

## ZB Copeland Scroll™ Compressor Range for Medium Temperature Refrigeration using R407A/F/C, R448A/R449A, R404A, R134a, R450A and R513A

Emerson Climate Technologies offers ZB compressors with a wide displacement range from 5.9 m<sup>3</sup>/h to 87.5 m<sup>3</sup>/h. It includes digital compressor models that offers continuous capacity modulation technology.

Copeland Scroll compressors have 3 times less moving parts than reciprocating compressors and feature a scroll compliance mechanism which makes them particularly robust and reliable under severe conditions including liquid slugging.

They have the advantage of light weight and compactness, making them ideal for the usage in condensing units, compact refrigeration systems or special process units.

The Summit Series from 7 to 15 hp is designed to provide seasonal efficiencies 15% higher than traditional semi-hermetic compressors. These compressors are extremely quiet and can be fitted with an external sound shell for an additional 10 dBA sound reduction, which makes them best choice for refrigeration applications in urban and domestic areas.

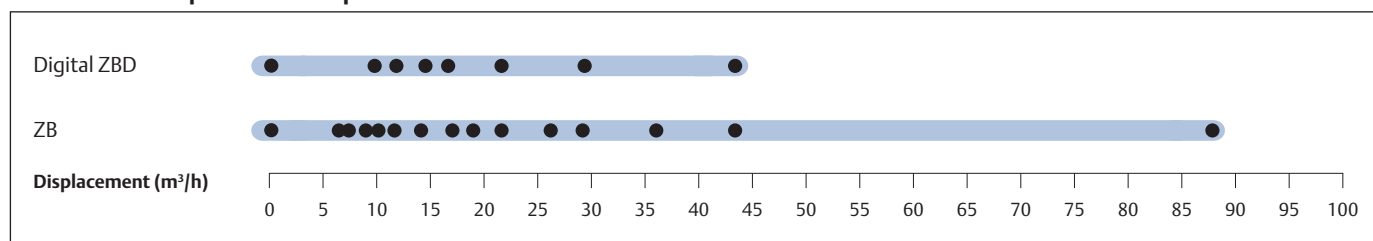
The ZB range also features ZB220 (30hp), the largest refrigeration scroll available on the market. These compressors are qualified for R407A/F/C, R448A, R449A, R404A, R134a, R450A and R513A. CoreSense™ Diagnostics is now available as an option for the ZB Scroll Summit series (ZB66K5E, ZB76K5E, ZB95K5E and ZB114K5E) as well as for Summit Digital ZBD\*K5E Series.



*ZB Compressor for Medium Temperature Refrigeration  
with and without Sound Shell*

For more details on Digital models please refer to page 54 in the catalogue.

### ZB and ZBD Compressor Line-up



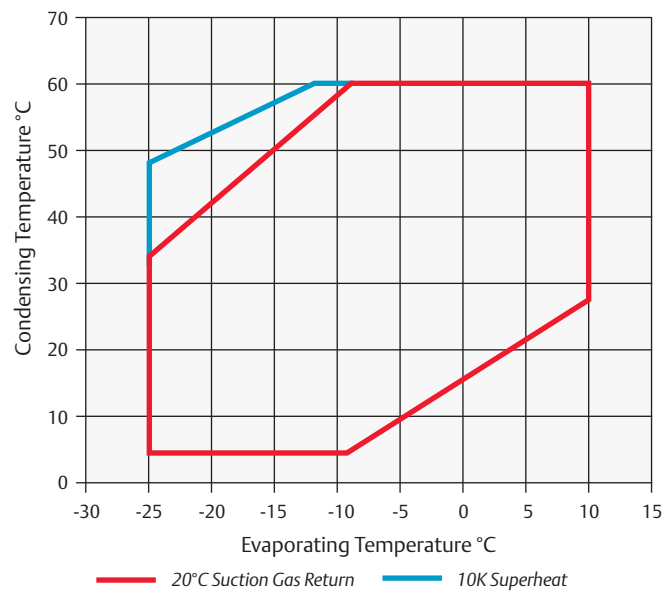
### Features and Benefits

- Copeland Scroll axial and radial compliance for superior reliability and efficiency
- Wide operating envelope with 10°C condensing limit and fast pull-down capabilities
- High seasonal efficiencies as scrolls are designed at the condition where equipment runs most of the time
- Light weight and compactness, up to half the weight of equivalent semi-hermetic compressors
- Availability of optional sound shell on all models providing an additional 10 dBA sound attenuation for silent operation
- Includes 12 Digital Scroll compressor models for simple, stepless 10 to 100% capacity modulation
- One model for multiple refrigerants R407A/F/C, R448A/R449A, R404A, R134a, R450A and R513A

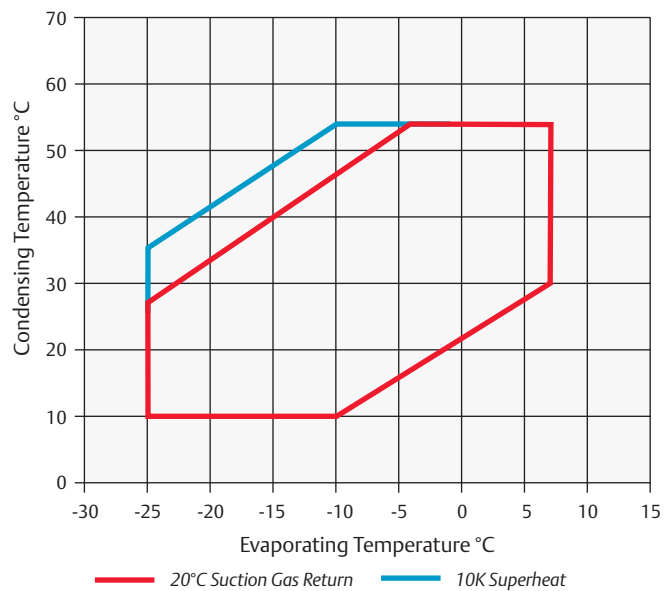
### Maximum Allowable Pressure (PS)

