



Minimum Evaporating Temp. With:

- 25 °C Suction Gas Return
- 10 K Suction Superheat
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond °C | Cooling Capacity, kW | | | | | | | | |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 |
| 10.0 | 5.67 | 6.97 | 8.48 | | | | | | |
| 15.0 | 5.41 | 6.64 | 8.08 | 9.75 | | | | | |
| 20.0 | 5.15 | 6.32 | 7.68 | 9.26 | 11.05 | | | | |
| 25.0 | 4.89 | 5.99 | 7.27 | 8.76 | 10.45 | 12.40 | | | |
| 30.0 | 4.61 | 5.65 | 6.85 | 8.25 | 9.84 | 11.65 | 13.70 | 14.60 | 16.00 |
| 35.0 | 4.32 | 5.29 | 6.42 | 7.72 | 9.21 | 10.90 | 12.80 | 13.65 | 14.95 |
| 40.0 | 4.02 | 4.92 | 5.97 | 7.18 | 8.57 | 10.15 | 11.95 | 12.70 | 13.95 |
| 45.0 | 3.69 | 4.53 | 5.50 | 6.62 | 7.90 | 9.36 | 11.00 | 11.75 | 12.85 |
| 50.0 | | 4.12 | 5.01 | 6.03 | 7.21 | 8.55 | 10.05 | 10.75 | 11.80 |
| 55.0 | | | 4.49 | 5.42 | 6.49 | 7.71 | 9.10 | 9.71 | 10.70 |
| 60.0 | | | | 4.78 | 5.74 | 6.85 | 8.10 | 8.66 | 9.54 |

50 Hz

ZB29KCE-TFD

R404A Dew Point

| Cond °C | Power, kW | | | | | | | | |
|------------|-----------|-------|-------|-------|------|------|------|------|------|
| | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 |
| 10.0 | 1.35 | 1.37 | 1.38 | | | | | | |
| 15.0 | 1.54 | 1.56 | 1.57 | 1.58 | | | | | |
| 20.0 | 1.74 | 1.76 | 1.78 | 1.79 | 1.80 | | | | |
| 25.0 | 1.98 | 2.00 | 2.02 | 2.03 | 2.03 | 2.03 | | | |
| 30.0 | 2.25 | 2.27 | 2.28 | 2.29 | 2.30 | 2.30 | 2.28 | 2.27 | 2.26 |
| 35.0 | 2.54 | 2.56 | 2.58 | 2.59 | 2.60 | 2.59 | 2.58 | 2.57 | 2.56 |
| 40.0 | 2.88 | 2.89 | 2.91 | 2.92 | 2.93 | 2.92 | 2.91 | 2.90 | 2.89 |
| 45.0 | 3.25 | 3.27 | 3.28 | 3.29 | 3.30 | 3.29 | 3.28 | 3.27 | 3.26 |
| 50.0 | | 3.68 | 3.69 | 3.70 | 3.71 | 3.70 | 3.69 | 3.68 | 3.67 |
| 55.0 | | | 4.15 | 4.16 | 4.16 | 4.16 | 4.14 | 4.14 | 4.12 |
| 60.0 | | | | 4.66 | 4.66 | 4.66 | 4.64 | 4.63 | 4.62 |

| Cond °C | Current at 400 V, A | | | | | | | | |
|------------|---------------------|-------|-------|-------|------|------|------|------|------|
| | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 |
| 10.0 | 3.83 | 3.86 | 3.89 | | | | | | |
| 15.0 | 3.99 | 4.02 | 4.05 | 4.07 | | | | | |
| 20.0 | 4.18 | 4.21 | 4.24 | 4.26 | 4.28 | | | | |
| 25.0 | 4.41 | 4.44 | 4.47 | 4.49 | 4.51 | 4.51 | | | |
| 30.0 | 4.70 | 4.72 | 4.75 | 4.77 | 4.78 | 4.79 | 4.78 | 4.77 | 4.75 |
| 35.0 | 5.03 | 5.06 | 5.08 | 5.10 | 5.11 | 5.12 | 5.11 | 5.10 | 5.08 |
| 40.0 | 5.43 | 5.45 | 5.47 | 5.49 | 5.50 | 5.50 | 5.49 | 5.48 | 5.46 |
| 45.0 | 5.88 | 5.91 | 5.93 | 5.95 | 5.96 | 5.96 | 5.94 | 5.93 | 5.91 |
| 50.0 | | 6.43 | 6.45 | 6.47 | 6.48 | 6.48 | 6.46 | 6.45 | 6.43 |
| 55.0 | | | 7.05 | 7.07 | 7.08 | 7.07 | 7.06 | 7.05 | 7.03 |
| 60.0 | | | | 7.75 | 7.75 | 7.75 | 7.73 | 7.72 | 7.70 |

