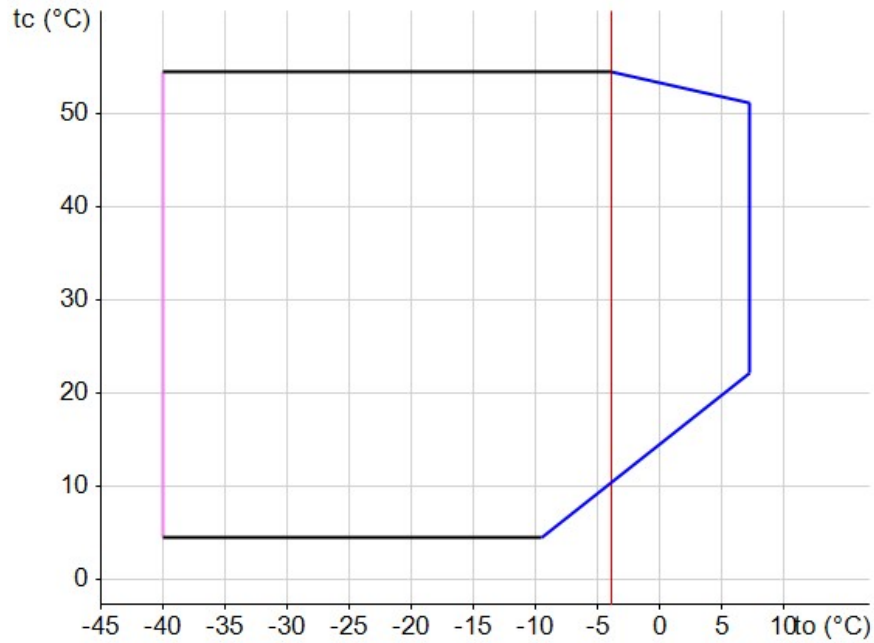


50 Hz

ZF41K5E-TFD

R404A Dew Point



Minimum Evaporating Temp. With:

20 °C Suction Gas Return Liquid injection

Maximum Evaporating Temperature

Voltage limit -5% above -4 °C

Suction Return Temperature 20.0 °C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond<br>°C | Cooling Capacity, kW |       |       |       |       |       |       |       |       |       |       |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | -40.0                | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0  | 0.0   | 5.0   | 7.0   |
| 4.0        | 9.55                 | 12.00 | 15.00 | 18.70 | 23.10 | 28.30 | 34.40 |       |       |       |       |
| 5.0        | 9.51                 | 11.95 | 14.95 | 18.65 | 23.00 | 28.20 | 34.30 |       |       |       |       |
| 10.0       | 9.16                 | 11.50 | 14.40 | 17.95 | 22.10 | 27.10 | 32.90 | 39.50 |       |       |       |
| 15.0       | 8.78                 | 11.05 | 13.85 | 17.20 | 21.20 | 25.90 | 31.40 | 37.70 | 45.00 |       |       |
| 20.0       | 8.39                 | 10.60 | 13.25 | 16.40 | 20.20 | 24.70 | 29.90 | 35.90 | 42.70 | 50.50 |       |
| 25.0       | 7.98                 | 10.10 | 12.60 | 15.60 | 19.15 | 23.40 | 28.30 | 33.90 | 40.40 | 47.80 | 51.00 |
| 30.0       | 7.56                 | 9.55  | 11.95 | 14.75 | 18.10 | 22.00 | 26.60 | 31.90 | 38.00 | 45.00 | 48.00 |
| 35.0       | 7.12                 | 9.00  | 11.25 | 13.85 | 17.00 | 20.60 | 24.90 | 29.90 | 35.60 | 42.10 | 44.90 |
| 40.0       | 6.66                 | 8.43  | 10.50 | 12.95 | 15.80 | 19.20 | 23.10 | 27.70 | 33.00 | 39.10 | 41.80 |
| 45.0       | 6.18                 | 7.83  | 9.74  | 12.00 | 14.60 | 17.70 | 21.30 | 25.50 | 30.40 | 36.10 | 38.50 |
| 50.0       | 5.68                 | 7.21  | 8.95  | 10.95 | 13.35 | 16.15 | 19.45 | 23.30 | 27.80 | 32.90 | 35.20 |
| 54.4       | 5.23                 | 6.64  | 8.22  | 10.05 | 12.20 | 14.75 | 17.75 | 21.20 |       |       |       |

