



Next generation Copeland Scroll™  
Two-stage scroll compressor

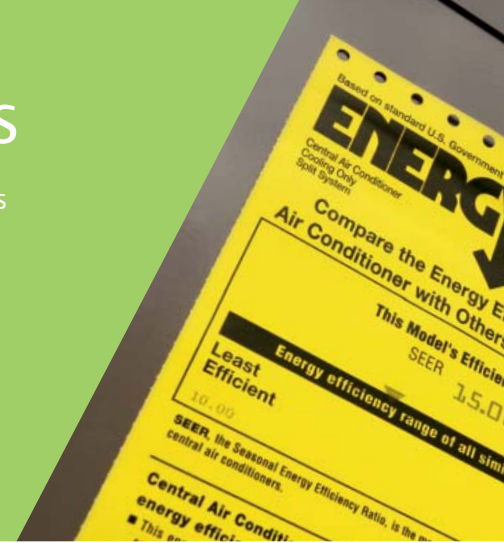
**COPELAND SCROLL™**



**EMERSON™**

# Ultra comfort and energy savings

Contractors have more opportunities than ever to upsell and delight their customers with improved comfort and energy savings. In fact, an independent study recently found that 39 percent of homeowners nationwide would pay a premium for a high efficiency, two-stage air conditioner that offers humidity control and more even temperatures. That's why the next generation Copeland Scroll two-stage compressor is so popular among contractors and their customers. Since its launch, the 15+ SEER market has grown 45 percent.

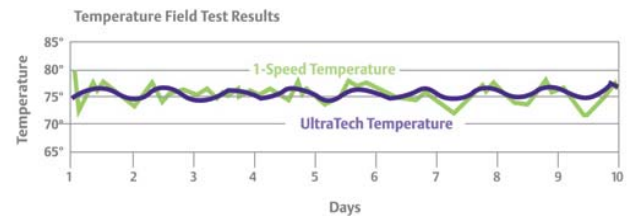


## A greater level of comfort

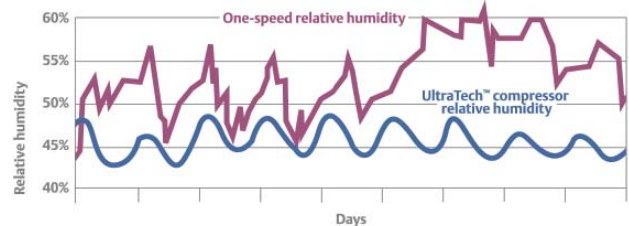
The next generation Copeland Scroll two-stage compressor provides superior comfort with a revolutionary two-step capacity design. At part-load capacity, systems with Copeland Scroll two-stage compressors run longer, to reduce humidity and allow precise temperature control by modulating capacity. This eliminates uneven cooling peaks and valleys and allows for steady cooling comfort.

## 15-16 SEER energy savings

Over 40 percent of summer utility bills can come from operation of the air conditioner compressor. Copeland Scroll two-stage compressors lead the industry with a greater level of comfort and energy efficiency, saving up to 25 percent on energy costs as compared to conventional HVAC systems. With as much as a 200 watt reduction in power consumption, systems equipped with Copeland Scroll two-stage compressors are ideal for 15-16 SEER systems.



Copeland Scroll two-stage compressors allow precise temperature control.



Copeland Scroll two-stage compressors improve humidity control by 53%.

## Quiet comfort

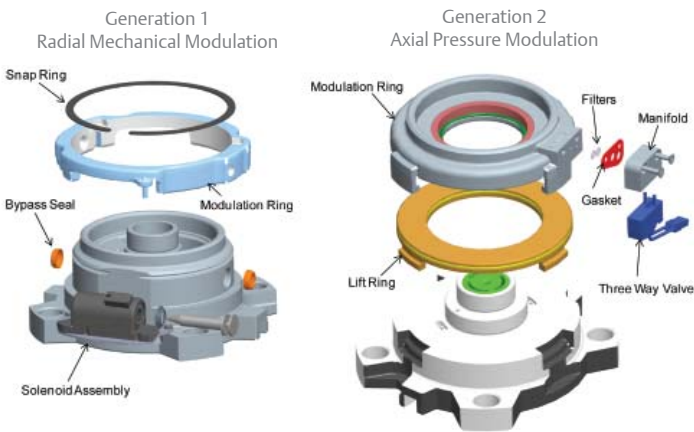
The Copeland Scroll two-stage compressor is remarkably quiet at both full- and part-load capacity. In fact, it is up to four times quieter than a reciprocating compressor. So homeowners can enjoy its superior cooling power without having to hear its operation.





## Big benefits in a simple, reliable design

With the Copeland Scroll two-stage compressor, two internal bypass ports enable the system to run at 67 percent part-load capacity, for enhanced efficiency and humidity control. This new, innovative design uses an internal pressure differential to actuate the modulation assembly significantly reducing the power required to modulate the valve. It also minimizes the expansion volume created during full-load operation which ultimately improves full-load performance by 1.5-5.5 percent. As a result, the next generation Copeland Scroll two-stage compressor offers contractors a solution that not only provides better performance, but also provides a more reliable product due to the inherently simpler design.



