

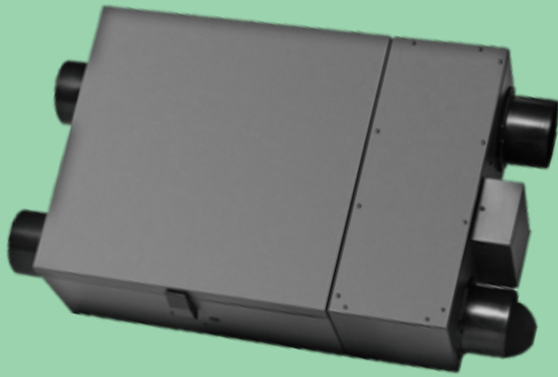


REVERSOMATIC

MANUFACTURING LIMITED

DELUXE ECM SERIES

HEAT & ENERGY RECOVERY VENTILATORS



Model No.

- RHRV-D100A ES (ECM)
- RHRV-D100P ES (ECM)
- RERV-D100 ES (ECM)

- **With built-in true Automatic Electronic Air-balancing and Constant Flow Technology.**
- **High efficiency energy saving, permanently lubricated variable speed, ECM (Electronically Commutated) brushless DC motor for air balancing.**
- **Slim line compact unit.**

**A SENSIBLE CHOICE
TO IMPROVE
YOUR INDOOR AIR
QUALITY FOR
HEALTHY LIVING**



Deluxe ECM Unit

RHRV-D100A ES
RHRV-D100P ES
RERV-D100 ES



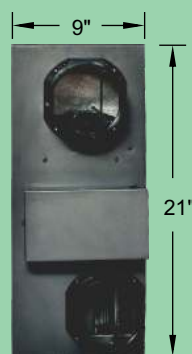
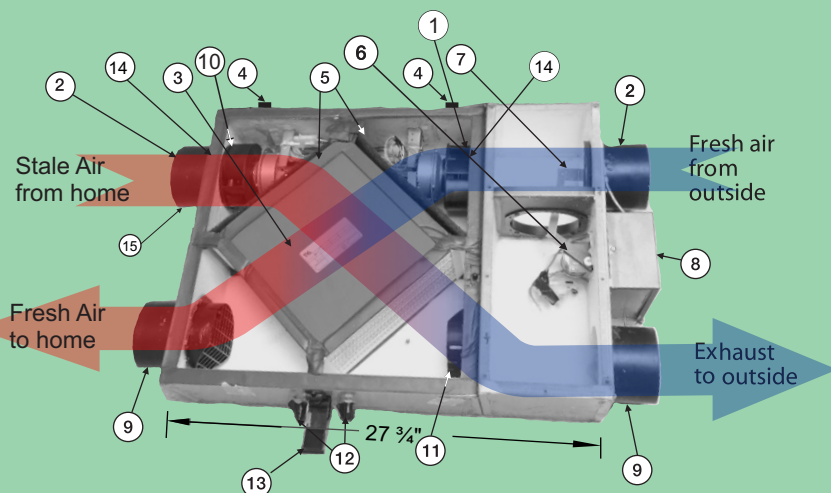
FEATURES

- Built-in true automatic electronic air-balancing technology
- Over all size 27 3/4" (W) x 21" (D) x 9" (H) App. weight 55 lbs.
- HRV is available with washable Aluminum (RHRV-D100A) or Polypropylene (RHRV-D100P) core - suitable up to -40°C
- ERV is available with Enthalpy core (RERV-D100) suitable up to -25°C (drainless design)
- Power ratings: 115V/1/60 Hz, 0.70 Amp.
- Standby current is 7W
- High efficiency energy saving permanently lubricated **ECM** motor for continuous operation
- Fully automatic defrost (below -5°C)
 - Recirculating (Standard)
 - Non-recirculating (Optional)
- Adjustable 4-Normal/Low Speeds and 4-High Speeds
- 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
- Ideal for horizontal and vertical installation
- **Dual Protection:** If for any reason HRV/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 and no air will enter into the system
- In "off" mode or power failure, the defrost damper is closed to prevent air entering in to the HRV/ERV
- Meets all standards and building code requirements
- Air flow: 45 - 95 CFM (normal operation), Max. 135 CFM
- For homes and suites up to 2000 sq. ft.
- 4 Mounting brackets and drain plugs are included
- Washable filters. 2 years warranty on parts



