

Copeland Scroll™ ZB* KAU compressor

For R-290 refrigeration applications

Improved efficiency with natural refrigerants

Propane (R-290) was introduced to the industry more than 100 years ago, and because of that, its performance efficiencies and thermodynamic properties have been well vetted. It performs similar to or better than R-22 in terms of pressure, discharge temperature, volumetric capacity, capacity loss and coefficient of performance but without the downside of ozone depletion due to leaks.

Emerson offers a new solution for operators looking for improved energy efficiency using natural refrigerants. The Copeland Scroll ZB* KAU compressor represents the latest innovation in compliant scroll technology for refrigeration equipment from 0.75 – 1.50 HP (76k-10k BTU/hr at medium temperature ARI). It is more efficient than standard reciprocating compressors with 70% less moving parts for increased reliability.

The ZB* KAU models are intended for medium temperature refrigeration type duty and are ideally suited for applications such as self-contained display cases with multiple circuits, packaged condensing units for cold room applications, and refrigeration applications below 150 grams R-290 refrigerant charge.



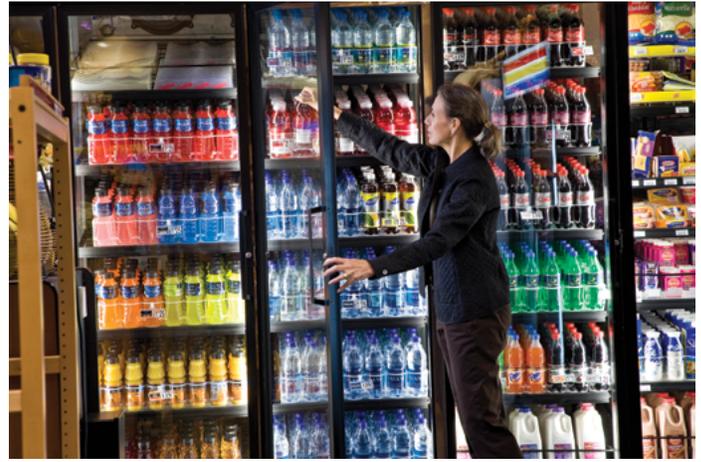
Product offerings and market readiness

As a component manufacturer, we didn't have the luxury of waiting to see what was going to happen with the phase-down of HFCs. And as a company, we strive to maintain a proactive posture by relentlessly pursuing a multitude of potential solutions. Our approach to this challenge has remained consistent throughout: to rigorously engineer and evaluate component performance against worst-case regulatory scenarios.

At our test labs, we've found propane capable of high performing and efficient operation. Compared to the refrigerants it will likely replace, it yields more capacity with lower wattage consumption. Overall, we have seen more than a 10 percent efficiency improvement in our propane performance testing.

Copeland Scroll technology is an all-around superior refrigeration solution:

- Smooth scroll movement leads to low sound and vibration
- Smooth start and stop of a scroll means longer compressor life
- 70% fewer moving parts than a reciprocating compressor means better reliability
- Axial & radial scroll compliance provides improved liquid handling capability
- Hermetic design reduces leak potential



Copeland Scroll ZB*KAU delivers best performance for medium temperature refrigeration applications.

ZB*KAU model summary

Model	Refrigerant	Evap Temp (°F)	Cond Temp (°F)	Frequency (Hz)	Capacity (BTU/h)	Power (W)	EER	Standards
ZB07KAU-TF5	R-290	20	120	60	7936	1060	7.49	ARI
ZB07KAU-TFD				60	7742	1068	7.25	
ZB09KAU-TF5				60	9518	1260	7.55	
ZB09KAU-TFD				50	9185	1272	7.22	
ZB10KAU-TF5				60	10832	1450	7.47	
ZB10KAU-TFD*				50	10546	1464	7.20	

ARI: 20°F Evap/120°F Cond/65°F RG/0°F SC/95°F Amp

For more information about Copeland Scroll ZB*KAU compressors refer to Application Engineering bulletins or visit Climate.Emerson.com