

COPELAND SCROLL™ COMPRESSORS BOM OVERVIEW

1 Scroll nomenclature

The scroll nomenclature, as given on the nameplate of the compressor, contains information such as compressor model family, application, capacity and other specifications. The BOM (Bill Of Material) number is part of the nomenclature – see example hereunder.

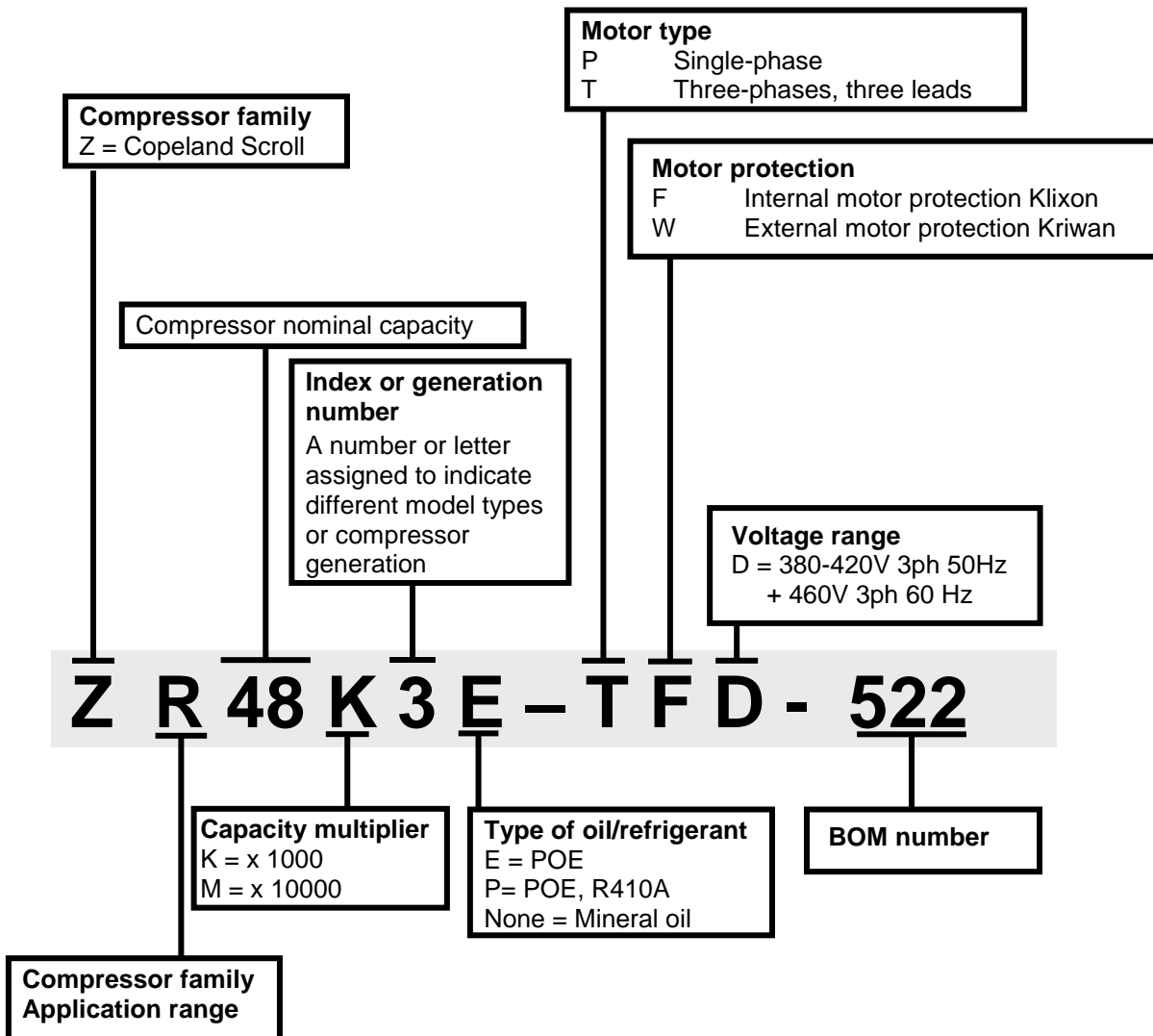


Figure 1: Example of nomenclature for a standard Scroll compressor, ZR range

2 BOM number

The BOM (Bill Of Material) number contains three digits and can be found at the end of the scroll compressor nomenclature. It gives indications on the compressor specifications in terms of compressor housing, variation and IP rating of the electrical box, or the characteristics of some accessories in the standard delivery. The BOM number gives no indication as to the compressor capacity values, such as cooling capacity, heating capacity or COP.

European standard BOM

A list of the most common European standard BOM numbers can be found in the overview tables hereafter. For more details about BOM versions, compressor standard delivery and possible accessories, please refer to the Emerson price list.

European special BOM (OEM)

Some special BOM numbers were created for specific OEM customer projects and/or compressor variations. In some instances the special BOM and the compressor specifications are identified as confidential and cannot be made public. For more information, please contact your local Application Engineering representative at Emerson.

Worldwide standard- and special BOM

Other sales regions such as the USA, Asia etc... might have their own BOM number specifications, which could be totally different from the European numbering. Special OEM BOM numbers can be confidential as well. For more information and possible transcode to European BOM equivalence, please contact your local Application Engineering representative at Emerson.

BOM explanation example:

ZR144 KCE TFD 455

BOM 455:

- compressor with brazing stub tubes
- including oil sight glass
- including Schröder oil service valve
- electronic box, IP21 rating
- internal motor protection Klixon
- without mounting parts

