



Energy Efficient Cooling: The DAMA Way

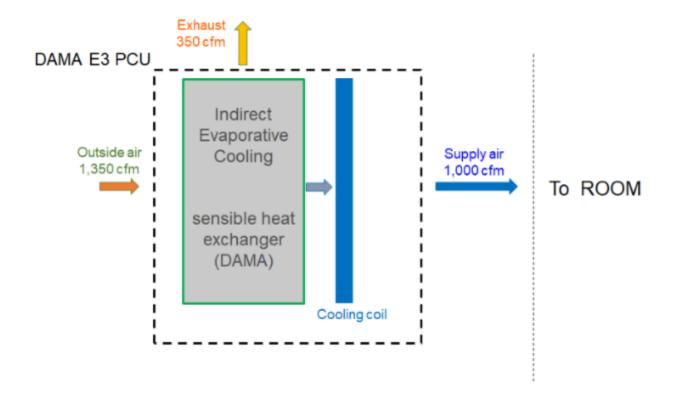
The Potential Of Indirect Evaporative Cooling-based Solutions

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DAMA E3 PCU – Efficient Pre-cooling of Fresh Air



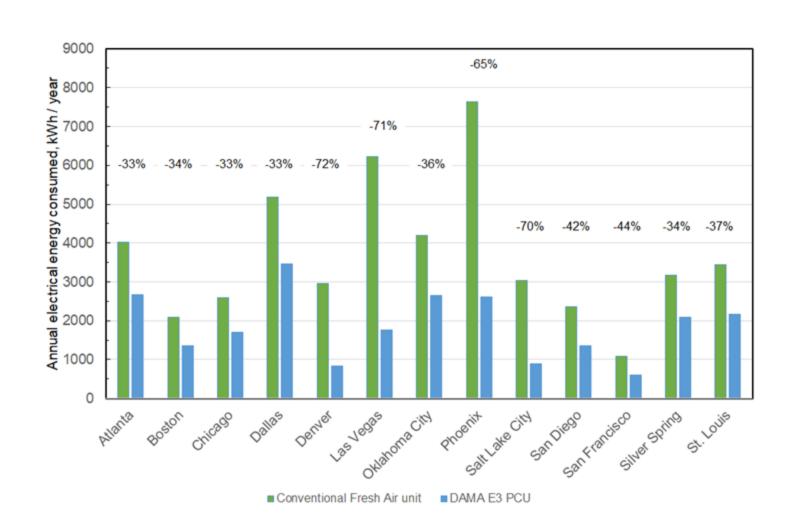
This slide shows how DAMA incorporated into a Dedicated Outdoor Air System (DOAS) saves energy while enabling a higher proportion of fresh air.



^{*} With an average of 46% of the annual energy consumed, for 13 cities across climate zones. Results derived from computer simulations.

Savings with Pre-cooling of Fresh Air (10 hour operation)





Indirect Evaporative Cooling to precool fresh air

Capacity: 1000 cfm

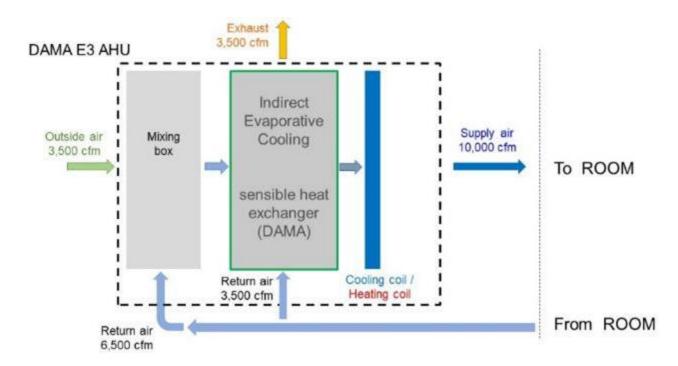
Operation: **08.00-18.00 hrs**, 365 days / year

Winter cut-off temperature: 20 deg C

Net savings = gross savings - parasitic power consumed

DAMA E3 AHU – Recover Energy and Increase Fresh Air





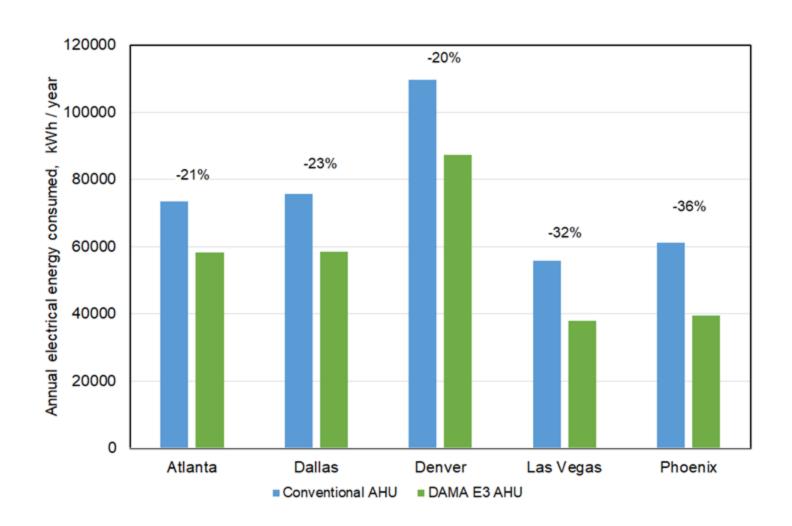
DAMA-enabled AHUs can deliver up to 3x fresh air

- Saves 20.2 34.3% annually in energy costs in the US*
- Solutions can be customized for airflow, pressurization, etc. while maintaining DAMA performance

^{*} Results of computer simulations of the performance of a DAMA E3 AHU system for 5 cities in the USA. Projected energy savings of up to 20.2% in Atlanta and 34.3% in Phoenix.

Energy Savings of DAMA E3 AHU vs. Conventional AHU





Indirect Evaporative Cooling-based Hybrid AHU

Capacity: 10,000 cfm including 3,500 cfm of outside air

Operation: **08.00-18:00 hrs**, 365 days / year

Winter cut-off temperature: 20 deg C

Net savings = gross savings - parasitic power consumed