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# FANTECH FTC99277 Owner's Manual

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# SER 1100

## Light Commercial Energy Recovery Ventilators

Product #: 99277



Fantech® commercial energy recovery ventilators (ERV) models provide cost-effective energy savings while delivering ventilation to buildings in a compact product.

The exchanger tempers the outdoor air before supplying it to the building by recovering the energy in the building's air before exhausting it.

In summer, the ERV will pre-cool and reduce moisture in the ventilation air while in winter it will pre-heat and recover moisture. We designed our commercial energy recovery ventilators to operate in both warm and humid climates and in very cold climates.

### Feature

- Push-pull configuration
- Removable screw terminal for easy connection
- Dual service doors & reversible electrical box
- External three position switch (Low/Standby/High)
- Weighs 210 lbs (95Kg)

### Applications

- Class Room
- Offices
- Retail Shops
- Clinics
- Hair Salon
- Animal Shelters
- Bars & Restaurants
- Larger Homes

### Specifications

- Voltage/Phase – 120/1
- Power rated – 1340 W
- Amp – 11.17 A
- Average airflow – 1179 cfm (556 L/s)  
@ 0.4" P<sub>s</sub> (100Pa)

### Port configuration

The unit has access doors on the front and back. Also, the main control panel may be moved from front to back allowing for ducting layout.

### Warranty

3 years on all parts

### Fans

Four (4) factory balanced fans with backward curved blades. Motors come with permanently lubricated sealed ball bearings and (TOP) thermal overload protected.

### Energy recovery core

Three (3) modular AHRI certified energy recovery cores made from water vapor transport durable polymer membrane that is highly permeable to humidity. The ERV core is freeze tolerant and water washable. Core dimensions are 11.5" x 11.5" (290x 290 mm) with a 15" (380 mm) depth.

### Defrost

A preset frost control sequence is initiated if the outdoor temperature falls below the set point of 23°F (-5°C). During the initial stage, the supply blower shuts down & the exhaust blower switches into high speed to eliminate frost build-up in the core. The unit then returns to normal operation for the final stage of the frost control sequence at which time the sequence is repeated if the outdoor air temperatures is still below the set point.

### Serviceability

Cores, filters and drain pan can be accessed easily from both sides of the ERV from hinged access panels. Cores conveniently slide out with only 15" (380 mm) clearance. Blowers can be accessed from both side of the ERV from fastened access panels. Blowers are easily removed by taking off the access panel and sliding the motor plates out of the ERV. A quick connect allows for fast inspection of blowers.

### Case

22 gauge galvanized steel. Baked powder coated paint.

### Insulation

Insulated with 1in. (25 mm) fiberglass with FSK facing for condensation control.

### Filters

The exhaust and fresh air streams are protected by MERV1 washable filters constructed to meet UL 900. Optional MERV6 filters are direct replacement to the MERV1. Use of MERV6 filters will add an additional system pressure of 0.64 in.wg (160 Pa) at 1100 cfm (519 l/s). Additional MERV Rated filters available upon request.

### Drain

A Drain and Tubing (included) must be installed for all HRV units. For ERV units, drain is not required, however, it is recommended for climates where outdoor temperature typically remains below -25°C (-13°F) combined with an indoor relative humidity higher than 40% for a period of 24 hours or several days in a row.

### Controls

External three (3) position (Low/Stand By/High) rocker switch that will offer continuous ventilation. In addition Fantech offers a variety of external controls.