| BOM | Compressor Model | | Compressor Connections | | Oil Sight Glass | Oil Service Schrader | Electrical Box IP Rating | Electrical Conn. Molded Plug IP Rating | Internal Motor Prot. Klixon | External Motor Prot. Kriwan | Mounting Parts | | Others, Special Features |
|-----|------------------|---------|------------------------|----------|-----------------|----------------------|--------------------------|--|-----------------------------|-----------------------------|----------------|----------------|--|
| | | | Brazing | Rotalock | | | | | | | single oper. | parallel oper. | |
| 522 | ZR18 | K4E | X | | | | IP21 | | X | | X | | obsolete |
| 622 | ZR18 | K5E | X | | | | | IP56 | X | | X | | |
| 522 | ZR22-48 | K3E | X | | | | IP21 | | X | | X | | |
| 522 | ZR61-81 | KCE/KSE | X | | | | IP21 | | X | | X | | |
| 523 | ZR48-81 | K3E/KCE | | X | | | IP21 | | X | | | X | |
| 422 | ZR48-81 | K3E/KCE | X | | | | IP21 | | X | | X | | tandem ready extra connections |
| 230 | ZR22-81 | K3E/KCE | X | | | | IP21 | | X | | ? | | US version, not available in Europe |
| 455 | ZR94-190 | KCE TF* | X | | X | X | IP21 | | X | | | | |
| 655 | ZR94-190 | KCE TF* | X | | X | X | | IP66 | X | | | | |
| 522 | ZR94-190 | KCE TF* | X | | | | IP21 | | X | | ? | | US version, not available in EU |
| 550 | ZR94-190 | KCE TF* | X | | X | X | IP21 | | X | | X | | obsolete |
| 425 | ZR94-190 | KCE TF* | X | | X | X | IP21 | | X | | | X | obsolete |
| 650 | ZR94-190 | KCE TF* | X | | X | X | | IP66 | X | | X | | obsolete |
| 455 | ZR160-190 | KCE TW* | X | | X | X | IP54 | | | 24V AC | | | |
| 456 | ZR160-190 | KCE TW* | X | | X | X | IP54 | | | 230V AC | | | |
| 961 | ZR90-19 | K3E M3E | | X | X | X | IP54 | | | 230V AC | X | | service compr. incl. adapt.kit rotal->braz + Kriwan 24V AC |
| 522 | ZR90-19 | K3E M3E | X | | X | X | IP54 | | | 230V AC | X | | obsolete |
| 551 | ZR90-19 | K3E M3E | | X | X | X | IP54 | | | 230V AC | X | | obsolete |
| 568 | ZR90-19 | K3E M3E | X | | X | X | IP54 | | | 24V AC | X | | obsolete |
| 561 | ZR90-19 | K3E M3E | | X | X | X | IP54 | | | 24V AC | X | | obsolete |
| 572 | ZR90-19 | K3E M3E | X | | X | X | IP54 | | | 230V AC | X | | obsolete tandem ready extra conn. braze |
| 570 | ZR90-19 | K3E M3E | | X | X | X | IP54 | | | 230V AC | X | | obsolete tandem ready extra conn. rotalock |
| 542 | ZR90-19 | K3E M3E | X | | X | X | IP54 | | | 24V AC | X | | obsolete tandem ready extra conn. braze |
| 540 | ZR90-19 | K3E M3E | | X | X | X | IP54 | | | 24V AC | X | | obsolete tandem ready extra conn. rotalock |
| 591 | ZR90-19 | K3E M3E | | X | X | X | IP54 | | | 24V DC | X | | obsolete |
| 522 | ZR250-380 | KCE | X | | X | X | IP54 | | | 230V AC | X | | |
| 523 | ZR250-380 | KCE | | X | X | X | IP54 | | | 230V AC | X | | |
