

MAGNUM® Features and Options - From -35°C to +30 °C

Description:

- The Thermo King MAGNUM is a one-piece, integral front wall, all-electric automatic cooling and heating unit for ISO sea-going containers. It is suitable for operation on trailer on flat car (TOFC), container on flat car (COFC), and aboard ship.

Refrigeration Capacity: Scroll with R404A Zer-O system net cooling capacities at 37.8 degrees C (100 degrees F) ambient and 60 Hz electric power.

| Degrees C | Degrees F | Watts | KCal/hr | Btu/hr |
|-----------|-----------|--------|---------|--------|
| 21 | 70 | 15,822 | 13,608 | 54,000 |
| 2 | 35 | 12,309 | 10,584 | 42,000 |
| -18 | 0 | 7,327 | 6,300 | 25,000 |
| -29 | -20 | 5,070 | 4,360 | 17,300 |
| -35 | -31 | 4,099 | 3,528 | 14,000 |

Heating Capacity: System net heating capacity (including fan heat) with 60Hz electric power.

- 5880 Watts (4984 KCal/hr, 19800 Btu/hr)

| Evaporator Fan Airflow: High Speed | m ³ /hr | cfm |
|---|--------------------|-------|
| 60Hz: 12.7 mm (0.50 in) WG | 5,603 | 3,300 |
| 60Hz: 19.0 mm (0.75 in) WG | 5,094 | 3,000 |
| Weight: (with reciprocating compressor) | lbs | kg |
| Unit | 926 | 420 |

| Dimensions: | Height | | Width | | Depth | |
|-------------|--------|---------|---------|---------|---------|--------|
| Unit | 88 in | 2235 mm | 79.8 in | 2026 mm | 16.5 in | 420 mm |

Specifications are subject to change without notice.

Standard Features:

- R-404A refrigerant
- Compressor Scroll: Exclusive Copeland® Digital Scroll™ compressor with Digital Valve for capacity modulation, economizer circuit, ambient compensated internal overload and high temperature protection.
 - Type: Compliant Scroll (one stationary and one orbiting), with radial and axial compliance allowing tolerance to liquid refrigerant and debris
 - Rating: 6hp motor, 380/460V, 50/60 Hz
 - Construction: steel shell with rigid internal mount of scroll and motor
 - Oil: polyol ester
 - Finish: thermal sprayed aluminum
- Microprocessor controller: The MP-3000 microprocessor controller provides thermostat, digital thermometer programming keypad, mode indicators, and a digital status readout window for displaying electronically recorded trip and cargo information
 - MP-3000 includes PTI programs, manual test, self-diagnostic test, advanced service information and service help functions
 - An optional USDA-approved data recorder records operating conditions up to 365 days
 - The controller contains the following basic features and components:
 - Backlit LCD digital display
 - Mode indication LEDs
 - Alarm indicator functions
 - Demand & timed

Options:

- AFAM+ Advanced Fresh Air Exchange Management
- Water-cooled condenser
- 4-pin remote monitoring receptacle
- Thermo King electronic chart recorder
- Partlow temperature recorder
- Saginomiya temperature recorder
- Remote monitoring
- Transfresh provision
- 10/4 power cable
- Dual voltage transformer

- defrost
 - Defrost cycle control
 - Internal self-checking/diagnostics
 - Pre-trip testing for reefer unit
 - Remote monitoring and data retrieval interface ports
 - Data recording
 - Electronic phase selection
 - 3-phase current monitoring & protection
 - Power consumption control to limit total unit power consumption
- Proportional-integrated differential(PID) refrigeration capacity control system
- Non-corrosive sea-going construction includes marine-treated aluminum alloy frame, non-corrosive fittings, all stainless steel hardware, condenser coil with epoxy e-coat and polyurethane top coat for UV protection, hydrophilic coating on evaporator coil, and a marine duty protective coating on the compressor
- Condenser and evaporator fan motors include stainless steel shafts and internal thermal overload protection
- CFC-free foamed-in-place insulation
- Fresh air exchange adjustable from 0-285 m³/hr (0-150 ft³/min)
- Unit wired for 380/460V, 3-phase, 50/60 Hz power supply with an 18 meter (60 ft) 1 1/4 power cable with CEE-17 plug
- Bottom air discharge
- Automatic electronic phase correction system
- 29 Vac control system
- Demand defrost and supplemental timed defrost with selectable intervals
- Manual defrost initiation via MP-3000 keypad
- Cool, Modulation Cool, Null, Heat, Defrost, In-Range and alarm

- indicator lights
- Time delay start sequence
 - ABS certification
 - Composite condenser and evaporator fans
 - Conforms to ISO classifications and specification for thermal containers including racking and end loading standards, **TIR** specifications, **ATP** refrigeration standards, **ARI** standards for rating refrigeration capacity, **UIC** international Union of Railways, **Australian Electrical Certification, British Standard 3755 Requirement (TAINT), USDA** requirements for "Insect Cold" treatment, and **Agrotechnological Research Institute (ATO-DLO)** for flower bulb transportation
 - Auxiliary battery and charger
 - USDA "Cold Treatment" provision
 - Dehumidification on control
 - Bulb mode

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