OPTIONAL ACCESSORIES:

Push button Timer Switches, adjustable mounting straps or chain mounting system.



1. Supply Motor (ECM)
2. Polypropylene collar
3. Cross flow heat-exchanger
4. Door hinges
5. Air filters (MERV-4) (optional up to MERV-13)
6. Defrost motor
7. Defrost damper Assembly
8. Electrical box (Main Controller)
9. Polypropylene backdraft damper
10. Exhaust Motor (ECM)
11. Safety switch
12. Drains
13. Door latch
14. Air Flow Sensor
15. Humidity Sensor

VENTILATION AND ENERGY PERFORMANCE

VENTILATION PERFORMANCE

Model #	Normal Speed Supply/Exhaust (Constant Ventilation) @ 50 Pa	High Speed Exhaust (Activated by switch) @ 50 Pa	Maximum Power Rating 120V / 1 / 60Hz
RERV-D100 ES	20 ~ 90 CFM variable	70 ~ 155 CFM variable	0.70 Amp.
RHRV-D100A ES	20 ~ 90 CFM variable	70 ~ 155 CFM variable	0.70 Amp.
RHRV-C100P ES	20 ~ 90 CFM variable	70 ~ 155 CFM variable	0.70 Amp.

ENERGY PERFORMANCE

RERV-D100ES	Supply Temperature		Net Airflow		Supply / Exhaust Flow Ratio	Average Power (Watts)	Sensible Recovery 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

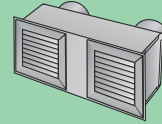
** Indicate Total Recovery Efficiency not Sensible Recovery Efficiency

RHRV-D100A ES	Supply Temperature		Net Airflow		Supply / Exhaust Flow Ratio	Average Power (Watts)	Sensible Recovery Efficiency	Apparent Sensible Effectiveness	Net Moisture Transfer	
	°C	°F	L/S	CFM						
Heating	i	0	32	30	64	1.03	20	68	78	2 %
	ii	0	32	36	77	1.02	25	66	77	2 %
	iii	0	32	43	91	1.02	28	65	76	3 %
	iv	-25	-13	30	64	0.96*	20	62	72	2 %
Cooling	v	35								

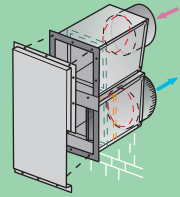
RHRV-D100P ES	Supply Temperature		Net Airflow		Supply / Exhaust Flow Ratio	Average Power (Watts)	Sensible Recovery Efficiency	Apparent Sensible Effectiveness	Net Moisture Transfer	
	°C	°F	L/S	CFM						
Heating	i	0	32	23	48	1.02	28	78	84	-1 %
	ii	0	32	30	64	1.02	34	75	81	-2 %
	iii	0	32	36	77	0.99	40	73	77	-3 %
	iv	0	32	42	89	1.00	48	71	74	-3 %
	v	-25	-13	29	61	0.96*	41	62	76	3 %
	vi	-25	-13	21	44	0.93*	32	67	81	2 %

* Indicates that the calculation is based on last 60 hours of the 72 Hour Cold Weather Test

ACCESSORIES

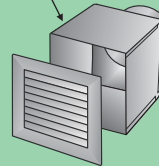


Double Vent with Extruded Aluminum Grilles (DVG-200)
Exhaust and Intake
Optional:
Stamped Aluminum Grilles

