

# Copeland YDV variable speed scroll compressors for commercial data center applications

*Optimizing data centers' power utilization effectiveness and maximizing uptime with precise temperature, humidity control and unmatched reliability*

Data centers are the collective backbone of the modern digital economy, providing data storage, processing and cloud-based services while supporting the emergence of artificial intelligence (AI). These big data centers consume massive amounts of energy thus putting critical focus on air conditioning efficiency to optimize power utilization effectiveness.

Copeland Variable Speed Solutions for data centers is designed for continuous hours of operation, delivering best-in-class efficiency and reliability, enabling data center air conditioners to deliver precise temperature and humidity control, and optimize power utilization effectiveness.

## Key features

- Designed for continuous hours of operation
- Wide operating envelope with higher evaporating temperature
- Optimized to deliver best-in-class efficiency
- Low side design feature for better liquid handling, oil management and reliability
- Wide speed range 1,200-7,800 RPM



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- Optimized for data center applications, featuring unmatched efficiency to reduce system cycling as well as lower PUE and lifecycle costs
  - Suitable for air-cooling applications and ideal for liquid-cooling applications
  - Enables efficient low lift operation using mechanical cooling to deliver higher supply temperatures at lower ambient temperatures
  - Reduced footprint, available in singles or tandems
  - Condition-based maintenance enabled by Copeland's extensive data repository to monitor system performance and alert end users when performance degrades (application-based)
  - Both compressor and drive are agency approved for reduced design time, cost, and speed to market.
  - Optimized variable frequency drive and harmonic distortion mitigation available
  - Well positioned for battery & energy storage applications requiring precision temperature control during charging / discharging
  - Available in both A1 and A2L low-GWP refrigerants
  - Optimized scroll elements for variable speed performance
  - BPM motor technology for highest efficiency
  - Technology to boost efficiency across a range of conditions
- Compressor Nomenclature: YDV and ZEV
  - Refrigerants: R454B, R-32 and R513A



To learn more, visit [copeland.com](https://copeland.com)

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