



Dry Bulb Temp.

Economical and Compact Total Energy Recovery



Innovent's PremiSys MV series delivers total energy recovery in a small package when a larger roof-top unit is not feasible. Two casing sizes accommodate airflows ranging from 300 to 800 cfm, 100% of which flows through a lightweight-polymer total energy wheel with permanently-bonded silica gel desiccant.

The MV series is designed to offer flexibility for installations where space is at a premium. Each casing can be ceiling-hung or pad-mounted, allowing installation above ceilings, under floors, or other restrictive spaces. In addition, the MV series operates on 115 VAC/60Hz/single-phase power, reducing the wiring and fusing required for larger units.

Typical Installation

The illustration shows an MV in a typical ceiling hung installation. Outdoor air is drawn through a model GRS roof-mounted gravity intake hood and pre-conditioned by the enthalpy wheel. Outdoor air is then supplied either to an air handler or directly to the space. Energy is recovered from stale room air before it is exhausted through a model WC wall cap.



Intake and Discharge Locations

Both intake locations are capable of being field relocated to suit installation needs.





Performance Data

		External Static Pressure in Inches of WG								Sones @ 0.25 in. wg*	
		0.125	0.250	0.375	0.500	0.625	0.750	0.875	1.00	@ 0.25 in. wg*	
MV-450											
RPM											
1250	CFM	386	362	335	300	243	—	—	—	2.6	
1680	CFM	542	512	480	442	402	352	294	227	3.6	
MV-750											
RPM											
1250	CFM	693	678	657	631	597	559	527	497	5.9	
1550	CFM	865	854	842	825	807	785	761	731	6.5	

*Sone values are at a distance of 5 feet from the exhaust air intake.

Intake and Exhaust Accessories



Model BV (Wall-Mounted)

- Intake or exhaust Anodized aluminum
- construction
- Built-in aluminum mesh insect screen



Model WC (Wall-Mounted) Exhaust only

- Aluminum construction
- Built-in damper



- All aluminum exterior construction
- Integral birdscreen
- For roof curb mounting



Model GRSF

- All aluminum exterior
- Integral birdscreen
- Built in flashing flange

Other Accessories

Speed Control

A solid state speed control is available for adjusting airflow to desired volume. One speed control is supplied for each outdoor air and exhaust air fan. Requires a 4x4 handy box by others.

Motion Detector

Model MBW is a wall-mounted passive infrared motion detector that automatically turns on the PremiSys MV when a change in temperature is sensed. The MV will automatically turn off after the room has been vacant past the adjustable time delay

setting of one minute to 20 minutes. The detector must be installed in the line-of-sight of the subject personnel and requires a 2x4 handy box to be supplied by others.



Hanging Vibration Isolators

Vibration isolator kits are available for suspended installations. Kits include all hardware necessary to mount one unit, with the exception of threaded rods to be supplied by others. Brackets for mounting vibration isolators are factory installed on the unit.





Timed Exhaust frost control kit includes an Outdoor Air Sensor and Timer for field installation. Timed Exhaust frost control turns the supply blower power off and on using field adjustable timer settings when outdoor air temperature falls below the frost threshold. Timed Exhaust is appropriate for climates with limited HVAC system operation when outdoor air temperatures are below 0°F.











General: Energy Recovery Ventilator shall be as manufactured by Innovent or approved equal, provided all specifications are met. Units shall be listed per ANSI/UL 1995, Heating and Cooling Equipment. Performance shall be as scheduled on plans.

Casing and Access: Unit shall be constructed of G90 galvanized steel. All components shall be easily accessible through removable access panels. Access to filters and energy wheel shall not require tools. Energy recovery wheel shall be mounted in a slide-out track for ease of inspection, removal and cleaning. Housing shall be insulated with 1/2-inch insulation. Outdoor air and exhaust air discharges shall have integral backdraft dampers. Duct adapters shall be factory installed on all four intake/discharge ports.

Intake Locations: Both the outdoor air and exhaust air intakes shall be designed for optional relocation in the field. Alternate intake location on adjacent side of the unit enables duct installation flexibility.

Energy Recovery Wheel: Wheel shall be of the enthalpy type for both sensible and latent heat recovery, and be designed to insure laminar flow. Energy transfer ratings shall be tested in accordance with ARI Standard 1060. Desiccant shall be silica gel for maximum latent energy transfer. Wheel shall be constructed of light weight polymer media to minimize shaft and bearing loads. Polymer media

shall be mounted in a stainless steel rotor for corrosion resistance. Silica gel desiccant shall be permanently bonded to wheel media to retain latent heat recovery after cleaning. Wheels with sprayed on desiccant coatings are not acceptable. Wheels with desiccant applied after wheel formation are not acceptable. Energy recovery device shall transfer moisture entirely in the vapor phase.

Energy recovery drive belt material shall be high strength urethane and shall be factory installed in a pre-stretched state, eliminating the need for field belt tension adjustment. Link style belts are not acceptable.

Fans and Motors: Fans shall be double width, double inlet centrifugal forward curved type. Fans shall be statically and dynamically balanced. Fan motors shall be single phase, thermally protected and be compatible for use with speed controller.

Filters: The outdoor air shall be filtered with a 1-in. deep, 30% effective disposable filter. Filter rack shall be internal to the unit and factory installed.

Electrical: All internal electrical components shall be factory wired for single point power connection. All electrical components shall be UL listed, approved or classified where applicable and wired in accordance with the National Electrical Code.

Dimensions

	Dim	nensions	: (in.)	Δηριτοχ	Air flow capacity (cfm)	
	A	В	С	weight (lb.)		
MV-450	40	29	20	150	300-450	
MV-750	46	36	22	210	450-800	



Warranty

Innovent Air Handling Equipment warrants this equipment to be free from defects in material and workmanship for a period of one year from the purchase date. The energy recovery wheel is warranted to be free from defects in material and workmanship for a period of five years from the purchase date. Any units or parts which prove defective during the warranty period will be replaced at our option when returned to our factory, transportation prepaid. Motors are warranted by the motor manufacturer for a period of one year. Should motors furnished by Innovent prove defective during this period, they should be returned to the nearest authorized motor service station. Innovent will not be responsible for any removal or installation costs. As a result of our commitment to continuous improvement, Innovent reserves the right to change specifications without notice.