



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

| 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 |
| 22.0 | 3.07 | | | | | | | | | |
| 25.0 | 2.97 | 3.79 | | | | | | | | |
| 30.0 | 2.80 | 3.59 | 4.55 | 5.70 | | | | | | |
| 35.0 | 2.63 | 3.39 | 4.31 | 5.41 | 6.71 | 8.22 | 8.89 | | | |
| 40.0 | 2.47 | 3.18 | 4.06 | 5.12 | 6.36 | 7.81 | 8.45 | 9.48 | 10.40 | 11.40 |
| 45.0 | 2.30 | 2.98 | 3.81 | 4.81 | 6.00 | 7.38 | 7.99 | 8.98 | 9.86 | 10.80 |
| 50.0 | | 2.77 | 3.55 | 4.50 | 5.62 | 6.94 | 7.52 | 8.46 | 9.31 | 10.20 |
| 55.0 | | | 3.29 | 4.18 | 5.24 | 6.49 | 7.04 | 7.93 | 8.74 | 9.60 |
| 60.0 | | | 3.03 | 3.86 | 4.85 | 6.02 | 6.54 | 7.39 | 8.15 | 8.97 |
| 65.0 | | | | 3.53 | 4.45 | 5.55 | 6.04 | 6.83 | 7.55 | 8.32 |
| 70.0 | | | | | 4.04 | 5.06 | 5.52 | 6.26 | 6.93 | 7.65 |
| 75.0 | | | | | 3.63 | 4.56 | 4.99 | 5.67 | 6.30 | 6.97 |

50 Hz

ZRD48KRE-TFD

R134a

| Cond °C | Power, kW | | | | | | | | | |
|------------|-----------|-------|-------|------|------|------|------|------|------|------|
| | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 |
| 22.0 | 1.16 | | | | | | | | | |
| 25.0 | 1.23 | 1.23 | | | | | | | | |
| 30.0 | 1.36 | 1.36 | 1.38 | 1.40 | | | | | | |
| 35.0 | 1.52 | 1.52 | 1.54 | 1.56 | 1.58 | 1.58 | 1.58 | | | |
| 40.0 | 1.69 | 1.70 | 1.72 | 1.74 | 1.76 | 1.76 | 1.76 | 1.74 | 1.72 | 1.69 |
| 45.0 | 1.88 | 1.90 | 1.92 | 1.94 | 1.96 | 1.96 | 1.96 | 1.94 | 1.92 | 1.89 |
| 50.0 | | 2.11 | 2.14 | 2.16 | 2.18 | 2.18 | 2.18 | 2.16 | 2.13 | 2.10 |
| 55.0 | | | 2.37 | 2.40 | 2.41 | 2.41 | 2.41 | 2.39 | 2.36 | 2.33 |
| 60.0 | | | 2.62 | 2.64 | 2.66 | 2.66 | 2.65 | 2.63 | 2.61 | 2.57 |
| 65.0 | | | | 2.90 | 2.92 | 2.92 | 2.91 | 2.89 | 2.86 | 2.82 |
| 70.0 | | | | | 3.19 | 3.18 | 3.17 | 3.15 | 3.12 | 3.08 |
| 75.0 | | | | | 3.46 | 3.46 | 3.45 | 3.42 | 3.39 | 3.35 |

| 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 |
| 22.0 | 3.68 | | | | | | | | | |
| 25.0 | 3.72 | 3.73 | | | | | | | | |
| 30.0 | 3.85 | 3.82 | 3.92 | 4.05 | | | | | | |
| 35.0 | 4.03 | 3.95 | 4.03 | 4.17 | 4.26 | 4.18 | 4.07 | | | |
| 40.0 | 4.30 | 4.15 | 4.19 | 4.32 | 4.43 | 4.40 | 4.33 | 4.14 | 3.88 | 3.52 |
| 45.0 | 4.67 | 4.42 | 4.39 | 4.49 | 4.61 | 4.62 | 4.57 | 4.42 | 4.21 | 3.90 |
| 50.0 | | 4.77 | 4.67 | 4.72 | 4.81 | 4.84 | 4.81 | 4.69 | 4.51 | 4.25 |
| 55.0 | | | 5.02 | 5.00 | 5.05 | 5.07 | 5.05 | 4.95 | 4.80 | 4.58 |
| 60.0 | | | 5.47 | 5.35 | 5.35 | 5.34 | 5.31 | 5.23 | 5.09 | 4.89 |
| 65.0 | | | | 5.80 | 5.71 | 5.65 | 5.62 | 5.52 | 5.39 | 5.20 |
| 70.0 | | | | | 6.15 | 6.03 | 5.97 | 5.86 | 5.72 | 5.53 |
| 75.0 | | | | | 6.69 | 6.47 | 6.39 | 6.25 | 6.09 | 5.89 |

