



Minimum Evaporating Temp. With:

- 10 K Suction Superheat
- 20 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

Additional restrictions, please see application guidelines

50 Hz

ZR92KRE-TFD

R513A

| Cond °C | Cooling Capacity, kW | | | | | | | | | | | |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 | 25.0 |
| 10.0 | 7.46 | 9.31 | 11.55 | 14.20 | | | | | | | | |
| 15.0 | 7.09 | 8.87 | 11.00 | 13.60 | 16.65 | | | | | | | |
| 20.0 | 6.72 | 8.43 | 10.50 | 12.95 | 15.90 | 19.30 | | | | | | |
| 25.0 | 6.34 | 7.99 | 9.96 | 12.30 | 15.10 | 18.40 | 19.85 | 22.20 | | | | |
| 30.0 | 5.96 | 7.53 | 9.41 | 11.65 | 14.30 | 17.45 | 18.80 | 21.10 | 23.10 | 25.30 | | |
| 35.0 | 5.58 | 7.07 | 8.86 | 11.00 | 13.50 | 16.45 | 17.80 | 19.95 | 21.90 | 23.90 | | |
| 40.0 | 5.20 | 6.61 | 8.29 | 10.30 | 12.70 | 15.50 | 16.75 | 18.75 | 20.60 | 22.60 | 27.00 | |
| 45.0 | 4.82 | 6.14 | 7.72 | 9.60 | 11.85 | 14.50 | 15.65 | 17.60 | 19.30 | 21.20 | 25.40 | 30.10 |
| 50.0 | | 5.67 | 7.14 | 8.89 | 11.00 | 13.45 | 14.55 | 16.35 | 18.00 | 19.80 | 23.70 | 28.20 |
| 55.0 | | | 6.55 | 8.17 | 10.10 | 12.40 | 13.45 | 15.15 | 16.70 | 18.35 | 22.00 | 26.30 |
| 60.0 | | | 5.96 | 7.44 | 9.23 | 11.35 | 12.30 | 13.90 | 15.30 | 16.85 | 20.30 | 24.40 |
| 65.0 | | | | 6.71 | 8.33 | 10.30 | 11.15 | 12.60 | 13.95 | 15.40 | 18.60 | 22.40 |
| 70.0 | | | | | 7.42 | 9.19 | 9.99 | 11.30 | 12.55 | 13.85 | 16.85 | |
| 75.0 | | | | | 6.50 | 8.08 | 8.81 | 10.00 | 11.10 | 12.30 | | |

| Cond °C | Power, kW | | | | | | | | | | | |
|------------|-----------|-------|-------|------|------|------|------|------|------|------|------|------|
| | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 | 20.0 | 25.0 |
| 10.0 | 1.67 | 1.75 | 1.84 | 1.94 | | | | | | | | |
| 15.0 | 1.84 | 1.92 | 2.01 | 2.11 | 2.22 | | | | | | | |
| 20.0 | 2.03 | 2.11 | 2.20 | 2.30 | 2.42 | 2.54 | | | | | | |
| 25.0 | 2.24 | 2.32 | 2.41 | 2.52 | 2.63 | 2.76 | 2.81 | 2.89 | | | | |
| 30.0 | 2.47 | 2.56 | 2.65 | 2.76 | 2.87 | 3.00 | 3.05 | 3.13 | 3.20 | 3.28 | | |
| 35.0 | 2.74 | 2.82 | 2.91 | 3.02 | 3.13 | 3.26 | 3.32 | 3.40 | 3.47 | 3.55 | | |
| 40.0 | 3.03 | 3.11 | 3.20 | 3.31 | 3.43 | 3.56 | 3.61 | 3.69 | 3.77 | 3.84 | 4.00 | |
| 45.0 | 3.34 | 3.43 | 3.52 | 3.63 | 3.75 | 3.88 | 3.93 | 4.02 | 4.09 | 4.17 | 4.33 | 4.50 |
| 50.0 | | 3.78 | 3.87 | 3.98 | 4.10 | 4.23 | 4.29 | 4.37 | 4.45 | 4.53 | 4.69 | 4.86 |
| 55.0 | | | 4.26 | 4.37 | 4.49 | 4.62 | 4.67 | 4.76 | 4.84 | 4.92 | 5.08 | 5.26 |
| 60.0 | | | 4.68 | 4.78 | 4.91 | 5.04 | 5.10 | 5.18 | 5.26 | 5.34 | 5.51 | 5.69 |
| 65.0 | | | | 5.24 | 5.36 | 5.50 | 5.55 | 5.64 | 5.72 | 5.80 | 5.97 | 6.15 |
| 70.0 | | | | | 5.86 | 5.99 | 6.05 | 6.14 | 6.22 | 6.30 | 6.47 | |
| 75.0 | | | | | 6.39 | 6.53 | 6.59 | 6.68 | 6.76 | 6.84 | | |

