

# ENGINEERING DATA

## C 3.14 HRV model

Heat Recovery Ventilator

30 CFM (14 L/s) to 140 CFM (66 L/s)

Item No. 102677 (C 3.14 Greentek)

Item No. 102678 (C 3.14 Imperial)



### FEATURES

- 4 operating modes (Intermittent, Continuous, Recirculation\* & High)
  - 100% variable speed
  - ISF™ 5" (127 mm) oval collar system
  - Proportional defrost sequence
  - Single person mounting system
  - Permanent lubrication of PSC motors
  - Intergrated balancing taps in door
- \* Recirculation mode available with optional Vectra EHC 1.5 Control

### 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)
- Energy Star®, SRE and fan efficacy minimum requirements, for packaged Heat and Energy Recovery Ventilators.

### 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 2630 / Horsepower; 3/32 HP. Class F, thermally protected
- CSA 22.2 #113, clause 8.3.5 – Backup protection – totally enclosed motor

### POLYPROPYLENE HRV CORE

- Dimensions 10" x 10" x 12.8" depth (254 mm x 254 mm x 325 mm)
- Corrugated cross-flow polypropylene layers, rated UL94 HB & HF-1
- Cross-flow that transfers sensible heat
- Endure harsh temperatures; effective in cold climates
- Water washable

### 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 defrost sequence
- Defrost type: Recirculation Activated automatically at -5°C (23°F)

### DUCT CONNECTIONS

- Four (4) 5" (127 mm) oval double collar

### MOUNTING

- Adjustable mounting strap system

### FILTERS

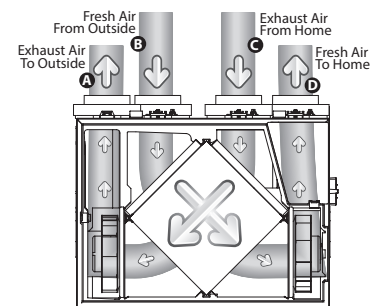
- Two (2) Fiberbond washable - 12.8" x 10" x 5/8" (325 mm x 254 mm x 15.9 mm)
- UL Class 2

### WARRANTY

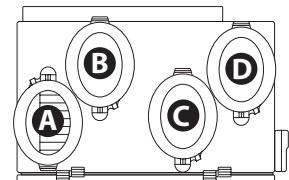
- 5 year limited warranty on motors
- 5 year limited warranty on parts
- Lifetime limited warranty on Heat Recovery Core

### AIRFLOW

Front View



Top View



### Imperial Air Technologies

480 Ferdinand Blvd.,  
Dieppe, NB Canada E1A 6V9

Toll free: 1 888 724-5211

Fax: 1 (506) 388-4633

Visit us at: [www.greentek.ca](http://www.greentek.ca) / [www.imperialgroup.ca](http://www.imperialgroup.ca)

PR0789 / MAR2017



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# ENGINEERING DATA C 3.14 HRV

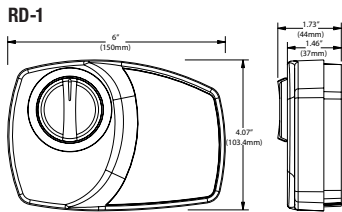
## SPECIFICATIONS C 3.14 HRV

<b>Dimensions</b>	23 <sup>3</sup> / <sub>2</sub> " x 17 <sup>13</sup> / <sub>2</sub> " x 15 <sup>5</sup> / <sub>64</sub> " (587 mm x 442 mm x 401 mm)
<b>Duct Connections</b>	Four (4) 5" (127 mm) oval
<b>Airflow Rates</b>	30 CFM (14 L/s) to 140 CFM (66 L/s)
<b>Motor</b>	Two (2) PSC variable speed backward curved
<b>Voltage</b>	120 VAC @ 60 Hz / 1 Phase
<b>Amperage</b>	1.0 A / 100 watts
<b>Type of heat exchanger</b>	Cross-flow Polypropylene
<b>Exchange surface</b>	85 ft <sup>2</sup> (7.8 m <sup>2</sup> )
<b>Defrost type</b>	Recirculation
<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>	45.5 lbs (20.6 Kg)
<b>Shipping Weight</b>	50 lbs (22.7 Kg)
<b>Certification</b>	HVI, cSAUs, CSA 22.2 N <sup>o</sup> .113 Complies with UL 1812