| 524 | ZR250-380 | KCE | X | | X | X | IP54 | | | 24V AC | X | | |
| 525 | ZR250-380 | KCE | | X | X | X | IP54 | | | 24V AC | X | | |
| 422 | ZRD48-81 | KCE | X | | | | IP21 | | X | | | X | tandem ready extra connections |
| 522 | ZRD42/94 | KCE | X | | | | IP21 | | X | | X | | |
| 455 | ZRD125 | KCE | X | | X | X | IP21 | | X | | | | |

| BOM | Compressor Model | | Compressor Connections | | Oil Sight Glass | Oil Service Schrader | Electrical Box IP Rating | Electrical Conn. Molded Plug IP Rating | Internal Motor Prot. Klixon | External Motor Prot. Kriwan | Mounting Parts | | Others, Special Features |
|-----|------------------|---------|------------------------|----------|-----------------|----------------------|--------------------------|--|-----------------------------|-----------------------------|----------------|----------------|---|
| | | | Brazing | Rotalock | | | | | | | single oper. | parallel oper. | |
| 522 | ZP24-61 | K5E | X | | | | IP21 | | X | | X | | |
| 422 | ZP24-61 | K5E | X | | | | IP21 | | X | | | | |
| 522 | ZP24-54 | KSE | X | | | | IP21 | | X | | X | | obsolete |
| 422 | ZP36-54 | KSE | X | | | | IP21 | | X | | | | obsolete tandem ready extra connections |
| 522 | ZP23-54 | K3E | X | | | | IP21 | | X | | X | | phase out in 2018 |
| 422 | ZP41-54 | K3E | X | | | | IP21 | | X | | | | phase out in 2018 |
| 522 | ZP61-91 | KCE | X | | | | IP21 | | X | | X | | |
| 422 | ZP61-91 | KCE | X | | | | IP21 | | X | | | | tandem ready extra connections |
| 576 | ZP61-91 | K5E KCE | X | | | | IP54 | | X | | X | | |
| 476 | ZP61-91 | K5E KCE | X | | | | IP54 | | X | | | | |
| 455 | ZP90-182 | KCE | X | | X | X | IP21 | | X | | | | |
| 655 | ZP90-182 | KCE | X | | X | X | | IP66 | X | | | | |
| 477 | ZP90-182 | KCE | X | | X | X | IP54 | | X | | | | |
| 425 | ZP90-182 | KCE | X | | X | X | IP21 | | X | | | X | obsolete |
| 625 | ZP90-182 | KCE | X | | X | X | | IP66 | X | | | X | obsolete |
| 455 | ZP154-182 | KCE TW* | X | | X | X | IP54 | | | 24V AC | | | |
| 456 | ZP154-182 | KCE TW* | X | | X | X | IP54 | | | 230V AC | | | |
| 522 | ZP180 | KCE | X | | X | X | IP54 | | | 230V AC | X | | obsolete |
| 922 | ZP180 | KCE | X | | X | X | IP54 | | | 230V AC | X | | service version |
| 522 | ZP235-725 | KCE | X | | X | X | IP54 | | | 230V AC | X | | |
| 524 | ZP235-725 | KCE | X | | X | X | IP54 | | | 24V AC | X | | |
| 523 | ZP235-385 | KCE | | X | X | X | IP54 | | | 230V AC | X | | oem version |
| 525 | ZP235-385 | KCE | | X | X | X | IP54 | | | 24V AC | X | | oem version |
| 522 | ZPD34-54 | KSE | X | | | | IP21 | | X | | X | | |
| 522 | ZPD61-91 | KCE | X | | | | IP21 | | X | | X | | |
| 422 | ZPD61-91 | KCE | X | | | | IP21 | | X | | | X | tandem ready extra connections |
| 455 | ZPD103-182 | KCE | X | | X | X | IP21 | | X | | | | |

