



ZR Scroll Compressor Series

Compact and Reliable for the Most Demanding Applications

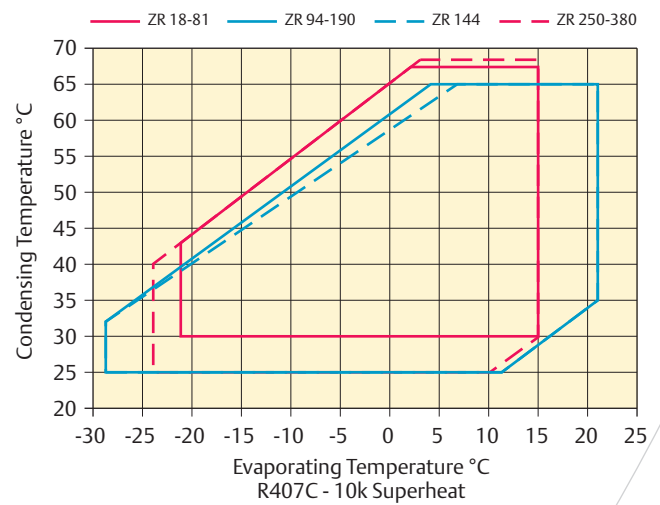
Copeland Scroll™ ZR compressors for R407C & R134a is the broadest range on the market for air conditioning and process cooling applications.

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).

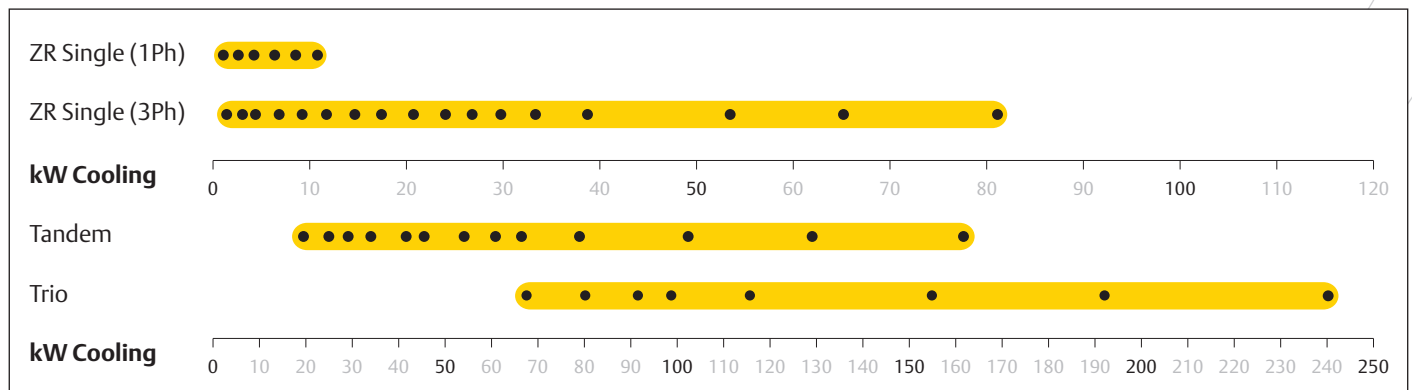
Copeland Scrolls in particular are recognized by many OEMs as the most advanced scroll technology and have demonstrated superior efficiency and reliability with over 77 Millions pieces sold (1986-2009).



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)





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 | PFJ | TFD | | 139 | 65 | 242x242 | 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 | | | | 68 | 386 | | | | | |
| ZR40K3E | 8.2 | 5.7 | 3.03 | 3.02 | 27 | | | | 68 | 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 | TFD | TFM | ✓ | 184 | 72 | 264x285 | 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 | | | | 74 | 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 | TWD | ✓ | 289 | 83 | 376x432 | 717 | | 103 | 154 | |
| ZR310KCE | 65.0 | 43.8 | 3.23 | 3.16 | 160 | | ✓ | 331 | 85 | 392x448 | 715 | | 129 | 192 | |
| ZR380KCE | 81.7 | 55.4 | 3.40 | 3.25 | 177 | | ✓ | 87 | 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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