



# SINGLE/MULTI-FAMILY ERVs

CERTIFIED FOR COMMERCIAL USE



## AERI™ MT

- ◆ 35–255 CFM, top port configuration
- ◆ Five smart constant volume airflow setpoints
- ◆ Durable and lightweight case
- ◆ Snap-N-Go™ duct connections
- ◆ User-set high and low speeds
- ◆ Plug-in line cord
- ◆ MERV 8 or MERV 13 filters



 VENTILATION SOLUTIONS  
FOR EVERY APPLICATION

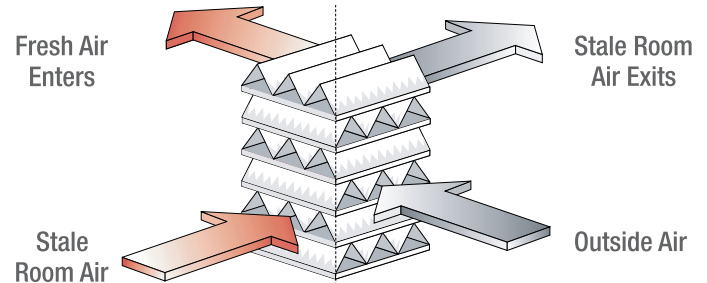
# AERI™ SERIES: SINGLE/MULTI-FAMILY ERVs

## BALANCED VENTILATION & HIGHEST-QUALITY INDOOR AIR

As buildings get tighter to seal weather out, they seal in contaminants, causing a reduction in indoor air quality (IAQ). Typical contaminants include off-gassing from carpeting, furniture and building materials, excess humidity and mold, odors, cooking and cleaning fumes, CO2, hair and fibers, to name a few. Deficient IAQ is a threat since it can harm occupant health and cognitive function, damage structures, and hurt the bottom line. It's especially concerning since **people spend about 90% of their time indoors, and indoor air can be two to five times more polluted than outdoor air.**<sup>1</sup>

The solution to pollution is dilution achieved via increased and balanced ventilation, which can be done energy-efficiently, cost-effectively, and sustainably with RenewAire's energy recovery ventilation.

**AIRSTREAMS DO NOT MIX AND POLLUTANTS ARE NOT TRANSFERRED ACROSS PARTITION PLATES**



## INCREASED VENTILATION VIA ERVs = BETTER HEALTH + LOWER BILLS

The American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) 62.2 committee has established a residential ventilation standard, known as *Ventilation and Acceptable Indoor Air Quality in Residential Buildings*. The goal of this standard and its continuous revisions are to not only **evaluate and recommend every building's minimum ventilation needs**, but also emphasize IAQ and its relationship with occupant health. **ERVs can reduce energy costs while meeting this standard.**

See the chart below to calculate the minimum ventilation required for your home:  $.03 \times \text{sq. ft.} + 7.5(\text{bedroom} + 1)$ . For example, a 2,500 sq. ft. home with 4 bedrooms requires a minimum of 113 CFM.

### MINIMUM VENTILATION AIRFLOW REQUIRED BY HOME SIZE\*

SQUARE FEET	<500'	501'-1000'	1001'-1500'	1501'-2000'	2001'-2500'	2501'-3000'	3001'-3500'	3501'-4000'
1 BEDROOM	30	45	60	75	90	105	120	135
2 BEDROOMS	38	53	68	83	98	113	128	143
3 BEDROOMS	45	60	75	90	105	120	135	150
4 BEDROOMS	53	68	83	98	113	128	143	158
5 BEDROOMS	60	75	90	105	120	135	150	165

\* Infiltration credit not considered, please contact RenewAire to assist in selecting a unit that is best suited for your home.

## RENEWAIRE CORE TECHNOLOGY

### CERTIFICATION

- ♦ Commercial Units: Certified by the Air Conditioning, Heating and Refrigeration Institute (AHRI) for an industry-leading, low-to-zero Exhaust Air Transfer Ratio (EATR) at typical static pressure differential
- ♦ Residential Units: Certified by the Home Ventilating Institute (HVI) against standard CAN/CSA-C439-18 for an industry leading CFM/watt and energy transfer effectiveness
- ♦ Superior core flammability performance; passes UL-723 and UL-1812

### MAINTENANCE

- ♦ RenewAire cores are easy to clean without removing them from the unit, and they never require washing

### INNOVATIVE CONSTRUCTION

- ♦ Core exchanger material is cellulosic-based and doesn't contain or use halogenated flame retardants or PVCs
- ♦ Manufactured with an EPP cabinet for structure and insulation

### RELIABILITY

- ♦ An industry-leading 10-year structural and performance warranty for the static-plate core, two-year warranty for commercial products, and five-year warranty for most residential products

