

# ENGINEERING DATA

## SS 3.80 ERV model

Energy Recovery Ventilator

30 CFM (14 L/s) to 100 CFM (47 L/s)

Item No. 102210 (SS 3.80 Greentek)

Item No. 102259 (SS 3.80 Imperial)



### FEATURES

- 3 operating modes (Intermittent, Continuous & High)
- 100% variable speed
- ISF™ 5" (127 mm) oval collar system
- Proportional defrost sequence
- Single person mounting system via wall bracket
- Permanent lubrication PSC motors

### APPLICABLE REQUIREMENTS

- HVI Certified
- CSA C439 Standard - Packaged Heat/Energy Recovery Ventilators (HRV/ERV)
- CSA Standard CSA 22.2 N°.113 - Fans and ventilators
- UL Standard 1812. Ducted Heat/Energy Recovery Ventilators (HRV/ERV)

### OPTIONAL ACCESSORIES

- MERV 8 Inline 6" (152.5 mm) filter box
- Matrix 2 in 1 high performance concentric ventilation hood
- R-2 Style high performance supply & exhaust ventilation hoods

### CABINET

- 20 gauge galvanized pre-painted steel corrosion resistant
- Cabinet liner: Molded Expanded Polystyrene (EPS)  
Rated UL94 HF-1

### ELECTRONIC COMPONENTS

- Electrical Input Voltage: 120 VAC/60Hz / 1-Phase.
- Electrical Input Current: 0.85 Amps Max
- Circuit output voltage: 5VDC nominal
- Integrated auxiliary furnace interlock relay
- RoHs compliant

### MOTORS

- Two permanent sealed, lubricated variable speed PSC Motors. (Maintenance free)
- Maximum RPM 3135 / Horsepower; 1/11 HP. Class F, thermally protected
- CSA 22.2 #113-10, clause 8.3.5  
– Backup protection – totally enclosed motor

### dpoint ERV CORE

- Dimensions 10" x 10" x 9" depth  
(254 mm x 254 mm x 228.6 mm)
- Corrugated aluminum layers combined with advanced polymer membrane, Recognized UL94 HB
- Cross-flow that transfers both sensible & latent heat
- Endure harsh temperatures; effective in warm and cold climates
- Water washable
- Meets ASHRAE 90.1

### DUOTROL™ BALANCING SYSTEM

- The system is balanced by adjusting each motor independently
- No balancing dampers required
- Connection terminals for optional wall controls
- Quiet and energy efficient

### DEFROST

- Advanced Proportional supply fan shut down defrost sequence
- Defrost type: Evacuation  
Activated automatically at -5°C (23°F)

### DUCT CONNECTIONS

- Insert Slide & Fix (ISF™), removable collars system
- Four (4) 5" (127 mm) oval double collar
- Intergrated balancing pressure taps

### MOUNTING

- Wall mount bracket included

### FILTERS

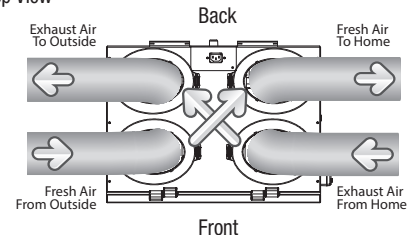
- Two (2) Fiberbond washable - 9" x 10" x ½"  
(228.6 mm x 254 mm x 15.9 mm)
- UL Class 2

### WARRANTY

- 5 year limited warranty on motors
- 5 year limited warranty on parts
- 5 year limited warranty on Energy Recovery Core

### AIRFLOW

Top View



### Imperial Air Technologies

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# ENGINEERING DATA SS 3.80 ERV

## SPECIFICATIONS SS 3.80 ERV

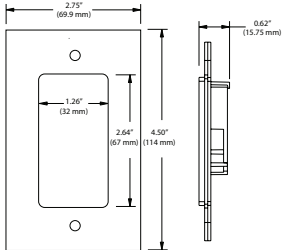
<b>Dimensions</b>	22" x 19 <sup>13</sup> / <sub>16</sub> " x 14 <sup>19</sup> / <sub>32</sub> " (558.8 mm x 502.9 mm x 370.8 mm)
<b>Duct Connections</b>	Four (4) 5" (127 mm) oval ISF double collar system
<b>Airflow Rates</b>	30 CFM (14 L/s) to 100 CFM (47 L/s)
<b>Motor</b>	Two (2) PSC variable speed backward curved
<b>Voltage</b>	120 VAC @ 60 Hz / 1 Phase
<b>Amperage</b>	0.85 A / 66 watts
<b>Type of heat exchanger</b>	dpoint cross-flow (Enthalpic Polymer Membrane)
<b>Exchange surface</b>	56.7 ft <sup>2</sup> (5.27 m <sup>2</sup> )
<b>Defrost type</b>	Evacuation
<b>Filters</b>	Two (2) Fiberbond washable
<b>Drain Connection</b>	1/2" (12.7 mm)
<b>DuoTrol</b>	Integrated Balancing System
<b>Actual Weight</b>	32.5 lbs (14.7 Kg)
<b>Shipping Weight</b>	40 lbs (18.1 Kg)
<b>Certification</b>	HVI, cCSA US, CSA 22.2 N <sup>o</sup> .113 Complies with UL 1812

