



Minimum Evaporating Temp. With:

- █ 20 °C Suction Gas Return Liquid injection
- █ Maximum Evaporating Temperature
- █ Voltage limit -5% above -4°C

Suction Return Temperature 18.3°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond °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 | 5.98 | 7.45 | 9.26 | 11.45 | 14.05 | 17.10 | 20.70 | | | | |
| 5.0 | 5.95 | 7.41 | 9.22 | 11.40 | 14.00 | 17.05 | 20.60 | | | | |
| 10.0 | 5.69 | 7.11 | 8.85 | 10.95 | 13.40 | 16.35 | 19.70 | 23.60 | | | |
| 15.0 | 5.43 | 6.81 | 8.47 | 10.45 | 12.85 | 15.60 | 18.85 | 22.50 | 26.80 | | |
| 20.0 | 5.17 | 6.49 | 8.07 | 9.97 | 12.20 | 14.85 | 17.90 | 21.40 | 25.50 | 30.10 | |
| 25.0 | 4.90 | 6.16 | 7.67 | 9.46 | 11.60 | 14.10 | 16.95 | 20.30 | 24.20 | 28.50 | 30.40 |
| 30.0 | 4.62 | 5.82 | 7.25 | 8.94 | 10.95 | 13.25 | 16.00 | 19.15 | 22.80 | 26.90 | 28.70 |
| 35.0 | 4.34 | 5.47 | 6.81 | 8.39 | 10.25 | 12.45 | 15.00 | 17.95 | 21.40 | 25.20 | 26.90 |
| 40.0 | 4.04 | 5.11 | 6.36 | 7.83 | 9.56 | 11.60 | 13.95 | 16.70 | 19.90 | 23.50 | 25.10 |
| 45.0 | 3.75 | 4.74 | 5.90 | 7.25 | 8.84 | 10.70 | 12.90 | 15.45 | 18.40 | 21.80 | 23.30 |
| 50.0 | 3.44 | 4.36 | 5.42 | 6.65 | 8.10 | 9.80 | 11.80 | 14.15 | 16.85 | 20.00 | 21.40 |
| 54.4 | 3.16 | 4.01 | 4.98 | 6.10 | 7.42 | 8.98 | 10.80 | 12.95 | | | |

| Cond °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 | 2.03 | 2.25 | 2.46 | 2.68 | 2.90 | 3.12 | 3.33 | | | | |
| 5.0 | 2.05 | 2.27 | 2.49 | 2.71 | 2.92 | 3.14 | 3.36 | | | | |
| 10.0 | 2.25 | 2.47 | 2.70 | 2.92 | 3.14 | 3.36 | 3.59 | 3.81 | | | |
| 15.0 | 2.44 | 2.67 | 2.90 | 3.13 | 3.36 | 3.59 | 3.82 | 4.05 | 4.28 | | |
| 20.0 | 2.62 | 2.86 | 3.10 | 3.34 | 3.58 | 3.82 | 4.05 | 4.29 | 4.53 | 4.77 | |
| 25.0 | 2.82 | 3.06 | 3.31 | 3.56 | 3.81 | 4.06 | 4.30 | 4.55 | 4.80 | 5.05 | 5.15 |
| 30.0 | 3.02 | 3.28 | 3.54 | 3.80 | 4.06 | 4.32 | 4.58 | 4.83 | 5.09 | 5.35 | 5.46 |
| 35.0 | 3.25 | 3.52 | 3.79 | 4.06 | 4.33 | 4.60 | 4.87 | 5.15 | 5.42 | 5.69 | 5.80 |
| 40.0 | 3.50 | 3.78 | 4.07 | 4.35 | 4.64 | 4.92 | 5.21 | 5.49 | 5.78 | 6.06 | 6.18 |
| 45.0 | 3.78 | 4.08 | 4.38 | 4.68 | 4.98 | 5.28 | 5.58 | 5.88 | 6.18 | 6.48 | 6.60 |
| 50.0 | 4.10 | 4.42 | 4.74 | 5.06 | 5.37 | 5.69 | 6.01 | 6.32 | 6.64 | 6.96 | 7.09 |
| 54.4 | 4.43 | 4.76 | 5.09 | 5.43 | 5.76 | 6.09 | 6.43 | 6.76 | | | |

