



Green HVAC Technology Evaluation of “AIRCOSAVER” – Charles Kellum P.E.

June 2009

IMPROVE • INTEGRATE • IMPLEMENT

AIRCOSAVER Summary

- **Executive Summary;**
- The **AIRCOSAVER** is an intelligent device retrofitted into the existing control circuitry of a 2-10 ton air conditioning unit.
- The **AIRCOSAVER** uses sensor-driven software algorithms that detect thermodynamic saturation, optimize compressor performance and energy usage.
- When overcapacity is detected, the **AIRCOSAVER** switches the compressor off and avoids inefficient “overcooling”.
- This results in significant energy savings without compromising cooling capacity.

AIRCOSAVER Testing

- **Objective:** Install “AIRCOSAVER” in a Regen Shelter Site and evaluate the product’s performance on the air conditioning systems. Confirm savings difference between winter and summer outside temperatures using the AIRCOSAVER device.
- **Installation:** AIRCOSAVERS were installed on HVAC units at the White Rock Regen Site in Dallas, Texas.
 - The shelter is 11’ x 30’, with 3 racks of equipment and employs two 4 ton Liebert wall units.
- **Test Conditions:** Average winter test high outside temp 55 deg. F, average low outside temp 36 deg. F. Average summer test high outside temp 91.3 deg F, average low outside temp 74.7 deg. F.
- **Test Period;** Testing was conducted from 06/08/2009 to 06/09/2009.

AIRCOSAVER Test Results

- AIRCOSAVER was tested by VSO Technical Facilities Engineering during 01/24/2009 to 03/20/2009 for winter testing and 06/08/2009 to 06/10/2009 for summer testing.
- Winter Air-conditioning operating cost was reduced 19.5%.
- Summer Air-conditioning operating cost was reduced 21.6%.
- There has been no indication of any adverse effects on the air conditioning equipment

VSO Applications

- The **AIRCOSAVER** device is now approved for use in VSO applications as follows;
- Limited to 2 - 10 Ton Air Conditioning Systems
- Shelters, Regens, and CEV's are prime applications
- Roof Top Air Conditioners
- Split System Air Conditioners
- Window type air conditioners

AIRCOSAVER

- *Please right click to open Hyperlinks*
- <http://www.aircosaver.com/index.php>
- **Product brochure**
- [Product brochure, PDF, small download file 1.2MB - print on A3 & fold once](#)
- [Product brochure, PDF, higher resolution \(3.2 MB\) - print on A3 & fold once](#)
- **Installation instructions**
- [24V AC version](#)
- **Technical data & warranty**
- [Technical data & warranty](#)
- **Approvals and certificates**
- [Summary of conformity tests and approvals](#)
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