

Copeland YHV variable speed scroll compressors for water heating applications

The Copeland YHV variable-speed scroll compressor lineup is designed to support decarbonization in residential and commercial high temperature water heating. Offering dual-refrigerant compatibility with R-454C and R-290, this optimized compressor delivers ultra-low global warming potential (GWP) compliance and an operating envelope that enables electrification of hydronic and sanitary water heating systems.

- Global 2–25 ton platform is designed to drive effective electrification of high temperature water heating equipment used for boiler retrofits and new construction
- Enables successful and robust heating for hydronic comfort and sanitary water in both residential and commercial applications
- Optimized design for operating envelope, overspeed, low sound, efficiency, and <150 GWP refrigerant significantly improves total cost of ownership of electric water heating
- In E.U., YHV delivers the low sound levels operators need to meet their application's stringent sound requirements—a characteristic that also makes for happy building occupants and neighbors
- In the U.S., Copeland's practice of pairing compressors and variable frequency drives results in enhanced product performance, simplified design and reduced effort for OEMs, as well as straightforward installation and commissioning for contractors



COPELAND

Motor control drive offerings

Copeland offers AC drives to be paired with Copeland variable speed 2–25 ton scroll compressors. These drives have integrated compressor electronics technology and RS485 Modbus communication as a standard.

Comprehensive protection and reliability

Copeland variable speed scroll compressors take reliability to a new level with the integration of compressor electronics technology. These active protection algorithms incorporated into the motor control drive safeguard the compressor and drive from many adverse operating conditions. The types of protection features include:

- Locked rotor detection
- Phase loss detection
- Maximum operating current detection
- Discharge line temperature protection
- Anti-short cycling

- Compressor nomenclature: YHV
- Refrigerants: R-454C and R-290
- Size: 2 to 25 tons



To learn more, visit copeland.com

R-6110 (1/25) ©2025 Copeland L.P.

COPELAND