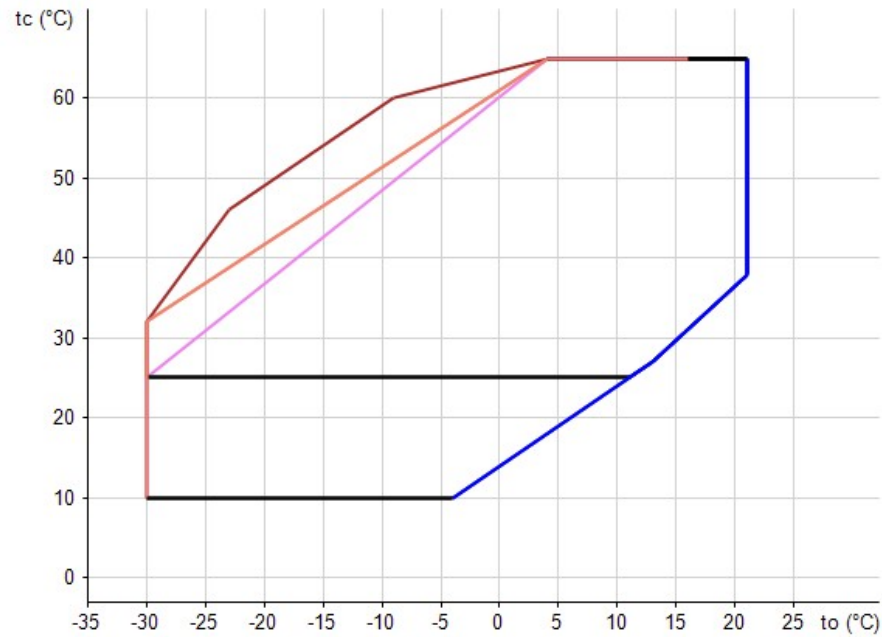




Minimum Evaporating Temp. With:

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

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond<br>°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       | 11.15                | 14.25 | 18.05 | 22.70 | 28.20 | 34.70 |       |       |       |       |       |       |       |
| 15.0       | 10.20                | 13.30 | 17.10 | 21.60 | 27.00 | 33.40 | 40.90 |       |       |       |       |       |       |
| 20.0       | 9.22                 | 12.30 | 16.00 | 20.40 | 25.70 | 32.00 | 39.30 | 47.70 |       |       |       |       |       |
| 25.0       | 8.17                 | 11.20 | 14.85 | 19.20 | 24.30 | 30.40 | 37.50 | 45.70 | 49.30 | 55.20 |       |       |       |
| 30.0       | 7.07                 | 10.05 | 13.60 | 17.80 | 22.80 | 28.70 | 35.50 | 43.50 | 47.00 | 52.70 | 57.80 | 63.20 |       |
| 35.0       |                      | 8.86  | 12.30 | 16.40 | 21.20 | 26.90 | 33.50 | 41.20 | 44.60 | 50.10 | 55.00 | 60.30 |       |
| 40.0       |                      |       | 10.95 | 14.85 | 19.50 | 24.90 | 31.30 | 38.70 | 42.00 | 47.30 | 52.00 | 57.10 | 68.30 |
| 45.0       |                      |       |       | 13.30 | 17.70 | 22.90 | 29.00 | 36.10 | 39.30 | 44.40 | 48.90 | 53.80 | 64.60 |
| 50.0       |                      |       |       |       | 15.90 | 20.80 | 26.70 | 33.40 | 36.50 | 41.30 | 45.70 | 50.30 | 60.70 |
| 55.0       |                      |       |       |       |       | 18.70 | 24.20 | 30.60 | 33.50 | 38.10 | 42.30 | 46.70 | 56.60 |
| 60.0       |                      |       |       |       |       |       | 21.70 | 27.70 | 30.40 | 34.80 | 38.80 | 43.00 | 52.40 |
| 65.0       |                      |       |       |       |       |       |       | 24.70 | 27.30 | 31.40 | 35.10 | 39.10 | 48.00 |

50 Hz

ZR160KRE-TFD

R407C Dew Point

| Cond<br>°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       | 3.76      | 3.78  | 3.80  | 3.84  | 3.90  | 3.98  |       |       |       |       |       |       |       |
| 15.0       | 4.30      | 4.35  | 4.39  | 4.44  | 4.50  | 4.59  | 4.71  |       |       |       |       |       |       |
| 20.0       | 4.86      | 4.93  | 4.99  | 5.05  | 5.12  | 5.20  | 5.31  | 5.45  |       |       |       |       |       |
| 25.0       | 5.46      | 5.54  | 5.61  | 5.68  | 5.76  | 5.84  | 5.94  | 6.07  | 6.13  | 6.23  |       |       |       |
| 30.0       | 6.12      | 6.22  | 6.30  | 6.37  | 6.45  | 6.53  | 6.62  | 6.73  | 6.78  | 6.87  | 6.95  | 7.04  |       |
| 35.0       |           | 6.98  | 7.07  | 7.15  | 7.22  | 7.29  | 7.37  | 7.46  | 7.50  | 7.58  | 7.65  | 7.72  |       |
| 40.0       |           |       | 7.95  | 8.03  | 8.09  | 8.15  | 8.21  | 8.29  | 8.32  | 8.38  | 8.43  | 8.49  | 8.64  |
| 45.0       |           |       |       | 9.04  | 9.09  | 9.14  | 9.18  | 9.23  | 9.26  | 9.29  | 9.33  | 9.38  | 9.48  |
| 50.0       |           |       |       |       | 10.25 | 10.30 | 10.30 | 10.30 | 10.35 | 10.35 | 10.35 | 10.40 | 10.45 |
| 55.0       |           |       |       |       |       | 11.60 | 11.60 | 11.60 | 11.60 | 11.60 | 11.60 | 11.60 | 11.60 |
| 60.0       |           |       |       |       |       |       | 13.10 | 13.05 | 13.05 | 13.00 | 13.00 | 12.95 | 12.95 |
| 65.0       |           |       |       |       |       |       |       | 14.70 | 14.70 | 14.65 | 14.60 | 14.55 | 14.50 |

