



|                                   |                          |
|-----------------------------------|--------------------------|
| Minimum Evaporating Temp. With:   |                          |
| — 25 °C Suction Gas Return        | — 10 K Suction Superheat |
| — Maximum Evaporating Temperature |                          |

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond<br>°C | Cooling Capacity, kW |       |       |      |      |       |       |       |       |       |
|------------|----------------------|-------|-------|------|------|-------|-------|-------|-------|-------|
|            | -20.0                | -15.0 | -10.0 | -5.0 | 0.0  | 5.0   | 7.0   | 10.0  | 12.5  | 15.0  |
| 30.0       | 3.46                 | 4.54  | 5.80  | 7.27 | 8.99 | 11.00 | 11.90 | 13.35 |       |       |
| 35.0       | 3.24                 | 4.29  | 5.49  | 6.90 | 8.54 | 10.45 | 11.35 | 12.70 | 13.95 |       |
| 40.0       | 3.03                 | 4.03  | 5.18  | 6.53 | 8.10 | 9.94  | 10.75 | 12.10 | 13.30 | 14.60 |
| 45.0       |                      | 3.77  | 4.87  | 6.15 | 7.64 | 9.40  | 10.20 | 11.45 | 12.60 | 13.85 |
| 50.0       |                      | 3.51  | 4.55  | 5.76 | 7.18 | 8.84  | 9.59  | 10.80 | 11.90 | 13.05 |
| 55.0       |                      |       | 4.23  | 5.37 | 6.71 | 8.28  | 8.98  | 10.10 | 11.15 | 12.30 |
| 60.0       |                      |       |       | 4.96 | 6.22 | 7.70  | 8.36  | 9.43  | 10.40 | 11.45 |
| 65.0       |                      |       |       | 4.53 | 5.71 | 7.09  | 7.71  | 8.72  | 9.64  | 10.65 |
| 70.0       |                      |       |       |      | 5.17 | 6.46  | 7.04  | 7.98  | 8.84  | 9.78  |
| 75.0       |                      |       |       |      | 4.62 | 5.80  | 6.33  | 7.21  | 8.01  | 8.88  |

| 50 Hz      |                        | ZR61KCE-TFD |       |       |       |       |       |       |       |       | R134a |
|------------|------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cond<br>°C | Power, kW              |             |       |       |       |       |       |       |       |       |       |
|            | -20.0                  | -15.0       | -10.0 | -5.0  | 0.0   | 5.0   | 7.0   | 10.0  | 12.5  | 15.0  |       |
| 30.0       | 1.67                   | 1.71        | 1.74  | 1.75  | 1.76  | 1.78  | 1.79  | 1.80  |       |       |       |
| 35.0       | 1.86                   | 1.90        | 1.92  | 1.94  | 1.96  | 1.98  | 2.00  | 2.01  | 2.03  |       |       |
| 40.0       | 2.07                   | 2.11        | 2.14  | 2.16  | 2.18  | 2.20  | 2.22  | 2.24  | 2.26  | 2.28  |       |
| 45.0       |                        | 2.35        | 2.38  | 2.40  | 2.42  | 2.45  | 2.46  | 2.48  | 2.50  | 2.53  |       |
| 50.0       |                        | 2.62        | 2.65  | 2.67  | 2.69  | 2.71  | 2.73  | 2.75  | 2.77  | 2.79  |       |
| 55.0       |                        |             | 2.96  | 2.98  | 2.99  | 3.01  | 3.03  | 3.05  | 3.07  | 3.09  |       |
| 60.0       |                        |             |       | 3.32  | 3.34  | 3.35  | 3.36  | 3.38  | 3.40  | 3.42  |       |
| 65.0       |                        |             |       | 3.72  | 3.73  | 3.74  | 3.75  | 3.76  | 3.78  | 3.80  |       |
| 70.0       |                        |             |       |       | 4.17  | 4.17  | 4.18  | 4.19  | 4.20  | 4.22  |       |
| 75.0       |                        |             |       |       | 4.67  | 4.66  | 4.67  | 4.67  | 4.68  | 4.70  |       |
| Cond<br>°C | Current at 400 V, A    |             |       |       |       |       |       |       |       |       |       |
|            | -20.0                  | -15.0       | -10.0 | -5.0  | 0.0   | 5.0   | 7.0   | 10.0  | 12.5  | 15.0  |       |
| 30.0       | 4.80                   | 4.85        | 4.87  | 4.87  | 4.86  | 4.86  | 4.86  | 4.87  |       |       |       |
| 35.0       | 4.82                   | 4.89        | 4.93  | 4.94  | 4.94  | 4.95  | 4.95  | 4.96  | 4.97  |       |       |
| 40.0       | 4.92                   | 5.01        | 5.06  | 5.09  | 5.10  | 5.11  | 5.11  | 5.12  | 5.14  | 5.16  |       |
| 45.0       |                        | 5.20        | 5.27  | 5.31  | 5.33  | 5.34  | 5.35  | 5.36  | 5.37  | 5.39  |       |
| 50.0       |                        | 5.46        | 5.54  | 5.59  | 5.62  | 5.64  | 5.65  | 5.66  | 5.68  | 5.69  |       |
| 55.0       |                        |             | 5.89  | 5.95  | 5.99  | 6.01  | 6.02  | 6.03  | 6.05  | 6.06  |       |
| 60.0       |                        |             |       | 6.37  | 6.41  | 6.44  | 6.45  | 6.47  | 6.48  | 6.50  |       |
| 65.0       |                        |             |       | 6.85  | 6.90  | 6.94  | 6.95  | 6.97  | 6.98  | 7.00  |       |
| 70.0       |                        |             |       |       | 7.45  | 7.49  | 7.51  | 7.52  | 7.54  | 7.55  |       |
| 75.0       |                        |             |       |       | 8.05  | 8.10  | 8.12  | 8.14  | 8.15  | 8.16  |       |
| Cond<br>°C | Suction Mass Flow, g/s |             |       |       |       |       |       |       |       |       |       |
|            | -20.0                  | -15.0       | -10.0 | -5.0  | 0.0   | 5.0   | 7.0   | 10.0  | 12.5  | 15.0  |       |
| 30.0       | 22.70                  | 29.20       | 36.50 | 44.80 | 54.40 | 65.30 | 70.10 | 77.70 |       |       |       |
| 35.0       | 22.40                  | 28.90       | 36.30 | 44.60 | 54.10 | 65.00 | 69.80 | 77.40 | 84.30 |       |       |
| 40.0       | 22.00                  | 28.60       | 36.00 | 44.30 | 53.80 | 64.70 | 69.50 | 77.10 | 83.90 | 91.20 |       |
| 45.0       |                        | 28.30       | 35.70 | 44.00 | 53.50 | 64.40 | 69.10 | 76.70 | 83.60 | 90.90 |       |
| 50.0       |                        | 28.00       | 35.40 | 43.70 | 53.20 | 64.00 | 68.70 | 76.30 | 83.10 | 90.40 |       |
| 55.0       |                        |             | 35.00 | 43.30 | 52.70 | 63.50 | 68.20 | 75.80 | 82.60 | 89.90 |       |
| 60.0       |                        |             |       | 42.80 | 52.20 | 62.90 | 67.60 | 75.20 | 82.00 | 89.30 |       |
| 65.0       |                        |             |       | 42.10 | 51.50 | 62.20 | 66.90 | 74.50 | 81.20 | 88.50 |       |
| 70.0       |                        |             |       |       | 50.60 | 61.30 | 66.00 | 73.50 | 80.30 | 87.60 |       |
| 75.0       |                        |             |       |       | 49.40 | 60.10 | 64.80 | 72.30 | 79.10 | 86.40 |       |

