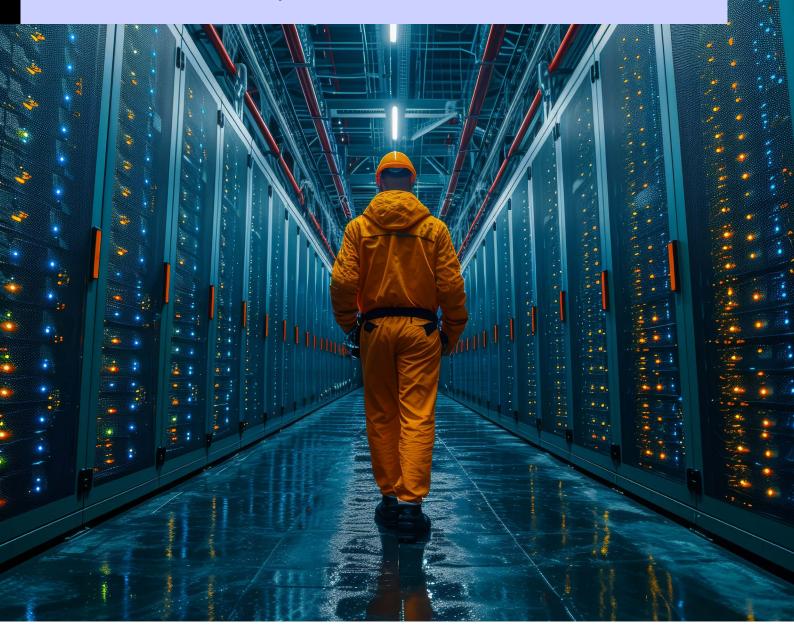
Copeland Variable Speed Solutions for Data Center Application

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







Copeland Variable Speed Solutions for Data Center Applications

In today's digital world, data centers are becoming an essential part of life. Data centers are expanding in size with recent advancements in telecommunications, information technology, cloud computing, and Al. 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 center 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

Variable Speed Compressor

- Designed for continuous hours
 of operation
- Wide operating envelope with higher evaporating temperature
- Optimized to deliver best-inclass efficiency
- Low side design feature for better liquid handling, oil management and reliability
- Wide speed range 20-130 Hz

Inverter Drive

- Optimized performance
 perfectly matched with
- Copeland variable speed scroll compressor
- Enhanced start/stop algorithm with comprehensive software testing
- Power factor correction
 capability and low iTHD

Programmable System Controller (iPro)

- Built-in optimized control logic
- Integrated two EXV drivers
- Capability for expansion and connection to monitoring systems









One-stop shop - qualified integrated solution



Trusted Copeland brand with decades of cooling expertise

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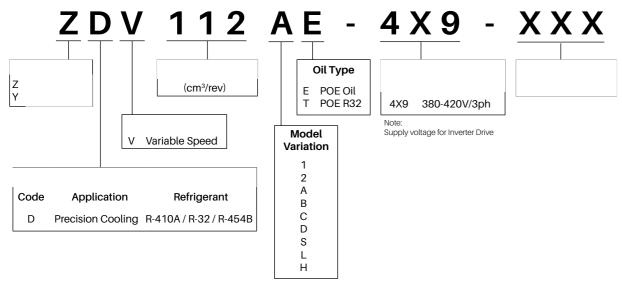




