



Minimum Evaporating Temp. With:

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

Compatibility with A2L refrigerants for manufacturing date after 02 2023 only

Suction Return Temperature 18.3°C

Liquid Subcooling 0.0K

Evaporating Temperature, °C

| Cond °C | Cooling Capacity, kW | | | | | | | |
|------------|----------------------|-------|-------|-------|-------|-------|-------|-------|
| | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 |
| 10.0 | 8.05 | 10.45 | 13.35 | 16.85 | 20.90 | | | |
| 15.0 | 7.56 | 9.86 | 12.65 | 16.00 | 19.85 | 24.30 | | |
| 20.0 | 7.08 | 9.28 | 11.95 | 15.10 | 18.80 | 23.10 | 27.90 | 33.30 |
| 25.0 | 6.59 | 8.69 | 11.25 | 14.25 | 17.75 | 21.80 | 26.40 | 31.50 |
| 30.0 | 6.11 | 8.10 | 10.50 | 13.35 | 16.65 | 20.50 | 24.80 | 29.70 |
| 35.0 | 5.63 | 7.51 | 9.77 | 12.45 | 15.60 | 19.15 | 23.30 | 27.90 |
| 40.0 | | 6.91 | 9.04 | 11.55 | 14.50 | 17.85 | 21.70 | 26.00 |
| 45.0 | | 6.31 | 8.29 | 10.65 | 13.35 | 16.50 | 20.10 | 24.10 |
| 50.0 | | | 7.54 | 9.71 | 12.25 | 15.15 | 18.45 | 22.20 |
| 55.0 | | | | 8.77 | 11.10 | 13.75 | 16.80 | 20.30 |
| 60.0 | | | | 7.83 | 9.93 | 12.35 | 15.15 | 18.30 |
| 65.0 | | | | | 8.77 | 10.95 | 13.45 | 16.35 |
| 70.0 | | | | | | 9.53 | 11.80 | |

| Cond °C | Power, kW | | | | | | | |
|------------|-----------|-------|-------|-------|-------|-------|------|------|
| | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 |
| 10.0 | 3.02 | 3.31 | 3.53 | 3.68 | 3.74 | | | |
| 15.0 | 3.19 | 3.52 | 3.81 | 4.03 | 4.17 | 4.21 | | |
| 20.0 | 3.33 | 3.72 | 4.07 | 4.36 | 4.58 | 4.71 | 4.73 | 4.63 |
| 25.0 | 3.44 | 3.89 | 4.30 | 4.66 | 4.96 | 5.18 | 5.30 | 5.30 |
| 30.0 | 3.54 | 4.04 | 4.51 | 4.94 | 5.32 | 5.62 | 5.83 | 5.94 |
| 35.0 | 3.61 | 4.16 | 4.70 | 5.20 | 5.65 | 6.04 | 6.35 | 6.56 |
| 40.0 | | 4.27 | 4.86 | 5.43 | 5.96 | 6.43 | 6.84 | 7.15 |
| 45.0 | | 4.35 | 5.00 | 5.64 | 6.25 | 6.80 | 7.30 | 7.71 |
| 50.0 | | | 5.12 | 5.82 | 6.51 | 7.15 | 7.74 | 8.25 |
| 55.0 | | | | 5.99 | 6.74 | 7.47 | 8.15 | 8.76 |
| 60.0 | | | | 6.13 | 6.96 | 7.77 | 8.54 | 9.25 |
| 65.0 | | | | | 7.15 | 8.04 | 8.90 | 9.71 |
| 70.0 | | | | | | 8.28 | 9.23 | |