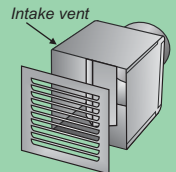


DVV-100 - Double Vent c/w Vertical Exhaust / Intake hood

Exhaust vent

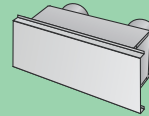


Single Vent (SVE) with Extruded Aluminum Grille (RSVG100)
Optional:
Stamped Grille



Intake vent

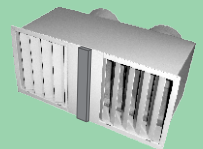
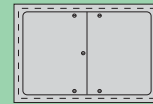
Single Vent (SVI) with Standard Stamped Aluminum Grille
Optional:
Extruded Aluminum Grille



Double Vent with Side Exhaust / Intake (DVS-100)

Access Doors

FLAT - ADF 26

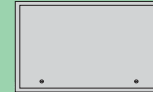


Double Vent for window panel Exhaust and Intake (DV-200)

PROJECT - ADP 28



DETACHABLE - ADD 28



Electronic Timer Switch (5V DC)
Activates the unit on high speed for 20, 40, 60 minutes. Suitable for Deluxe, Superior & Compact Units. (TC100)

SELECT HRV/ERV FOR YOUR CLIMATE ZONE

HRVs are recommended for colder climates. ERVs are designed for warm-humid climates with long cooling seasons.



U.S. Department of Energy climate zones map



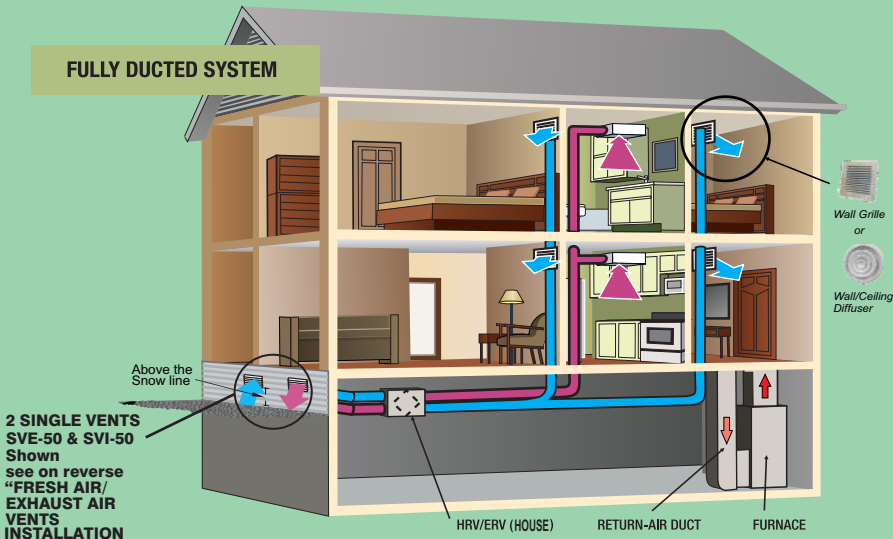
Intermittent Switch (IC 100-5V)
Low/High/Intermittent/Off mode. In Intermittent mode, HRV/ERV runs for 20 min. in low speed & 40min. OFF. and cycles Continuously.