- ZB15 to ZB45:  
Low Side PS 21 bar(g) / High Side PS 32 bar(g)
- ZB50 to ZB220:  
Low Side PS 22.6 bar(g) / High Side PS 32 bar(g)
- Digital ZBD:  
Low Side PS 21 bar(g) / High Side PS 28.8 bar(g)
- Summit ZBD:  
Low Side PS 22.6 bar(g) / High Side PS 32 bar(g)

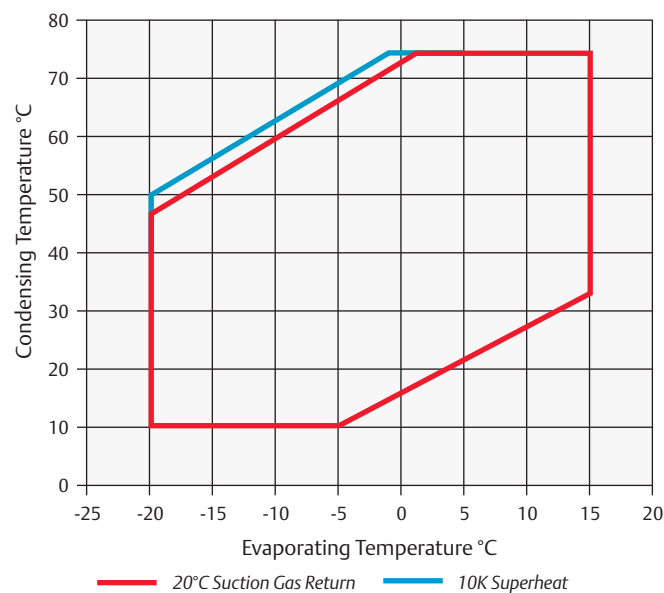
Operating Envelope R448A/R449A



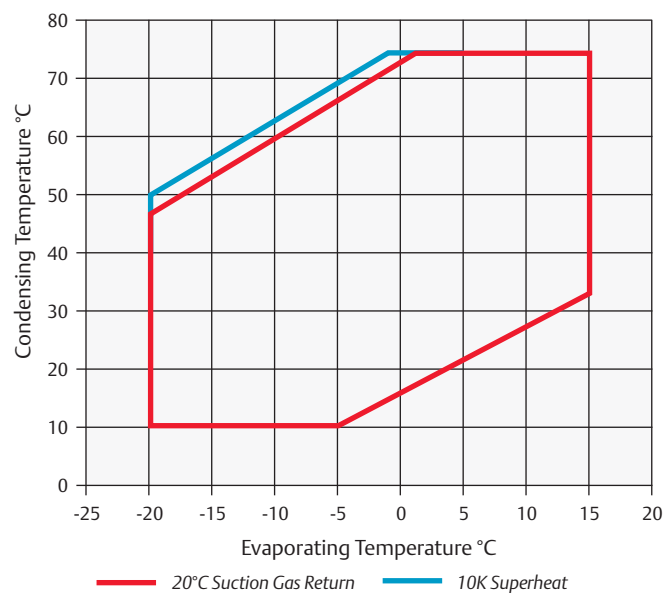
Operating Envelope R407A



Operating Envelope R450A



Operating Envelope R513A



For individual model details please refer to Select software.