### EXCEPTIONAL PERFORMANCE

- ♦ Moderates heat and humidity via total energy recovery to maintain a comfortable indoor environment
- ♦ No need for frost protection or condensate pans
- ♦ Laminar airflow ensures that particulates do not accumulate in the core

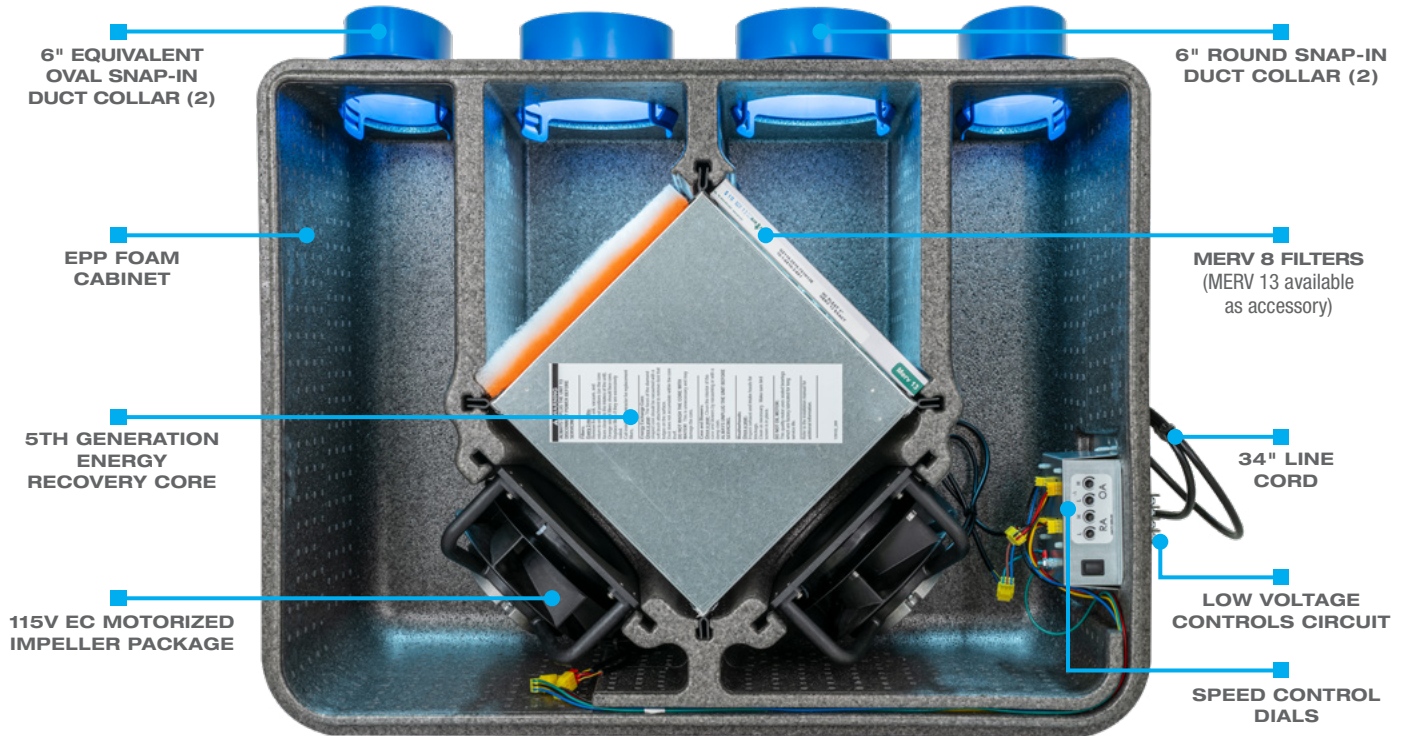
### REDUCED COSTS

- ♦ Optimized energy efficiency via core energy transfer decreases ventilation energy requirements, which can result in smaller air conditioning and heating needs

<sup>1</sup> "Why Indoor Air Quality Is Important to Schools," U.S. Environmental Protection Agency (EPA), <https://bit.ly/2SoyRjC>.