Additional restrictions, please see application guidelines

50 Hz

ZR92KRE-TFD

R513A

| Cond °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 | 20.0 | 25.0 |
| 10.0 | 5.03 | 5.10 | 5.17 | 5.25 | | | | | | | | |
| 15.0 | 5.17 | 5.23 | 5.31 | 5.40 | 5.51 | | | | | | | |
| 20.0 | 5.33 | 5.40 | 5.49 | 5.58 | 5.69 | 5.81 | | | | | | |
| 25.0 | 5.52 | 5.60 | 5.69 | 5.79 | 5.91 | 6.03 | 6.09 | 6.17 | | | | |
| 30.0 | 5.74 | 5.83 | 5.92 | 6.03 | 6.15 | 6.29 | 6.35 | 6.44 | 6.52 | 6.60 | | |
| 35.0 | 6.01 | 6.10 | 6.20 | 6.31 | 6.44 | 6.58 | 6.64 | 6.74 | 6.82 | 6.91 | | |
| 40.0 | 6.32 | 6.41 | 6.52 | 6.64 | 6.77 | 6.92 | 6.98 | 7.08 | 7.17 | 7.26 | 7.46 | |
| 45.0 | 6.68 | 6.77 | 6.88 | 7.01 | 7.15 | 7.30 | 7.37 | 7.47 | 7.56 | 7.66 | 7.86 | 8.08 |
| 50.0 | | 7.18 | 7.30 | 7.43 | 7.57 | 7.74 | 7.80 | 7.91 | 8.01 | 8.11 | 8.32 | 8.54 |
| 55.0 | | | 7.77 | 7.91 | 8.06 | 8.22 | 8.29 | 8.41 | 8.50 | 8.61 | 8.82 | 9.06 |
| 60.0 | | | 8.30 | 8.44 | 8.60 | 8.77 | 8.84 | 8.96 | 9.06 | 9.17 | 9.39 | 9.63 |
| 65.0 | | | | 9.04 | 9.20 | 9.38 | 9.45 | 9.57 | 9.68 | 9.79 | 10.02 | 10.27 |
| 70.0 | | | | | 9.87 | 10.05 | 10.13 | 10.25 | 10.36 | 10.47 | 10.71 | |
| 75.0 | | | | | 10.61 | 10.80 | 10.88 | 11.00 | 11.12 | 11.23 | | |

| Cond °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 | 20.0 | 25.0 |
| 10.0 | 45.90 | 56.10 | 68.00 | 82.10 | | | | | | | | |
| 15.0 | 45.60 | 55.70 | 67.70 | 81.80 | 98.00 | | | | | | | |
| 20.0 | 45.20 | 55.40 | 67.40 | 81.40 | 97.60 | 116.00 | | | | | | |
| 25.0 | 44.80 | 55.00 | 67.00 | 80.90 | 97.00 | 115.50 | 123.50 | 136.50 | | | | |
| 30.0 | 44.40 | 54.60 | 66.60 | 80.40 | 96.40 | 115.00 | 123.00 | 135.50 | 147.00 | 159.50 | | |
| 35.0 | 44.00 | 54.20 | 66.10 | 79.90 | 95.80 | 114.00 | 122.00 | 135.00 | 146.00 | 158.50 | | |
| 40.0 | 43.60 | 53.80 | 65.60 | 79.20 | 95.00 | 113.00 | 121.00 | 134.00 | 145.00 | 157.00 | 183.50 | |
| 45.0 | 43.20 | 53.30 | 65.00 | 78.60 | 94.20 | 112.00 | 120.00 | 132.50 | 144.00 | 156.00 | 182.00 | 212.00 |
| 50.0 | | 52.90 | 64.50 | 77.90 | 93.30 | 111.00 | 119.00 | 131.50 | 142.50 | 154.50 | 181.00 | 210.00 |
| 55.0 | | | 64.00 | 77.10 | 92.40 | 110.00 | 118.00 | 130.00 | 141.50 | 153.50 | 179.50 | 209.00 |
| 60.0 | | | 63.40 | 76.40 | 91.40 | 109.00 | 116.50 | 129.00 | 140.00 | 152.00 | 178.00 | 207.00 |
| 65.0 | | | | 75.60 | 90.40 | 107.50 | 115.00 | 127.50 | 138.50 | 150.50 | 176.50 | 206.00 |
| 70.0 | | | | | 89.50 | 106.50 | 114.00 | 126.00 | 137.00 | 149.00 | 175.00 | |
| 75.0 | | | | | 88.70 | 105.50 | 113.00 | 125.00 | 136.00 | 147.50 | | |

Additional restrictions, please see application guidelines

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|-------------------------------------|--|
| Displacement @ 50 Hz, m³/h | 21.4 |
| Length/Width, mm | 246/257 |
| Height, mm | 443 |
| Net Weight, kg | 43.5 |
| Stub Suction, inch | 7/8 |
| Stub Discharge, inch | 3/4 |
| Oil Quantity, l | 1.89 |
| 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 (HT), dBA | 65 |
| Sound Power (HT), dBA | 76 |
| Sound Conditions (HT, Temperatures: | 7 / 54 / 18 °C at 50 Hz |
| Evap./Cond./Suction at freq./speed) | |
| PED Category | 1 |
| Max. Internal Free Volume, l | 5.70 |
| High Side PS gauge, bar | 29 |
| Low Side PS gauge, bar | 21 |
| Low Side TS Max., °C | 50 |
| Low Side TS Min., °C | -35 |
| Refrigerant's GWP | 631 |
| Refrigerant's classification | A1 |

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

| | |
|------------------------------|----------------|
| Maximum Operating Current, A | 15.9 |
| Locked Rotor Current, A | 102 |
| Winding Resistance, ohm | 1.72 |
| Default Enclosure Class | IP 21 (IEC 34) |

ACCESSORIES INCLUDED

| | |
|----------------------------------|---------------------|
| Discharge Temperature Protection | External thermistor |
|----------------------------------|---------------------|

Additional restrictions, please see application guidelines

50 Hz

ZR92KRE-TFD

R513A

ACCESSORIES OPTIONAL

| | |
|--------------------|-----------------------------|
| Mounting Grommets | Standard |
| Mounting Grommets | Hard Mounts for Paralleling |
| Crankcase Heater | 70 W External |
| Sound Attenuation | Sound Shell (10dBA) |
| Rotalock valves | suction and discharge |
| Oil Control System | ALCO Trax-Oil OM3 |

MOTOR OPTIONS

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

Additional restrictions, please see application guidelines