## Technical Overview

| Models           | Nominal hp | Displacement<br>(m <sup>3</sup> /h) | Rotolock Suc-<br>tion (inch) | Rotolock Dis-<br>charge (inch) | Oil Quantity (l) | Length/Width/<br>Height (mm) | Net Weight (kg) | Motor Version/<br>Code |        | Maximum<br>Operating<br>Current (A) |        | Locked Rotor<br>Current (A) |        | Sound Pressure<br>***<br>@1 m - dB(A) |
|------------------|------------|-------------------------------------|------------------------------|--------------------------------|------------------|------------------------------|-----------------|------------------------|--------|-------------------------------------|--------|-----------------------------|--------|---------------------------------------|
|                  |            |                                     |                              |                                |                  |                              |                 | 1 Ph*                  | 3 Ph** | 1 Ph*                               | 3 Ph** | 1 Ph*                       | 3 Ph** |                                       |
| ZB15KCE          | 2.0        | 5.9                                 | 1 ¼                          | 1                              | 1.3              | 241/241/369                  | 25.4            | PFJ                    | TFD    | 12.8                                | 4.9    | 58.0                        | 26.0   | 55.0                                  |
| ZB19KCE          | 2.5        | 6.8                                 | 1 ¼                          | 1                              | 1.5              | 242/242/369                  | 27.2            | PFJ                    | TFD    | 12.8                                | 6.5    | 61.0                        | 32.0   | 55.0                                  |
| ZB21KCE          | 3.0        | 8.6                                 | 1 ¼                          | 1                              | 1.2              | 243/244/391                  | 29.0            | PFJ                    | TFD    | 16.4                                | 7.2    | 82.0                        | 40.0   | 58.0                                  |
| ZB26KCE          | 3.5        | 10.0                                | 1 ¼                          | 1                              | 1.5              | 243/244/405                  | 28.0            | PFJ                    | TFD    | 18.0                                | 8.9    | 97.0                        | 46.0   | 60.0                                  |
| ZB29KCE          | 4.0        | 11.4                                | 1 ¼                          | 1                              | 1.5              | 246/246/423                  | 28.6            |                        | TFD    |                                     | 10.0   |                             | 50.0   | 58.0                                  |
| ZB38KCE          | 5.0        | 14.4                                | 1 ¼                          | 1                              | 1.9              | 242/242/438                  | 37.4            | PFJ                    | TFD    | 32.3                                | 12.8   | 142.0                       | 65.5   | 61.0                                  |
| ZB42KCE          | 5.5        | 16.2                                | 1 ¼                          | 1                              | 1.9              | 251/246/438                  | 43.0            | PFJ                    |        | 35.7                                |        | 150.0                       |        | 62.0                                  |
| ZB45KCE          | 6.0        | 17.1                                | 1 ¼                          | 1                              | 1.9              | 242/242/438                  | 39.5            |                        | TFD    |                                     | 13.1   |                             | 74.0   | 61.0                                  |
| ZB48KCE          | 6.5        | 18.8                                | 1 ¼                          | 1 ¼                            | 1.8              | 246/250/442                  | 39.0            |                        | TFD    |                                     | 14.0   |                             | 101.0  | 62.0                                  |
| ZB57KCE          |            | 21.4                                | 1 ¼                          | 1 ¼                            | 1.9              | 246/256/442                  | 39.5            |                        | TFD    |                                     | 15.9   |                             | 102.0  | 68.0                                  |
| ZB220KCE         | 30.0       | 87.5                                | 2 ¾                          | 1 ¾                            | 6.3              | 448/392/715                  | 176.0           |                        | TWM    |                                     | 69.0   |                             | 310.0  | 78.0                                  |
| ZB Summit Models |            |                                     |                              |                                |                  |                              |                 |                        |        |                                     |        |                             |        |                                       |
| ZB66K5E          | 10.0       | 25.7                                | 1 ¾                          | 1 ¼                            | 3.4              | 280/280/534                  | 59.9            |                        | TFD    |                                     | 17.5   |                             | 111.0  | 66.0                                  |
| ZB76K5E          | 12.0       | 28.8                                | 1 ¾                          | 1 ¼                            | 3.4              | 280/280/534                  | 61.2            |                        | TFD    |                                     | 20.4   |                             | 118.0  | 67.0                                  |
| ZB95K5E          | 13.0       | 36.4                                | 1 ¾                          | 1 ¼                            | 3.4              | 280/280/552                  | 64.9            |                        | TFD    |                                     | 28.2   |                             | 140.0  | 69.0                                  |
| ZB114K5E         | 15.0       | 43.4                                | 1 ¾                          | 1 ¼                            | 3.4              | 280/280/552                  | 66.2            |                        | TFD    |                                     | 33.5   |                             | 174.0  | 72.0                                  |

\* 1ph: 230V/ 50Hz

\*\* 3 Ph: 380-420V/ 50Hz

\*\*\* @ 1m: sound pressure level at 1m distance from the compressor, free field condition

