



Minimum Evaporating Temp. With:

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

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond °C | Cooling Capacity, kW | | | | | | | | | | | | |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 |
| 10.0 | 8.34 | 10.50 | 13.05 | 16.05 | 19.60 | 23.60 | | | | | | | |
| 15.0 | 7.90 | 10.00 | 12.50 | 15.40 | 18.85 | 22.80 | 27.30 | | | | | | |
| 20.0 | 7.48 | 9.53 | 11.95 | 14.80 | 18.10 | 21.90 | 26.30 | 31.20 | | | | | |
| 25.0 | 7.06 | 9.06 | 11.40 | 14.20 | 17.40 | 21.10 | 25.30 | 30.10 | 32.10 | 35.40 | | | |
| 30.0 | 6.63 | 8.59 | 10.90 | 13.55 | 16.65 | 20.20 | 24.30 | 28.90 | 30.90 | 34.10 | 36.90 | 39.90 | |
| 35.0 | | 8.08 | 10.30 | 12.90 | 15.90 | 19.35 | 23.30 | 27.70 | 29.70 | 32.70 | 35.50 | 38.40 | |
| 40.0 | | | 9.71 | 12.25 | 15.15 | 18.45 | 22.20 | 26.50 | 28.40 | 31.30 | 34.00 | 36.70 | 42.80 |
| 45.0 | | | | 11.50 | 14.30 | 17.50 | 21.10 | 25.20 | 27.00 | 29.90 | 32.40 | 35.10 | 40.90 |
| 50.0 | | | | | 13.40 | 16.45 | 19.95 | 23.90 | 25.60 | 28.40 | 30.80 | 33.40 | 39.00 |
| 55.0 | | | | | | 15.35 | 18.70 | 22.50 | 24.10 | 26.80 | 29.10 | 31.60 | 36.90 |
| 60.0 | | | | | | | 17.35 | 21.00 | 22.60 | 25.10 | 27.30 | 29.70 | 34.80 |
| 65.0 | | | | | | | | 19.35 | 20.90 | 23.30 | 25.40 | 27.70 | 32.60 |

50 Hz

ZR108KCE-TFD

R22

| Cond °C | Power, kW | | | | | | | | | | | | |
|------------|-----------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 |
| 10.0 | 2.22 | 2.27 | 2.30 | 2.31 | 2.32 | 2.35 | | | | | | | |
| 15.0 | 2.66 | 2.74 | 2.79 | 2.83 | 2.86 | 2.90 | 2.97 | | | | | | |
| 20.0 | 3.08 | 3.18 | 3.25 | 3.30 | 3.35 | 3.40 | 3.48 | 3.59 | | | | | |
| 25.0 | 3.49 | 3.62 | 3.70 | 3.77 | 3.82 | 3.88 | 3.96 | 4.07 | 4.13 | 4.23 | | | |
| 30.0 | 3.92 | 4.07 | 4.16 | 4.24 | 4.30 | 4.36 | 4.43 | 4.54 | 4.60 | 4.70 | 4.80 | 4.91 | |
| 35.0 | | 4.56 | 4.66 | 4.74 | 4.80 | 4.86 | 4.93 | 5.03 | 5.08 | 5.17 | 5.26 | 5.37 | |
| 40.0 | | | 5.22 | 5.30 | 5.36 | 5.41 | 5.47 | 5.56 | 5.60 | 5.68 | 5.76 | 5.86 | 6.10 |
| 45.0 | | | | 5.94 | 5.99 | 6.03 | 6.08 | 6.14 | 6.18 | 6.25 | 6.32 | 6.40 | 6.62 |
| 50.0 | | | | | 6.72 | 6.74 | 6.77 | 6.82 | 6.84 | 6.90 | 6.95 | 7.02 | 7.21 |
| 55.0 | | | | | | 7.58 | 7.58 | 7.60 | 7.62 | 7.65 | 7.69 | 7.74 | 7.89 |
| 60.0 | | | | | | | 8.53 | 8.52 | 8.52 | 8.53 | 8.55 | 8.58 | 8.69 |
| 65.0 | | | | | | | | 9.59 | 9.58 | 9.56 | 9.57 | 9.58 | 9.64 |

| Cond °C | Current at 400 V, A | | | | | | | | | | | | |
|------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 |
| 10.0 | 6.65 | 6.66 | 6.69 | 6.73 | 6.79 | 6.88 | | | | | | | |
| 15.0 | 7.28 | 7.31 | 7.34 | 7.40 | 7.47 | 7.57 | 7.70 | | | | | | |
| 20.0 | 7.87 | 7.91 | 7.95 | 8.00 | 8.08 | 8.18 | 8.32 | 8.49 | | | | | |
| 25.0 | 8.46 | 8.49 | 8.53 | 8.59 | 8.66 | 8.76 | 8.90 | 9.06 | 9.14 | 9.27 | | | |
| 30.0 | 9.08 | 9.11 | 9.14 | 9.19 | 9.26 | 9.36 | 9.48 | 9.64 | 9.71 | 9.84 | 9.96 | 10.09 | |
| 35.0 | | 9.80 | 9.82 | 9.86 | 9.91 | 9.99 | 10.10 | 10.25 | 10.32 | 10.43 | 10.54 | 10.67 | |
| 40.0 | | | 10.60 | 10.62 | 10.66 | 10.72 | 10.81 | 10.94 | 11.00 | 11.10 | 11.20 | 11.31 | 11.57 |
| 45.0 | | | | 11.52 | 11.54 | 11.57 | 11.64 | 11.74 | 11.79 | 11.88 | 11.96 | 12.06 | 12.30 |
| 50.0 | | | | | 12.59 | 12.59 | 12.63 | 12.70 | 12.74 | 12.81 | 12.88 | 12.96 | 13.16 |
| 55.0 | | | | | | 13.82 | 13.82 | 13.85 | 13.88 | 13.92 | 13.98 | 14.04 | 14.20 |
| 60.0 | | | | | | | 15.25 | 15.24 | 15.25 | 15.27 | 15.30 | 15.34 | 15.46 |
| 65.0 | | | | | | | | 16.91 | 16.90 | 16.89 | 16.90 | 16.91 | 16.98 |