| Cond °C | Suction Mass Flow, g/s | | | | | | | | |
|------------|------------------------|-------|-------|-------|-------|-------|-------|--------|--------|
| | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 |
| 10.0 | 31.90 | 39.40 | 48.20 | | | | | | |
| 15.0 | 31.70 | 39.20 | 47.90 | 58.20 | | | | | |
| 20.0 | 31.60 | 38.90 | 47.60 | 57.80 | 69.70 | | | | |
| 25.0 | 31.40 | 38.70 | 47.30 | 57.40 | 69.20 | 82.90 | | | |
| 30.0 | 31.20 | 38.40 | 47.00 | 57.00 | 68.70 | 82.30 | 98.10 | 105.00 | 116.50 |
| 35.0 | 30.90 | 38.10 | 46.50 | 56.40 | 68.00 | 81.60 | 97.40 | 104.50 | 116.00 |
| 40.0 | 30.50 | 37.60 | 46.00 | 55.80 | 67.40 | 80.80 | 96.60 | 103.50 | 115.00 |
| 45.0 | 30.00 | 37.10 | 45.40 | 55.10 | 66.60 | 80.00 | 95.70 | 103.00 | 114.50 |
| 50.0 | | 36.30 | 44.60 | 54.30 | 65.70 | 79.10 | 94.90 | 102.00 | 113.50 |
| 55.0 | | | 43.60 | 53.30 | 64.70 | 78.20 | 94.20 | 101.50 | 113.00 |
| 60.0 | | | | 52.20 | 63.80 | 77.40 | 93.80 | 101.00 | 113.50 |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|--|--|
| Displacement @ 50 Hz, m ³ /h | 11.4 |
| Length/Width, mm | 246/246 |
| Height, mm | 423 |
| Net Weight, kg | 28.5 |
| Rotalock Suction, inch | 1 1/4 |
| Rotalock Discharge, inch | 1 |
| Stub Suction, inch | 3/4 |
| Stub Discharge, inch | 1/2 |
| Oil Quantity, l | 1.45 |
| Oil type (original charge) | POE RL32-3MAF |
| Oil type (approved oils) | POE RL32-3MAF, POE MOBIL EAL Arctic 22 CC |
| Base mounting (hole dia), mm | 190 x 190 (19) |
| Sound Pressure @ 1m (MT), dBA | 60 |
| Sound Power (MT), dBA | 71 |
| Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed) | -10 / 45 / 20 °C at 50 Hz |
| PED Category | 1 |
| Max. Internal Free Volume, l | 2.90 |
| High Side PS gauge, bar | 32 |
| Low Side PS gauge, bar | 21 |
| Refrigerant's GWP | 3922 |
| Refrigerant's classification | A1 |

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

| | |
|------------------------------|----------------|
| Maximum Operating Current, A | 10 |
| Locked Rotor Current, A | 50 |
| Winding Resistance, ohm | 3.88 |
| Default Enclosure Class | IP 21 (IEC 34) |

ACCESSORIES INCLUDED

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

ACCESSORIES OPTIONAL

| | |
|--------------------|-------------------|
| Crankcase Heater | 70 W External |
| Oil Control System | ALCO Trax-Oil OM3 |

MOTOR OPTIONS

| Motor Code | Power Supply | Nominal Voltage, V | Start Connection | DOL Connection | Amps Factor |
|-------------------|------------------------|---------------------------|-------------------------|-----------------------|--------------------|
| TFD | 380-420 V / 3~ / 50 Hz | 400 | | Y | 1.00 |
| TF5 | 200-220 V / 3~ / 50 Hz | 200 | | Y | 2.09 |
| TFE | 500 V / 3~ / 50 Hz | 500 | | Y | 0.80 |
| TW5 | 200-220 V / 3~ / 50 Hz | 200 | | Y | 2.30 |
| TFD | 460 V / 3~ / 60 Hz | 460 | | Y | 1.04 |
| TF5 | 200-230 V / 3~ / 60 Hz | 230 | | Y | 2.09 |
| TFE | 575 V / 3~ / 60 Hz | 575 | | Y | 0.80 |