## Capacity Data

| Condensing Temperature 40°C |                              |     |     |        |      |      |      |           |                              |     |     |        |      |      |      |
|-----------------------------|------------------------------|-----|-----|--------|------|------|------|-----------|------------------------------|-----|-----|--------|------|------|------|
| R407A                       | Cooling Capacity (kW)        |     |     |        |      |      |      | R407A     | Power Input (kW)             |     |     |        |      |      |      |
|                             | Evaporating Temperature (°C) |     |     |        |      |      |      |           | Evaporating Temperature (°C) |     |     |        |      |      |      |
| Model                       | -35                          | -30 | -25 | -20    | -15  | -10  | -5   | Model     | -35                          | -30 | -25 | -20    | -15  | -10  | -5   |
| ZB15KCE                     |                              |     |     | 2.1 *  | 2.8  | 3.5  | 4.2  | ZB15KCE   |                              |     |     | 1.5 *  | 1.5  | 1.5  | 1.5  |
| ZB19KCE                     |                              |     |     | 2.6 *  | 3.4  | 4.2  | 5.2  | ZB19KCE   |                              |     |     | 1.7 *  | 1.8  | 1.8  | 1.8  |
| ZB21KCE                     |                              |     |     | 3.0 *  | 4.0  | 5.1  | 6.3  | ZB21KCE   |                              |     |     | 2.0 *  | 2.0  | 2.0  | 2.1  |
| ZB26KCE                     |                              |     |     | 3.6 *  | 4.7  | 5.8  | 7.1  | ZB26KCE   |                              |     |     | 2.3 *  | 2.3  | 2.3  | 2.4  |
| ZB29KCE                     |                              |     |     | 4.2 *  | 5.6  | 7.0  | 8.6  | ZB29KCE   |                              |     |     | 2.6 *  | 2.6  | 2.6  | 2.6  |
| ZB38KCE                     |                              |     |     | 5.4 *  | 7.2  | 8.9  | 11.0 | ZB38KCE   |                              |     |     | 3.2 *  | 3.3  | 3.3  | 3.4  |
| ZB42KCE**                   |                              |     |     | 6.1 *  | 7.9  | 9.8  | 12.0 | ZB42KCE** |                              |     |     | 3.9 *  | 3.9  | 3.9  | 3.9  |
| ZB45KCE                     |                              |     |     | 6.3 *  | 8.2  | 10.2 | 12.4 | ZB45KCE   |                              |     |     | 3.9 *  | 4.0  | 4.0  | 4.0  |
| ZB48KCE                     |                              |     |     | 7.3 *  | 9.5  | 11.7 | 14.3 | ZB48KCE   |                              |     |     | 4.5 *  | 4.5  | 4.6  | 4.5  |
| ZB57KCE                     |                              |     |     | 8.4 *  | 11.1 | 13.8 | 17.0 | ZB57KCE   |                              |     |     | 5.2 *  | 5.2  | 5.3  | 5.3  |
| ZB Summit Models            |                              |     |     |        |      |      |      |           |                              |     |     |        |      |      |      |
| ZB66K5E                     |                              |     |     | 9.2 *  | 12.4 | 15.6 | 19.3 | ZB66K5E   |                              |     |     | 5.5 *  | 5.5  | 5.7  | 5.8  |
| ZB76K5E                     |                              |     |     | 10.6 * | 14.2 | 18.1 | 22.4 | ZB76K5E   |                              |     |     | 6.5 *  | 6.5  | 6.7  | 6.9  |
| ZB95K5E                     |                              |     |     | 12.9 * | 17.7 | 22.5 | 27.8 | ZB95K5E   |                              |     |     | 8.3 *  | 8.3  | 8.5  | 8.7  |
| ZB114K5E                    |                              |     |     | 14.8 * | 20.5 | 26.3 | 32.8 | ZB114K5E  |                              |     |     | 10.2 * | 10.2 | 10.3 | 10.5 |

Suction Gas Return 20°C / Subcooling 0K

\* Suction Superheat 10K

\*\* Single Phase only

Preliminary data

| Condensing Temperature 40°C |                              |     |     |       |       |      |      |           |                              |     |     |       |       |      |      |
|-----------------------------|------------------------------|-----|-----|-------|-------|------|------|-----------|------------------------------|-----|-----|-------|-------|------|------|
| R407F                       | Cooling Capacity (kW)        |     |     |       |       |      |      | R407F     | Power Input (kW)             |     |     |       |       |      |      |
|                             | Evaporating Temperature (°C) |     |     |       |       |      |      |           | Evaporating Temperature (°C) |     |     |       |       |      |      |
| Model                       | -35                          | -30 | -25 | -20   | -15   | -10  | -5   | Model     | -35                          | -30 | -25 | -20   | -15   | -10  | -5   |
| ZB15KCE                     |                              |     |     |       | 2.6*  | 3.4  | 4.2  | ZB15KCE   |                              |     |     |       | 1.6*  | 1.6  | 1.6  |
| ZB19KCE                     |                              |     |     |       | 3.2*  | 4.2  | 5.1  | ZB19KCE   |                              |     |     |       | 1.9*  | 1.9  | 1.9  |
| ZB21KCE                     |                              |     |     |       | 3.9*  | 5.0  | 6.2  | ZB21KCE   |                              |     |     |       | 2.2*  | 2.2  | 2.3  |
| ZB26KCE                     |                              |     |     |       | 4.5*  | 5.8  | 7.2  | ZB26KCE   |                              |     |     |       | 2.6*  | 2.6  | 2.6  |
| ZB29KCE                     |                              |     |     |       | 5.4*  | 7.0  | 8.7  | ZB29KCE   |                              |     |     |       | 2.8*  | 2.9  | 2.8  |
| ZB38KCE                     |                              |     |     | 5.2*  | 6.9*  | 8.9  | 11.0 | ZB38KCE   |                              |     |     | 3.7*  | 3.7*  | 3.7  | 3.7  |
| ZB42KCE**                   |                              |     |     | 5.9*  | 7.8*  | 10.1 | 12.5 | ZB42KCE** |                              |     |     | 4.0*  | 4.0*  | 4.0  | 4.0  |
| ZB45KCE                     |                              |     |     | 6.0*  | 8.1*  | 10.5 | 13.0 | ZB45KCE   |                              |     |     | 4.1*  | 4.2*  | 4.3  | 4.2  |
| ZB48KCE                     |                              |     |     | 7.0*  | 9.3*  | 12.1 | 15.0 | ZB48KCE   |                              |     |     | 4.7*  | 4.8*  | 4.9  | 4.9  |
| ZB57KCE                     |                              |     |     | 7.9*  | 10.6* | 13.7 | 16.8 | ZB57KCE   |                              |     |     | 4.7*  | 5.0*  | 5.3  | 5.5  |
| ZB Summit Models            |                              |     |     |       |       |      |      |           |                              |     |     |       |       |      |      |
| ZB66K5E                     |                              |     |     | 9.5*  | 13.0* | 16.9 | 20.9 | ZB66K5E   |                              |     |     | 5.8*  | 5.8*  | 5.9  | 6.1  |
| ZB76K5E                     |                              |     |     | 10.9* | 15.0* | 19.6 | 24.2 | ZB76K5E   |                              |     |     | 6.9*  | 6.8*  | 7.0  | 7.2  |
| ZB95K5E                     |                              |     |     | 13.3* | 18.6* | 24.4 | 30.1 | ZB95K5E   |                              |     |     | 8.8*  | 8.8*  | 8.9  | 9.1  |
| ZB114K5E                    |                              |     |     | 15.3* | 21.5* | 28.5 | 35.4 | ZB114K5E  |                              |     |     | 10.7* | 10.7* | 10.8 | 11.0 |

