



Minimum Evaporating Temp. With:

- 20 °C Suction Gas Return
- 0 °C Suction Gas Return
- Maximum Evaporating Temperature

Suction Return Temperature 20.0°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 |
| 10.0 | | 20.70 | 27.20 | 35.10 | 44.60 | 55.80 | 69.00 | 84.20 | |
| 15.0 | | | 25.60 | 33.20 | 42.20 | 52.90 | 65.40 | 79.80 | 96.40 |
| 20.0 | | | 24.20 | 31.30 | 39.80 | 49.90 | 61.80 | 75.50 | 91.30 |
| 25.0 | | | | 29.50 | 37.50 | 47.10 | 58.30 | 71.30 | 86.20 |
| 30.0 | | | | 27.70 | 35.30 | 44.30 | 54.80 | 67.10 | 81.20 |
| 35.0 | | | | | 33.00 | 41.50 | 51.40 | 63.00 | 76.30 |
| 40.0 | | | | | | 38.80 | 48.00 | 58.90 | 71.40 |
| 45.0 | | | | | | | 44.70 | 54.80 | 66.60 |
| 50.0 | | | | | | | 41.40 | 50.80 | 61.80 |
| 55.0 | | | | | | | | | |
| 60.0 | | | | | | | | | |

50 Hz

4MTD-22X 100% Loaded

R407F Dew Point

| Cond °C | Power, kW | | | | | | | | |
|------------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|
| | -40.0 | -35.0 | -30.0 | -25.0 | -20.0 | -15.0 | -10.0 | -5.0 | 0.0 |
| 10.0 | | 7.67 | 8.51 | 9.26 | 9.89 | 10.35 | 10.55 | 10.55 | |
| 15.0 | | | 9.11 | 10.00 | 10.80 | 11.40 | 11.85 | 12.05 | 11.95 |
| 20.0 | | | 9.71 | 10.75 | 11.70 | 12.50 | 13.15 | 13.55 | 13.70 |
| 25.0 | | | | 11.45 | 12.55 | 13.60 | 14.45 | 15.10 | 15.50 |
| 30.0 | | | | 12.15 | 13.45 | 14.65 | 15.75 | 16.65 | 17.30 |
| 35.0 | | | | | 14.30 | 15.70 | 17.00 | 18.15 | 19.15 |
| 40.0 | | | | | | 16.70 | 18.30 | 19.70 | 20.90 |
| 45.0 | | | | | | | 19.50 | 21.20 | 22.70 |
| 50.0 | | | | | | | 20.70 | 22.60 | 24.50 |
| 55.0 | | | | | | | | | |
| 60.0 | | | | | | | | | |

| 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 |
| 10.0 | | 17.34 | 18.31 | 19.21 | 19.97 | 20.51 | 20.77 | 20.67 | |
| 15.0 | | | 18.99 | 20.06 | 21.03 | 21.81 | 22.35 | 22.57 | 22.40 |
| 20.0 | | | 19.68 | 20.95 | 22.13 | 23.18 | 24.02 | 24.58 | 24.78 |
| 25.0 | | | | 21.84 | 23.27 | 24.61 | 25.76 | 26.67 | 27.27 |
| 30.0 | | | | 22.72 | 24.42 | 26.06 | 27.55 | 28.84 | 29.85 |
| 35.0 | | | | | 25.55 | 27.51 | 29.37 | 31.05 | 32.50 |
| 40.0 | | | | | | 28.94 | 31.18 | 33.28 | 35.18 |
| 45.0 | | | | | | | 32.97 | 35.51 | 37.88 |
| 50.0 | | | | | | | 34.72 | 37.72 | 40.58 |
| 55.0 | | | | | | | | | |
| 60.0 | | | | | | | | | |