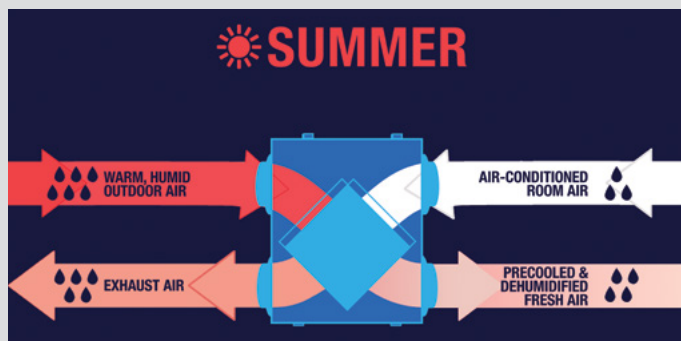
## AERI™ OVERVIEW

Created for faster and easier installations, the Aeri energy recovery ventilator (ERV) has a top port design, lightweight EPP foam cabinet, and Snap-N-Go™ duct collars. The Aeri ERV also has five smart constant volume airflow setpoints that automatically keep the unit running at the set CFM even as filters start clogging or duct pressures fluctuate with the cycling of the central air handling unit. Ideal for single and multi-family homes as well as light commercial applications, the Aeri ERV incorporates high-efficiency EC motorized impellers and independent, user-set low and high speeds to maximize comfort and IAQ.

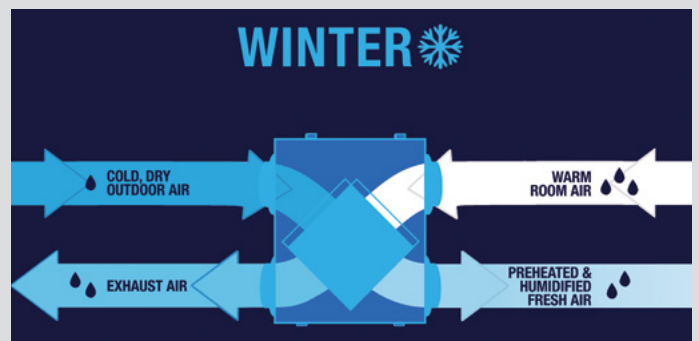


## RENAIRE ERVs TEMPER THE AIR

Our ERVs moderate the extremes of outdoor supply-air temperature and humidity year-round, providing a sustainable ventilation solution for every climate.



IN SUMMER, THE WARM, HUMID OUTSIDE AIR IS PRECOOLED AND DEHUMIDIFIED BY THE OUTGOING COOL INTERIOR AIR





IN WINTER, THE COLD, DRY OUTSIDE AIR IS PREHEATED AND HUMIDIFIED BY THE OUTGOING WARM INTERIOR AIR

## PATENT PENDING

The innovative design and features of the Aeri MT model has led to multiple patent pending applications.



### AERI™ MT

<b>MODEL NUMBER</b>	ET-255MF-P340-XC0
<b>POWER SUPPLY</b>	Line Cord
<b>AIRFLOW RANGE (DIAL-A-FLOW)</b>	35–255 CFM
<b>SMART CONSTANT VOLUME AIRFLOWS*</b>	35, 70, 110, 150, 190 CFM
<b>SPEEDS</b>	Low (Continuous), High (Intermittent)
<b>EC MOTORIZED IMPELLERS</b>	Yes
<b>INDEPENDENT VARIABLE SPEED WITH BOOST-MODE**</b>	Yes
<b>DUCT CONNECTION</b>	Top Port Snap-N-Go 6" Round and Oval Collars
<b>SWAPPABLE AIRSTREAMS</b>	Yes
<b>WIDTH</b>	32 5/8"
<b>HEIGHT</b>	26 1/2"
<b>DEPTH</b>	13 3/4"
<b>WEIGHT</b>	25 lbs.
<b>MOUNT</b>	Wall Mounting or Ceiling Hanging (Vertical Orientation)
<b>FILTER</b>	MERV 8, MERV 13 (Supply Outside Air Only for MERV 13)
<b>CORE WARRANTY</b>	10-Year
<b>UNIT WARRANTY</b>	5-Year
<b>FAN EFFICIENCY</b>	2.10 CFM/W at 78 CFM (0.2" ESP)
<b>EXAMPLE RATINGS***</b>	73% SRE at 78 CFM****
<b>CERTIFICATIONS</b>	 

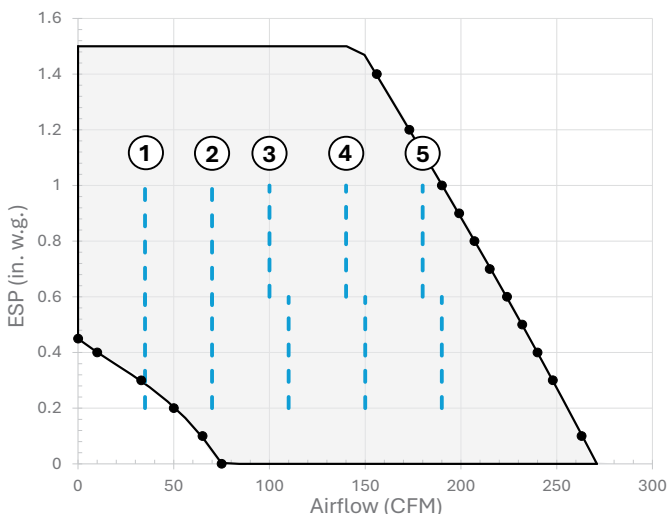
\* Within 0.2" to 0.6" ESP.

