

MRC Range

The MRC refrigeration condensing units are an effective cooling solution for food display cabinets and many other refrigeration applications.

Standard equipment for the MRC and MRC+ models includes; HP/LP switch for system protection, 3-minute start delay timer and fan speed head pressure control for operation in low-ambient temperatures.

This quiet and efficient range of units will operate free standing or wall mounted.

MRC+ Range

The MRC+ includes the following components, in addition to the benefits of the standard MRC unit; a sight glass, a refrigeration drier, an isolator manufactured to BS EN 60947-3-1 standard and fitted to the unit to enable local maintenance, a compressor jacket and noise attenuation insulation to reduce noise levels. All units are also supplied with a nitrogen charge so the installer can select the appropriate refrigerant for the application.



MRC(+)



Specification MRC

- Suction and liquid valves
- Fan speed head pressure control
- HP switch auto (alarm output)
- LP switch
- Low ambient start
- 3-minute start delay timer
- Random start
- Contactor (overload on 3Ph units)
- Crankcase heater (reciprocating only)
- Liquid receiver

Additional Specification MRC+

- Capacitor start relay (30-40 1ph only)
- Sight glass
- Refrigeration drier
- Isolator unit mounted
- Compressor Jacket
- Noise attenuation insulation

MRC(+)

Technical Information

| MRC/MRC+ | | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 130 | 150 | 165 | 180 |
|---|---------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| Nominal cooling capacity (0°C evaporating temp & 32°C ambient temp) | kW(1Ph) | 3.26 | 4.22 | 5.47 | 6.20 | 7.38 | 8.83 | - | - | - | - | - |
| | kW(3Ph) | 3.28 | 4.24 | 5.49 | 6.30 | 7.51 | 9.01 | 10.67 | 12.45 | 13.21 | 16.02 | 17.92 |
| Operating weight kg | 1Ph | 48 | 53 | 62 | 63 | 64 | 73 | - | - | - | - | - |
| | 3Ph | 48 | 53 | 62 | 63 | 64 | 73 | 81 | 101 | 103 | 103 | 118 |
| 1 Ph (230V 50Hz) compressor load only | | | | | | | | | | | | |
| Power (nominal) | kW | 1.75 | 2.18 | 1.35 | 1.69 | 2.03 | 2.20 | - | - | - | - | - |
| Starting current LRA | A | 36 | 50 | 58 | 61 | 76 | 114 | - | - | - | - | - |
| Nominal current FLA | A | 8.1 | 10.2 | 8.9 | 9.8 | 11.5 | 16.9 | - | - | - | - | - |
| 3Ph (400v 50Hz) compressor load only | | | | | | | | | | | | |
| Power (nominal) | kW | 1.75 | 2.18 | 1.44 | 1.77 | 1.90 | 2.29 | 2.69 | 3.32 | 3.74 | 3.99 | 4.80 |
| Starting current LRA | A | 18 | 22 | 26 | 32 | 40 | 48 | 51 | 62 | 68 | 71 | 71 |
| Nominal current FLA | A | 3.6 | 4.8 | 4.2 | 4.2 | 4.9 | 7.1 | 7.2 | 7.7 | 8.7 | 9.5 | 11.9 |
| Sound Pressure Levels (SPL) at 10m distance in free field conditions @ maximum fan speed. (MRC+ Units) | | | | | | | | | | | | |
| Fan speed maximum | dBA | 34 | 34 | 33 | 33 | 34 | 37 | 38 | 37 | 37 | 37 | 39 |
| | NR | 28 | 28 | 27 | 27 | 27 | 30 | 31 | 30 | 30 | 30 | 32 |
| Condenser fan (1Ph 230V 50Hz) | | | | | | | | | | | | |
| Airflow (max speed) | m³/s | 0.813 | 0.723 | 0.783 | 0.783 | 0.783 | 1.14 | 1.14 | 1.74 | 1.74 | 1.74 | 2.407 |
| Fan motor rating | kW | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 2x0.13 | 2x0.13 | 2x0.13 | 2x0.13 |
| Nominal current FLA | A | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2x0.6 | 2x0.6 | 2x0.6 | 2x0.6 |
| Fans: No. x diameter | mm | 1x457 | 1x457 | 1x457 | 1x457 | 1x457 | 1x457 | 1x457 | 2x457 | 2x457 | 2x457 | 2x457 |
| Fans max speed | r.p.m | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 940 | 940 |

MRC+ LT Low Temperature for freezer applications

| MRC+ LT | | 50 | 60 | 80 | 90 |
|---|--------|------|-----|-----|-----|
| Nominal cooling capacity (-25°C evaporating temp & 32°C ambient temp) | kW 1Ph | 1.9 | 2.7 | - | - |
| | kW 3Ph | 1.9 | 2.7 | 4.1 | 4.9 |
| 1 Ph (230V 50Hz) compressor load only | | | | | |
| Power (nominal) | kW | 1.6 | 2.1 | - | - |
| Starting current LRA | A | 68 | 81 | - | - |
| Nominal current FLA | A | 19.2 | 24 | - | - |
| 3 Ph (400V 50Hz) compressor load only | | | | | |
| Power (nominal) | kW | 1.5 | 1.9 | 2.8 | 3.4 |
| Starting current LRA | A | 24 | 30 | 45 | 63 |
| Nominal current FLA | A | 3.9 | 5.1 | 10 | 14 |

Sound pressure levels correspond to the equivalent model numbers in the MRC+ table above

Dimensions and Weights

Unpacked Units

| MODEL | 30 | 40 | 50 | 60 | 80 | 90 | 100 | 130 | 150 | 165 | 180 |
|-----------|-----|-----|------|------|------|------|------|------|------|------|------|
| HEIGHT mm | 620 | 620 | 720 | 720 | 720 | 820 | 820 | 1080 | 1080 | 1080 | 1275 |
| WIDTH mm | 900 | 900 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1000 | 1100 |
| DEPTH mm | 300 | 300 | 350 | 350 | 350 | 350 | 350 | 425 | 425 | 425 | 425 |
| 1 Ph kg | 48 | 53 | 64 | 65 | 66 | 76 | - | - | - | - | - |
| 3 Ph kg | 48 | 53 | 62 | 63 | 64 | 73 | 81 | 101 | 103 | 103 | 118 |

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For full design or technical information on all systems, please refer to the relevant technical manual or contact TEV technical department.

We reserve the right to alter designs and specifications at any time without notification.

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