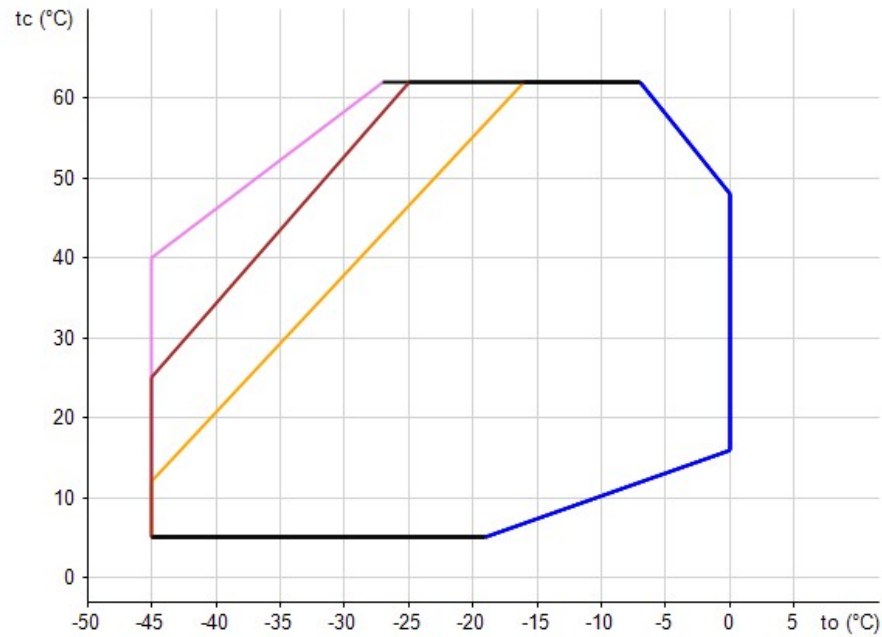


50 Hz

3DA-50

R449A Dew Point



Minimum Evaporating Temp. With:

- 20 K Suction Superheat   
 — 20 °C Suction Gas Return   
 — 0 °C Suction Gas Return  
— Maximum Evaporating Temperature

Suction Return Temperature 18.3°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond<br>°C | Cooling Capacity, kW |       |       |       |       |       |       |       |       |       |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | -45.0                | -40.0 | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0  | 0.0   |
| 5.0        | 4.25                 | 5.66  | 7.48  | 9.74  | 12.50 | 15.80 |       |       |       |       |
| 10.0       | 3.95                 | 5.31  | 7.05  | 9.20  | 11.85 | 15.00 | 18.70 |       |       |       |
| 15.0       |                      | 4.96  | 6.61  | 8.67  | 11.20 | 14.20 | 17.75 | 21.90 | 26.70 |       |
| 20.0       |                      | 4.61  | 6.18  | 8.13  | 10.50 | 13.35 | 16.75 | 20.70 | 25.30 | 30.60 |
| 25.0       |                      |       | 5.76  | 7.60  | 9.85  | 12.55 | 15.80 | 19.55 | 23.90 | 29.00 |
| 30.0       |                      |       |       | 7.07  | 9.19  | 11.75 | 14.80 | 18.35 | 22.50 | 27.30 |
| 35.0       |                      |       |       | 6.55  | 8.54  | 10.95 | 13.80 | 17.20 | 21.10 | 25.70 |
| 40.0       |                      |       |       |       | 7.89  | 10.15 | 12.85 | 16.00 | 19.75 | 24.10 |
| 45.0       |                      |       |       |       | 7.25  | 9.34  | 11.85 | 14.85 | 18.35 | 22.40 |
| 50.0       |                      |       |       |       |       | 8.54  | 10.90 | 13.65 | 16.95 |       |
| 55.0       |                      |       |       |       |       | 7.76  | 9.91  | 12.50 | 15.55 |       |
| 60.0       |                      |       |       |       |       |       | 8.96  | 11.35 |       |       |
| 62.0       |                      |       |       |       |       |       | 8.58  | 10.85 |       |       |

