Proven reliability

Copeland Scroll variable speed compressors represent the pinnacle of reliability through enhancements such as:

- **Active protection algorithms:** provided by the motor control drive
- **Robust scroll design:** Outstanding reliability over competing compression technology
- **Proven in-field performance:** Over 25 years of scroll experience and more than 100 million installations around the world
Emerson's Copeland Scroll™ variable speed compressors are designed and engineered to deliver maximum cooling and heating efficiency when you need it most. With Copeland Scroll variable speed compressors, homeowners are able to save up to 40% on annual energy costs. Our latest second generation variable speed compressor technology enables system manufacturers and homeowners to achieve superior system performance, including:

- **Maximum cooling efficiency:** Capable of achieving 25+ SEER (Seasonal Energy Efficiency Ratio)
- **Breakthrough heating efficiency:** Capable of achieving 13+ HSPF (Heating Seasonal Performance Factor)
- **Enhanced light-load efficiency:** Turndown to 20% capacity enables better light load efficiency and dehumidification

**Proven Copeland Scroll platform, enhanced and optimized for variable speed**

- Intermediate discharge valves to boost efficiency across a range of conditions
- New gas management method enables smooth gas flow into scroll set
- Optimized scroll elements for variable speed performance
- Positive displacement oil pump enhances reliability
- Brushless Permanent Magnet (BPM) motor technology for maximum efficiency

**Revolutionary motor control drive technology, optimized specifically for Copeland Scroll variable speed compressors for ease of application**

1. System control provides speed signal to motor control drive
2. Drive converts AC to DC power, sends it to compressor BPM motor, dynamically adjusting its speed.
3. Drive manages compressor operation to ensure efficiency and protection from adverse circumstances such as lightning strikes, etc.

**Key drive features**

- **Integrated CoreSense™ technology** is built into the drive for optimal compressor performance.
- **Control features** include soft start and controlled shutdown, speed/torque control and power interrupt capability.
- **Protection features** include overload/over current fold back, compressor envelope protection, input under/over voltage, high pressure cutout and scroll over temperature protection.
- **Available in 3.3, 3.7, 5.5 and 8.0 kW max power.**
- **RS485 Modbus® communications standard**
- **0-10V/PWM control optimal.**
- **Static heating capability.**
- **Drivers are available with finned heat sink for air-cooled applications and flat plate heat sink for refrigerant-cooled applications.**

The latest in technology and value. Emerson’s compressor and motor control drive technology provides enhanced system performance and value

To download our e-saver mobile app visit Emerson.com/MobileApps