



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  |
| 27.0       | 5.70                 | 7.28  | 9.17  | 11.35 | 13.75 | 16.35 | 17.45 | 19.15 | 20.60 |
| 30.0       | 5.54                 | 7.09  | 8.94  | 11.05 | 13.45 | 16.05 | 17.10 | 18.80 | 20.20 |
| 35.0       | 5.22                 | 6.70  | 8.49  | 10.55 | 12.85 | 15.40 | 16.45 | 18.15 | 19.55 |
| 40.0       | 4.86                 | 6.26  | 7.97  | 9.96  | 12.20 | 14.70 | 15.75 | 17.35 | 18.75 |
| 45.0       |                      | 5.80  | 7.42  | 9.34  | 11.50 | 13.90 | 14.90 | 16.50 | 17.85 |
| 50.0       |                      |       | 6.89  | 8.70  | 10.80 | 13.10 | 14.05 | 15.60 | 16.95 |
| 55.0       |                      |       | 6.39  | 8.10  | 10.05 | 12.30 | 13.25 | 14.70 | 16.00 |
| 60.0       |                      |       |       | 7.56  | 9.41  | 11.50 | 12.40 | 13.85 | 15.10 |
| 65.0       |                      |       |       |       | 8.84  | 10.80 | 11.70 | 13.05 | 14.20 |

50 Hz

ZR61KCE-TFD

R22

| Cond<br>°C | Power, kW |       |       |      |      |      |      |      |      |
|------------|-----------|-------|-------|------|------|------|------|------|------|
|            | -20.0     | -15.0 | -10.0 | -5.0 | 0.0  | 5.0  | 7.0  | 10.0 | 12.5 |
| 27.0       | 2.26      | 2.31  | 2.34  | 2.37 | 2.42 | 2.50 | 2.54 | 2.63 | 2.73 |
| 30.0       | 2.42      | 2.47  | 2.51  | 2.54 | 2.59 | 2.68 | 2.73 | 2.82 | 2.91 |
| 35.0       | 2.70      | 2.76  | 2.80  | 2.83 | 2.89 | 2.98 | 3.03 | 3.12 | 3.22 |
| 40.0       | 3.02      | 3.08  | 3.12  | 3.15 | 3.20 | 3.29 | 3.34 | 3.43 | 3.53 |
| 45.0       |           | 3.45  | 3.47  | 3.50 | 3.55 | 3.63 | 3.67 | 3.76 | 3.86 |
| 50.0       |           |       | 3.89  | 3.90 | 3.94 | 4.01 | 4.05 | 4.13 | 4.22 |
| 55.0       |           |       | 4.37  | 4.37 | 4.39 | 4.44 | 4.48 | 4.55 | 4.63 |
| 60.0       |           |       |       | 4.92 | 4.91 | 4.95 | 4.98 | 5.04 | 5.11 |
| 65.0       |           |       |       |      | 5.53 | 5.54 | 5.56 | 5.61 | 5.67 |

| 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 |
| 27.0       | 5.97                | 6.02  | 6.04  | 6.07 | 6.11 | 6.19 | 6.24 | 6.33 | 6.43 |
| 30.0       | 6.10                | 6.15  | 6.18  | 6.21 | 6.27 | 6.36 | 6.41 | 6.52 | 6.62 |
| 35.0       | 6.37                | 6.41  | 6.44  | 6.48 | 6.54 | 6.65 | 6.71 | 6.82 | 6.94 |
| 40.0       | 6.71                | 6.74  | 6.76  | 6.79 | 6.85 | 6.96 | 7.03 | 7.15 | 7.27 |
| 45.0       |                     | 7.15  | 7.15  | 7.17 | 7.22 | 7.32 | 7.39 | 7.51 | 7.63 |
| 50.0       |                     |       | 7.63  | 7.63 | 7.66 | 7.75 | 7.81 | 7.92 | 8.04 |
| 55.0       |                     |       | 8.23  | 8.19 | 8.20 | 8.26 | 8.31 | 8.41 | 8.52 |
| 60.0       |                     |       |       | 8.88 | 8.84 | 8.88 | 8.91 | 9.00 | 9.09 |
| 65.0       |                     |       |       |      | 9.62 | 9.61 | 9.63 | 9.69 | 9.77 |

| 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   |
| 27.0       | 33.30                  | 42.00 | 52.20 | 63.70 | 76.30 | 89.80 | 95.40 | 104.00 | 111.50 |
| 30.0       | 33.10                  | 41.70 | 52.00 | 63.60 | 76.30 | 89.90 | 95.60 | 104.50 | 112.00 |
| 35.0       | 32.40                  | 41.00 | 51.30 | 62.90 | 75.80 | 89.70 | 95.40 | 104.50 | 112.00 |
| 40.0       | 31.40                  | 39.90 | 50.10 | 61.80 | 74.80 | 88.80 | 94.70 | 104.00 | 111.50 |
| 45.0       |                        | 38.60 | 48.70 | 60.40 | 73.50 | 87.70 | 93.60 | 103.00 | 110.50 |
| 50.0       |                        |       | 47.30 | 58.90 | 72.00 | 86.30 | 92.30 | 101.50 | 109.50 |
| 55.0       |                        |       | 46.10 | 57.60 | 70.60 | 84.90 | 91.00 | 100.50 | 108.50 |
| 60.0       |                        |       |       | 56.70 | 69.50 | 83.80 | 89.90 | 99.30  | 107.50 |
| 65.0       |                        |       |       |       | 69.10 | 83.30 | 89.40 | 98.80  | 107.00 |

### **COMPRESSOR MECHANICAL AND PHYSICAL DATA**

|  |  |
|--|--|
| Displacement @ 50 Hz, m³/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  | 1810   |
| 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               |