| 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 |
| 22.0 | 18.75 | | | | | | | | | |
| 25.0 | 18.60 | 23.30 | | | | | | | | |
| 30.0 | 18.40 | 23.10 | 28.70 | 35.20 | | | | | | |
| 35.0 | 18.15 | 22.90 | 28.50 | 35.00 | 42.50 | 51.10 | 54.80 | | | |
| 40.0 | 17.95 | 22.60 | 28.20 | 34.80 | 42.30 | 50.90 | 54.60 | 60.50 | 65.70 | 71.20 |
| 45.0 | 17.70 | 22.40 | 27.90 | 34.50 | 42.00 | 50.60 | 54.30 | 60.20 | 65.50 | 71.00 |
| 50.0 | | 22.10 | 27.60 | 34.10 | 41.60 | 50.20 | 53.90 | 59.90 | 65.10 | 70.70 |
| 55.0 | | | 27.30 | 33.70 | 41.20 | 49.80 | 53.50 | 59.40 | 64.70 | 70.30 |
| 60.0 | | | 26.90 | 33.30 | 40.70 | 49.20 | 53.00 | 58.90 | 64.20 | 69.80 |
| 65.0 | | | | 32.80 | 40.10 | 48.60 | 52.40 | 58.30 | 63.60 | 69.20 |
| 70.0 | | | | | 39.50 | 48.00 | 51.70 | 57.60 | 62.90 | 68.50 |
| 75.0 | | | | | 38.90 | 47.30 | 51.00 | 56.90 | 62.20 | 67.90 |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|--|--|
| Displacement @ 50 Hz, m ³ /h | 11.4 |
| Length/Width, mm | 239/244 |
| Height, mm | 466 |
| Net Weight, kg | 29.9 |
| Stub Suction, inch | 7/8 |
| Stub Discharge, inch | 1/2 |
| Oil Quantity, l | 1.36 |
| 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 | 58 |
| Sound Power (MT), dBA | 69 |
| Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed) | -10 / 45 / 20 °C at 50 Hz |
| Max. Internal Free Volume, l | 2.90 |
| 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 | 1430 |
| Refrigerant's classification | A1 |

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

| | |
|------------------------------|----------------|
| Maximum Operating Current, A | 10 |
| Locked Rotor Current, A | 48 |
| Winding Resistance, ohm | 3.88 |
| Default Enclosure Class | IP 21 (IEC 34) |

ACCESSORIES INCLUDED

ACCESSORIES OPTIONAL

| | |
|----------------------------------|-----------------------------|
| Crankcase Heater | 70 W External |
| Discharge Temperature Protection | Discharge line thermostat |
| Mounting Grommets | Standard |
| Mounting Grommets | Hard Mounts for Paralleling |
| Mounting Grommets | Rubber Grommet For Single |
| Solenoid valve | Standard |
| Oil Control System | ALCO Trax-Oil OM3 |
| Sound Attenuation | Sound Shell (10dBA) |
| Valve Coil | 220V |
| Valve Coil | 24V AC |
| Solenoid Valve Kit | 220 V Ac 12" lead Length |
| Solenoid Valve Kit | 24 V Ac 12" lead Length |
| Digital Tubing Kit | 220 V 0.3m Rotalock |
| Digital Tubing Kit | 24 V 0.3m Rotalock |
| Digital Control Kit | EC2-552 |
| Digital Control Kit | EC3-652 |
| Digital Driver | EC3-D13 |

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 |