50 Hz

3DA-50

R449A Dew Point

| Cond<br>°C | Power, kW |       |       |       |       |       |       |       |      |      |
|------------|-----------|-------|-------|-------|-------|-------|-------|-------|------|------|
|            | -45.0     | -40.0 | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0  |
| 5.0        | 2.01      | 2.30  | 2.57  | 2.79  | 2.93  | 2.98  |       |       |      |      |
| 10.0       | 2.08      | 2.41  | 2.73  | 3.02  | 3.24  | 3.38  | 3.42  |       |      |      |
| 15.0       |           | 2.50  | 2.87  | 3.21  | 3.51  | 3.74  | 3.88  | 3.91  | 3.79 |      |
| 20.0       |           | 2.57  | 2.98  | 3.38  | 3.75  | 4.07  | 4.31  | 4.44  | 4.45 | 4.32 |
| 25.0       |           |       | 3.08  | 3.53  | 3.96  | 4.36  | 4.69  | 4.93  | 5.06 | 5.06 |
| 30.0       |           |       |       | 3.65  | 4.14  | 4.61  | 5.03  | 5.38  | 5.63 | 5.75 |
| 35.0       |           |       |       | 3.76  | 4.30  | 4.84  | 5.34  | 5.78  | 6.14 | 6.40 |
| 40.0       |           |       |       |       | 4.44  | 5.04  | 5.62  | 6.15  | 6.62 | 6.99 |
| 45.0       |           |       |       |       | 4.56  | 5.22  | 5.86  | 6.48  | 7.05 | 7.54 |
| 50.0       |           |       |       |       |       | 5.37  | 6.09  | 6.79  | 7.45 |      |
| 55.0       |           |       |       |       |       | 5.51  | 6.29  | 7.06  | 7.81 |      |
| 60.0       |           |       |       |       |       |       | 6.46  | 7.31  |      |      |
| 62.0       |           |       |       |       |       |       | 6.53  | 7.40  |      |      |

| Cond<br>°C | Current at 400 V, A |       |       |       |       |       |       |       |       |       |
|------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | -45.0               | -40.0 | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0  | 0.0   |
| 5.0        | 5.33                | 5.66  | 5.97  | 6.23  | 6.41  | 6.45  |       |       |       |       |
| 10.0       | 5.41                | 5.77  | 6.15  | 6.49  | 6.77  | 6.95  | 6.99  |       |       |       |
| 15.0       |                     | 5.87  | 6.30  | 6.73  | 7.11  | 7.41  | 7.59  | 7.62  | 7.46  |       |
| 20.0       |                     | 5.96  | 6.44  | 6.94  | 7.41  | 7.83  | 8.16  | 8.35  | 8.37  | 8.19  |
| 25.0       |                     |       | 6.55  | 7.12  | 7.69  | 8.22  | 8.68  | 9.04  | 9.24  | 9.26  |
| 30.0       |                     |       |       | 7.28  | 7.94  | 8.58  | 9.17  | 9.68  | 10.06 | 10.28 |
| 35.0       |                     |       |       | 7.42  | 8.16  | 8.90  | 9.62  | 10.27 | 10.83 | 11.24 |
| 40.0       |                     |       |       |       | 8.35  | 9.19  | 10.03 | 10.83 | 11.55 | 12.15 |
| 45.0       |                     |       |       |       | 8.52  | 9.46  | 10.41 | 11.35 | 12.23 | 13.01 |
| 50.0       |                     |       |       |       |       | 9.69  | 10.75 | 11.82 | 12.86 |       |
| 55.0       |                     |       |       |       |       | 9.90  | 11.06 | 12.26 | 13.44 |       |
| 60.0       |                     |       |       |       |       |       | 11.34 | 12.65 |       |       |
| 62.0       |                     |       |       |       |       |       | 11.44 | 12.80 |       |       |

50 Hz

3DA-50

R449A Dew Point

| Cond<br>°C | Suction Mass Flow, g/s |       |       |       |       |       |       |        |        |        |
|------------|------------------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|
|            | -45.0                  | -40.0 | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0  | -5.0   | 0.0    |
| 5.0        | 18.90                  | 25.20 | 33.40 | 43.60 | 56.10 | 71.20 |       |        |        |        |
| 10.0       | 18.15                  | 24.50 | 32.50 | 42.60 | 55.00 | 69.90 | 87.70 |        |        |        |
| 15.0       |                        | 23.60 | 31.60 | 41.50 | 53.70 | 68.50 | 86.10 | 107.00 | 131.00 |        |
| 20.0       |                        | 22.80 | 30.60 | 40.40 | 52.50 | 67.00 | 84.40 | 105.00 | 129.00 | 157.50 |
| 25.0       |                        |       | 29.70 | 39.30 | 51.10 | 65.50 | 82.70 | 103.00 | 127.00 | 155.00 |
| 30.0       |                        |       |       | 38.10 | 49.70 | 63.80 | 80.80 | 101.00 | 125.00 | 153.00 |
| 35.0       |                        |       |       | 36.90 | 48.20 | 62.10 | 78.90 | 98.90  | 122.50 | 150.50 |
| 40.0       |                        |       |       |       | 46.70 | 60.40 | 76.90 | 96.70  | 120.00 | 148.00 |
| 45.0       |                        |       |       |       | 45.20 | 58.60 | 74.80 | 94.40  | 117.50 | 145.50 |
| 50.0       |                        |       |       |       |       | 56.70 | 72.70 | 92.00  | 115.00 |        |
| 55.0       |                        |       |       |       |       | 54.90 | 70.60 | 89.70  | 113.00 |        |
| 60.0       |                        |       |       |       |       |       | 68.40 | 87.40  |        |        |
| 62.0       |                        |       |       |       |       |       | 67.60 | 86.50  |        |        |

