

ENGINEERING DATA



Model FC80ERV

Energy Recovery Ventilator
30 CFM (14 L/s) to 100 CFM (47 L/s)

Part No. 60510005095



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 of PSC motors

APPLICABLE REQUIREMENTS

- HVI Certified
- CSA C439 Standard - Packaged Heat/Energy Recovery Ventilators (HRV/ERV)
- CSA Standard CSA 22.2 N^o.113-10 - Fans and ventilators
- UL Standard 1812 2nd Ed. 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

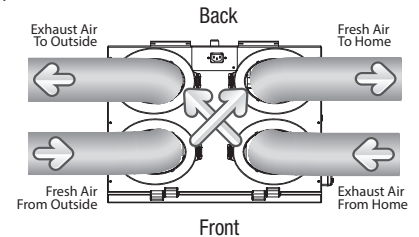
- Two (2) Fiberbond washable - 9" x 10" x ½"
(228.6 mm x 254 mm x 15.9 mm)
- UL Class 2

WARRANTY

- 5 year limited warranty
- Visit fieldcontrols.com/warranty for complete warranty statement

AIRFLOW

Top View



Field Controls

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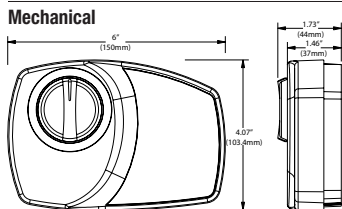
SPECIFICATIONS FC80ERV

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

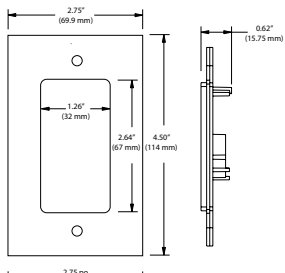
OPTIONAL WALL CONTROLS

Mechanical	RD1 Part # 60510010030 RD4P Part # 60510010031
Timers	T3 Part # 60510010050 (20, 40, 60 minutes)

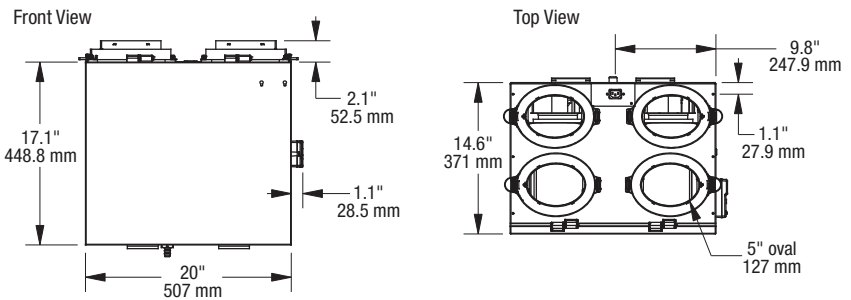
WALL CONTROL DIMENSIONS



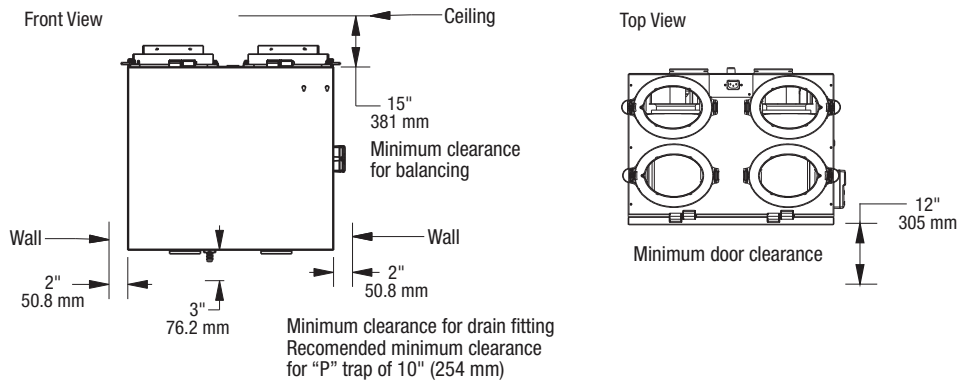
T3 Timer



DIMENSIONS DATA

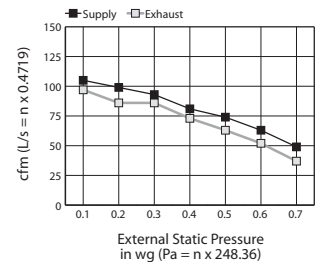


MINIMUM CLEARANCE DATA



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	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	Apparent Sensible	Latent Recovery
	°C	°F	L/s	CFM	Watts	Efficiency	Effectiveness	Moisture Transfer
HEATING	0	32	20	41	30	65	74	0.47
	0	32	30	64	36	64	71	0.40
	-15	5	16	35	27	54	80	0.39
COOLING	Total recovery Efficiency							
	35	95	19	41	30	—	43	

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