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50 Hz

3DC-75

R454C Dew Point

| Cond °C | Current at 400 V, A | | | | | | | |
|------------|---------------------|-------|-------|-------|-------|-------|-------|-------|
| | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 |
| 10.0 | 8.35 | 8.62 | 8.86 | 9.02 | 9.09 | | | |
| 15.0 | 8.48 | 8.82 | 9.12 | 9.37 | 9.54 | 9.58 | | |
| 20.0 | 8.61 | 9.00 | 9.38 | 9.72 | 9.98 | 10.14 | 10.18 | 10.05 |
| 25.0 | 8.73 | 9.18 | 9.63 | 10.05 | 10.42 | 10.70 | 10.86 | 10.88 |
| 30.0 | 8.83 | 9.34 | 9.86 | 10.37 | 10.84 | 11.24 | 11.53 | 11.70 |
| 35.0 | 8.91 | 9.48 | 10.08 | 10.68 | 11.25 | 11.77 | 12.20 | 12.51 |
| 40.0 | | 9.61 | 10.28 | 10.97 | 11.65 | 12.28 | 12.85 | 13.31 |
| 45.0 | | 9.71 | 10.46 | 11.24 | 12.02 | 12.78 | 13.48 | 14.09 |
| 50.0 | | | 10.62 | 11.49 | 12.38 | 13.25 | 14.09 | 14.85 |
| 55.0 | | | | 11.71 | 12.71 | 13.71 | 14.68 | 15.59 |
| 60.0 | | | | 11.91 | 13.01 | 14.13 | 15.24 | 16.30 |
| 65.0 | | | | | 13.29 | 14.53 | 15.77 | 16.99 |
| 70.0 | | | | | | 14.89 | 16.28 | |

| Cond °C | Suction Mass Flow, g/s | | | | | | | |
|------------|------------------------|-------|-------|-------|--------|--------|--------|--------|
| | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 |
| 10.0 | 38.30 | 49.80 | 63.90 | 80.90 | 101.00 | | | |
| 15.0 | 37.30 | 48.70 | 62.70 | 79.50 | 99.30 | 122.00 | | |
| 20.0 | 36.20 | 47.60 | 61.50 | 78.10 | 97.60 | 120.50 | 146.50 | 176.50 |
| 25.0 | 35.10 | 46.40 | 60.10 | 76.60 | 95.90 | 118.50 | 144.50 | 174.00 |
| 30.0 | 33.90 | 45.10 | 58.70 | 74.90 | 94.00 | 116.00 | 142.00 | 171.00 |
| 35.0 | 32.70 | 43.70 | 57.10 | 73.10 | 91.90 | 114.00 | 139.00 | 168.00 |
| 40.0 | | 42.20 | 55.40 | 71.20 | 89.70 | 111.50 | 136.50 | 165.00 |
| 45.0 | | 40.60 | 53.60 | 69.10 | 87.30 | 108.50 | 133.00 | 161.50 |
| 50.0 | | | 51.60 | 66.80 | 84.70 | 105.50 | 130.00 | 158.00 |
| 55.0 | | | | 64.40 | 81.90 | 102.50 | 126.50 | 154.00 |
| 60.0 | | | | 61.70 | 78.80 | 99.00 | 122.50 | 150.00 |
| 65.0 | | | | | 75.50 | 95.20 | 118.50 | 145.50 |
| 70.0 | | | | | | 91.30 | 114.00 | |

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COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|---|----------------|
| Number of cylinders | 3 |
| Displacement @ 50 Hz, m ³ /h | 38.0 |
| Bore/Stroke, mm | 60.4/50.8 |
| Length/Width, mm | 655/370 |
| Height, mm | 480 |
| Net Weight, kg | 150 |
| Gross Weight, kg | 161 |
| Rotalock Discharge, inch | 1 1/8 |
| 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 |
| Base mounting (hole dia), mm | 381 x 305 (18) |
| Sound Pressure @ 1m, dBA | 71.2 |
| Sound Power, dBA | 82.2 |
| High Side PS gauge, bar | 32.5 |
| Low Side PS gauge, bar | 22.5 |
| Refrigerant's GWP | 148 |
| Refrigerant's classification | A2L |

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

| | |
|------------------------------|----------------|
| Maximum Operating Current, A | 18.3 |
| Locked Rotor Current, A | 82 |
| Default Enclosure Class | IP 54 (IEC 34) |

ACCESSORIES INCLUDED

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

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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

| <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 |
| 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 |

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