## OPTIONAL WALL CONTROLS

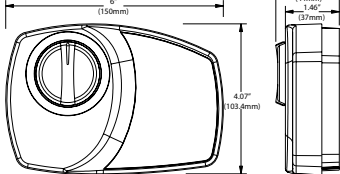
<b>Digital</b>	EHC1.0TC and EHC1.5DC
<b>Mechanical</b>	RD-1, RD-2, RD-3P and RD-4P
<b>Timers</b>	T3 (20, 40, 60 minutes)

## WALL CONTROL DIMENSIONS

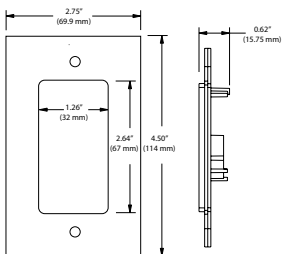
### EHC1.0 & EHC1.5



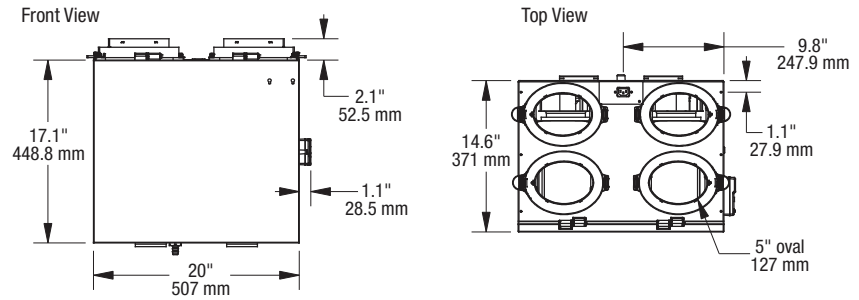
### Mechanical



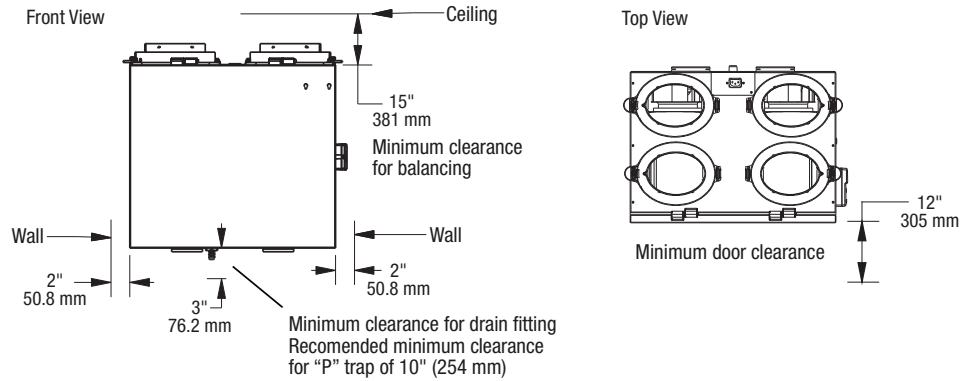
### T3 Timer



## DIMENSIONS DATA

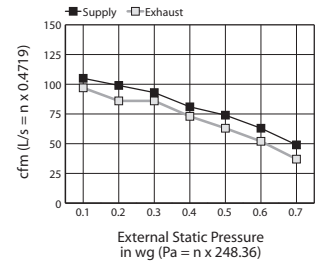


## MINIMUM CLEARANCE DATA



## VENTILATION PERFORMANCE

External Static Pressure	Net Supply Air Flow		Gross Air Flow Supply		Gross Air Flow Exhaust		
	Pa	in. wg	L/s	CFM	L/s	CFM	
25	0.1	49	105	49	105	46	97
50	0.2	46	97	47	99	41	86
75	0.3	44	92	44	93	41	86
100	0.4	37	80	38	81	34	73
125	0.5	34	73	35	74	29	63
150	0.6	29	62	29	63	25	52
175	0.7	23	48	23	49	18	37



## ENERGY PERFORMANCE

	Supply Temperature		Net Air Flow		Power Consumed	Sensible Recovery	Adjusted Sensible	Latent Recovery
	°C	°F	L/s	CFM	Watts	Efficiency (SRE %)	Recovery Efficiency (ASRE %)	Moisture Transfer
<b>HEATING</b>	0	32	20	41	30	65	70	0.47
	0	32	30	64	36	64	68	0.40
	-15	5	17	35	27	51	53	0.39
<b>COOLING</b>	Total recovery Efficiency							
	35	95	19	41	30	—	43	

Quoted by:	Date:
Project:	Remarks:
Quantity:	
Model:	
Site:	
Architect:	
Engineer:	
Contractor:	