ZR Scroll Compressor Series

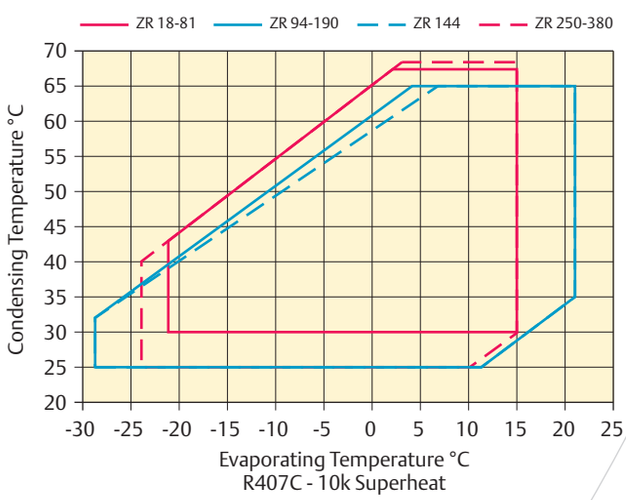
Compact and Reliable for the Most Demanding Applications

Copeland Scroll™ ZR compressors for R407C & R134a is the broadest range on the market for air conditioning and process cooling applications.

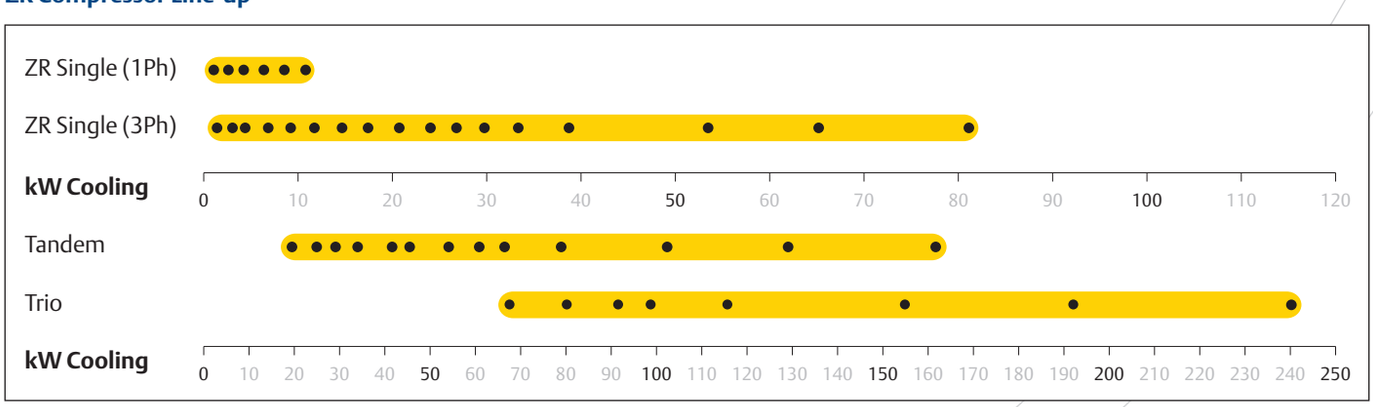
Used in the air conditioning industry for water chillers, roof-tops and close control unit applications, Scroll compressors are now the most used compression technology replacing reciprocating or screw compressors due to its undeniable superiority. Several, fully qualified, multiple compressor assemblies (tandem and trio) allow the use of Copeland Scroll™ into large capacity systems replacing, for example, screw compressors for air cooled chillers up to 500kW to deliver higher system Seasonal Efficiency (ESEER).

Copeland Scrolls in particular are recognized by many OEMs as the most advanced scroll technology and have demonstrated superior efficiency and reliability with over 77 Millions pieces sold (1986-2009).

Operating Envelope



ZR Compressor Line-up



Features and Benefits

- Copeland Scroll™ axial and radial compliance for superior reliability and efficiency
- Wide scroll line-up in R407C and R134a
- Low TEWI (Total Equivalent Warming Impact)
- Low sound and vibration level
- Low oil circulation rate
- Copeland® qualified tandem and trio configurations for superior seasonal efficiency (ESEER)

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Technical Overview

Model	kW		COP		Net Weight	1Ph 230V	3Ph 400V	Tandem Ready	Shell Diameter	Sound Power	WxL	H	Digital Model*	kW R407C	
	R407C	R134a	R407C	R134a										Tandem	Trio
ZR18K4E	3.7	2.5	2.98	2.61	20				139	65		383			
ZR22K3E	4.5	3.2	2.97	2.87	22					65		363			
ZR28K3E	5.9	4.2	2.99	2.94	25					65		363			
ZR34K3E	7.0	4.9	3.00	2.95	26	PFJ	TFD		165	68		386			
ZR40K3E	8.2	5.7	3.03	3.02	27					68	242x242	400			
ZR48K3E	10.1	5.9	3.11	3.00	31			✓		68		417	✓	20	
ZR61KCE	-	8.9	-	3.26	36	PFZ	-	✓		72		438			
ZR61KSE	12.8	-	3.17	-	30		TFM	✓	184	72		430	✓	25	
ZR72KCE	14.8	10.5	3.17	3.23	39			✓		72		438	✓	29	
ZR81KCE	16.7	11.7	3.17	3.24	39			✓		72		446		33	
ZR94KCE	20.6	13.9	3.29	3.23	57			✓		74		476	✓	41	
ZR108KCE	23.0	15.6	3.36	3.24	60			✓		74		533		46	68
ZR125KCE	27.0	18.2	3.35	3.25	61		TFD	✓	232	74	264x285	533	✓	53	80
ZR144KCE	30.9	21.0	3.39	3.33	61			✓		75		533		61	91
ZR160KCE	33.5	22.8	3.24	3.30	65			✓		78		552		66	99
ZR190KCE	39.3	27.2	3.19	3.25	65			✓		80		552		78	116
ZR250KCE	52.2	35.4	3.21	3.18	140			✓	289	83	376x432	717		103	154
ZR310KCE	65.0	43.8	3.23	3.16	160		TWD	✓	331	85	392x448	715		129	192
ZR380KCE	81.7	55.4	3.40	3.25	177			✓		87		724		162	241

Evap. 5°C, Condensing 50°C, 0K SubCooling, 10K SuperHeat * For Digital Scroll™ model see dedicated brochure ✓ = available

Tandem/Trio Configuration

Tandem	ZR48K3E	ZR61KCE	ZR72KCE	ZR81KCE	ZR94KCE	ZR108KCE	ZR125KCE	ZR144KCE	ZR160KCE	ZR190KCE	ZR250KCE	ZR310KCE	ZR380KCE
ZR48K3E	✓												
ZR61KCE		✓											
ZR72KCE			✓										
ZR81KCE				✓									
ZR94KCE					✓								
ZR108KCE						✓							
ZR125KCE							✓						
ZR144KCE								✓					
ZR160KCE							◆		✓				
ZR190KCE							◆	◆	◆	✓			
ZR250KCE										◆	◆		
ZR310KCE										◆	◆	◆	
ZR380KCE										◆		◆	◆
Trio						◆	◆	◆	◆	◆	◆	◆	◆

✓ available as factory assembled ◆ Copeland® design available on request

For more details, see www.emersonclimate.eu

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