



Minimum Evaporating Temp. With:

— 10 K Suction Superheat

— Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond °C | Cooling Capacity, kW | | | | | | | | |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 |
| 20.0 | 13.20 | 16.55 | 20.40 | 25.00 | 30.30 | 32.70 | | | |
| 25.0 | 12.60 | 15.90 | 19.75 | 24.20 | 29.40 | 31.70 | 35.40 | | |
| 30.0 | 11.90 | 15.15 | 18.90 | 23.30 | 28.30 | 30.50 | 34.10 | 37.40 | 40.90 |
| 35.0 | 11.05 | 14.30 | 17.95 | 22.20 | 27.10 | 29.20 | 32.70 | 35.90 | 39.30 |
| 40.0 | 10.10 | 13.30 | 16.90 | 21.00 | 25.70 | 27.80 | 31.20 | 34.20 | 37.50 |
| 45.0 | 9.06 | 12.20 | 15.75 | 19.70 | 24.30 | 26.30 | 29.60 | 32.50 | 35.60 |
| 50.0 | | 11.05 | 14.45 | 18.30 | 22.70 | 24.70 | 27.80 | 30.60 | 33.60 |
| 55.0 | | 9.76 | 13.10 | 16.85 | 21.10 | 22.90 | 25.90 | 28.60 | 31.50 |
| 60.0 | | | 11.65 | 15.25 | 19.30 | 21.10 | 23.90 | 26.50 | 29.20 |
| 65.0 | | | 10.10 | 13.55 | 17.45 | 19.15 | 21.80 | 24.30 | 26.90 |
| 70.0 | | | | 11.80 | 15.50 | 17.10 | 19.65 | 22.00 | 24.50 |
| 75.0 | | | | 9.98 | 13.45 | 15.00 | 17.40 | 19.60 | 21.90 |

50 Hz

ZR160KRE-TFD

R134a

| Cond °C | Power, kW | | | | | | | | |
|------------|-----------|-------|------|-------|-------|-------|-------|-------|-------|
| | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 |
| 20.0 | 3.81 | 3.82 | 3.86 | 3.92 | 4.02 | 4.07 | | | |
| 25.0 | 4.13 | 4.16 | 4.20 | 4.26 | 4.36 | 4.41 | 4.49 | | |
| 30.0 | 4.51 | 4.54 | 4.59 | 4.65 | 4.75 | 4.79 | 4.87 | 4.95 | 5.04 |
| 35.0 | 4.96 | 4.99 | 5.04 | 5.10 | 5.19 | 5.23 | 5.31 | 5.38 | 5.46 |
| 40.0 | 5.48 | 5.51 | 5.56 | 5.62 | 5.70 | 5.74 | 5.81 | 5.87 | 5.95 |
| 45.0 | 6.08 | 6.11 | 6.16 | 6.21 | 6.28 | 6.32 | 6.38 | 6.44 | 6.51 |
| 50.0 | | 6.81 | 6.85 | 6.90 | 6.96 | 6.99 | 7.04 | 7.09 | 7.15 |
| 55.0 | | 7.62 | 7.65 | 7.69 | 7.74 | 7.76 | 7.80 | 7.84 | 7.89 |
| 60.0 | | | 8.56 | 8.59 | 8.62 | 8.64 | 8.67 | 8.70 | 8.74 |
| 65.0 | | | 9.60 | 9.61 | 9.63 | 9.64 | 9.66 | 9.68 | 9.71 |
| 70.0 | | | | 10.80 | 10.80 | 10.80 | 10.80 | 10.80 | 10.80 |
| 75.0 | | | | 12.10 | 12.05 | 12.05 | 12.05 | 12.05 | 12.05 |