50 Hz

4MTD-22X 100% Loaded

R407F Dew Point

| 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 |
| 10.0 | | 87.50 | 115.00 | 149.50 | 190.50 | 240.00 | 298.00 | 367.00 | |
| 15.0 | | | 112.50 | 146.00 | 186.50 | 235.00 | 292.00 | 360.00 | 438.00 |
| 20.0 | | | 109.50 | 142.50 | 182.00 | 230.00 | 286.00 | 352.00 | 430.00 |
| 25.0 | | | | 139.00 | 178.00 | 224.00 | 280.00 | 345.00 | 421.00 |
| 30.0 | | | | 135.50 | 173.50 | 219.00 | 274.00 | 338.00 | 413.00 |
| 35.0 | | | | | 169.50 | 214.00 | 267.00 | 330.00 | 404.00 |
| 40.0 | | | | | | 209.00 | 261.00 | 323.00 | 396.00 |
| 45.0 | | | | | | | 255.00 | 315.00 | 387.00 |
| 50.0 | | | | | | | 248.00 | 308.00 | 379.00 |
| 55.0 | | | | | | | | | |
| 60.0 | | | | | | | | | |

COMPRESSOR MECHANICAL AND PHYSICAL DATA

| | |
|--|--|
| Number of cylinders | 4 |
| Displacement @ 50 Hz, m³/h | 87.7 |
| Bore/Stroke, mm | 75.7/56.0 |
| Length/Width, mm | 657/501 |
| Height, mm | 452 |
| Net Weight, kg | 189 |
| Suction, inch | 2 1/8 |
| Discharge, inch | 1 3/8 |
| Oil Quantity, l | 3.3 |
| 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 | 381 x 305 (18) |
| Sound Pressure @ 1m (MT), dBA | 71 |
| Sound Power (MT), dBA | 82 |
| Sound Conditions (MT, Temperatures: Evap./Cond./Suction at freq./speed) | -10 / 45 / 20 °C at 50 Hz |
| High Side PS gauge, bar | 32.5 |
| Low Side PS gauge, bar | 22.5 |
| Digital Modulation | 50-100% |
| Refrigerant's GWP | 1825 |
| Refrigerant's classification | A1 |

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

| | |
|------------------------------|----------------|
| Maximum Operating Current, A | 44.5 |
| Locked Rotor Current, A | 175 |
| Default Enclosure Class | IP 54 (IEC 34) |

ACCESSORIES INCLUDED

| | |
|-------------------------------------|--|
| CoreSense Protection (-P) | Motor protection |
| Oil Pressure Switch (-P) | OPS2 Sensor |
| Mounting Parts | Spring |
| Copeland Compressor Electronic (-N) | Oil pressure, motor and discharge line temperature protection; advanced diagnostics features and power measurement |

ACCESSORIES OPTIONAL

| | |
|---------------------------------------|------------------------------|
| Adapter Kit | For Parallel Operation |
| Digital Driver | EC3-D23 |
| Oil Pressure Switch | OPS2 Electronic Switch |
| Digital Modulation | 50-100 % |
| Additional Cooling | 70 W Vertical Air Flow Fan |
| Crankcase Heater | 100 W Internal |
| Sound Attenuation | Sound Shell |
| Check Valve | For unloaded start operation |
| Mounting Parts | Rubber |
| Copeland Compressor Electronic module | Modbus extension module |

MOTOR OPTIONS

| Motor Code | Power Supply | Nominal Voltage, V | Start Connection | DOL Connection | Amps Factor |
|-------------------|------------------------|---------------------------|-------------------------|-----------------------|--------------------|
| AWM | 380-420 V / 3~ / 50 Hz | 400 | YYY | 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 | YYY | Y | 1.73 |
| AWY | 500-550 V / 3~ / 50 Hz | 525 | YYY | 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 | YYY | Y | 2.19 |
| AWX | 380 V / 3~ / 60 Hz | 380 | YYY | Y | 1.20 |
| AWD | 440-480 V / 3~ / 60 Hz | 460 | YYY | Y | 1.00 |