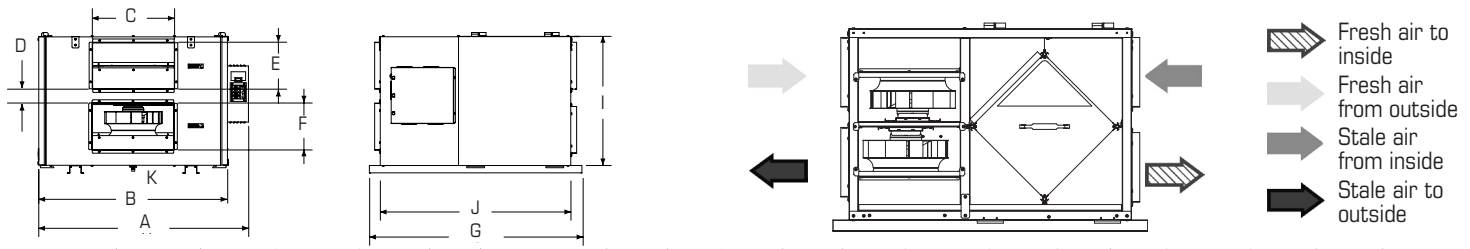
### Mounting

Unit may be suspended by using threaded rod, not supplied, or placed on a platform. Unit shall be adaptable for easy service of electrical components



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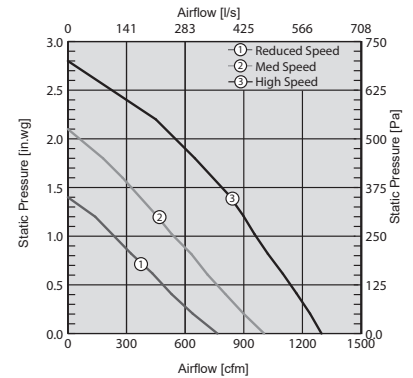
## Dimensions & airflow



Model	A		B		C		D		E		F		G		I		J		K	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
SER 1100	51 2/5	1306	47 1/5	1199	20	508	2 2/5	61	8	203	8	203	36 1/3	923	22	559	32 1/2	826	1 1/2	13

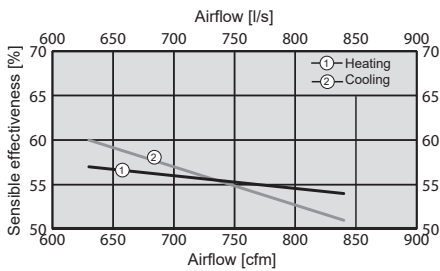
## Ventilation Performance

in. wg. (Pa)	0.2 (50)	0.4 (100)	0.6 (150)	0.8 (200)	1.0 (250)	1.2 (400)	1.8 (450)
	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)	cfm (L/s)
Supply High	1230 (580)	1179 (556)	1121 (529)	1057 (499)	985 (465)	906 (482)	629 (297)
Supply Med	904 (427)	817 (386)	729 (344)	639 (302)	548 (259)	455 (215)	167 (79)
Supply Low	650 (307)	544 (257)	439 (207)	333 (157)	227 (107)	121 (57)	-



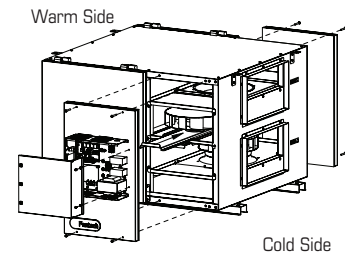
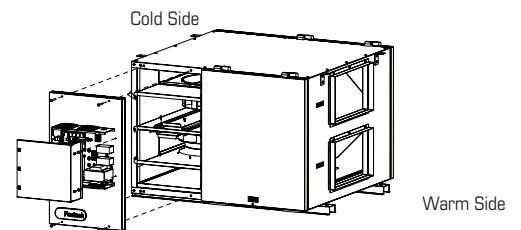
## Energy performance

	Supply temperature		Net airflow		Net Effectiveness		
	°F	°C	cfm	L/s	Sensible	Latent	Total
					%	%	%
Heating	35	1.7	840	396	54	35	50
	35	1.7	630	297	57	40	54
Cooling	95	35	840	396	51	32	50
	95	35	630	297	60	37	53



## Port configuration

Standard Configuration as shipped from factory



## Requirements and standards

- Complies with the UL 1812 requirements regulating the construction and installation of Heat Recovery Ventilators
- Complies with the CSA C22.2 no. 113 Standard applicable to ventilators
- Technical data was obtained from published results of test relating to AHRI 1060 Standards

## Contacts

Submitted by: _____	Date: _____
Quantity: _____ Model: _____	Project #: _____
Comments: _____	
Location: _____	
Architect: _____	
Engineer: _____	Contractor: _____

## Distributed by:

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