50 Hz

ZF41K5E-TFD

R404A Dew Point

| Cond<br>°C | Power, kW |       |       |       |       |       |       |       |       |       |       |
|------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | -40.0     | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0  | 0.0   | 5.0   | 7.0   |
| 4.0        | 3.36      | 3.73  | 4.11  | 4.49  | 4.87  | 5.25  | 5.63  |       |       |       |       |
| 5.0        | 3.38      | 3.76  | 4.14  | 4.52  | 4.90  | 5.27  | 5.65  |       |       |       |       |
| 10.0       | 3.65      | 4.03  | 4.41  | 4.79  | 5.16  | 5.54  | 5.92  | 6.30  |       |       |       |
| 15.0       | 3.95      | 4.33  | 4.71  | 5.09  | 5.48  | 5.86  | 6.24  | 6.62  | 7.01  |       |       |
| 20.0       | 4.27      | 4.66  | 5.05  | 5.44  | 5.83  | 6.22  | 6.61  | 7.00  | 7.39  | 7.78  |       |
| 25.0       | 4.63      | 5.04  | 5.44  | 5.84  | 6.24  | 6.64  | 7.04  | 7.44  | 7.84  | 8.24  | 8.40  |
| 30.0       | 5.03      | 5.44  | 5.86  | 6.27  | 6.69  | 7.10  | 7.52  | 7.94  | 8.35  | 8.77  | 8.93  |
| 35.0       | 5.45      | 5.89  | 6.32  | 6.75  | 7.19  | 7.62  | 8.06  | 8.49  | 8.92  | 9.36  | 9.53  |
| 40.0       | 5.91      | 6.37  | 6.82  | 7.28  | 7.74  | 8.19  | 8.65  | 9.10  | 9.56  | 10.00 | 10.20 |
| 45.0       | 6.41      | 6.89  | 7.37  | 7.85  | 8.33  | 8.81  | 9.30  | 9.78  | 10.25 | 10.75 | 10.95 |
| 50.0       | 6.94      | 7.45  | 7.96  | 8.47  | 8.98  | 9.49  | 10.00 | 10.50 | 11.00 | 11.55 | 11.75 |
| 54.4       | 7.44      | 7.98  | 8.52  | 9.06  | 9.60  | 10.15 | 10.65 | 11.20 |       |       |       |

| Cond<br>°C | Current at 400 V, A |       |       |       |       |       |       |       |       |       |       |
|------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | -40.0               | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0  | 0.0   | 5.0   | 7.0   |
| 4.0        | 10.30               | 10.80 | 11.32 | 11.85 | 12.39 | 12.95 | 13.52 |       |       |       |       |
| 5.0        | 10.33               | 10.84 | 11.36 | 11.89 | 12.43 | 12.99 | 13.56 |       |       |       |       |
| 10.0       | 10.70               | 11.21 | 11.73 | 12.27 | 12.82 | 13.39 | 13.96 | 14.55 |       |       |       |
| 15.0       | 11.11               | 11.63 | 12.17 | 12.72 | 13.28 | 13.86 | 14.45 | 15.05 | 15.67 |       |       |
| 20.0       | 11.56               | 12.10 | 12.66 | 13.23 | 13.82 | 14.42 | 15.04 | 15.66 | 16.30 | 16.95 |       |
| 25.0       | 12.06               | 12.63 | 13.22 | 13.83 | 14.44 | 15.08 | 15.72 | 16.38 | 17.05 | 17.74 | 18.01 |
| 30.0       | 12.62               | 13.23 | 13.86 | 14.50 | 15.16 | 15.83 | 16.52 | 17.22 | 17.93 | 18.65 | 18.95 |
| 35.0       | 13.25               | 13.90 | 14.57 | 15.26 | 15.97 | 16.69 | 17.42 | 18.17 | 18.93 | 19.71 | 20.02 |
| 40.0       | 13.94               | 14.65 | 15.37 | 16.12 | 16.88 | 17.65 | 18.44 | 19.25 | 20.07 | 20.90 | 21.24 |
| 45.0       | 14.71               | 15.48 | 16.27 | 17.08 | 17.90 | 18.74 | 19.59 | 20.46 | 21.35 | 22.25 | 22.61 |
| 50.0       | 15.57               | 16.41 | 17.26 | 18.14 | 19.04 | 19.95 | 20.88 | 21.82 | 22.78 | 23.75 | 24.15 |
| 54.4       | 16.39               | 17.30 | 18.23 | 19.17 | 20.14 | 21.12 | 22.12 | 23.13 |       |       |       |

