

Integrated ERV System

Available with Vertical Stack Fan Coils and Heat Pumps

Leading Manufacturer of High-Rise Residential HVAC Equipment

Elevate home comfort and energy efficiency with Unilux HVAC's patented integrated ERV systems. Our ERV cores further enhance comfort by transferring moisture between exhaust and fresh air, providing cost-effective moisture control.

Unilux HVAC offers this all-in-one HVAC solution, seamlessly integrating heating, cooling, and ventilation with bathroom exhaust systems. Multiple dampers and temperature sensors ensure freeze prevention in low-temperature areas, while our ERV operates continuously to maintain a steady supply of fresh air, meeting your heating and cooling needs with unparalleled efficiency.



Fan Coil

Heat Pump

Dynamic Balancing

Residents can now control their comfort more efficiently and accurately with Unilux HVAC's new Dynamic Balancing technology by establishing a net-zero pressure balance in their suite. Air pressure sensors ensure less motor use while keeping conditioned air where it belongs and money in residents' pockets.

Benefits of Dynamic Balancing

- Reduction in use of motor resulting in energy savings
- Reduction in loss of each suite's conditioned air
- Reduction in unwanted air pulled in from outside suite through cracks and openings
- Isolates each zone of comfort from neighbours
- Reduction in odour transfer from surrounding suites and hallways



Features, Options, and Performance

Cabinet

Satin steel construction, lined with ½" fiberglass insulation backed with aluminum protective coating. Duct diameter 5" (127mm), drain connection 3/8" (10 mm).

Cores

Energy recovery core High Latent Transfer Enthalpy

ERV Motor/Blower Assembly

2 motor/blower assemblies with single inlet centrifugal impeller types with forward curved blades. Motors are Electronically Commutated Modulation (ECM) motors. These motors are IP-44, shielded bearing, high efficiency types with internal thermal overload protection. Motors meet CSA standards and are UL approved.

Freeze Protection

Unilux HVAC has developed and patented the integrated design that has three high-speed temperature sensors trigger a motorized spring return damper to isolate the core and introduce exhaust air to the unit. This ensures the core temperature remains above 32°F (O°C) to prevent the core from freezing and rendering the ERV inoperable, without the need for an electric heater.

Controls

ECM motors using pulse width modulation. Motor speed is controlled using a rotary switch with the following settings: 25 CFM, 50 CFM, 75 CFM, 100 CFM and off. Auxiliary controls are also available that can be set to low, medium and high. Timer switches are available with 20-40-60 minute options.

Filters

2 washable foam filters.

Unilux HVAC Patented Integrated HRV/ERV

U.S. Patent No. 8939826 CDN Patent No. 2746405

Unilux HVAC Patented Dynamic Balancing

U.S. Patent Pending Application No. US20200124311 CDN Patent No. 3059735

ERV Performance				
	Summer			Winter
CFM	Sensible Eff. Cooling	Latent Eff. Cooling	Total Eff. Cooling	Sensible Eff. Heating
25	87.25	44.53	60.90	87.13
50	81.20	41.70	56.95	80.90
75	75.68	38.95	53.15	75.13
100	70.50	36.20	49.50	69.80

Our state-of-the-art designs are demanded by today's best developers, engineers and owners. Contact us to learn why Unilux HVAC is the preferred choice of professionals throughout North America for vertical stack HVAC solutions.



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