Suction Gas Return 20°C / Subcooling 0K

\* Suction Superheat 10K

\*\* Single Phase only

## Capacity Data

| Condensing Temperature 40°C |                              |     |        |        |      |      |      |                 |                              |     |        |        |      |      |      |
|-----------------------------|------------------------------|-----|--------|--------|------|------|------|-----------------|------------------------------|-----|--------|--------|------|------|------|
| R448A/<br>R449A             | Cooling Capacity (kW)        |     |        |        |      |      |      | R448A/<br>R449A | Power Input (kW)             |     |        |        |      |      |      |
|                             | Evaporating Temperature (°C) |     |        |        |      |      |      |                 | Evaporating Temperature (°C) |     |        |        |      |      |      |
| Model                       | -35                          | -30 | -25    | -20    | -15  | -10  | -5   | Model           | -35                          | -30 | -25    | -20    | -15  | -10  | -5   |
| ZB15KCE                     |                              |     | 1.5 *  | 2.2    | 2.8  | 3.5  | 4.3  | ZB15KCE         |                              |     | 1.6 *  | 1.5    | 1.5  | 1.4  | 1.4  |
| ZB19KCE                     |                              |     | 1.9 *  | 2.6    | 3.2  | 4.0  | 4.9  | ZB19KCE         |                              |     | 1.7 *  | 1.7    | 1.7  | 1.7  | 1.7  |
| ZB21KCE                     |                              |     | 2.5 *  | 3.3    | 4.2  | 5.2  | 6.4  | ZB21KCE         |                              |     | 2.0 *  | 2.0    | 2.0  | 2.0  | 2.0  |
| ZB26KCE                     |                              |     | 2.9 *  | 3.9    | 4.9  | 6.0  | 7.4  | ZB26KCE         |                              |     | 2.3 *  | 2.4    | 2.4  | 2.4  | 2.4  |
| ZB29KCE                     |                              |     | 3.3 *  | 4.4    | 5.5  | 6.8  | 8.2  | ZB29KCE         |                              |     | 2.6 *  | 2.6    | 2.6  | 2.7  | 2.7  |
| ZB38KCE                     |                              |     | 3.9 *  | 5.7    | 7.2  | 8.9  | 10.9 | ZB38KCE         |                              |     | 3.4 *  | 3.4    | 3.4  | 3.4  | 3.4  |
| ZB42KCE* *                  |                              |     | 4.4 *  | 6.4    | 8.1  | 10.1 | 12.3 | ZB42KCE* *      |                              |     | 3.9 *  | 3.9    | 3.9  | 3.9  | 3.9  |
| ZB45KCE                     |                              |     | 4.5 *  | 6.6    | 8.4  | 10.5 | 12.8 | ZB45KCE         |                              |     | 3.9 *  | 3.9    | 3.9  | 3.9  | 3.9  |
| ZB48KCE                     |                              |     | 5.3 *  | 7.6    | 9.7  | 12.1 | 14.7 | ZB48KCE         |                              |     | 4.5 *  | 4.5    | 4.5  | 4.5  | 4.5  |
| ZB57KCE                     |                              |     | 6.0 *  | 8.7    | 11.0 | 13.6 | 16.5 | ZB57KCE         |                              |     | 4.3 *  | 4.5    | 4.7  | 4.9  | 5.1  |
| ZB220KCE                    |                              |     |        | 32.4 * | 43.1 | 53.7 | 65.7 | ZB220KCE        |                              |     |        | 20.3 * | 20.3 | 20.4 | 20.6 |
| ZB Summit Models            |                              |     |        |        |      |      |      |                 |                              |     |        |        |      |      |      |
| ZB66K5E                     |                              |     | 6.8 *  | 9.4 *  | 12.7 | 15.8 | 19.3 | ZB66K5E         |                              |     | 5.8 *  | 5.8 *  | 5.8  | 5.8  | 5.8  |
| ZB76K5E                     |                              |     | 8.0 *  | 11.1 * | 14.9 | 18.6 | 22.7 | ZB76K5E         |                              |     | 6.5 *  | 6.6 *  | 6.6  | 6.6  | 6.7  |
| ZB95K5E                     |                              |     | 8.8 *  | 13.2 * | 18.2 | 22.8 | 27.8 | ZB95K5E         |                              |     | 8.7 *  | 8.6 *  | 8.6  | 8.6  | 8.7  |
| ZB114K5E                    |                              |     | 10.6 * | 15.6 * | 21.5 | 27.3 | 33.7 | ZB114K5E        |                              |     | 10.5 * | 10.3 * | 10.3 | 10.3 | 10.4 |

