



EPE5500 PLATE EXCHANGERS

Heat and moisture recovery without moving parts!



Ideal for commercial and institutional applications!

Manufacturers of air handling units are always looking for solutions that will make their units stand out from their competitors. Keeping this in mind, Innergytech introduces its new and unique EPE5500 enthalpy plate energy exchanger.

Our EPE5500 series uses our latest energy recovery technology and patented polymer desiccant. With sensible (heat) and latent (moisture) energy recovery as well as their fixed plate construction, EPE5500 enthalpy plate exchangers offer the best of both worlds. So whether you are looking for a heat wheel without maintenance or a highly effective plate exchanger with moisture recovery, our EPE5500 enthalpy plate exchangers are the answer.

Features and benefits

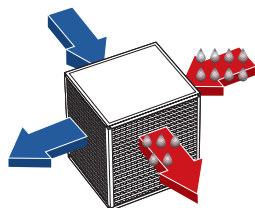
- No moving parts, trouble free operation
- Reduced noise and nearly no maintenance costs
- Recovers sensible (heat) AND latent (moisture) energies
- Bactericide desiccant; will not promote growth of mold or bacteria
- Unique rectangular flute design for low-pressure drop values and enhanced performances
- No defrost mechanism required when operating above 10 °F (-12 °C)
- Cross flow standard design
- AHRI certified performances; Bears the AHRI Standard 1060-2005 certified seal

Options

- Painted end covers
- Extruded plastic corners

Heat and moisture recovery without moving parts!

The EPE5500 Series installed in a ventilation system recovers both heat and moisture from one air stream and transfer them to the other without any moving parts. It supplies a continuous flow of fresh air providing a comfortable level of humidity at a minimal ventilation cost.



Operating Principle:

Summer operation

In summer operation, heat and moisture from the outside fresh air is transferred to the outgoing air, greatly reducing air-conditioning costs.

Winter operation

In winter, heat and moisture from the outgoing air is recovered and transferred to the fresh incoming air, greatly contributing to reduced heating costs.

Dimensional data

Model	Square size (S) (in/mm)	Diagonal (D) (in/mm)	Height (H) (in/mm)
24S	24/609.6	35.2/894	As requested
27S	27/685.8	39.4/1001	As requested
30S	30/762	43.7/1110	As requested
33S	33/838.2	47.9/1217	As requested
36S	36/914.4	52.2/1326	As requested
42S	42/1066.8	60.6/1540	As requested
48S	48/1219.2	69.1/1756	As requested

EPE5500 Specifications

1. General Specifications:

- 1.1. Furnish and install the EPE5500 enthalpy plate energy exchanger, to be manufactured by Innergy tech inc.
- 1.2. The enthalpy plate energy exchanger shall transfer both sensible and latent energies between outgoing and incoming air streams in a cross flow arrangement.
- 1.3. The enthalpy plate exchanger must be manufactured in North America.
- 1.4. The enthalpy plate exchanger manufacturer must have at least ten (10) years of experience in the manufacturing of energy recovery components.

2. Product Specifications:

- 2.1. The enthalpy plate exchanger media shall be impregnated with a RC134 polymeric desiccant.
- 2.2. The hygroscopic polymer shall exchange water by direct vapor transfer using molecular transport without the need of condensation.
- 2.3. Desiccant shall be bactericide. The desiccant shall be tested by a third party laboratory and the document showing the tests results shall be supplied to the air handling unit end user.
- 2.4. The core shall be constructed of alternate layers of corrugated aluminum material and polymeric desiccant impregnated media.
- 2.5. The enthalpy plate exchanger shall have a unique rectangular flute design to provide very low pressure drop values.
- 2.6. The enthalpy plate exchanger shall operate at temperatures between -40 °F and 140 °F (-40 °C and 60 °C).
- 2.7. The enthalpy plate exchanger shall withstand, without more than 10 % increase of pressure drop, pressure differential of at least 5" w.g.. It shall withstand pressure differential of 10" w.g. without permanent deformation.
- 2.8. As specified in ASHRAE 52.2-2007, MERV 6 type filters shall be used on both faces of the enthalpy core. Filters to be supplied by others.

3. Quality Assurance Specifications:

- 3.1. The enthalpy plate exchanger shall be a UL recognized component.
- 3.2. The manufacturer's quality procedures shall be ISO 9001-2000 certified.
- 3.3. The manufacturer shall be a participant in the AHRI Standard 1060-2005 certification program.
- 3.4. The enthalpy plate exchanger shall be warranted for at least 1 year against manufacturing defect that could alter its function.

4. Performance Specifications:

- 4.1. The enthalpy plate exchanger shall be listed in the AHRI Certified Product Directory.
- 4.2. The enthalpy plate exchanger shall bear the AHRI Certified Product Seal.
- 4.3. Sensible, latent and total effectiveness along with pressure drop, EATR and OACF rating shall be clearly documented with performance tests conducted in accordance with ASHRAE Standard 84-91 and AHRI Standard 1060-2005.



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