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## GUIDE SPECIFICATION FOR RENEWAIRE INDOOR ENERGY RECOVERY VENTILATORS

RenewAire Model Numbers:

	HE1XINV	HE3XINV	HE6XIN
EV450IN	HE1XINH	HE3XINH	HE8XIN
	HE2XINV	HE4XINV	
	HE2XINH	HE4XINH	

### Part I – General

#### A. Product Specification

The unit shall be a packaged static plate energy recovery ventilator. RenewAire shall be the basis of design.

#### B. Quality Assurance

1. The energy recovery core shall be certified by ARI under its Standard 1060 for Energy Recovery Ventilators. Products not currently ARI Certified will not be accepted.
2. Unit shall be Listed under UL 1812, Standard for Ducted Air to Air Heat Exchangers. Due to ongoing product offerings and upgrades, some models and options are not included in UL Listing reports. Consult RenewAire for more information.
3. The energy recovery core shall meet NFPA 90A and 90B requirements for flame spread, not to exceed 25, and smoke generation, not to exceed 50, through an on going testing and verification program using UL Standard 723.
4. The RenewAire core shall be warranted to be free of manufacturing defects and to retain its functional characteristics, under circumstances of normal use, for a period of ten years from the date of purchase. Balance of Unit shall be warranted to be free of manufacturing defects and to retain its functional characteristics, under circumstances of normal use, for a period of two years from the date of purchase.

### Part II – Performance

#### A. Energy Transfer

The energy recovery core shall be capable of transferring both sensible and latent energy between air streams. Latent energy transfer shall be accomplished through molecular transport by hydroscopic resin.

#### B. Passive Frost Control

The energy recovery core shall perform without the occurrence of condensation or frosting under normal operating conditions (defined as outside temperatures above -10°F and inside relative humidity below 40%). Occasional extreme conditions shall not affect the usual function or performance of the energy recovery core.

#### C. Positive Air stream Separation

Exhaust and fresh airstreams shall at all times travel in separate passages, and airstreams shall not mix. The exhaust air transfer ratio (EATR) shall be ARI-1060 certified as 0% at balanced pressure.

#### D. Laminar Flow

Airflow through the energy recovery core shall be laminar, avoiding deposition of particulates on the interior of the exchange plate material.

### **Part III – Product**

#### **A. Construction**

1. The energy recovery core shall be of static plate, cross-flow construction, with no moving parts.
2. The unit shall be capable of operating in winter and summer conditions without generating condensate. No condensate pan or drain shall be required.
3. The unit cabinet shall be constructed of galvanized, 20-gauge steel, with lapped corners.
4. The unit shall have single-point power connection.
5. Flange components shall be provided suitable for connection of ductwork.
6. The exhaust and fresh air streams shall both be protected by MERV 8 rated, 2 inch pleated, disposable filters positioned before the ERV core.