| Cond °C | Current at 400 V, A | | | | | | | | |
|------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 |
| 20.0 | 12.23 | 12.09 | 12.01 | 12.03 | 12.17 | 12.26 | | | |
| 25.0 | 12.68 | 12.56 | 12.49 | 12.49 | 12.60 | 12.67 | 12.82 | | |
| 30.0 | 13.10 | 13.00 | 12.95 | 12.95 | 13.03 | 13.08 | 13.20 | 13.33 | 13.49 |
| 35.0 | 13.51 | 13.46 | 13.42 | 13.42 | 13.48 | 13.53 | 13.62 | 13.72 | 13.86 |
| 40.0 | 13.95 | 13.94 | 13.93 | 13.94 | 13.99 | 14.02 | 14.10 | 14.18 | 14.29 |
| 45.0 | 14.44 | 14.48 | 14.51 | 14.53 | 14.57 | 14.60 | 14.66 | 14.72 | 14.80 |
| 50.0 | | 15.11 | 15.17 | 15.21 | 15.26 | 15.28 | 15.33 | 15.38 | 15.44 |
| 55.0 | | 15.84 | 15.95 | 16.02 | 16.07 | 16.10 | 16.13 | 16.17 | 16.22 |
| 60.0 | | | 16.87 | 16.97 | 17.04 | 17.07 | 17.10 | 17.13 | 17.17 |
| 65.0 | | | 17.95 | 18.10 | 18.19 | 18.22 | 18.25 | 18.28 | 18.31 |
| 70.0 | | | | 19.42 | 19.55 | 19.58 | 19.62 | 19.65 | 19.67 |
| 75.0 | | | | 20.97 | 21.13 | 21.18 | 21.22 | 21.25 | 21.27 |

50 Hz

ZR160KRE-TFD

R134a

| Cond °C | Suction Mass Flow, g/s | | | | | | | | |
|------------|------------------------|-------|--------|--------|--------|--------|--------|--------|--------|
| | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 | 10.0 | 12.5 | 15.0 |
| 20.0 | 77.70 | 95.50 | 116.00 | 139.00 | 166.00 | 177.50 | | | |
| 25.0 | 77.40 | 95.80 | 116.50 | 140.00 | 167.00 | 179.00 | 198.00 | | |
| 30.0 | 76.40 | 95.50 | 116.50 | 140.50 | 168.00 | 180.00 | 199.00 | 216.00 | 234.00 |
| 35.0 | 74.50 | 94.30 | 116.00 | 140.50 | 168.00 | 180.00 | 199.50 | 217.00 | 235.00 |
| 40.0 | 71.80 | 92.40 | 115.00 | 139.50 | 167.50 | 180.00 | 199.00 | 216.00 | 235.00 |
| 45.0 | 68.10 | 89.60 | 112.50 | 138.00 | 166.50 | 178.50 | 198.00 | 216.00 | 234.00 |
| 50.0 | | 85.80 | 109.50 | 135.50 | 164.50 | 177.00 | 196.50 | 214.00 | 233.00 |
| 55.0 | | 80.80 | 105.50 | 132.50 | 161.50 | 174.00 | 194.00 | 212.00 | 230.00 |
| 60.0 | | | 100.50 | 128.00 | 158.00 | 170.50 | 190.50 | 209.00 | 228.00 |
| 65.0 | | | 93.90 | 122.50 | 153.00 | 166.00 | 186.50 | 205.00 | 224.00 |
| 70.0 | | | | 115.50 | 147.00 | 160.00 | 181.00 | 199.50 | 219.00 |
| 75.0 | | | | 107.00 | 139.50 | 153.00 | 174.50 | 193.50 | 213.00 |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|---|--|
| Displacement @ 50 Hz, m ³ /h | 36.4 |
| Length/Width, mm | 281/284 |
| Height, mm | 552 |
| Net Weight, kg | 64.9 |
| 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 | 68 |
| Sound Power (HT), dBA | 79 |
| Sound Conditions (HT, Temperatures: | 5 / 50 / 15 °C at 50 Hz |
| Evap./Cond./Suction at freq./speed) | |
| PED Category | 2 |
| Max. Internal Free Volume, l | 12.8 |
| High Side PS gauge, bar | 32 |
| Low Side PS gauge, bar | 20 |
| Low Side TS Max., °C | 53 |
| 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 | 30 |
| Locked Rotor Current, A | 140 |
| Winding Resistance, ohm | 1.1 |
| Default Enclosure Class | IP 21/65 |

ACCESSORIES INCLUDED

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

ACCESSORIES OPTIONAL

| | |
|--------------------|------------------------------|
| Mounting Grommets | Rubber Grommet For Single |
| Adapter Kit | R1"1/4 -B 1"1/8 For TPTL for |
| Oil Control System | Parallel Operation |
| Enclosure Class | ALCO Trax-Oil OM3 |
| Mounting Grommets | IP 65 |
| Sound Attenuation | Hard Mounts for Paralleling |
| Crankcase Heater | Sound Shell (12dBA) |
| | 67 W External |

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 |
| TFD | 460 V / 3~ / 60 Hz | 460 | | Y | 1.04 |