



## When and Where to Use ERVs



### Is your ventilation managing latent load?

Energy Recovery Ventilators (ERVs) stand out as the premier choice for optimizing both comfort and energy efficiency when compared to Heat Recovery Ventilators (HRVs) and other ventilation systems. ERVs offer a holistic solution, effectively managing both temperature and humidity levels, bringing substantial benefits in various climatic conditions.

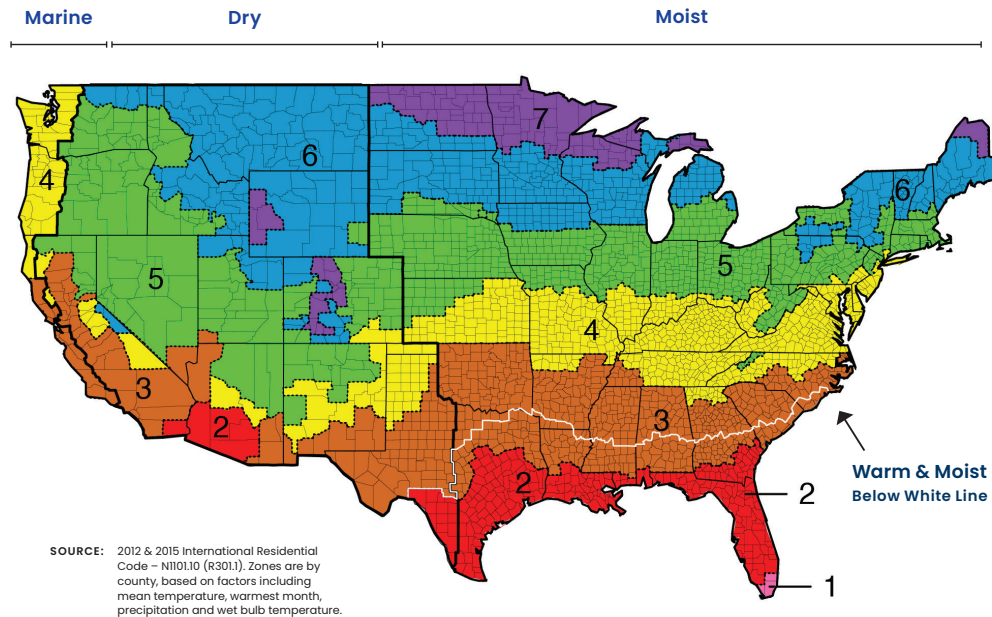
In hot and dry climates, as well as in cold environments, HRVs can inadvertently turn a home into an arid environment, depleting what little moisture the home naturally holds. This can lead to discomfort and potential health issues for the occupants. ERVs, however, shine in these scenarios. They preserve and regulate moisture levels as needed, ensuring that the indoor atmosphere remains comfortable and healthy.

### Find a solution for every application.

Different climate conditions demand specific approaches to ventilation. In certain regions, a straightforward supply ventilation system, with lockouts, can effectively regulate heat and humidity from incoming air. However, in highly humid areas like the southeastern United States and coastal regions, it becomes imperative to employ a ventilating-dehumidifier to prevent excessive indoor moisture levels.

For a quick reference on which solution suits your specific application, consult our application chart on the back. We're here to help you find the right solution for your ventilation needs.





| ZONE | CLIMATE TYPE         | MAJOR CITIES  | PRIMARY SOLUTION <sup>1</sup> | CONTROL RECCOMENDATION <sup>2</sup>        |
|------|----------------------|---|-------------------------------|--|
| 1    | Hot & Moist          | Miami   | Ventilating Dehumidifier      | Intermittent Control with Dehumidification |
| 2    | Hot & Moist          | Orlando, Mobile, New Orleans, Houston, Austin, San Antonio                        | Ventilating Dehumidifier      | Intermittent Control with Dehumidification |
| 2    | Hot & Dry            | Phoenix, Tucson   | ERV or Supply Ventilation     | Intermittent Control with Lockouts         |
| 3    | Warm & Moist         | Charlotte, Charleston, Atlanta, Little Rock, Oklahoma City, DFW                   | ERV or Supply Ventilation     | Intermittent Control with Lockouts         |
| 3    | Warm & Dry           | El Paso, Las Vegas, Los Angeles, Sacramento                                       | ERV or Supply Ventilation     | Continuous Control                         |
| 3    | Warm & Marine        | San Francisco, San Jose   | ERV or Supply Ventilation     | Continuous Control                         |
| 4    | Mixed & Moist        | Philadelphia, Washington DC, Baltimore, Nashville, St. Louis, Wichita, Louisville | ERV or Supply Ventilation     | Continuous Control                         |
| 4    | Mixed & Dry          | Albuquerque, Amarillo   | ERV or Supply Ventilation     | Continuous Control                         |
| 4    | Mixed & Marine       | Portland, Seattle   | ERV or Supply Ventilation     | Continuous Control                         |
| 5    | Cool & Moist         | Boston, Pittsburgh, Columbus, Indianapolis, Detroit, Chicago, Des Moines, Omaha   | ERV or Supply Ventilation     | Intermittent Control with Lockouts         |
| 5    | Cool & Dry           | Denver, Salt Lake City, Boise, Reno   | ERV or Supply Ventilation     | Continuous Control                         |
| 6    | Cold & Moist         | Toronto, Vancouver, Milwaukee, Madison, Minneapolis–St Paul, Sioux Falls          | ERV or Supply Ventilation     | Intermittent Control with Lockouts         |
| 6    | Cold & Dry           | Helena, Cheyenne  | ERV or Supply Ventilation     | Intermittent Control with Lockouts         |
| 7    | Extreme Cold & Moist | Fargo, Duluth, Calgary, Edmonton  | ERV or Supply Ventilation     | Intermittent Control with Lockouts         |

<sup>1</sup> Primary AprilAire recommended supply ventilation solution for optimal performance and building code adherence

<sup>2</sup> HVAC application considerations based upon moist versus dry air, and proper mixing into the ductwork.