THERMO KING

MD-100
Superior quality and unbeatable reliability.
High Capacity Compressor
At the heart of the MD-100 is the X214 Deep Sump two cylinder compressor, engineered specifically for R-404A and R-134a. It is considered to be the most efficient reciprocating compressor in the industry, delivering optimum pumping and cooling capacity.

Clean and Silent Engine
Addressing two ever-growing concerns - exhaust and noise emissions - the MD-100 utilizes the powerful TK 370 3-cylinder liquid cooled diesel engine. It is the cleanest burning, most fuel-efficient and quietest running engine available.

Sound Reduction System
Our new Sound Reduction System is offered as an option on the MD-100.

Service Accessibility
Designed for rapid and full access to the engine compartment, saving time and money in service operations.

The unique exterior design allows individual panels to be removed and replaced instead of the entire skin.

SMART REEFER Controller
- Simplified keypad to reduce incorrect operation of the system
- Visible set point confirmation
- Enhanced load protection
- Enhanced temperature management
- Reduced operating costs
- Reduced repair and maintenance costs
- Reduced downtime for increased revenues

Auto Phase Reversal
- Avoids reverse fan rotation while on electric standby
- Protects loads

Cycle-Sentry™
Provides fuel savings of up to 85% by stopping engine when refrigeration is not needed and restarting it when refrigeration or battery charge is needed.
The Thermo King SMART REEFER system employs two high output, belt driven fans that are powered by the system’s diesel engine. This creates a large volume of high velocity air circulation throughout the entire cargo area, providing faster box temperature pulldowns, faster recoveries after door openings, minimal temperature fluctuations and virtual elimination of hot spots and short cycling.

TherMax system for faster defrosts and superior heating capacity

An exclusive feature in all Thermo King SMART REEFER units is the proven TherMax heat and defrost system. TherMax is simply a better way to generate more heating capacity when it’s needed.

Belt-driven dual evaporator fans
Deliver superior airflow

The Thermo King SMART REEFER system employs two high output, belt driven fans that are powered by the system’s diesel engine. This creates a large volume of high velocity air circulation throughout the entire cargo area, providing faster box temperature pulldowns, faster recoveries after door openings, minimal temperature fluctuations and virtual elimination of hot spots and short cycling.

**Monitoring and Control**

Distributing perishable cargo requires accurate and reliable temperature control. With Thermo King’s MD-100 SMART REEFER, you now have the ability to maintain ideal conditions and monitor the system’s performance, thereby reducing fuel consumption and unit downtime. Troubleshooting is simplified - alarm codes alert the driver to take corrective action before a problem develops. A range of programmable features lets the driver tailor the operating conditions to the load.

**Diagnostics**

- 38 alarm codes
- Unit self-check
- Service test mode
- Interface board test
The MD-100: Key Features and Options

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Auto Phase Reversal
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- Protects loads

Magnetic Door Switches
- Minimize cargo temperature fluctuations
- Protect load

Environmental Protection
- Low decibel sound reduction system for quieter operation
- Clean-burning diesel engine meets all EPA requirements
- Less frequent oil/coolant changes means less waste generated

Data Capture & Communications

DAS (Data Acquisition System)
A high performance data acquisition system that records temperatures, set point, operating modes and external events.
- Data can be output to computer or printer
- Operates independently of unit controller
- 512K memory stores over one year's data
- Reassures customer of total quality control
- Provides evidence of correct practice
- Approved to EN-12830, and IP-65 standards
- Up to six independent sensors
- Automatic power-up and shut-off to protect unit battery

TranScan®
- User-friendly temperature recorders for all makes of temperature-controlled equipment
- Simple data offload to PC
- Journey reporting printouts at the touch of a button

Trac-King™
A complete tracking and load monitoring tool at your fingertips.
- Monitor sensitive loads via the web
- Satellite and cellular options available
Standard and Optional Features

**Standard Features**
- SMART REEFER Controller
- Auto Phase Correction
- Two-Year Warranty
- EMI-2000 extended maintenance
- Cycle-Sentry start/stop control system
- Diesel/electric Auto-switching
- TherMax System

**Factory Installed Options**
- DAS Data Acquisition System
- Low-Decibel Sound Reduction System
- R-134a Refrigerant Package

**Dealer Supplied Options**
- Door Switches
- Thermo King High Performance Battery
- SVC Guaranteed Maintenance Contracts
- TranScan 2 data capture
- Trac-King tracking and monitoring

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**Two-Year Warranty**
- Two-year warranty on all major components
- Reduces maintenance costs
(Please see our Warranty Statement)