**COMPRESSOR MECHANICAL AND PHYSICAL DATA**

|  |  |
|--|--|
| Displacement @ 50 Hz, m <sup>3</sup> /h                                    | 14.3   |
| Length/Width, mm   | 246/246                                      |
| Height, mm   | 451  |
| Net Weight, kg   | 39.5   |
| Stub Suction, inch   | 7/8  |
| Stub Discharge, inch   | 1/2  |
| Oil Quantity, l  | 1.66   |
| Oil type (original charge)   | POE RL32-3MAF                                |
| Oil type (approved oils)   | POE RL32-3MAF, POE MOBIL<br>EAL Arctic 22 CC |
| Base mounting (hole dia), mm   | 190 x 190 (8.5)                              |
| Sound Pressure @ 1m (HT), dBA  | 60   |
| Sound Power (HT), dBA  | 71   |
| Sound Power with Sound Shell (HT), dBA                                     | 67   |
| Sound Conditions (HT, Temperatures:<br>Evap./Cond./Suction at freq./speed) | 7 / 54 / 18 °C at 50 Hz                      |
| PED Category   | 1  |
| Max. Internal Free Volume, l   | 4.10   |
| High Side PS gauge, bar  | 29.5   |
| Low Side PS gauge, bar   | 20   |
| Low Side TS Max., °C   | 50   |
| Refrigerant's GWP  | 1430   |
| Refrigerant's classification   | A1   |

**COMPRESSOR ELECTRICAL DATA (380-420 V / 3~ / 50 Hz)**

|                              |                |
|------------------------------|----------------|
| Maximum Operating Current, A | 11             |
| Locked Rotor Current, A      | 65.5           |
| Winding Resistance, ohm      | 2.75           |
| Default Enclosure Class      | IP 21 (IEC 34) |

**ACCESSORIES INCLUDED**

|                                  |                     |
|----------------------------------|---------------------|
| Discharge Temperature Protection | Internal Thermodisk |
| Mounting Grommets                | Standard            |

**ACCESSORIES OPTIONAL**

|                  |               |
|------------------|---------------|
| Crankcase Heater | 70 W External |
|------------------|---------------|

**MOTOR OPTIONS**

| <b>Motor Code</b> | <b>Power Supply</b>    | <b>Nominal Voltage, V</b> | <b>Start Connection</b> | <b>DOL Connection</b> | <b>Amps Factor</b> |
|-------------------|------------------------|---------------------------|-------------------------|-----------------------|--------------------|
| TFD               | 380-420 V / 3~ / 50 Hz | 400                       |                         | Y                     | 1.00               |
| TF5               | 200-220 V / 3~ / 50 Hz | 200                       |                         | Y                     | 2.09               |
| TFD               | 460 V / 3~ / 60 Hz     | 460                       |                         | Y                     | 1.04               |
| TF5               | 200-230 V / 3~ / 60 Hz | 230                       |                         | Y                     | 2.09               |