| Cond<br>°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       | 11.31               | 11.20 | 11.16 | 11.17 | 11.27 | 11.45 |       |       |       |       |       |       |       |
| 15.0       | 12.13               | 12.06 | 12.03 | 12.04 | 12.11 | 12.25 | 12.46 |       |       |       |       |       |       |
| 20.0       | 12.86               | 12.83 | 12.82 | 12.84 | 12.89 | 12.99 | 13.16 | 13.40 |       |       |       |       |       |
| 25.0       | 13.54               | 13.56 | 13.58 | 13.61 | 13.66 | 13.74 | 13.86 | 14.04 | 14.13 | 14.28 |       |       |       |
| 30.0       | 14.20               | 14.29 | 14.35 | 14.40 | 14.46 | 14.53 | 14.62 | 14.74 | 14.81 | 14.92 | 15.02 | 15.15 |       |
| 35.0       |                     | 15.06 | 15.17 | 15.26 | 15.33 | 15.40 | 15.47 | 15.55 | 15.59 | 15.66 | 15.73 | 15.81 |       |
| 40.0       |                     |       | 16.09 | 16.22 | 16.32 | 16.39 | 16.45 | 16.50 | 16.53 | 16.57 | 16.61 | 16.65 | 16.77 |
| 45.0       |                     |       |       | 17.33 | 17.46 | 17.55 | 17.61 | 17.65 | 17.66 | 17.67 | 17.68 | 17.70 | 17.74 |
| 50.0       |                     |       |       |       | 18.81 | 18.93 | 18.99 | 19.02 | 19.02 | 19.02 | 19.01 | 19.00 | 18.97 |
| 55.0       |                     |       |       |       |       | 20.56 | 20.64 | 20.67 | 20.67 | 20.65 | 20.62 | 20.59 | 20.51 |
| 60.0       |                     |       |       |       |       |       | 22.60 | 22.63 | 22.63 | 22.61 | 22.57 | 22.52 | 22.39 |
| 65.0       |                     |       |       |       |       |       |       | 24.96 | 24.96 | 24.93 | 24.89 | 24.83 | 24.67 |

50 Hz

ZR160KRE-TFD

R407C Dew Point

| Cond<br>°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       | 57.00                  | 71.90 | 89.70 | 111.00 | 136.00 | 165.50 |        |        |        |        |        |        |        |
| 15.0       | 54.30                  | 69.70 | 88.10 | 110.00 | 135.50 | 165.00 | 199.50 |        |        |        |        |        |        |
| 20.0       | 51.10                  | 67.10 | 85.90 | 108.00 | 134.00 | 164.00 | 198.50 | 238.00 |        |        |        |        |        |
| 25.0       | 47.30                  | 63.80 | 83.00 | 105.50 | 132.00 | 162.00 | 197.50 | 237.00 | 255.00 | 283.00 |        |        |        |
| 30.0       | 42.90                  | 59.90 | 79.60 | 102.50 | 129.00 | 160.00 | 195.00 | 236.00 | 253.00 | 281.00 | 307.00 | 333.00 |        |
| 35.0       |                        | 55.30 | 75.50 | 98.70  | 125.50 | 156.50 | 192.00 | 233.00 | 251.00 | 279.00 | 305.00 | 331.00 |        |
| 40.0       |                        |       | 70.70 | 94.20  | 121.50 | 152.50 | 188.50 | 230.00 | 248.00 | 276.00 | 302.00 | 329.00 | 388.00 |
| 45.0       |                        |       |       | 89.00  | 116.50 | 148.00 | 184.00 | 225.00 | 244.00 | 272.00 | 298.00 | 326.00 | 385.00 |
| 50.0       |                        |       |       |        | 110.50 | 142.50 | 179.00 | 221.00 | 239.00 | 268.00 | 294.00 | 321.00 | 382.00 |
| 55.0       |                        |       |       |        |        | 136.00 | 172.50 | 215.00 | 233.00 | 262.00 | 289.00 | 316.00 | 377.00 |
| 60.0       |                        |       |       |        |        |        | 165.50 | 208.00 | 226.00 | 256.00 | 283.00 | 311.00 | 372.00 |
| 65.0       |                        |       |       |        |        |        |        | 200.00 | 219.00 | 249.00 | 276.00 | 304.00 | 367.00 |

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

|                                     |                                              |
|-------------------------------------|----------------------------------------------|
| Displacement @ 50 Hz, m³/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<br>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                   | 1774                                         |
| 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

|                                  |                                |
|----------------------------------|--------------------------------|
| 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   | 67 W External                |
| Enclosure Class    | IP 65                        |
| 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        |
| TFD        | 460 V / 3~ / 60 Hz     | 460                |                  | Y              | 1.04        |