

Copeland Scroll Digital™ Compressors



Maximize comfort while minimizing energy consumption

In today's commercial heating and air conditioning world, many challenges face your customers. Whether reducing energy consumption in a system, offering greener solutions, or simply improving comfort levels, one technology stands above the rest – the Copeland Scroll Digital™ compressor. The award winning Copeland Scroll Digital compressor offers improved comfort through precise temperature and humidity control and can achieve energy savings versus traditional methods of system modulation through its unique capacity modulation capabilities.

Superior-efficiency performance

Traditional means of modulation such as hot gas bypass unload without changing compressor capacity. Unfortunately, that means a compressor running at full capacity is consuming the maximum amount of energy during the bypass cycle. This scenario is a recipe for energy inefficiency and unnecessary operating costs.

The Copeland Scroll Digital offers compressor modulation from 10-100%, allowing your customers' cooling systems to automatically adjust capacity as needed while reducing energy consumption. This newest scroll technology is up to 30 percent more efficient than traditional methods of system modulation.

Comfort to match your needs

Imagine a restaurant dining room, a theater, or a classroom. Each application has its peak hours, when maximum cooling is

needed to maintain complete comfort. You can count on the Copeland Scroll Digital compressor to be right there, cooling at 100 percent capacity.

Remember, comfort is needed at off-peak hours too. That's where this compressor really impresses. When less cooling is needed, the Copeland Scroll Digital compressor can cool at as little as 10 percent capacity. So a constant temperature can be easily maintained within ± 0.5 degrees Fahrenheit at any time of day, whether the room is mostly empty or standing room only.

Fewer start-stops mean enhanced reliability.

It's the worst thing you can do to a compressor. Turn it on. Then turn it off. Then turn it on again. But when your compressor offers a capacity range of 10 to 100 percent, it doesn't need to start-stop as often as a traditional compressor. That means enhanced reliability and less maintenance.



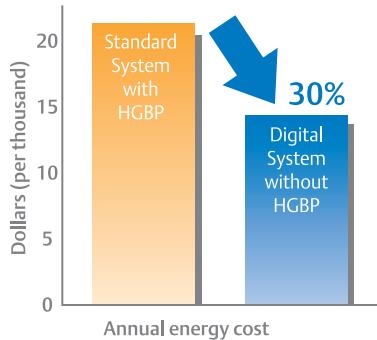
Award winning design

- ◆ Comfortech Product Showcase Award 2008
- ◆ Dealer Design Award Gold 2008
- ◆ AHR Expo Innovation Award Winner 2007
- ◆ AHR Expo Product of the Year Award 2007



With Copeland Scroll Digital as your technology solution, you can offer your customers:

- Improved full-load and part-load efficiencies
- The ability to hold a precise temperature/humidity to $\pm 0.5^{\circ}\text{F}$
- Lower operating costs due to more efficient modulation methods
- Proven oil return enhancing system reliability
- Peace of mind with a simple, reliable design



Don't get left behind – include the Copeland Scroll Digital compressor in your product offering today.

Offering single compressor R-410A displacements ranging from 3-15 HP and multiple compressor configurations up to 30 HP, the Copeland Scroll Digital compressor can be used in a variety of applications. Whether it's a single-circuit packaged system or a multi-circuit rooftop system, the Copeland Scroll Digital compressor offers a reliable and affordable solution for the toughest application challenges.



Copeland Scroll Digital™ models

Model	ARI Capacity Btu/hr	EER @ ARI	Height (In)	Length (In)	Weight (lbs)	Suction Diameter (In)	Discharge Diameter (In)
ZPD34K5E-PFV/PFJ	34600	10.2	17.7	9.6	68	0.785	0.5
ZPD34K5E-TFD/TF5/TF7	34600	10.2	17.7	9.6	68	0.785	0.5
ZPD42K5E-PFV	42000	10.3	18.4	9.3	72	0.785	0.5
ZPD42K5E-TFD/TF5/TF7	42600	10.7	18.4	9.3	72	0.785	0.5
ZPD51K5E-PFV	51500	10.5	18.4	9.3	76	0.785	0.5
ZPD51K5E-TFD/TF5/TF7	51000	10.6	18.4	9.3	76	0.785	0.5
ZPD54K5E-PFV	54000	10.5	18.4	9.3	76	0.785	0.5
ZPD54K5E-TFD/TF5/TF7	54500	10.7	18.4	9.3	76	0.785	0.5
ZPD61KCE-TFD/TF5/TF7	62000	10.5	19.5	9.5	89	0.785	0.5
ZPD72KCE-TFD/TF5/TF7	71500	10.5	19.5	9.5	90	0.785	0.5
ZPD83KCE-TFD/TF5/TF7	82500	10.5	19.5	9.5	90	0.785	0.5
ZPD91KCE-TFD/TF5/TFE/TF7	90100	10.9	18.9	9.67	91.5	0.875	0.75
ZPD103KCE-TFD/TF5/TFE/TF7	103000	11.0	21.0	11.5	134	1.375	0.875
ZPD120KCE-TFD/TF5/TFE/TF7	123000	11.1	21.0	11.5	136	1.375	0.875
ZPD137KCE-TFD/TF5/TFE/TF7	137500	11.0	21.0	11.5	135	1.375	0.875
ZPD154KCE-TWD/TW5/TWE/TW7	155000	11.0	21.7	12.83	147	1.375	0.875
ZPD182KCE-TWD/TW5/TWE/TW7	183000	11.0	21.7	12.83	147	1.375	0.875
ZPDT12MCE-TFD/TF5	123000	10.3	20.5	24.62	204	1.125	0.75
ZPDT14MCE-TFD/TF5	143000	10.1	20.5	24.62	205	1.125	0.75
ZPDT16MCE-TFD/TF5	162000	10.6	20.5	24.62	205	1.125	0.75
ZPDT18MCE-TFD/TF5/TFE/TF7	179000	10.8	20.55	24.66	190	1.125	1.125
ZPDT21MCE-TFD/TF5/TFE/TF7	209000	11.0	22.7	29.37	289	1.625	1.375
ZPDT24MCE-TFD/TF5/TFE/TF7	246000	11.0	22.7	29.37	289	1.625	1.375
ZPDT27MCE-TFD/TF5/TFE/TF7	270000	11.0	22.7	29.37	289	1.625	1.375
ZPDT31MCE-TWD/TW5/TWE/TW7	309000	11.0	23.5	29.37	286	1.625	1.375
ZPDT36MCE-TWD/TW5/TWE/TW7	364000	11.0	23.5	29.37	292	1.625	1.375

Copeland Scroll compressor nomenclature

Z	P	D	4	2	K	5	E	-	T	F	D	-	1	3	0
Z scroll family series	AC, R-410A	D = Digital S = UltraTech® T = Tandem (even) U = Uneven Tandem	Nominal Capacity at Rating Condition	Capacity Multiplier K = 1,000 M = 10,000	Model Variation 4, 5, C	Oil type E = POE Oil = AK/ DA or 3MA		P = Single Phase Motor T = Three Phase Motor	F = Internal Inherent Protection W = External Protection Module E = CoreSense Module	Code D 60 Hz. 5 460-3 5 200-230-3 E 575-3 7 380-3 V 208-230-1 J 265-1	50 Hz. 380-420-3 200-220-3 — — 200-1* 220-240-1	*only on some A/C scroll models	Bill of Material Product Variation		

Connect with us:

EmersonClimate.com/DigitalScroll