| BOM | Compressor Model | | Compressor Connections | | Oil Sight Glass | Oil Service Schrader | Electrical Box IP Rating | Electrical Conn. Molded Plug IP Rating | Internal Motor Prot. Klixon | External Motor Prot. Kriwan | Mounting Parts | | Others, Special Features |
|-----|------------------|-----|------------------------|----------|-----------------|----------------------|--------------------------|--|-----------------------------|-----------------------------|----------------|----------------|--------------------------|
| | | | Brazing | Rotalock | | | | | | | single oper. | parallel oper. | |
| 650 | ZRH49-72 | KJE | X | | | | IP56 | | X | | X | | |
| 651 | ZBH30-45 | KJE | | X | X | X | IP56 | | X | | X | | |
| 540 | ZRH49-72 | KJE | X | | | | IP21 | | X | | X | | obsolete |
| 541 | ZBH30-45 | KJE | | X | X | X | IP21 | | X | | X | | obsolete |
| 502 | ZRH78-116 | KTE | X | | | | IP56 | | X | | X | | |

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|-----|------------------|---------|------------------------|----------|-----------------|----------------------|--------------------------|--|-----------------------------|-----------------------------|----------------|----------------|---|
| | | | Brazing | Rotalock | | | | | | | single oper. | parallel oper. | |
| 524 | ZH04-19 | K1P | X | | | | IP21 | | X | | X | | |
| 424 | ZH04-19 | K1P | X | | | | IP21 | | X | | | | tandem ready extra brazing connection |
| 526 | ZHI 05-23 | K1P | X | | | | IP21 | | X | | X | | EVI connection |
| 426 | ZHI 05-14 | K1P | X | | | | IP21 | | X | | | | EVI and tandem ready brazing connection |
| 476 | ZHI 18-23 | K1P | X | | | | IP54 | | X | | | | EVI and tandem ready brazing connection |
| 477 | ZHI 27-40 | K1P | X | | X | | IP54 | | X | | | | EVI connection |
| 524 | ZH12-45 | K4E | X | | | | IP21 | | X | | X | | |
| 424 | ZH12-45 | K4E | X | | | | IP21 | | X | | | | tandem ready extra brazing connection |
| 426 | ZH06-18 | KVE | X | | | | IP21 | | X | | X | | EVI and tandem ready brazing connection |
| 526 | ZH06-18 | KVE | X | | | | IP21 | | X | | X | | EVI connection |
| 524 | ZH56-11 | K4E M4E | X | | X | X | IP54 | | | 230V AC | X | | |
| 526 | ZH24-48 | KVE | X | | X | X | IP54 | | | 230V AC | X | | EVI connection |
| 455 | ZH40-75 | KCE | X | | X | X | IP21 | | X | | | | |
| 522 | ZH100-150 | KCE | X | | X | X | IP54 | | | 230V AC | | | |
| 524 | ZH04-16 | KCU | X | | | | IP65 | | X | | X | | e-box Atex |
| 424 | ZH04-16 | KCU | X | | | | IP65 | | X | | | X | e-box Atex |