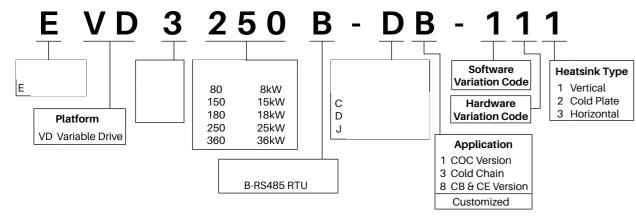


Nomenclature

Variable Speed Scroll Compressors



Inverter Drives



Technical Specifications

Variable Speed Scroll Compressors

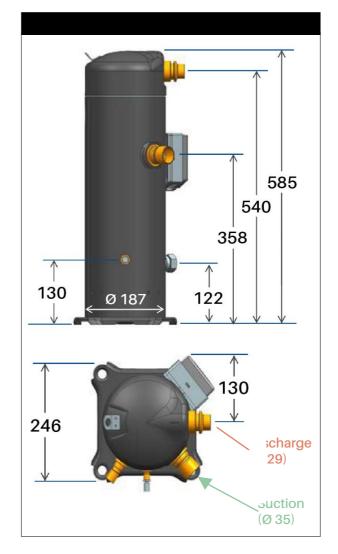
| ZDV130AE-4X9 | R-410A | - 380/420V, 3ph | 130 | 20 ~ 130 | 44.3 | 12.4 | 3.58 |
|--------------|--------|-----------------|-----|----------|------|------|------|
| ZDV112AE-4X9 | | | 110 | | 37.9 | 10.7 | 3.53 |
| ZDV098AE-4X9 | | | 98 | | 33.6 | 9.5 | 3.54 |
| YDV130AT-4X9 | R-32 | | 130 | 20 ~ 120 | 47.9 | 13.4 | 3.55 |
| YDV112AT-4X9 | | | 110 | | 41.4 | 11.4 | 3.62 |
| YDV098AT-4X9 | | | 98 | | 36.5 | 10.3 | 3.55 |

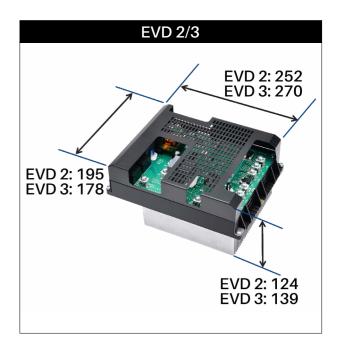
Inverter Drives

| EVD3250B-D8-111 | 25 | 240/440V 2ph | 40 / 48 | CE CB | 130cc 110cc |
|-----------------|----|---------------|---------|-------|-------------|
| EVD3180B-D8-111 | 18 | 340/440V, 3ph | 38 / 38 | CE CB | 98cc |

Dimensions

Note: All dimensions in mm

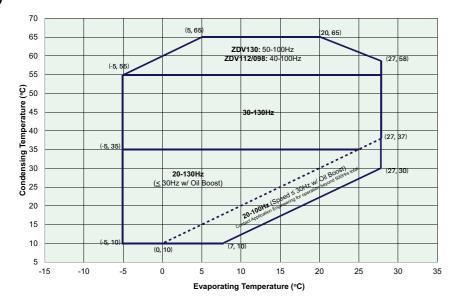




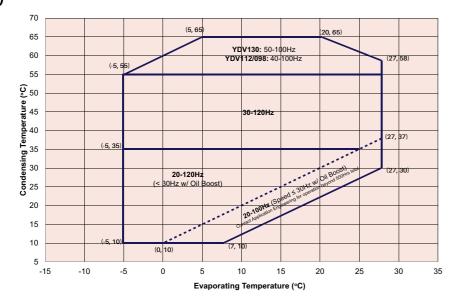


Operating Envelope

ZDV 98/112/130



YDV 98/112/130



Copeland Integrated Solutions Package for Data Center

- CompressorDrive board
- Capacitor board
- Filter board · Choke
- HMI Electonic expansion valve

Controller

 Electonic expansion valve coil



 High pressure transducer Low pressure transducer · High temperature sensor Low temperature sensor

Integrated

Solutions

Variable Speed Scroll Compressor

- Superior reliability
- High COP and AEER
- Low running sound
- Broad operation envelope

DX3 EXV

- Unipolar stepper motor driven for 500steps
- Bi-flow design
- High reliability, 250k full • cycles
- IP65/IP67 protection



HP/LP/HT/LT Sensor

- +/- 1% accuracy
- IP67 protection



About Copeland

Copeland, a global provider of sustainable climate solutions, combines category-leading brands in compression, controls, software and monitoring for heating, cooling and refrigeration. With best- in-class engineering and design and the broadest portfolio of modulated solutions, we're not just setting the standard for compressor leadership; we're pioneering its evolution. Combining our technology with our smart energy management solutions, we can regulate, track and optimize conditions to help protect temperature-sensitive goods over land and sea, while delivering comfort in any space. Through energy-efficient products, regulation-ready solutions and expertise, we're revolutionizing the next generation of climate technology for the better.

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