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data

## Capacity Data

| Condensing Temperature 40°C |                              |     |       |      |      |      |      |           |                              |     |       |      |      |      |      |
|-----------------------------|------------------------------|-----|-------|------|------|------|------|-----------|------------------------------|-----|-------|------|------|------|------|
| R404A                       | Cooling Capacity (kW)        |     |       |      |      |      |      | R404A     | Power Input (kW)             |     |       |      |      |      |      |
|                             | Evaporating Temperature (°C) |     |       |      |      |      |      |           | Evaporating Temperature (°C) |     |       |      |      |      |      |
| Model                       | -35                          | -30 | -25   | -20  | -15  | -10  | -5   | Model     | -35                          | -30 | -25   | -20  | -15  | -10  | -5   |
| ZB15KCE                     |                              |     | 1.9   | 2.4  | 3.0  | 3.7  | 4.5  | ZB15KCE   |                              |     | 1.7   | 1.7  | 1.6  | 1.6  | 1.5  |
| ZB19KCE                     |                              |     | 2.3   | 2.9  | 3.5  | 4.2  | 5.1  | ZB19KCE   |                              |     | 1.9   | 1.9  | 1.9  | 1.9  | 1.9  |
| ZB21KCE                     |                              |     | 3.0   | 3.7  | 4.5  | 5.5  | 6.6  | ZB21KCE   |                              |     | 2.2   | 2.2  | 2.2  | 2.2  | 2.2  |
| ZB26KCE                     |                              |     | 3.5   | 4.3  | 5.3  | 6.4  | 7.6  | ZB26KCE   |                              |     | 2.6   | 2.6  | 2.6  | 2.6  | 2.6  |
| ZB29KCE                     |                              |     | 4.0   | 4.9  | 6.0  | 7.2  | 8.6  | ZB29KCE   |                              |     | 2.9   | 2.9  | 2.9  | 2.9  | 2.9  |
| ZB38KCE                     |                              |     | 5.1   | 6.3  | 7.7  | 9.3  | 11.2 | ZB38KCE   |                              |     | 3.8   | 3.8  | 3.8  | 3.8  | 3.8  |
| ZB42KCE**                   |                              |     | 5.7   | 7.1  | 8.7  | 10.6 | 12.7 | ZB42KCE** |                              |     | 4.2   | 4.2  | 4.2  | 4.2  | 4.2  |
| ZB45KCE                     |                              |     | 6.0   | 7.4  | 9.1  | 11.0 | 13.2 | ZB45KCE   |                              |     | 4.3   | 4.3  | 4.3  | 4.3  | 4.3  |
| ZB48KCE                     |                              |     | 6.9   | 8.6  | 10.5 | 12.7 | 15.2 | ZB48KCE   |                              |     | 4.9   | 4.9  | 4.9  | 4.9  | 4.9  |
| ZB57KCE                     |                              |     | 7.9   | 9.7  | 11.9 | 14.3 | 17.1 | ZB57KCE   |                              |     | 4.7   | 4.9  | 5.2  | 5.4  | 5.5  |
| ZB220KCE                    |                              |     | 28.5* | 39.2 | 47.7 | 57.5 | 68.9 | ZB220KCE  |                              |     | 21.4* | 21.8 | 22.0 | 22.2 | 22.4 |
| ZB Summit Models            |                              |     |       |      |      |      |      |           |                              |     |       |      |      |      |      |
| ZB66K5E                     |                              |     | 9.1   | 11.4 | 13.9 | 16.8 | 20.1 | ZB66K5E   |                              |     | 6.2   | 6.2  | 6.2  | 6.3  | 6.4  |
| ZB76K5E                     |                              |     | 10.5  | 13.1 | 16.2 | 19.7 | 23.6 | ZB76K5E   |                              |     | 7.2   | 7.2  | 7.3  | 7.4  | 7.5  |
| ZB95K5E                     |                              |     | 10.7* | 16.0 | 20.1 | 24.5 | 29.3 | ZB95K5E   |                              |     | 9.3*  | 9.2  | 9.3  | 9.3  | 9.4  |
| ZB114K5E                    |                              |     | 12.5* | 18.7 | 23.4 | 28.7 | 34.7 | ZB114K5E  |                              |     | 11.3* | 11.3 | 11.3 | 11.4 | 11.4 |