| BOM | Compressor Model | | Compressor Connections | | Oil Sight Glass | Oil Service Schrader | Electrical Box IP Rating | Electrical Conn. Molded Plug IP Rating | Internal Motor Prot. Klixon | External Motor Prot. Kriwan | Mounting Parts | | Others, Special Features |
|-----|------------------|---------|------------------------|----------|-----------------|----------------------|--------------------------|--|-----------------------------|-----------------------------|----------------|----------------|---|
| | | | Brazing | Rotalock | | | | | | | single oper. | parallel oper. | |
| 524 | ZS09-13 | KAE | X | | | | IP21 | | X | | X | | housing design 3 foot |
| 618 | ZS09-13 | KAE | X | | | | | IP66 | X | | X | | US Version housing design 4 foot |
| 551 | ZB15-45 | KCE | | X | X | X | IP21 | | X | | X | | |
| 550 | ZB15-45 | KCE | X | | X | X | IP21 | | X | | X | | oem version |
| 551 | ZS15-45 | K4E | | X | X | X | IP21 | | X | | X | | will go obsolete incl. discharge thermistor |
| 591 | ZB48-57 | KCE | | X | X | X | IP54 | | X | | X | | |
| 551 | ZB50-114 | KCE TF* | | X | X | X | IP21 | | X | | X | | incl. internal discharge temp prot. ASTP |
| 651 | ZB50-114 | KCE | | X | X | X | | IP66 | X | | X | | |
| 551 | ZB95-114 | KCE TW* | | X | X | X | IP54 | | | 230V AC | X | | obsolete |
| 567 | ZB66-114 | K5E | | X | X | X | IP54 | | X | | | | incl. discharge thermostat |
| 551 | ZB56-11 | KCE MCE | | X | X | X | IP54 | | | 230V AC | X | | |
| 551 | ZS56-11 | K4E M4E | | X | X | X | IP54 | | | 230V AC | X | | will go obsolete |
| 523 | ZB220 | KCE | | X | X | X | IP54 | | | 230V AC | | | |
| 524 | ZB12-49 | KCU | X | | | | IP65 | | X | | X | | e-box Atex |
| 424 | ZB12-49 | KCU | X | | | | IP65 | | X | | | | e-box Atex |
| 551 | ZBD21-29 | KCE | | X | X | X | IP21 | | X | | X | | incl. discharge thermostat |
| 551 | ZBD30-45 | KCE | | X | X | X | IP21 | | X | | X | | |
| 591 | ZBD57 | KCE | | X | X | X | IP54 | | X | | X | | |
| 551 | ZBD58-76 | KCE | | X | X | X | IP54 | | X | | X | | obsolete incl. discharge thermostat |
| 567 | ZBD76-114 | K5E | | X | X | X | IP54 | | X | | X | | incl. discharge thermostat |

