REVERSOMATIC
MANUFACTURING LIMITED

Shop Drawing
RERV-D100ES

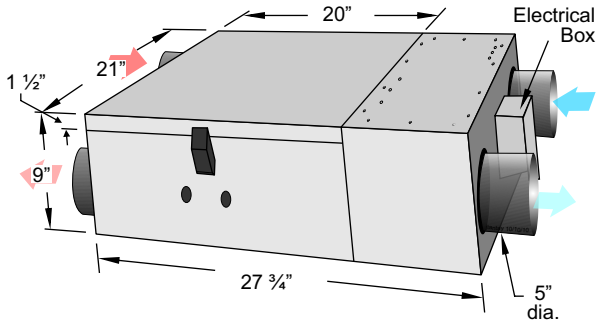
Deluxe ECM Series

ERV Deluxe Series (Enthalpy Core)

ONLY ERV IN THE MARKET PLACE WITH A BUILT-IN TRUE AUTOMATIC ELECTRONIC AIR-BALANCING AND CONSTANT FLOW TECHNOLOGY
NO FIELD BALANCING NECESSARY

Features:

- Power ratings: 115V / 1 / 60 Hz, 0.60 Amp, Standby current is 7 W only
- High efficiency energy savings permanently lubricated ECM motors (Thermally protected) for continuous operation
- Washable **Dpoint Enthalpy core** suitable up to -25°C **(Drainless design)**
- **Tilted core design for maximum efficiency**
- Fully automatic defrost (below -5°C)
- Adjustable 4-Normal (Low Speed) and 4-High Speed operation
- Ideal for horizontal and vertical installation
- Air flow: 45 - 95 CFM (normal operation)
- For homes and suites up to 2000 sq. ft.
- Meets all **LEED** requirements
- Unique electronic control board allows the unit to return to the last memory mode when power restores after failure
- Furnace / Fan-coil / Heat Pump Interlock
- *Dual Protection:* If for any reason ERV fan failure is detected, the outside fresh-air supply will be closed and interlocking relay contact will be opened. Fan Coil/Furnace low speed will be stopped and at normal operation no air will enter into the system
- App. Weight 55 lbs.
- 2 years warranty on parts
- Washable filters



Accessories (Included):

- Wall control
- Mounting brackets

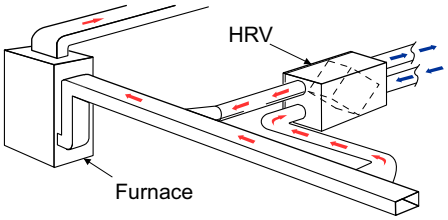
Optional:

Multiple wall controls
Timer switches 5VDC (Wall mount)
2 sets (Webbing/Brackets/Ladder lock)
Pipe and “T”connector
Drain plugs

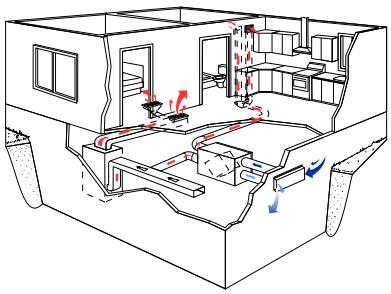
Wall Control:

- Programmable LCD display
- Pushbutton design
- Easy to mount and operate
- Capable to connect multiple timer switches
- Self powered (no battery required)
- OFF/Normal/High/Recirculation/ Energy Saving mode
- Humidity and Error indicators
- Two defrost method selection:
  - Recirculating & Non-recirculating
- Humidity settings (up to 80% RH)
- Multiple Wall Controls option
- Manual / Automatic balancing Selection

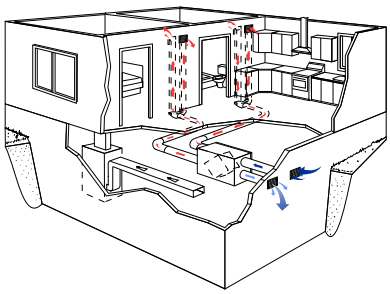
Installation Options for house



Furnace Return Air-duct Connection



Semi Ducted System



Fully Ducted System

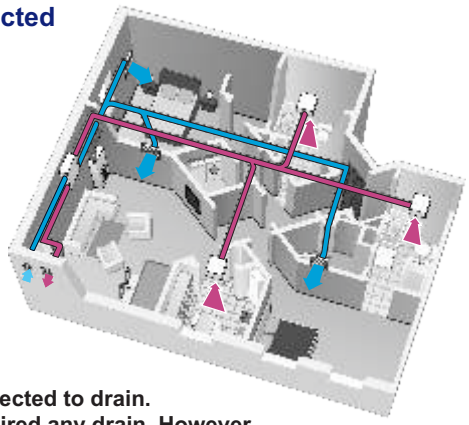
Reversomatic Manufacturing Ltd.
790 Rowntree Dairy Road, Woodbridge, ON Canada L4L 5V3 • Tel: 905-851-6701 • Fax: 905-851-8376
www.reversomatic.com • info@reversomatic.com

