RenewAire
Energy Recovery Ventilators

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GUIDE SPECIFICATION FOR RENEWAIRE RESIDENTIAL ENERGY RECOVERY VENTILATORS

RenewAire Model Numbers: BR70 BR130 EV70 EV130 EV200 EV300

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 ventilator shall be certified by the Home Ventilating Institute (HVI) under CSA 439. Both a heating and an air conditioning test must be run to demonstrate year round energy recovery.

2. Unit shall be Listed under UL 1812, Standard for Ducted Air to Air Heat Exchangers.

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 by direct water vapor transfer using 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. Continuous Ventilation

The unit shall accomplish energy recovery in both heating and cooling seasons and shall have the capacity to operate continuously without the need for bypass, recirculation, pre-heaters or other defrost cycles under normal operating conditions.

D. Positive Air Stream Separation

Exhaust and fresh airstreams shall at all times travel in separate passages, and airstreams shall not mix.

E. Laminar Flow

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

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Part III – Construction

1. The energy recovery core shall be of static plate, cross-flow construction, with no moving parts.

2. No condensate pan or drain shall be required.

3. The unit shall be supplied with an internal 24 VAC transformer and relay.

4. The unit shall have line cord for easy plug-in operation.

5. A latched and hinged door shall provide access to blowers, energy recovery core, and filters.

6. Cabinet walls and doors shall be insulated with 1" FSK high-density board insulation, with additional ¼" foam insulation on access door for thermal and sound insulation.

7. The energy exchange element and blowers shall be protected by a polyester filter in both exhaust air and fresh air streams.