HEAT & ENERGY RECOVERY VENTILATORS

Residential Home

High Rise Condominium

FULLY DUCTED SYSTEM

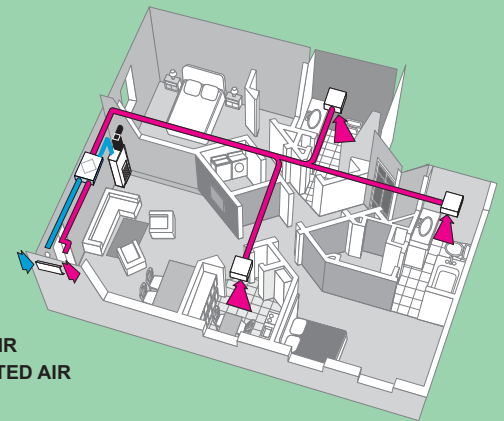


Fully Ducted System

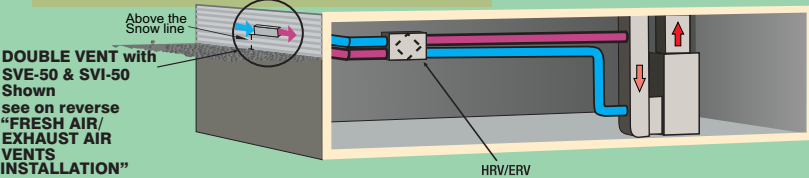
FULLY DUCTED SYSTEM



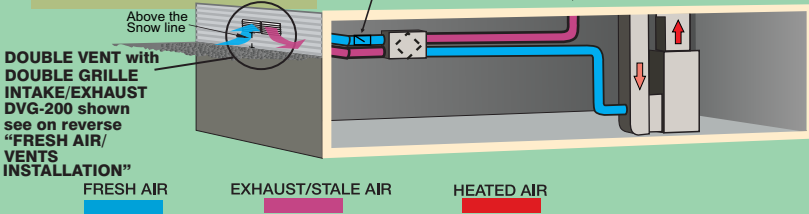
HRV/ERV with Fan Coil System



FURNACE RETURN AIR-DUCT CONNECTION



SEMI DUCTED 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.

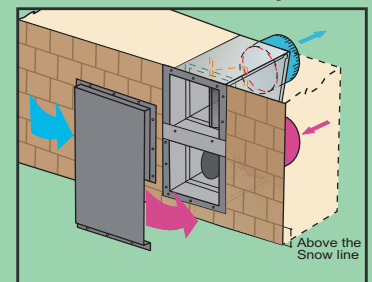
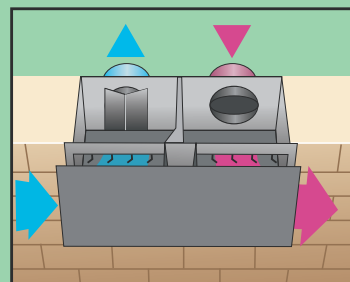
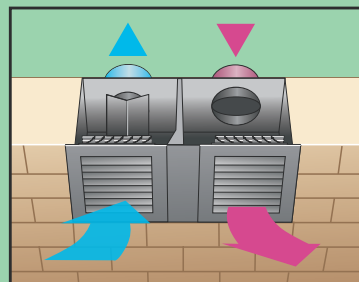
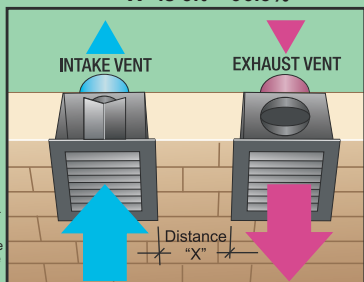
FRESH AIR / EXHAUST AIR VENTS INSTALLATION

Exhaust (SVE-50) & Intake (SVI-50) vents c/w extruded aluminum grilles
 Re - Circulation Efficiency
 If distance "X" is 5ft - 99.7%
 "X" is 3ft - 96.5%

Double Vent (DVG-200) c/w extruded aluminum grilles
 Re - Circulation Efficiency - 95%

Double Vent (DVS-100) c/w side Exhaust / Intake hood
 Re - Circulation Efficiency - 98%

Double Vent (DVV-100C) c/w vertical Exhaust / Intake hood
 Re - Circulation Efficiency - 98%



All vents are tested @ 400 Pa according to ASTM E547-00 for water Penetration test.
 (tested @ 5-10 mph wind velocity)

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

*Specially designed for Project Condo units.



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