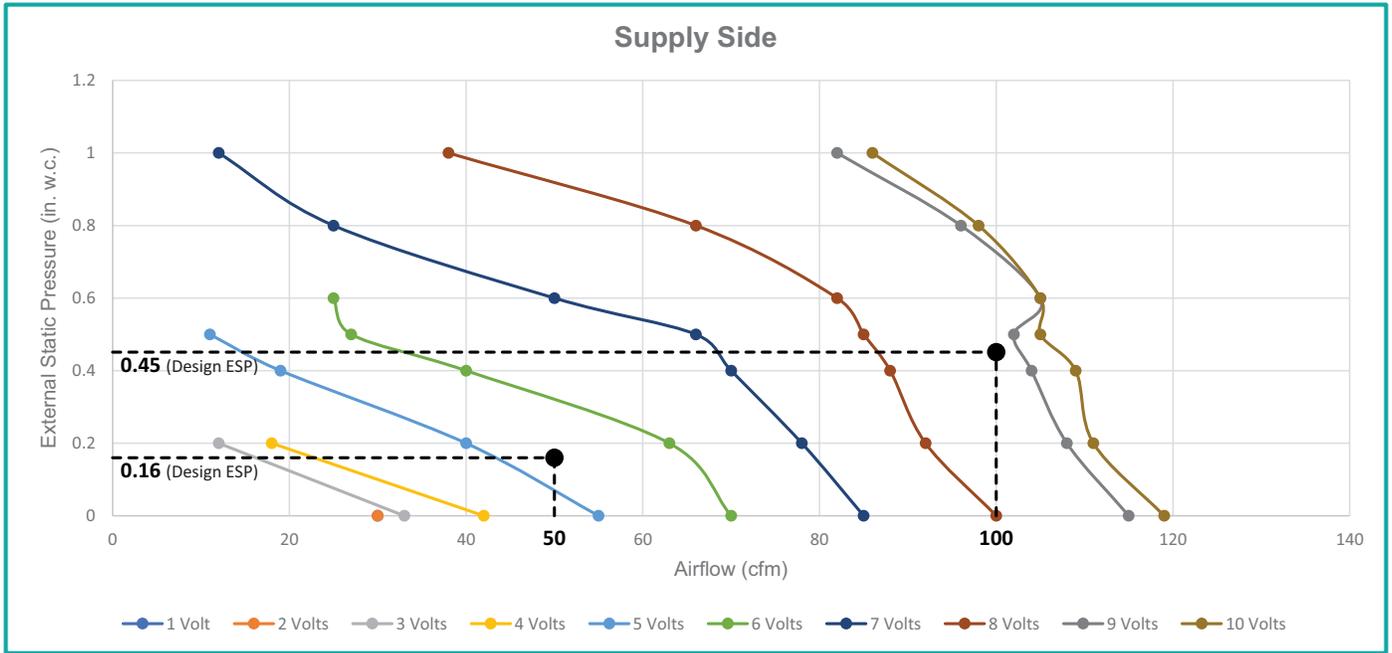


Unit	in	mm
A	29.4	746.8
B	17.7	449.6
C	9.0	228.6
D	2.3	58.4
E	7.2	182.9
F	0.75	19.1
G	2.9	73.7
H	6.4	162.6
I	Ø4.0	Ø101.6

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### Air Flow Performance



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### Recovery Specifications



Certified in accordance with the AHRI ERV Certification Program, which is based on AHRI Standard 1060. Certified units may be found in the AHRI Directory at [www.ahridirectory.org](http://www.ahridirectory.org).

#### Design Conditions

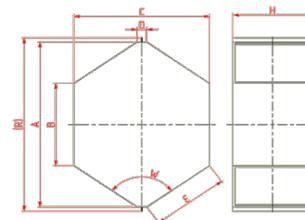
	Summer		Winter		scfm
	Outdoor	Return	Outdoor	Return	
Standard Airflow	64	64	64	64	
Dry Bulb Temp	95.0	75.0	35.0	70.0	°F
Wet Bulb Temp	78.0	63.0	33.0	58.0	°F
Relative Humidity	47.3	51.6	81.8	48.3	%

#### Warning

condensation in exhaust, winter condition

#### Product Dimensions

H-Width	7.09 in
A&C - Plate Size	14.41 in
B - counter flow l	7.64 in
D	0.39 in
E	7.80 in
W	128 °
R (optional)	15.20 in
C-Plate Spacing	0.10 in



# Sections	1
Cores per sector	1
Rows Deep	1
Total cores	1

	Summer		Winter	
	Outdoor (OA)	Return (RA)	Outdoor (OA)	Return (RA)
Airflow [scfm]	64	64	64	64
Dry Bulb Temp [°F]	95.0	75.0	35.0	70.0
Wet Bulb Temp [°F]	78.0	63.0	33.0	58.0
Relative Humidity [%]	47.3	51.6	81.8	48.3
Moisture Ratio [grains/lb]	117.4	66.7	24.4	52.6
Enthalpy [Btu/lb]	41	28	12	25
Energy flow rate [Btu/h]	11,885	8,181	3,495	7,195
	Exhaust (EA)	Supply (SA)	Exhaust (EA)	Supply (SA)
Airflow [scfm]	64	64	64	64
Dry Bulb Temp [°F]	91.5	78.5	41.1	63.9
Wet Bulb Temp [°F]	68.4	73.7	41.1	48.0
Relative Humidity [%]	30.3	79.9	100.0	27.8
Moisture Ratio [grains/lb]	66.7	117.4	38.0	24.4
Enthalpy [Btu/lb]	32	37	16	19
Energy flow rate [Btu/h]	9,342	10,709	4,525	5,503

	Summer	Winter
Supply pressure drop	0.29 in.H2O	0.29 in.H2O
Exhaust pressure drop	0.31 in.H2O	0.31 in.H2O
Sensible effectiveness	82.5 %	82.5 %
Latent effectiveness	0.0 %	0.0 %
Total effectiveness	31.6 %	54.6 %
Temperature ratio	82.5 %	82.5 %
Moisture recovery ratio	0.0 %	0.0 %
Enthalpy recovery Ratio	31.8 %	54.3 %
Supply air face velocity	185 fpm	185 fpm
Exhaust air face velocity	185 fpm	185 fpm
Moisture transferred	0.0 lb/h	0.0 lb/h
Total energy saved	1,176 Btu/h	2,009 Btu/h
Moisture balance	0.00	0.23
Energy balance	0.00	0.12
Condensation rate	0.00 lb/h	0.60 lb/h
Net supply airflow	64 scfm	64 scfm
Supply flow ratio	1.00	1.00

Pressure differential	-0.5	0	0.5	in.H2O
EATR	0	0	0	%
OACF	1.000	1.000	1.000	