



Minimum Evaporating Temp. With:

- 25 °C Suction Gas Return
- 25 °C Suction Gas Return with add cooling
- Maximum Evaporating Temperature

Suction Superheat 5.0K

Liquid Subcooling 4.0K

Evaporating Temperature, °C

| Cond °C | Cooling Capacity, kW | | | | | | | | | |
|------------|----------------------|-------|-------|-------|-------|--------|--------|--------|--------|--------|
| | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 |
| 20.0 | 34.60 | 45.10 | 58.20 | 74.20 | 93.20 | 115.50 | 141.50 | 171.50 | 205.00 | 220.00 |
| 25.0 | 31.50 | 41.50 | 53.90 | 69.00 | 86.90 | 108.00 | 132.50 | 161.00 | 193.00 | 207.00 |
| 30.0 | 28.40 | 37.80 | 49.50 | 63.60 | 80.50 | 100.50 | 123.50 | 150.00 | 180.50 | 194.00 |
| 35.0 | 25.30 | 34.10 | 45.00 | 58.20 | 73.90 | 92.40 | 114.00 | 139.00 | 167.50 | 180.00 |
| 40.0 | | 30.30 | 40.40 | 52.60 | 67.20 | 84.40 | 104.50 | 128.00 | 154.50 | 166.50 |
| 45.0 | | 26.60 | 35.80 | 47.00 | 60.40 | 76.20 | 94.80 | 116.50 | 141.50 | 152.50 |
| 50.0 | | 22.80 | 31.10 | 41.30 | 53.40 | 67.80 | 84.90 | 105.00 | 128.00 | 138.00 |
| 55.0 | | 19.10 | 26.50 | 35.50 | 46.40 | 59.40 | 74.80 | 93.00 | 114.50 | 124.00 |

50 Hz

8SH-500

R404A Dew Point

| Cond °C | Power, kW | | | | | | | | | |
|------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 |
| 20.0 | 18.05 | 20.20 | 22.10 | 23.80 | 25.10 | 25.90 | 26.20 | 25.90 | 24.90 | 24.30 |
| 25.0 | 18.65 | 21.10 | 23.30 | 25.40 | 27.10 | 28.40 | 29.30 | 29.60 | 29.20 | 28.80 |
| 30.0 | 19.15 | 21.80 | 24.40 | 26.80 | 28.90 | 30.70 | 32.10 | 32.90 | 33.10 | 33.00 |
| 35.0 | 19.50 | 22.40 | 25.30 | 28.00 | 30.50 | 32.80 | 34.60 | 35.90 | 36.70 | 36.90 |
| 40.0 | | 23.00 | 26.10 | 29.10 | 32.00 | 34.60 | 36.90 | 38.70 | 40.10 | 40.50 |
| 45.0 | | 23.40 | 26.80 | 30.10 | 33.30 | 36.30 | 39.00 | 41.30 | 43.20 | 43.80 |
| 50.0 | | 23.90 | 27.40 | 31.00 | 34.50 | 37.80 | 40.90 | 43.70 | 46.10 | 46.90 |
| 55.0 | | 24.30 | 28.00 | 31.80 | 35.60 | 39.30 | 42.70 | 45.90 | 48.70 | 49.70 |

| Cond °C | Current at 400 V, A | | | | | | | | | |
|------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 |
| 20.0 | 51.17 | 53.17 | 55.12 | 56.89 | 58.33 | 59.29 | 59.65 | 59.25 | 57.97 | 57.17 |
| 25.0 | 51.73 | 54.04 | 56.37 | 58.58 | 60.53 | 62.09 | 63.11 | 63.46 | 62.99 | 62.54 |
| 30.0 | 52.21 | 54.80 | 57.49 | 60.13 | 62.59 | 64.73 | 66.41 | 67.48 | 67.80 | 67.69 |
| 35.0 | 52.60 | 55.46 | 58.49 | 61.56 | 64.51 | 67.22 | 69.53 | 71.31 | 72.42 | 72.65 |
| 40.0 | | 56.03 | 59.39 | 62.86 | 66.30 | 69.55 | 72.49 | 74.97 | 76.86 | 77.41 |
| 45.0 | | 56.51 | 60.20 | 64.06 | 67.96 | 71.75 | 75.30 | 78.47 | 81.11 | 81.99 |
| 50.0 | | 56.92 | 60.91 | 65.15 | 69.50 | 73.82 | 77.97 | 81.81 | 85.20 | 86.39 |
| 55.0 | | 57.27 | 61.55 | 66.15 | 70.94 | 75.77 | 80.51 | 85.00 | 89.12 | 90.63 |