Suction Gas Return 20°C / Subcooling 0K

\* Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

| Condensing Temperature 40°C |                              |     |     |     |      |      |      |           |                              |     |     |     |      |      |      |
|-----------------------------|------------------------------|-----|-----|-----|------|------|------|-----------|------------------------------|-----|-----|-----|------|------|------|
| R134a                       | Cooling Capacity (kW)        |     |     |     |      |      |      | R134a     | Power Input (kW)             |     |     |     |      |      |      |
|                             | Evaporating Temperature (°C) |     |     |     |      |      |      |           | Evaporating Temperature (°C) |     |     |     |      |      |      |
| Model                       | -35                          | -30 | -25 | -20 | -15  | -10  | -5   | Model     | -35                          | -30 | -25 | -20 | -15  | -10  | -5   |
| ZB15KCE                     |                              |     |     | 1.4 | 1.7  | 2.2  | 2.7  | ZB15KCE   |                              |     |     | 0.9 | 0.9  | 0.9  | 0.9  |
| ZB19KCE                     |                              |     |     | 1.6 | 2.0  | 2.5  | 3.1  | ZB19KCE   |                              |     |     | 1.1 | 1.1  | 1.1  | 1.1  |
| ZB21KCE                     |                              |     |     | 2.0 | 2.5  | 3.2  | 4.0  | ZB21KCE   |                              |     |     | 1.3 | 1.3  | 1.3  | 1.3  |
| ZB26KCE                     |                              |     |     | 2.3 | 2.9  | 3.7  | 4.6  | ZB26KCE   |                              |     |     | 1.5 | 1.5  | 1.5  | 1.5  |
| ZB29KCE                     |                              |     |     | 2.5 | 3.2  | 4.0  | 5.0  | ZB29KCE   |                              |     |     | 1.7 | 1.7  | 1.7  | 1.7  |
| ZB38KCE                     |                              |     |     | 3.2 | 4.2  | 5.4  | 6.7  | ZB38KCE   |                              |     |     | 2.1 | 2.1  | 2.1  | 2.2  |
| ZB42KCE**                   |                              |     |     | 3.8 | 4.8  | 6.0  | 7.5  | ZB42KCE** |                              |     |     | 2.5 | 2.5  | 2.5  | 2.4  |
| ZB45KCE                     |                              |     |     | 4.0 | 5.1  | 6.4  | 8.0  | ZB45KCE   |                              |     |     | 2.4 | 2.4  | 2.5  | 2.5  |
| ZB48KCE                     |                              |     |     | 4.8 | 6.0  | 7.5  | 9.1  | ZB48KCE   |                              |     |     | 2.8 | 2.8  | 2.9  | 2.9  |
| ZB57KCE                     |                              |     |     | 5.0 | 6.4  | 8.1  | 10.1 | ZB57KCE   |                              |     |     | 3.4 | 3.4  | 3.4  | 3.5  |
| ZB220KCE                    |                              |     |     |     | 27.3 | 34.1 | 42.1 | ZB220KCE  |                              |     |     |     | 13.0 | 13.2 | 13.5 |
| ZB Summit Models            |                              |     |     |     |      |      |      |           |                              |     |     |     |      |      |      |
| ZB66K5E                     |                              |     |     | 6.0 | 7.5  | 9.5  | 11.8 | ZB66K5E   |                              |     |     | 3.8 | 3.7  | 3.8  | 3.8  |
| ZB76K5E                     |                              |     |     | 6.9 | 8.6  | 10.8 | 13.5 | ZB76K5E   |                              |     |     | 4.4 | 4.4  | 4.4  | 4.5  |
| ZB95K5E                     |                              |     |     | 8.2 | 10.8 | 13.8 | 17.1 | ZB95K5E   |                              |     |     | 5.4 | 5.5  | 5.5  | 5.6  |
| ZB114K5E                    |                              |     |     | 9.6 | 12.7 | 16.3 | 20.4 | ZB114K5E  |                              |     |     | 6.6 | 6.6  | 6.7  | 6.7  |

Suction Gas Return 20°C / Subcooling 0K

\*\* Single Phase only

## Capacity Data

| Condensing Temperature 40°C |                              |     |     |      |      |      |      |           |                              |     |     |      |      |      |      |
|-----------------------------|------------------------------|-----|-----|------|------|------|------|-----------|------------------------------|-----|-----|------|------|------|------|
| R450A                       | Cooling Capacity (kW)        |     |     |      |      |      |      | R450A     | Power Input (kW)             |     |     |      |      |      |      |
|                             | Evaporating Temperature (°C) |     |     |      |      |      |      |           | Evaporating Temperature (°C) |     |     |      |      |      |      |
| Model                       | -35                          | -30 | -25 | -20  | -15  | -10  | -5   | Model     | -35                          | -30 | -25 | -20  | -15  | -10  | -5   |
| ZB15KCE                     |                              |     |     | 1.0* | 1.5  | 1.9  | 2.4  | ZB15KCE   |                              |     |     | 0.9* | 0.8  | 0.8  | 0.8  |
| ZB19KCE                     |                              |     |     | 1.2* | 1.7  | 2.2  | 2.7  | ZB19KCE   |                              |     |     | 1.0* | 1.0  | 1.0  | 1.0  |
| ZB21KCE                     |                              |     |     | 1.6* | 2.2  | 2.8  | 3.6  | ZB21KCE   |                              |     |     | 1.2* | 1.2  | 1.1  | 1.1  |
| ZB26KCE                     |                              |     |     | 1.9* | 2.6  | 3.3  | 4.1  | ZB26KCE   |                              |     |     | 1.4* | 1.4  | 1.4  | 1.3  |
| ZB29KCE                     |                              |     |     | 2.1* | 2.9  | 3.7  | 4.6  | ZB29KCE   |                              |     |     | 1.5* | 1.5  | 1.5  | 1.5  |
| ZB38KCE                     |                              |     |     | 2.7* | 3.8  | 4.8  | 6.0  | ZB38KCE   |                              |     |     | 2.0* | 2.0  | 1.9  | 1.9  |
| ZB42KCE**                   |                              |     |     | 3.1* | 4.3  | 5.4  | 6.8  | ZB42KCE** |                              |     |     | 2.2* | 2.2  | 2.2  | 2.1  |
| ZB45KCE                     |                              |     |     | 3.2* | 4.4  | 5.6  | 7.1  | ZB45KCE   |                              |     |     | 2.3* | 2.3  | 2.2  | 2.2  |
| ZB48KCE                     |                              |     |     | 3.6* | 5.0  | 6.3  | 7.9  | ZB48KCE   |                              |     |     | 2.6* | 2.6  | 2.5  | 2.5  |
| ZB57KCE                     |                              |     |     | 4.0* | 5.5  | 7.0  | 8.7  | ZB57KCE   |                              |     |     | 2.6* | 2.7  | 2.8  | 2.9  |
| ZB220KCE                    |                              |     |     |      | 23.6 | 29.8 | 36.7 | ZB220KCE  |                              |     |     |      | 11.6 | 12.1 | 12.4 |
| ZB Summit Models            |                              |     |     |      |      |      |      |           |                              |     |     |      |      |      |      |
| ZB66K5E                     |                              |     |     | 5.1  | 6.5  | 8.3  | 10.3 | ZB66K5E   |                              |     |     | 3.3  | 3.4  | 3.4  | 3.5  |
| ZB76K5E                     |                              |     |     | 5.9  | 7.6  | 9.6  | 12.0 | ZB76K5E   |                              |     |     | 3.8  | 3.9  | 4.0  | 4.2  |
| ZB95K5E                     |                              |     |     | 7.2  | 9.5  | 12.1 | 14.9 | ZB95K5E   |                              |     |     | 4.9  | 5.0  | 5.1  | 5.2  |
| ZB114K5E                    |                              |     |     | 8.3  | 11.1 | 14.1 | 17.7 | ZB114K5E  |                              |     |     | 5.9  | 6.0  | 6.2  | 6.3  |