| Cond °C | Suction Mass Flow, g/s | | | | | | | | | | | | |
|------------|------------------------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 |
| 10.0 | 44.50 | 55.20 | 67.80 | 82.50 | 99.50 | 119.00 | | | | | | | |
| 15.0 | 43.50 | 54.30 | 67.00 | 81.80 | 98.80 | 118.00 | 140.00 | | | | | | |
| 20.0 | 42.60 | 53.60 | 66.40 | 81.20 | 98.10 | 117.50 | 139.00 | 163.50 | | | | | |
| 25.0 | 41.70 | 52.80 | 65.70 | 80.50 | 97.50 | 117.00 | 138.50 | 163.00 | 173.50 | 190.00 | | | |
| 30.0 | 40.70 | 51.90 | 64.90 | 79.90 | 96.90 | 116.00 | 138.00 | 162.00 | 172.50 | 189.50 | 204.00 | 219.00 | |
| 35.0 | | 50.90 | 64.00 | 79.00 | 96.10 | 115.50 | 137.00 | 161.50 | 172.00 | 188.50 | 203.00 | 218.00 | |
| 40.0 | | | 62.80 | 78.00 | 95.10 | 114.50 | 136.00 | 160.50 | 171.00 | 187.50 | 202.00 | 217.00 | 251.00 |
| 45.0 | | | | 76.50 | 93.80 | 113.00 | 135.00 | 159.00 | 169.50 | 186.00 | 201.00 | 216.00 | 249.00 |
| 50.0 | | | | | 91.90 | 111.50 | 133.00 | 157.50 | 168.00 | 184.50 | 199.50 | 215.00 | 248.00 |
| 55.0 | | | | | | 109.00 | 131.00 | 155.50 | 166.00 | 182.50 | 197.50 | 213.00 | 246.00 |
| 60.0 | | | | | | | 128.00 | 152.50 | 163.00 | 180.00 | 194.50 | 210.00 | 244.00 |
| 65.0 | | | | | | | | 149.00 | 159.50 | 176.50 | 191.50 | 207.00 | 240.00 |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|---|--|
| Displacement @ 50 Hz, m ³ /h | 25.0 |
| Length/Width, mm | 281/285 |
| Height, mm | 533 |
| Net Weight, kg | 59.9 |
| Stub Suction, inch | 1 3/8 |
| Stub Discharge, inch | 7/8 |
| Oil Quantity, l | 3.25 |
| 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 (0) |
| Sound Pressure @ 1m (HT), dBA | 63 |
| Sound Power (HT), dBA | 74 |
| Sound Conditions (HT, Temperatures: | 7 / 54 / 18 °C at 50 Hz |
| Evap./Cond./Suction at freq./speed) | |
| PED Category | 2 |
| Max. Internal Free Volume, l | 13.3 |
| High Side PS gauge, bar | 32 |
| Low Side PS gauge, bar | 20 |
| Low Side TS Max., °C | 52 |
| Low Side TS Min., °C | -35 |
| Refrigerant's GWP | 1810 |
| Refrigerant's classification | A1 |

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

| | |
|------------------------------|----------------|
| Maximum Operating Current, A | 17.7 |
| Locked Rotor Current, A | 111 |
| Winding Resistance, ohm | 1.37 |
| Default Enclosure Class | IP 21 (IEC 34) |

ACCESSORIES INCLUDED

| | |
|----------------------------------|--------------------------------|
| Discharge Temperature Protection | ASTP Therm-O-Disc In Scroll |
| Enclosure Class | IP21 |
| Oil Charge | |
| Oil Service Valve | Schraeder Valve |
| Check Valve | Discharge Low Leak Check Valve |

ACCESSORIES OPTIONAL

| | |
|--------------------|--|
| Crankcase Heater | 90 W External |
| Enclosure Class | IP66 With Molded Plug |
| Mounting Grommets | Hard Mounts for Paralleling |
| Mounting Grommets | Rubber Grommet For Single |
| Adapter Kit | R1"1/4 -B 1"1/8 For TPTL for |
| Oil Control System | Parallel Operation |
| Sound Attenuation | ALCO Trax-Oil OM3 Sound Shell (12dBA) |

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 |
| TW7 | 380 V / 3~ / 60 Hz | 380 | | Y | 1.26 |
| TFE | 575 V / 3~ / 60 Hz | 575 | | Y | 0.80 |
| TF7 | 380 V / 3~ / 60 Hz | 380 | | Y | 1.26 |
| TW5 | 200-230 V / 3~ / 60 Hz | 230 | | Y | 2.30 |