50 Hz

ZF41K5E-TFD

R404A Dew Point

| Cond<br>°C | Suction Mass Flow, g/s |       |       |        |        |        |        |        |        |        |        |
|------------|------------------------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
|            | -40.0                  | -35.0 | -30.0 | -25.0  | -20.0  | -15.0  | -10.0  | -5.0   | 0.0    | 5.0    | 7.0    |
| 4.0        | 50.90                  | 64.10 | 80.50 | 100.50 | 125.00 | 154.00 | 188.50 |        |        |        |        |
| 5.0        | 50.90                  | 64.10 | 80.60 | 100.50 | 125.00 | 154.00 | 188.50 |        |        |        |        |
| 10.0       | 51.00                  | 64.20 | 80.70 | 101.00 | 125.00 | 154.00 | 188.00 | 228.00 |        |        |        |
| 15.0       | 50.90                  | 64.30 | 80.80 | 101.00 | 125.00 | 153.50 | 187.50 | 227.00 | 274.00 |        |        |
| 20.0       | 50.90                  | 64.30 | 80.70 | 100.50 | 124.50 | 153.00 | 186.50 | 226.00 | 272.00 | 326.00 |        |
| 25.0       | 50.70                  | 64.20 | 80.60 | 100.50 | 124.00 | 152.00 | 185.50 | 225.00 | 271.00 | 324.00 | 348.00 |
| 30.0       | 50.50                  | 64.00 | 80.30 | 99.80  | 123.00 | 151.00 | 184.00 | 223.00 | 268.00 | 322.00 | 346.00 |
| 35.0       | 50.20                  | 63.70 | 79.80 | 99.10  | 122.00 | 149.50 | 182.00 | 221.00 | 266.00 | 320.00 | 343.00 |
| 40.0       | 49.80                  | 63.30 | 79.30 | 98.20  | 121.00 | 148.00 | 180.00 | 218.00 | 263.00 | 317.00 | 341.00 |
| 45.0       | 49.40                  | 62.80 | 78.60 | 97.20  | 119.50 | 146.00 | 177.50 | 215.00 | 260.00 | 313.00 | 338.00 |
| 50.0       | 48.90                  | 62.30 | 77.80 | 96.00  | 117.50 | 143.50 | 175.00 | 212.00 | 257.00 | 310.00 | 334.00 |
| 54.4       | 48.50                  | 61.80 | 77.00 | 94.90  | 116.00 | 141.50 | 172.50 | 209.00 |        |        |        |

## COMPRESSOR MECHANICAL AND PHYSICAL DATA

|                                        |                                              |
|----------------------------------------|----------------------------------------------|
| Displacement @ 50 Hz, m³/h             | 35.3                                         |
| Length/Width, mm                       | 280/280                                      |
| Height, mm                             | 534                                          |
| Net Weight, kg                         | 63.1                                         |
| Rotalock Suction, inch                 | 1 3/4                                        |
| Rotalock Discharge, inch               | 1 1/4                                        |
| Oil Quantity, l                        | 3.37                                         |
| 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 (LT), dBA          | 69                                           |
| Sound Power (LT), dBA                  | 80                                           |
| Sound Power with Sound Shell (LT), dBA | 68                                           |
| Sound Conditions (LT, Temperatures:    | -35 / 40 / 20 °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                 | 22.6                                         |
| Refrigerant's GWP                      | 3922                                         |
| Refrigerant's classification           | A1                                           |

50 Hz

ZF41K5E-TFD

R404A Dew Point

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

|                              |                |
|------------------------------|----------------|
| Maximum Operating Current, A | 29             |
| Locked Rotor Current, A      | 118            |
| Winding Resistance, ohm      | 1.24           |
| Default Enclosure Class      | IP 54 (IEC 34) |

## **ACCESSORIES INCLUDED**

|                                  |                           |
|----------------------------------|---------------------------|
| Discharge Temperature Protection | Discharge line thermostat |
| Mounting Grommets                | Standard                  |

## **ACCESSORIES OPTIONAL**

|                    |                       |
|--------------------|-----------------------|
| Crankcase Heater   | 66 W External         |
| Liquid Injection   | DTC Valve             |
| Oil Control System | ALCO Trax-Oil OM3     |
| Sound Attenuation  | Sound Shell           |
| Rotalock valves    | suction and discharge |

## **MOTOR OPTIONS**

| <b>Motor Code</b> | <b>Power Supply</b>    | <b>Nominal Voltage, V</b> | <b>Start Connection</b> | <b>DOL Connection</b> | <b>Amps Factor</b> |
|-------------------|------------------------|---------------------------|-------------------------|-----------------------|--------------------|
| TFD               | 380-420 V / 3~ / 50 Hz | 400                       |                         | Y                     | 1.00               |
| TFC               | 200-240 V / 3~ / 50 Hz | 200                       |                         | Y                     | 1.00               |
| TFD               | 460 V / 3~ / 60 Hz     | 460                       |                         | Y                     | 1.04               |
| TFC               | 208-230 V / 3~ / 60 Hz | 220                       |                         | Y                     | 2.18               |