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data

| Condensing Temperature 40°C |                              |     |     |       |       |       |      |           |                              |     |     |       |       |       |      |
|-----------------------------|------------------------------|-----|-----|-------|-------|-------|------|-----------|------------------------------|-----|-----|-------|-------|-------|------|
| R513A                       | Cooling Capacity (kW)        |     |     |       |       |       |      | R513A     | Power Input (kW)             |     |     |       |       |       |      |
|                             | Evaporating Temperature (°C) |     |     |       |       |       |      |           | Evaporating Temperature (°C) |     |     |       |       |       |      |
| Model                       | -35                          | -30 | -25 | -20   | -15   | -10   | -5   | Model     | -35                          | -30 | -25 | -20   | -15   | -10   | -5   |
| ZB15KCE                     |                              |     |     | 1.2 * | 1.7 * | 2.1 * | 2.8  | ZB15KCE   |                              |     |     | 1.0 * | 1.0 * | 1.0 * | 0.9  |
| ZB19KCE                     |                              |     |     | 1.6 * | 2.0 * | 2.6 * | 3.3  | ZB19KCE   |                              |     |     | 1.1 * | 1.1 * | 1.1 * | 1.1  |
| ZB21KCE                     |                              |     |     | 2.0 * | 2.6 * | 3.3 * | 4.3  | ZB21KCE   |                              |     |     | 1.4 * | 1.4 * | 1.4 * | 1.4  |
| ZB26KCE                     |                              |     |     | 2.3 * | 2.9 * | 3.7 * | 4.9  | ZB26KCE   |                              |     |     | 1.6 * | 1.6 * | 1.6 * | 1.6  |
| ZB29KCE                     |                              |     |     | 2.6 * | 3.3 * | 4.2 * | 5.5  | ZB29KCE   |                              |     |     | 1.8 * | 1.8 * | 1.8 * | 1.8  |
| ZB38KCE                     |                              |     |     | 3.3 * | 4.3 * | 5.5 * | 7.2  | ZB38KCE   |                              |     |     | 2.3 * | 2.3 * | 2.3 * | 2.3  |
| ZB42KCE**                   |                              |     |     | 3.7 * | 4.8 * | 6.2 * | 8.1  | ZB42KCE** |                              |     |     | 2.6 * | 2.6 * | 2.6 * | 2.5  |
| ZB45KCE                     |                              |     |     | 3.9 * | 5.0 * | 6.4 * | 8.4  | ZB45KCE   |                              |     |     | 2.6 * | 2.6 * | 2.6 * | 2.6  |
| ZB48KCE                     |                              |     |     | 4.3 * | 5.6 * | 7.2 * | 9.4  | ZB48KCE   |                              |     |     | 3.0 * | 3.0 * | 3.0 * | 3.0  |
| ZB57KCE                     |                              |     |     | 4.9 * | 6.4 * | 8.1 * | 10.5 | ZB57KCE   |                              |     |     | 3.0 * | 3.2 * | 3.3 * | 3.4  |
| ZB220KCE                    |                              |     |     |       | 29.4  | 36.8  | 45.3 | ZB220KCE  |                              |     |     |       | 13.4  | 13.7  | 13.9 |
| ZB Summit Models            |                              |     |     |       |       |       |      |           |                              |     |     |       |       |       |      |
| ZB66K5E                     |                              |     |     | 6.3   | 7.9   | 9.9   | 12.2 | ZB66K5E   |                              |     |     | 3.8   | 3.9   | 4.0   | 4.0  |
| ZB76K5E                     |                              |     |     | 7.2   | 9.2   | 11.6  | 14.3 | ZB76K5E   |                              |     |     | 4.4   | 4.6   | 4.7   | 4.7  |
| ZB95K5E                     |                              |     |     | 8.8   | 11.4  | 14.3  | 17.7 | ZB95K5E   |                              |     |     | 5.7   | 5.8   | 5.9   | 6.0  |
| ZB114K5E                    |                              |     |     | 10.3  | 13.3  | 16.9  | 21.0 | ZB114K5E  |                              |     |     | 6.9   | 7.1   | 7.2   | 7.2  |

Suction Gas Return 20°C / Subcooling 0K

\*Suction Superheat 10K, Subcooling 0K

\*\* Single Phase only

Preliminary data