Deluxe

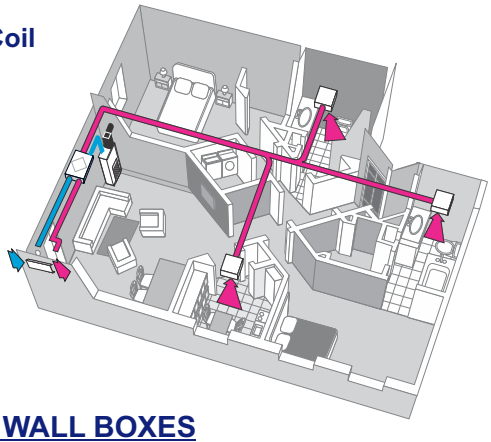
RERV-D100ES

Installation Options for High-Rise Condominium

Fully Ducted System



ERV with Fan Coil System



FRESH AIR
EXHAUSTED AIR

Note:

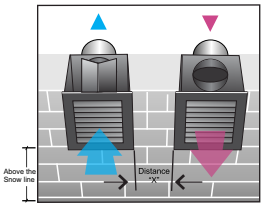
- **HRV must be connected to drain.**
- **ERV does not required any drain. However, we recommend to connect ERV to drain in areas where extreme cold weather conditions are expected.**

VENTILATION PERFORMANCE

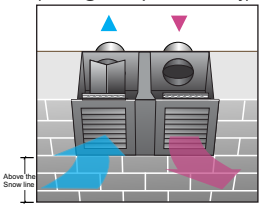
Low Temp. Ventilation Reduction Factor (CSA-C439-00) **LTVR** = -
Low Temperature Imbalance Factor **LTIF** = -
Low Temperature Ventilation Reduction During -25°C Test: -
Exhaust Air Transfer Ratio: 0.015

External Static Pressure		Net Supply Air Flow		Gross Air Flow			
				Supply		Exhaust	
Pa	in. W.C.	L/s	CFM	L/s	CFM	L/s	CFM
25	0.1	55	116	55	117	57	106
50	0.2	52	111	53	113	48	103
75	0.3	50	106	50	107	47	99
100	0.4	48	103	49	104	45	96
125	0.5	45	97	46	98	44	93
150	0.6	44	94	45	95	41	87
175	0.7	42	89	42	90	39	83
200	0.8	38	81	38	82	35	74
225	0.9	34	73	35	73	29	62

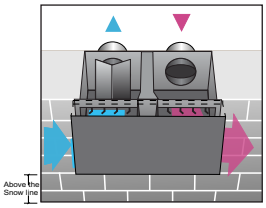
OPTIONAL WALL BOXES



Re - Circulation Efficiency
If distance "X" is 5ft - 99.7%
"X" is 3ft - 96.5%
(Tested@ 5-10 mph wind velocity)



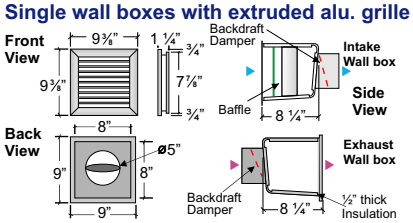
Re - Circulation Efficiency - 95%



Re - Circulation Efficiency - 98%

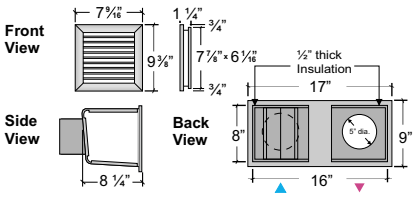
Note: All Vents must be installed min. 5 ft away from sidewalls.

Single wall boxes with extruded alu. grille

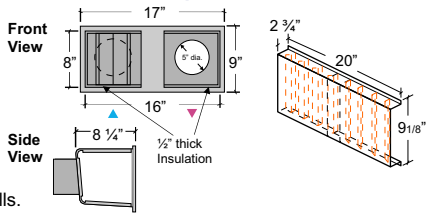


Make sure no screw will interfere the function of the backdraft dampers.

Double vents with extruded alu. grilles



Double vents complete with hood



ENERGY PERFORMANCE

RERV D100ES		Supply Temperature		Net Airflow		Supply / Exhaust Flow Ratio	Average Power (Watts)	Sensible Revcovery Efficiency	Apparent Sensible Effectiveness	Net Moisture Transfer
		°C	°F	L/S	CFM					
Heating	i	0	32	30	64	0.99	20	72	84	41 %
	ii	0	32	36	77	1.00	25	70	79	39 %
	iii	0	32	42	89	1.02	28	69	78	35 %
	iv	-25	-13	30	64	0.97*	21	64	78	36 %
Cooling	v	35	95	22	46	0.99	16	53**	73	53 %
	vi	35	95	30	64	1.00	20	50**	71	50 %

* The Supply / Exhaust Flow Ratio at 22°C to the start of the 72 Hour Cold Weather Test
** Indicate Total Recovery Efficiency not Sensible Recovery Efficiency

SOUND:

29 (L/s) @ 0.2 (IN. W.G.)	1.4 sones (@ 50 Pa)

Contractor:		**RERV-D100ES**		
Architect:	Job:	Date	Superse.des	Drawing No.
Engineer:	Date Submitted:	11/15/16		

Reversomatic Manufacturing Ltd.
790 Rowntree Dairy Road, Woodbridge, ON Canada L4L 5V3 • Tel: 905-851-6701 • Fax: 905-851-8376
www.reversomatic.com • info@reversomatic.com