### Key features:

- Enhanced humidity and temperature control for 15 - 16 SEER market, up to 5.5 percent increase in efficiency
- Two stages of capacity modulated by pressure differential that instantly shifts between full-load and part-load capacity
- Leverages 15 design improvements of the fifth generation Copeland Scroll platform
- Optimized for comfort and energy savings
- Significant reduction in VA load
- Improved sound



### Proven scroll performance

While the Copeland Scroll two-stage compressor builds on established scroll technology, it is still a scroll at heart – which means that it operates with fewer moving parts and no volumetric efficiency drop-off or compression leakage, delivering the reliability you’ve come to expect from a Copeland Scroll compressor.

## Copeland Scroll two-stage compressor specification chart

Model	Part-Load Capacity at 50/100	Full-Load Capacity at 50/115	Run Cap. MFD/Volts	Suction Height (in.)	Discharge Height (in.)	Height (in.)	Weight (lbs.)	Suction Diameter (in.)	Discharge Diameter (in.)
ZPS20K5E-PFV	20000	25600	5.5	10.4	14.3	15.3	47.3	3/4	1/2
ZPS20K5E-PFJ	20000	25600	5.5	10.4	14.3	15.3	47.3	3/4	1/2
ZPS20K5E-TF5/D/E	20000	25600	5.5	10.4	14.3	15.3	47.3	3/4	1/2
ZPS21K5E-PFV	20600	26400	5.5	10.4	14.3	15.3	47.3	3/4	1/2
ZPS26K5E-PFV	25000	32800	5.5	10.4	14.3	15.3	47.3	3/4	1/2
ZPS26K5E-PFJ	25000	32800	5.5	10.4	14.3	15.3	47.3	3/4	1/2
ZPS26K5E-TF5/D/E	25000	32800	5.5	10.4	14.3	15.3	47.3	3/4	1/2
ZPS30K5E-PFV	27700	38000	5.5	10.4	14.3	15.3	49.6	3/4	1/2
ZPS30K5E-PFJ	27700	38000	5.5	10.4	14.3	15.3	49.6	3/4	1/2
ZPS30K5E-TF5/D/E	27700	38000	5.5	10.4	14.3	15.3	49.6	3/4	1/2
ZPS31K53-PFV	29300	39000	5.5	10.4	14.3	15.3	49.6	3/4	1/2
ZPS35K5E-PFV	33500	45300	6.5	11.6	15.5	16.9	72.9	7/8	1/2
ZPS35K5E-TF5/D/E	33500	45300	6.5	11.6	15.5	16.9	72.9	7/8	1/2
ZPS40K5E-PFV	38400	51000	6.5	11.6	15.5	16.9	72.9	7/8	1/2
ZPS40K5E-PFJ	38400	51000	6.5	11.6	15.5	16.9	72.9	7/8	1/2
ZPS40K5E-TF5/D/E	38400	51000	6.5	11.6	15.5	16.9	67.0	7/8	1/2
ZPS49K5E-PFV	45500	60600	6.5	11.6	15.5	16.9	76.5	7/8	1/2
ZPS49K5E-TF5/D/E	45500	60600	6.5	11.6	15.5	16.9	72.8	7/8	1/2
ZPS51K5E-PFV	48300	64100	6.5	11.6	15.5	16.9	76.5	7/8	1/2
ZPS51K5E-PFJ	48300	64100	6.5	11.6	15.5	16.9	76.5	7/8	1/2
ZPS51K5E-TF5/D/E	48300	64100	6.5	11.6	15.5	16.9	76.5	7/8	1/2
ZPS60K5E-PFV	57300	73300	6.5	11.6	15.9	17.4	96.0	7/8	1/2
ZPS60K5E-TF5/D/E	57300	73300	6.5	11.6	15.9	17.4	79.3	7/8	1/2

Mounting pattern 7.5"x7.5" (same as previous Copeland Scroll models)

For complete product details and additional information, visit [Emerson.com/OPI](http://Emerson.com/OPI) or [CopelandScroll.com](http://CopelandScroll.com).

## Copeland Scroll two-stage compressor nomenclature

Z	P	S	3	0	K	5	E	-	P	F	V	-	1	3	0	
Z Scroll Family Series	AC, R-410A/B	Two-stage	Nominal Capacity at Rating Condition	Capacity Multiplier K - 1,000	Model Variation 4, 5	Oil type E - POE Oil - AK/DA or 3MA			P = Single Phase Motor T = Three Phase Motor B = BPM 50/50 F = 3PWS Motor K = Three Phase Encapsulated Stator	Internal Inherent Protection	Code 60 Hz. 50 Hz. D 460-3 380-420-3 E 575-3 — J 265-1 220-240-1 M 380-420-3 — V 208-230-1 200-1* 5 200-230-3 200-220-3 *only on some A/C scroll models			Bill of Material Product Variation		

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