| Cond °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 | 5.62 | 5.78 | 5.95 | 6.14 | 6.35 | 6.58 | 6.81 | | | | |
| 5.0 | 5.64 | 5.79 | 5.97 | 6.17 | 6.38 | 6.60 | 6.84 | | | | |
| 10.0 | 5.77 | 5.96 | 6.16 | 6.37 | 6.60 | 6.85 | 7.10 | 7.36 | | | |
| 15.0 | 5.92 | 6.13 | 6.35 | 6.59 | 6.84 | 7.10 | 7.37 | 7.64 | 7.93 | | |
| 20.0 | 6.08 | 6.31 | 6.56 | 6.82 | 7.09 | 7.37 | 7.65 | 7.94 | 8.24 | 8.54 | |
| 25.0 | 6.26 | 6.52 | 6.79 | 7.07 | 7.36 | 7.66 | 7.96 | 8.27 | 8.57 | 8.88 | 9.01 |
| 30.0 | 6.47 | 6.75 | 7.05 | 7.35 | 7.66 | 7.98 | 8.30 | 8.62 | 8.94 | 9.26 | 9.39 |
| 35.0 | 6.71 | 7.02 | 7.34 | 7.67 | 8.00 | 8.33 | 8.67 | 9.01 | 9.34 | 9.68 | 9.81 |
| 40.0 | 7.00 | 7.33 | 7.67 | 8.02 | 8.37 | 8.73 | 9.08 | 9.44 | 9.79 | 10.13 | 10.27 |
| 45.0 | 7.33 | 7.69 | 8.06 | 8.43 | 8.80 | 9.18 | 9.55 | 9.92 | 10.28 | 10.64 | 10.79 |
| 50.0 | 7.72 | 8.10 | 8.50 | 8.89 | 9.28 | 9.68 | 10.07 | 10.46 | 10.84 | 11.21 | 11.36 |
| 54.4 | 8.11 | 8.52 | 8.93 | 9.35 | 9.76 | 10.17 | 10.58 | 10.98 | | | |

| Cond °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 | 32.10 | 40.10 | 50.00 | 62.10 | 76.60 | 93.80 | 114.00 | | | | |
| 5.0 | 32.10 | 40.10 | 50.00 | 62.10 | 76.60 | 93.80 | 114.00 | | | | |
| 10.0 | 31.90 | 40.00 | 50.00 | 62.00 | 76.50 | 93.60 | 114.00 | 137.50 | | | |
| 15.0 | 31.80 | 39.90 | 49.90 | 61.90 | 76.30 | 93.40 | 113.50 | 137.00 | 165.00 | | |
| 20.0 | 31.60 | 39.80 | 49.70 | 61.70 | 76.00 | 93.00 | 113.00 | 136.50 | 164.00 | 196.50 | |
| 25.0 | 31.40 | 39.60 | 49.50 | 61.40 | 75.60 | 92.50 | 112.50 | 136.00 | 163.50 | 195.50 | 210.00 |
| 30.0 | 31.10 | 39.40 | 49.30 | 61.10 | 75.20 | 91.90 | 112.00 | 135.00 | 162.50 | 195.00 | 209.00 |
| 35.0 | 30.90 | 39.10 | 48.90 | 60.60 | 74.60 | 91.20 | 111.00 | 134.00 | 161.50 | 194.00 | 209.00 |
| 40.0 | 30.60 | 38.80 | 48.60 | 60.10 | 73.90 | 90.40 | 110.00 | 133.00 | 160.50 | 193.00 | 208.00 |
| 45.0 | 30.30 | 38.50 | 48.10 | 59.60 | 73.20 | 89.40 | 109.00 | 132.00 | 159.50 | 192.00 | 207.00 |
| 50.0 | 30.00 | 38.20 | 47.70 | 58.90 | 72.30 | 88.40 | 107.50 | 131.00 | 158.50 | 191.50 | 206.00 |
| 54.4 | 29.70 | 37.90 | 47.30 | 58.40 | 71.60 | 87.50 | 106.50 | 130.00 | | | |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|--|--|
| Displacement @ 50 Hz, m ³ /h | 21.4 |
| Length/Width, mm | 246/257 |
| Height, mm | 452 |
| Net Weight, kg | 39.5 |
| Rotalock Suction, inch | 1 1/4 |
| Rotalock Discharge, inch | 1 1/4 |
| 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 (0) |
| Sound Pressure @ 1m (LT), dBA | 70 |
| Sound Power (LT), dBA | 81 |
| Sound Conditions (LT, Temperatures: Evap./Cond./Suction at freq./speed) | -35 / 40 / 20 °C at 50 Hz |
| PED Category | 1 |
| Max. Internal Free Volume, l | 5.70 |
| High Side PS gauge, bar | 28.8 |
| Low Side PS gauge, bar | 21 |
| Refrigerant's GWP | 3922 |
| Refrigerant's classification | A1 |

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

| | |
|------------------------------|----------------|
| Maximum Operating Current, A | 16 |
| Locked Rotor Current, A | 102 |
| Winding Resistance, ohm | 1.72 |
| Default Enclosure Class | IP 54 (IEC 34) |

ACCESSORIES INCLUDED

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

ACCESSORIES OPTIONAL

| | |
|--------------------|-----------------------|
| Crankcase Heater | 70 W External |
| Liquid Injection | DTC Valve |
| Oil Control System | ALCO Trax-Oil OM3 |
| Rotalock valves | suction and discharge |

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 |
| TF5 | 200-220 V / 3~ / 50 Hz | 200 | | Y | 2.09 |
| TFD | 460 V / 3~ / 60 Hz | 460 | | Y | 1.04 |
| TF5 | 200-230 V / 3~ / 60 Hz | 230 | | Y | 2.09 |