

# Copeland Scroll™ K5 compressor for refrigeration

## Setting a new standard for efficiency and reliability

Emerson offers a new solution for operators looking to improve operations and reduce costs in refrigeration systems. The Copeland Scroll K5 compressor offers the highest energy efficiency available - lowering utility bills and reducing CO<sub>2</sub> emissions. Additionally, its superior reliability and onboard CoreSense™ Diagnostics prevent unnecessary service calls and extend compressor life.

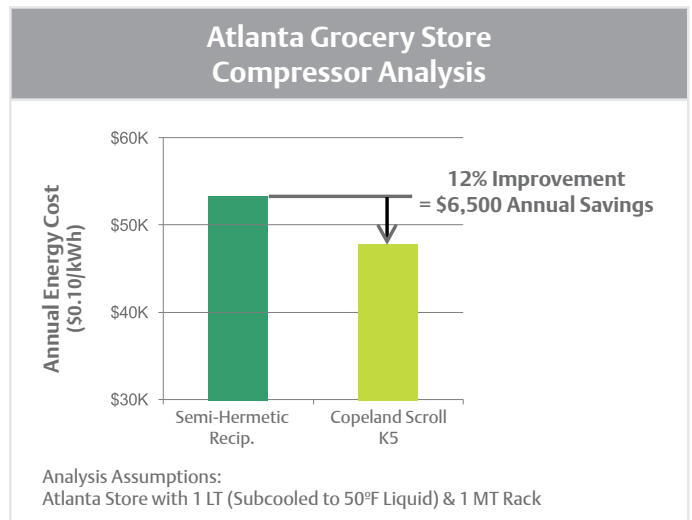
## Delivers unmatched energy efficiency: 5-20% Improvement

- Motor, scroll and bearing redesign minimize annual energy consumption.
- Precision machined scrolls provide the highest isentropic efficiency and wear-in for improved performance over time.
- New valving technology adjusts the scroll compression ratio based on operating condition, significantly improving low ambient performance.
- Using vapor injection improves system capacity by 50% and efficiency by 20% on average at the low temperature rating condition.



## Superior reliability equipped with CoreSense™ Diagnostics

- The Copeland Scroll compressor design has several inherent reliability advantages:
  - 70% fewer moving parts than reciprocating compressors
  - Axial & radial scroll compliance provides improved liquid handling capability
  - Hermetic design reduces leak potential
- Redesigned suction gas flow results in lower oil circulation and better motor cooling.
- Onboard CoreSense Diagnostics provide advanced features to ensure optimum system operation.
  - Sends early warning signs of system issues through LED alerts and remote communications capability
  - Protects compressor when catastrophic conditions are detected to prevent costly failures
  - Improves speed and accuracy of system troubleshooting by displaying fault codes



### CoreSense Diagnostics features:

Discharge temperature protection

Motor protection

Asset information

Compressor proofing

Remote reset

Current sensing diagnostics

Modbus communications

## Copeland Scroll K5 compressors

Application (R404A)	Model	Displacement (CFH)	Capacity (Btu/hr)	EER	Length (in)	Width (in)	Height (in)
Medium temp. (20°F/120°F)	ZB58K5E	7.76	58,900	7.2	14.3	12.3	21.2
	ZB66K5E	9.01	67,300	7.3	14.3	12.3	21.2
	ZB76K5E	10.11	78,200	7.2	14.3	12.3	21.2
	ZB95K5E	12.76	96,300	7.0	14.3	12.3	21.2
	ZB114K5E	15.20	115,000	6.9	14.3	12.3	21.2
Low temp. (-25°F/105°F)*	ZF34K5E	10.22	47,200*	6.0*	14.3	12.3	21.2
	ZF41K5E	12.39	58,500*	6.0*	14.3	12.3	21.2
	ZF49K5E	14.87	66,500*	5.9*	14.3	12.3	21.2
	ZF54K5E	16.18	75,500*	5.5*	14.3	12.3	21.2

\*Economized