Thermal efficiency is more than 100 percent?

Air-conditioner´s heat pump reaction and high efficiency bases on cyclical condensation (exothermic) and evaporation (endothermic) of refrigerant.

airAC´s Enthalpy Recovery Ventilator (ERV) uses water/moisture as refrigerant vs. heat pump. airAC does not need further energy vs. conventional heat pumps.

Conventional heat recovery ventilators take advantage of sensible heat only.

The evaporation of one gram of water requires 600 calories of **heat energy**. To heat one gram of water one °C requires one calorie. The heat it absorbed and released in airAC´s case by aluminium. airAC takes uniquely advantage of this insensible latent heating through cyclical and regenerative evaporation of water and condensation of moisture, without additional energy. This is also called phase change of material PCM. For condensation needed dew point is made by cooler air of ventilation – free of charge.

Due to above mentioned multipatented airAC´s unit is called Enthalpy Recovery Ventilator vs. conventional heat recovery.

Further advantages are:

- The shortest payback period.
- Bacteria-free cell.
- Maintenance friendly function.
- The lowest life-circle costs.

airAC enables the highest annual efficiency of air-to-air heat recovery ventilators – in winter and in summer. It has the highest thermal efficiency up to over 100 percent.