### COMPRESSOR MECHANICAL AND PHYSICAL DATA

|                              |                                              |
|------------------------------|----------------------------------------------|
| Number of cylinders          | 3                                            |
| Displacement @ 50 Hz, m³/h   | 32.2                                         |
| Bore/Stroke, mm              | 55.6/50.8                                    |
| Length/Width, mm             | 655/370                                      |
| Height, mm                   | 480                                          |
| Net Weight, kg               | 146                                          |
| Gross Weight, kg             | 157                                          |
| Rotalock Discharge, inch     | 7/8                                          |
| Suction, inch                | 1 3/8                                        |
| Drive Frequency Range, Hz    | 25 - 60                                      |
| Oil Quantity, l              | 3.7                                          |
| 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 | 381 x 305 (18)                               |
| Sound Pressure @ 1m, dBA     | 69.4                                         |
| Sound Power, dBA             | 80.4                                         |
| High Side PS gauge, bar      | 32.5                                         |
| Low Side PS gauge, bar       | 22.5                                         |
| Refrigerant's GWP            | 1397                                         |
| Refrigerant's classification | A1                                           |

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

|                              |                |
|------------------------------|----------------|
| Maximum Operating Current, A | 15.9           |
| Locked Rotor Current, A      | 55             |
| Default Enclosure Class      | IP 54 (IEC 34) |

**ACCESSORIES INCLUDED**

|                     |             |
|---------------------|-------------|
| Oil Pressure Switch | OPS2 Sensor |
| Mounting Springs    | 4           |

**ACCESSORIES OPTIONAL**

|                     |                              |
|---------------------|------------------------------|
| Additional Cooling  | 70 W Vertical Air Flow Fan   |
| Capacity Control    | Moduload                     |
| Crankcase Heater    | 70 W Internal                |
| Enclosure Class     | IP 56                        |
| Oil Pressure Switch | OPS2 Electronic Switch       |
| Unloaded start      | Available                    |
| Deep Oil Sump       | Mounted                      |
| Adapter Kit         | For Parallel Operation       |
| Check Valve         | For unloaded start operation |
| Oil Control System  | ALCO Trax-Oil OM3            |

**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> |
|-------------------|------------------------|---------------------------|-------------------------|-----------------------|--------------------|
| AWM               | 380-420 V / 3~ / 50 Hz | 400                       | YY/Y                    | Y                     | 1.00               |
| EWL               | 220-240 V / 3~ / 50 Hz | 230                       | Y/DELTA                 | DELTA                 | 1.73               |
| EWL               | 380-420 V / 3~ / 50 Hz | 400                       |                         | Y                     | 1.00               |
| EWM               | 380-420 V / 3~ / 50 Hz | 400                       | Y/DELTA                 | DELTA                 | 1.00               |
| EWY               | 500-550 V / 3~ / 50 Hz | 525                       | Y/DELTA                 | DELTA                 | 0.76               |
| AWR               | 220-240 V / 3~ / 50 Hz | 230                       | YY/Y                    | Y                     | 1.73               |
| AWY               | 500-550 V / 3~ / 50 Hz | 525                       | YY/Y                    | Y                     | 0.76               |
| TWY               | 500-550 V / 3~ / 50 Hz | 525                       |                         | DELTA                 | 0.76               |
| EWK               | 220-240 V / 3~ / 60 Hz | 230                       | Y/DELTA                 | DELTA                 | 2.10               |
| EWK               | 380-420 V / 3~ / 60 Hz | 380                       |                         | Y                     | 1.20               |
| EWD               | 440-480 V / 3~ / 60 Hz | 460                       | Y/DELTA                 | DELTA                 | 1.00               |
| AWX               | 380 V / 3~ / 60 Hz     | 380                       | YY/Y                    | Y                     | 1.20               |
| AWD               | 440-480 V / 3~ / 60 Hz | 460                       | YY/Y                    | Y                     | 1.00               |