



Minimum Evaporating Temp. With:

- 10 K Suction Superheat
- Maximum Evaporating Temperature

Suction Superheat 10.0K

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond<br>°C | Cooling Capacity, kW |       |       |       |       |       |       |       |       |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | -15.0                | -10.0 | -5.0  | 0.0   | 5.0   | 7.0   | 10.0  | 12.5  | 15.0  |
| 20.0       | 14.00                | 16.70 | 19.75 | 23.20 | 27.20 | 28.90 |       |       |       |
| 25.0       | 13.25                | 16.00 | 19.10 | 22.60 | 26.60 | 28.30 | 31.00 |       |       |
| 30.0       | 12.35                | 15.20 | 18.35 | 21.90 | 25.80 | 27.50 | 30.20 | 32.50 | 35.00 |
| 35.0       | 11.45                | 14.35 | 17.50 | 21.00 | 24.80 | 26.50 | 29.10 | 31.40 | 33.80 |
| 40.0       | 10.45                | 13.35 | 16.50 | 19.95 | 23.70 | 25.30 | 27.80 | 30.10 | 32.40 |
| 45.0       | 9.37                 | 12.30 | 15.40 | 18.75 | 22.40 | 24.00 | 26.40 | 28.50 | 30.80 |
| 50.0       |                      | 11.20 | 14.25 | 17.50 | 21.00 | 22.50 | 24.80 | 26.80 | 29.00 |
| 55.0       |                      | 10.00 | 12.95 | 16.10 | 19.40 | 20.80 | 23.00 | 25.00 | 27.00 |
| 60.0       |                      |       | 11.60 | 14.60 | 17.75 | 19.05 | 21.10 | 22.90 | 24.80 |
| 65.0       |                      |       | 10.20 | 13.00 | 15.95 | 17.15 | 19.05 | 20.70 | 22.40 |
| 70.0       |                      |       |       | 11.35 | 14.00 | 15.15 | 16.85 | 18.35 | 19.95 |
| 75.0       |                      |       |       | 9.60  | 12.00 | 13.00 | 14.55 | 15.90 | 17.30 |

| Cond<br>°C | Power, kW |       |      |      |      |      |      |      |      |
|------------|-----------|-------|------|------|------|------|------|------|------|
|            | -15.0     | -10.0 | -5.0 | 0.0  | 5.0  | 7.0  | 10.0 | 12.5 | 15.0 |
| 20.0       | 3.06      | 3.12  | 3.24 | 3.49 | 3.94 | 4.19 |      |      |      |
| 25.0       | 3.36      | 3.41  | 3.48 | 3.64 | 3.96 | 4.15 | 4.51 |      |      |
| 30.0       | 3.75      | 3.81  | 3.86 | 3.96 | 4.17 | 4.31 | 4.57 | 4.86 | 5.22 |
| 35.0       | 4.22      | 4.32  | 4.36 | 4.41 | 4.54 | 4.63 | 4.81 | 5.02 | 5.29 |
| 40.0       | 4.73      | 4.89  | 4.94 | 4.97 | 5.03 | 5.08 | 5.20 | 5.34 | 5.53 |
| 45.0       | 5.26      | 5.50  | 5.59 | 5.61 | 5.63 | 5.65 | 5.71 | 5.79 | 5.92 |
| 50.0       |           | 6.12  | 6.28 | 6.32 | 6.31 | 6.31 | 6.32 | 6.36 | 6.43 |
| 55.0       |           | 6.74  | 6.97 | 7.05 | 7.04 | 7.02 | 7.01 | 7.01 | 7.03 |
| 60.0       |           |       | 7.65 | 7.79 | 7.79 | 7.78 | 7.74 | 7.71 | 7.69 |
| 65.0       |           |       | 8.29 | 8.50 | 8.55 | 8.54 | 8.49 | 8.45 | 8.40 |
| 70.0       |           |       |      | 9.17 | 9.28 | 9.28 | 9.24 | 9.19 | 9.13 |
| 75.0       |           |       |      | 9.77 | 9.96 | 9.98 | 9.96 | 9.91 | 9.84 |

