



# SOLUTIONS



www.jacco.com

*Focused on The Engineered Environment*

November 2008

Welcome to SOLUTIONS, a monthly newsletter provided by Jacco & Associates. Jacco's focus on system knowledge provides you with the engineering support and product solutions for your applications.

## November Feature:



## Variable Capacity Compressors

Aaon continues their legacy of innovative HVAC systems with the use of Copeland's Variable Capacity Compressors (VCC). VCC's can modulate from 10 to 100%, providing energy savings and tighter temperature control compared to standard on-off compressors.

HVAC equipment typically spends 95% of its time running at part load, where VCC's are most effective. On CAV systems this means you can remain at part load to maintain space temperature and provide greater dehumidification. On VAV systems you can eliminate hot gas bypass altogether, translating into even more energy savings.

How do VCC's work? The capacity is modulated through a pulse width modulated signal to a solenoid valve. The compressor motor operates continuously, however the pumping operates in two stages—"loaded state" and "unloaded state." During the loaded state the compressor operates like a standard scroll compressor and delivers full capacity and mass flow. During the unloaded state, there is no capacity and no mass flow from the compressor.

How much can this system save in energy? On CAV systems you can see up to 20% and on VAV systems up to 50% versus typical on-off or hot gas bypass compressors.

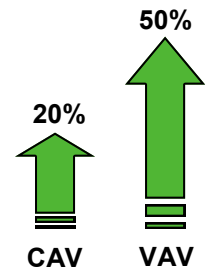
Aaon is currently running a promotion on Variable Capacity Compressors by providing them at **NO ADDITIONAL COST** through April 15, 2009! Take advantage of this opportunity to save your customers money!

Want to know how much energy Aaon's Variable Capacity Compressors can save you? Call and ask for an energy comparison versus an on-off/hot gas bypass compressor.

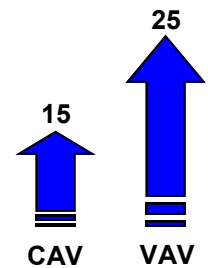


**Aaon's D-PAC unit was named Product of the Year by the readers of Consulting-Specifying Engineer Magazine. Go to [www.csemag.com](http://www.csemag.com) for more information.**

### Energy Savings!



### Equivalent EER's!



## November Question & Answer:

**Question:** Aaon has sold thousands of VCC's over the past several years. How many failures have been reported?  
a.) 0    b.) 25    c.) 65    d.) 100

**Prize:** Samsung Camcorder!

Respond by December 5th with the correct answer to be entered in the raffle for this month's prize!

## Last Month's Question & Answer Winner!

**Question:** Which of the following is most corrosive with common construction metals?

**Answer:** C—Glycol & Water Mixture. Congratulation to James Wilbanks for winning a Sony Walkman!

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Questions or comments? E-mail us at [opportunity@jacco.com](mailto:opportunity@jacco.com)



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