| Cond °C | Suction Mass Flow, g/s | | | | | | | | | |
|------------|------------------------|--------|--------|--------|--------|--------|--------|---------|---------|---------|
| | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 | 5.0 | 7.0 |
| 20.0 | 271.00 | 344.00 | 434.00 | 541.00 | 666.00 | 809.00 | 973.00 | 1157.00 | 1362.00 | 1450.00 |
| 25.0 | 261.00 | 336.00 | 426.00 | 532.00 | 656.00 | 798.00 | 960.00 | 1143.00 | 1347.00 | 1434.00 |
| 30.0 | 251.00 | 326.00 | 416.00 | 522.00 | 645.00 | 786.00 | 946.00 | 1127.00 | 1330.00 | 1417.00 |
| 35.0 | 240.00 | 315.00 | 404.00 | 509.00 | 631.00 | 771.00 | 930.00 | 1109.00 | 1311.00 | 1397.00 |
| 40.0 | | 302.00 | 391.00 | 496.00 | 616.00 | 754.00 | 911.00 | 1089.00 | 1289.00 | 1376.00 |
| 45.0 | | 289.00 | 377.00 | 480.00 | 599.00 | 735.00 | 891.00 | 1067.00 | 1266.00 | 1352.00 |
| 50.0 | | 273.00 | 360.00 | 462.00 | 579.00 | 713.00 | 867.00 | 1042.00 | 1240.00 | 1326.00 |
| 55.0 | | 256.00 | 342.00 | 442.00 | 557.00 | 690.00 | 842.00 | 1016.00 | 1214.00 | 1301.00 |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|---|--|
| Number of cylinders | 8 |
| Displacement @ 50 Hz, m ³ /h | 151 |
| Bore/Stroke, mm | 68.3/59.2 |
| Length/Width, mm | 835/467 |
| Height, mm | 610 |
| Net Weight, kg | 326 |
| Gross Weight, kg | 347 |
| Suction, inch | 2 5/8 |
| Discharge, inch | 1 5/8 |
| Drive Frequency Range, Hz | 25 - 60 |
| Oil Quantity, l | 7.6 |
| 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 | 457 x 305 (18) |
| Sound Pressure @ 1m, dBA | 77 |
| Sound Power, dBA | 88 |
| High Side PS gauge, bar | 32.5 |
| Low Side PS gauge, bar | 22.5 |
| Refrigerant's GWP | 3922 |
| Refrigerant's classification | A1 |

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

| | |
|------------------------------|----------------|
| Maximum Operating Current, A | 95.2 |
| Locked Rotor Current, A | 458 |
| Default Enclosure Class | IP 54 (IEC 34) |

ACCESSORIES INCLUDED

| | |
|---------------------|-------------|
| Oil Pressure Switch | OPS2 Sensor |
| Mounting Springs | 4 |
| Deep Oil Sump | Mounted |

ACCESSORIES OPTIONAL

| | |
|----------------------------------|------------------------------|
| Additional Cooling | 70 W Vertical Air Flow Fan |
| Capacity Control | Capacity Steps 75/50% |
| Crankcase Heater | 200 W Internal |
| Discharge Temperature Protection | Head PTC sensor |
| Enclosure Class | IP 56 |
| Oil Pressure Switch | OPS2 Electronic Switch |
| Unloaded start | Available |
| Adapter Kit | For Parallel Operation |
| Check Valve | For unloaded start operation |
| Oil Control System | ALCO Trax-Oil OM3 |

MOTOR OPTIONS

| <i>Motor Code</i> | <i>Power Supply</i> | <i>Nominal Voltage, V</i> | <i>Start Connection</i> | <i>DOL Connection</i> | <i>Amps Factor</i> |
|-------------------|------------------------|---------------------------|-------------------------|-----------------------|--------------------|
| 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 |
| 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 |
| 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 |
| AWC | 208-230 V / 3~ / 60 Hz | 230 | YY/Y | Y | 2.19 |
| 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 |