| Cond<br>°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       | 7.50                | 7.52  | 7.59  | 7.79  | 8.18  | 8.41  |       |       |       |
| 25.0       | 8.09                | 8.11  | 8.16  | 8.30  | 8.61  | 8.80  | 9.16  |       |       |
| 30.0       | 8.69                | 8.72  | 8.75  | 8.85  | 9.09  | 9.24  | 9.54  | 9.86  | 10.27 |
| 35.0       | 9.33                | 9.38  | 9.40  | 9.46  | 9.63  | 9.75  | 9.99  | 10.27 | 10.61 |
| 40.0       | 10.03               | 10.10 | 10.12 | 10.16 | 10.28 | 10.37 | 10.55 | 10.77 | 11.06 |
| 45.0       | 10.82               | 10.93 | 10.95 | 10.97 | 11.04 | 11.10 | 11.24 | 11.41 | 11.64 |
| 50.0       |                     | 11.87 | 11.91 | 11.91 | 11.94 | 11.98 | 12.08 | 12.21 | 12.39 |
| 55.0       |                     | 12.95 | 13.02 | 13.01 | 13.02 | 13.03 | 13.09 | 13.18 | 13.31 |
| 60.0       |                     |       | 14.30 | 14.30 | 14.28 | 14.28 | 14.30 | 14.36 | 14.45 |
| 65.0       |                     |       | 15.78 | 15.79 | 15.75 | 15.74 | 15.74 | 15.76 | 15.81 |
| 70.0       |                     |       |       | 17.51 | 17.47 | 17.44 | 17.42 | 17.41 | 17.43 |
| 75.0       |                     |       |       | 19.49 | 19.44 | 19.41 | 19.37 | 19.34 | 19.32 |

| Cond<br>°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       | 82.50                  | 96.30 | 112.00 | 129.00 | 148.50 | 157.00 |        |        |        |
| 25.0       | 81.30                  | 96.40 | 113.00 | 131.00 | 151.00 | 160.00 | 173.50 |        |        |
| 30.0       | 79.50                  | 95.90 | 113.50 | 132.50 | 153.00 | 162.00 | 176.00 | 188.00 | 201.00 |
| 35.0       | 77.20                  | 94.70 | 113.00 | 133.00 | 154.00 | 163.00 | 177.00 | 189.50 | 202.00 |
| 40.0       | 74.10                  | 92.80 | 112.00 | 132.50 | 154.50 | 163.50 | 177.50 | 190.00 | 203.00 |
| 45.0       | 70.40                  | 90.20 | 110.50 | 131.50 | 153.50 | 162.50 | 177.00 | 189.50 | 202.00 |
| 50.0       |                        | 86.90 | 108.00 | 129.50 | 152.00 | 161.00 | 175.50 | 188.00 | 201.00 |
| 55.0       |                        | 82.80 | 104.50 | 126.50 | 149.00 | 158.00 | 172.50 | 185.00 | 197.50 |
| 60.0       |                        |       | 100.00 | 122.50 | 145.00 | 154.00 | 168.50 | 180.50 | 193.00 |
| 65.0       |                        |       | 94.80  | 117.00 | 139.50 | 149.00 | 162.50 | 174.50 | 186.50 |
| 70.0       |                        |       |        | 110.50 | 133.00 | 142.00 | 155.50 | 167.00 | 178.50 |
| 75.0       |                        |       |        | 103.00 | 124.50 | 133.00 | 146.00 | 157.00 | 168.50 |

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

|   |  |
|---|--|
| Displacement @ 50 Hz, m <sup>3</sup> /h | 33.2   |
| Length/Width, mm                        | 281/285                                      |
| Height, mm                              | 533  |
| Net Weight, kg                          | 61.2   |
| 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           | 64   |
| Sound Power (HT), dBA                   | 75   |
| Sound Conditions (HT, Temperatures:     | 7 / 54 / 18 °C at 50 Hz                      |
| Evap./Cond./Suction at freq./speed)     |  |
| PED Category                            | II   |
| Max. Low Side Internal Free Volume, l   | 12.6   |
| Max. High Side Internal Free Volume, l  | 1.5  |
| Max. Internal Free Volume, l            | 14.1   |
| High Side PS gauge, bar                 | 32   |
| Low Side PS gauge, bar                  | 20   |
| Low Side TS Max., °C                    | 52   |
| Low Side TS Min., °C                    | -35  |
| High Side TS Max., °C                   | 150  |
| High 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 | 22.3           |
| Locked Rotor Current, A      | 118            |
| Winding Resistance, ohm      | 1.23           |
| Default Enclosure Class      | IP 21 (IEC 34) |

### **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   | 90 W External                            |
| Enclosure Class    | IP66 With Molded Plug                    |
| 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<br>Sound Shell (12dBA) |

### **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               |
| TF5               | 200-220 V / 3~ / 50 Hz | 200                       |                         | Y                     | 2.09               |
| TFE               | 500 V / 3~ / 50 Hz     | 500                       |                         | Y                     | 0.80               |
| TW5               | 200-220 V / 3~ / 50 Hz | 200                       |                         | Y                     | 2.30               |
| TFD               | 460 V / 3~ / 60 Hz     | 460                       |                         | Y                     | 1.04               |
| TF5               | 200-230 V / 3~ / 60 Hz | 230                       |                         | Y                     | 2.09               |
| TW7               | 380 V / 3~ / 60 Hz     | 380                       |                         | Y                     | 1.26               |
| TFE               | 575 V / 3~ / 60 Hz     | 575                       |                         | Y                     | 0.80               |
| TF7               | 380 V / 3~ / 60 Hz     | 380                       |                         | Y                     | 1.26               |
| TW5               | 200-230 V / 3~ / 60 Hz | 230                       |                         | Y                     | 2.30               |