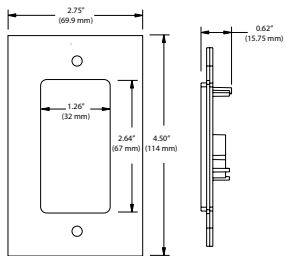
## OPTIONAL WALL CONTROLS

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

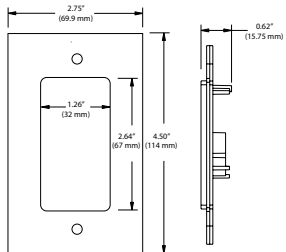
## WALL CONTROL DIMENSIONS



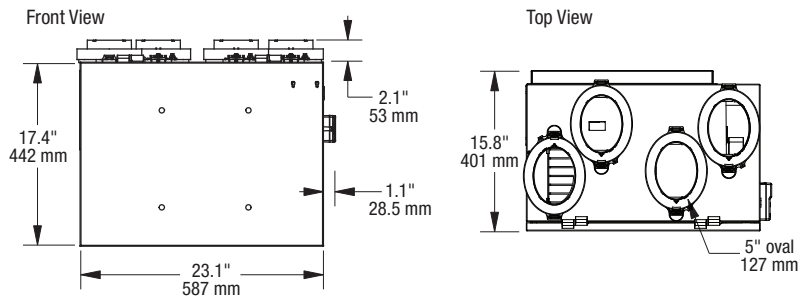
## EHC1.0TC and EHC1.5DC



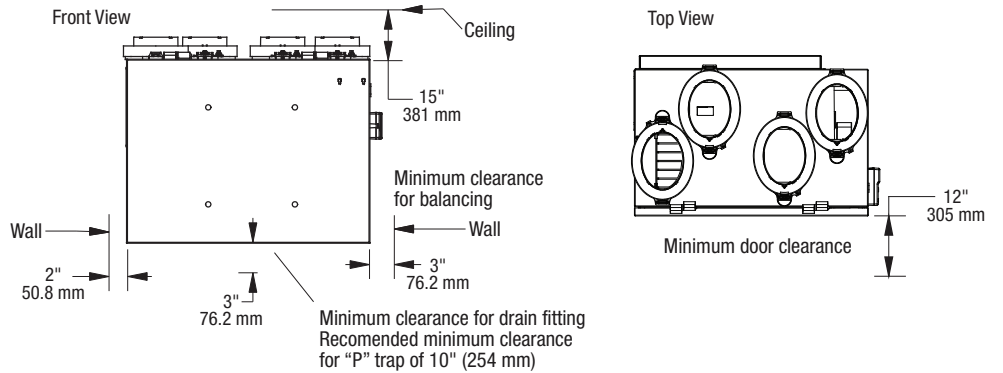
## T3 Timer



## DIMENSIONS DATA

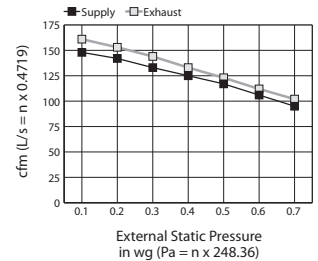


## MINIMUM CLEARANCE DATA



## 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	L/s
25	0.1	69	146	70	148	76	161
50	0.2	66	140	67	142	72	153
75	0.3	62	131	63	133	68	144
100	0.4	58	123	59	125	63	133
125	0.5	54	114	55	117	58	123
150	0.6	49	104	50	106	53	112
175	0.7	44	93	45	95	48	102



This product earned the ENERGY STAR<sup>®</sup> by meeting strict energy efficiency guidelines set by Natural Resources Canada and the US EPA. It meets ENERGY STAR<sup>®</sup> requirements only when used in Canada.

## ENERGY PERFORMANCE

	Supply Temperature		Net Air Flow		Power Consumed	Sensible Recovery Efficiency	Adjusted Sensible Recovery Efficiency
	°C	°F	L/s	CFM	Watts	SRE %	ASRE %
<b>HEATING</b>	0	32	24	51	52	75	82
	0	32	30	64	58	73	79
	0	32	40	85	70	69	75
	-25	-13	32	68	66	65	68
	-25	-13	25	53	56	64	67

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