**Extended Maintenance Interval**
Thermo King EMI-2000 will extend your maintenance interval and reduce your operating cost by:
- Reducing clean-up and disposal cost
- Reducing environmental impact with less spillage and waste
- Extending engine life with improved, efficient filtration
- Reducing scheduled maintenance costs by up to 40%

**Cycle-Sentry™**
Stops engine when refrigeration is not needed and restarts when refrigeration or battery charge is needed.
- Fuel savings of up to 85%
- Increases component life
- Reduces maintenance costs

**Diesel/electric auto switching**
- Automatically starts diesel engine if electric standby fails
- Manual override for inside operation
- Protects the load automatically (without manual intervention)

**TherMax System**
- Faster defrosts and greater heating capacity

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**Life Cycle Cost**

**Thermo Gard™ Bronze**
The Bronze Program from Thermo King SVC provides you with coverage for interim inspections and preventive maintenance services for 2 years on truck refrigeration units.
Save Money and run cleaner with the MD-100!

Life Cycle Cost

Lower fuel costs, lower maintenance costs and higher resale values mean that a Thermo King unit’s total life cycle cost is actually lower than competitive products. Plus, Thermo King offers superior design, components, build quality and performance, which means enhanced load protection and reduced downtime, resulting in increased revenues.

Engine Emissions

The MD-100 features the environmentally friendly TK 370 engine, which produces substantially less emissions than the competitor’s engine. Plus, you’ll breathe easier knowing that the TK 370 meets all known EPA emission requirements nationwide.

Expert Service and Support are as close as this sign.

Enjoy the support of the Thermo King Dealer Network.

Over 200 factory-authorized service centers nationwide—find one nearby at www.thermoking.com
System Performance

Refrigeration capacity: System net cooling capacity at 100°F ambient temperature and high speed engine/ 60 Hertz electric power

<table>
<thead>
<tr>
<th>MD-100</th>
<th>35°F</th>
<th>0°F</th>
<th>-20°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Return air to evaporator</td>
<td>11,000</td>
<td>8,200</td>
<td>5,000</td>
</tr>
<tr>
<td>With Standard R-404A Refrigerant Package</td>
<td>BTU/hr (Up to)</td>
<td></td>
<td></td>
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<tr>
<td>Capacity on engine power</td>
<td>8,900</td>
<td>7,100</td>
<td>4,800</td>
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<tr>
<td>Capacity on electric standby</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With Optional R-134a Refrigerant Package</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity on engine power</td>
<td>13,500</td>
<td>6,700</td>
<td>n/a</td>
</tr>
<tr>
<td>Capacity on electric standby</td>
<td>10,500</td>
<td>5,800</td>
<td>n/a</td>
</tr>
</tbody>
</table>

Heating capacity

Engine power | 10,500 BTU/hr
Electric power | 5,100 BTU/hr

Airflow: on high speed engine operation

Airflow volume @ 0 Pa static pressure | 1,600 ft³/ min
Discharge Velocity (Air Throw) | 26 ft/sec

Weight:

Model 30: cooling/ heating on engine operation | 829 lbs
Model 50: cooling/ heating on engine/electric standby | 878 lbs

Engine: 3 cylinder, liquid cooled

Model | TK 370
Rating | 12 hp
Maintenance Interval | 2000 hrs

Compressor: lightweight aluminum alloy

Model | TK X214
Displacement | 13.9 cu. in.

Electric standby motor

Voltage / phase / cycles | 230/ 3/ 60
Rating | 5 hp

Refrigerants: R-404A or R-134a zero Ozone Depletion Potential (ODP), internationally approved

Charge | 6.6 lbs

Specifications

Dimensions

Inches (Millimeters)

| 65” (1651) |
| 23” (584) |
| 34” (863) |
| 28” (711) |
| 9.5” (241) |
| 12” (305) |
| 11.5” (292) |
| 19” (483) |

Warranty

Terms of the Thermo King Warranty are available on request from your local Thermo King dealer. Please reference TK 50047 for the Thermo King Self-Powered Truck unit warranty.

Engine Model TK 370 meets all known EPA emission requirements (applies to units manufactured after December, 2005).
Providing equipment and services to manage controlled-temperature environments for food and other temperature-sensitive products, our Climate Control Technologies sector encompasses both transport and stationary refrigeration solutions. Our product brands include Thermo King® a world leader in transport temperature control systems, and Hussmann® a manufacturer of refrigeration and food merchandising equipment.