| BOM | Compressor Model | | Compressor Connections | | Oil Sight Glass | Oil Service Schrader | Electrical Box IP Rating | Electrical Conn. Molded Plug IP Rating | Internal Motor Prot. Klixon | External Motor Prot. Kriwan | Mounting Parts | | Others, Special Features |
|-----|------------------|-----|------------------------|----------|-----------------|----------------------|--------------------------|--|-----------------------------|-----------------------------|----------------|----------------|--|
| | | | Brazing | Rotalock | | | | | | | single oper. | parallel oper. | |
| 551 | ZF06-18 | K4E | | X | X | X | IP21 | | X | | X | | connection for liquid injection incl. discharge thermostat |
| 556 | ZF06-18 | K4E | | X | X | X | IP21 | | X | | X | | connection for liquid injection incl. discharge thermostat incl. DTC valve |
| 550 | ZF06-18 | K4E | X | | X | X | IP21 | | X | | X | | oem version connection for liquid injection incl. discharge thermostat |
| 265 | ZF06-18 | K4E | | X | X | X | IP21 | | X | | X | | US version connection for liquid injection |
| 555 | ZF06-18 | K4E | X | | X | X | IP21 | | X | | X | | US version connection for liquid injection incl. DTC valve |
| 551 | ZF13-18 | KVE | | X | X | X | IP21 | | X | | X | | connection for vapour injection incl. discharge thermostat |
| 550 | ZF13-18 | KVE | X | | X | X | IP21 | | X | | X | | oem version connection for vapour injection incl. discharge thermostat |
| 567 | ZF25-54 | K5E | | X | X | X | IP54 | | X | | X | | connection for liquid or vapour injection incl. discharge thermostat |
| 551 | ZF24-48 | K4E | | X | X | X | IP54 | | | 230V AC | X | | will go obsolete connection for liquid injection |
| 551 | ZF24-48 | KVE | | X | X | X | IP54 | | | 230V AC | X | | will go obsolete connection for vapour injection |
| 551 | ZFD13-18 | KVE | | X | X | X | IP21 | | X | | X | | connection for vapour injection incl. discharge thermostat |
| 552 | ZFD13-18 | KVE | | X | X | X | IP21 | | X | | X | | US version connection for vapour injection braze |
| 591 | ZFD25 | KVE | | X | X | X | IP54 | | X | | | | connection for vapour injection incl. discharge thermostat |
| 567 | ZFD41 | K5E | | X | X | X | IP54 | | X | | X | | connection for liquid or vapour injection incl. discharge thermostat |

| BOM | Compressor Model | | Compressor Connections | | Oil Sight Glass | Oil Service Schrader | Electrical Box IP Rating | Electrical Conn. Molded Plug IP Rating | Internal Motor Prot. Klixon | External Motor Prot. Kriwan | Mounting Parts | | Others, Special Features |
|-----|------------------|-----|------------------------|----------|-----------------|----------------------|--------------------------|--|-----------------------------|-----------------------------|----------------|----------------|----------------------------|
| | | | Brazing | Rotalock | | | | | | | single oper. | parallel oper. | |
| 551 | ZO21 | K5E | | X | X | X | IP21 | | X | | X | | incl. discharge thermostat |
| 269 | ZO21 | K5E | | X | X | X | IP21 | | X | | X | | US version |
| 551 | ZO34-58 | K3E | | X | X | X | IP21 | | X | | X | | incl. discharge thermostat |
| 269 | ZO34-58 | K3E | | X | X | X | IP21 | | X | | X | | US version |
| 551 | ZO88-104 | KCE | | X | X | X | IP21 | | X | | X | | incl. discharge thermostat |
| 269 | ZO88-104 | KCE | | X | X | X | IP21 | | X | | X | | US version |
| 551 | ZOD34 | K3E | | X | X | X | IP21 | | X | | X | | incl. discharge thermostat |
| 269 | ZOD34 | K3E | | X | X | X | IP21 | | X | | X | | US version |
| 522 | ZOD104 | KCE | | X | X | X | IP21 | | X | | X | | incl. discharge thermostat |
| 269 | ZOD104 | KCE | | X | X | X | IP21 | | X | | X | | US version |

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