\*\* Boost-mode: Maximum airflow achievable in boost-mode when continuous airflow setpoint is below max rating.

\*\*\* For all rating points, refer to the HVI website certified products directory.

\*\*\*\* HVI rating point at 32°F.

## OPERATING AIRFLOWS



● = Actual tested sample points

| = Operating curves, airflow is held constant as static pressure varies

┆ = Nominal constant volume airflow setpoints

# AERI™ ACCESSORIES

## CONTROLS



Low Voltage Countdown  
Timer (LVCT)



Low Voltage Percentage  
Timer (LVPT)



Percentage Timer with  
Furnace Interlock (FM)



BACnet Fan Control



CO2 Sensor  
Duct Mount



IAQ Sensor  
Duct Mount



CO2 Sensor  
Wall Mount



IAQ Sensor  
Wall Mount



Occupancy Sensor  
Wall Mount



Occupancy Sensor  
Ceiling Mount



Digital Time  
Clock Wall Mount



Digital Time Clock  
Exterior Enclosure

## FILTERS



MERV 13 Filters OA Airstream

## LOUVERS



6", 8" White or Brown

## HEATERS



RH Series Electric Duct Heater  
1kW to 8kW

## DAMPERS



Automatic Balancing Valve  
4", 5", 6"



Backdraft Damper  
6", 8"



Motorized Damper  
6", 8"

# INSTALLATION, CONTROLS & MAINTENANCE

## INSTALLATION

### MOUNTING

- ◆ Install the included unit bracket/cleat to back of unit (for ceiling mounted units, install brackets to each side of the unit)
- ◆ Install the wall bracket/cleat to desired location on a wall (for ceiling mounted units, install support chains, S-hooks from desired support points—not included)
- ◆ Lift the unit up and place down onto the corresponding cleat (for ceiling mounted units, raise the unit and slip on to the S-hooks)
- ◆ Unit has a flat bottom so a secure installation to a flat surface such as a shelf or floor is also possible

### SNAP-N-GO™ DUCT COLLARS

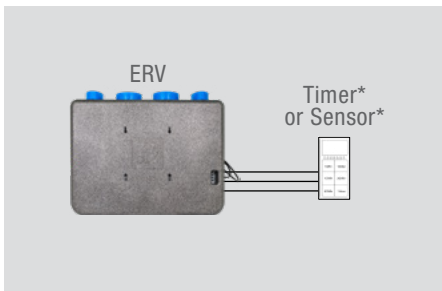
- ◆ Attach the ducts to the loose collars first
- ◆ Snap the collars into the unit to lock into place

### FAST COMMISSIONING AND BALANCING

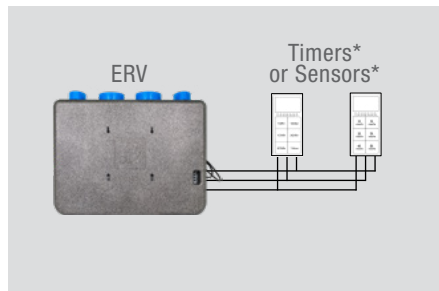
- ◆ Fans dynamically adjust airflow in real time to deliver selected airflows, regardless of fluctuating duct pressure or filter condition
- ◆ Turn the dial for both the low and high speeds for each airstream to the desired smart constant volume airflow setpoint
- ◆ Dial-A-Flow balancing for flexible manual setpoints within the entire operating range

## CONTROL STRATEGIES

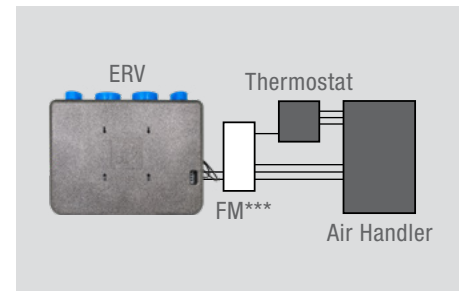
### SINGLE CONTROL



### MULTIPLE CONTROLS



### INTERLOCK WITH AIR HANDLER\*\*



\* Indicates accessory

\*\* Additional controls can still be used

\*\*\* Accessory limits unit to one speed (high) only

## MAINTENANCE

Disposable filters should be checked and replaced as needed. Additionally, once a year, vacuum the four core faces using a soft brush. The RenewAire core does not need to be washed, as particulates do not accumulate in the core.

