



MD-100

Superior quality and unbeatable reliability.





The MD-100: Superior Quality and Reliability With a Lower Life Cycle Cost

- Reliability and performance you've come to expect, in an innovative new design
- SMART REEFER® – industry's most advanced microprocessor
- Exclusive TherMax™ system provides faster defrosts, superior heating capacity
- Frame and exterior panels are lightweight and corrosion resistant
- Comprehensive Two-Year Warranty

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.

Reduced Maintenance

Maintenance is a significant portion of the life cycle cost of a temperature control system. Thermo King's MD-100 uses innovative design to minimize maintenance, resulting in lower maintenance cost.

These units come standard equipped with Thermo King's exclusive EMI-2000 filter and fluids package increasing service intervals and reducing scheduled maintenance costs by up to 40%.

- 2,000 hour oil change
- 12,000 hour coolant



EMI-2000
Extended
Maintenance Interval

Precision Control and Optimum Performance

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.

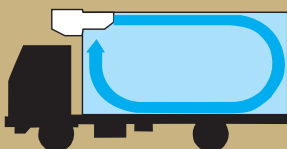
Troubleshooting is simplified - alarm codes alert the driver to take corrective action before a problem develops. A range of programmable features lets the driver tailor the operating conditions to the load.



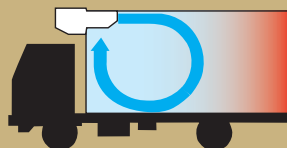
Diagnostics

- 38 alarm codes
- Unit self-check
- Service test mode
- Interface board test

Belt-driven dual evaporator fans Deliver superior airflow



Full Air Throw



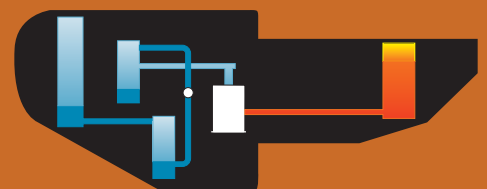
Short Cycle

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 pull-downs, 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.



The MD-100: Key Features and Options



Load Protection

SMART REEFER Controller

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- Enhanced temperature management
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Auto Phase Reversal

- Avoids reverse fan rotation while on electric standby
- 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® 2

- 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



Life Cycle Cost

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



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

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.



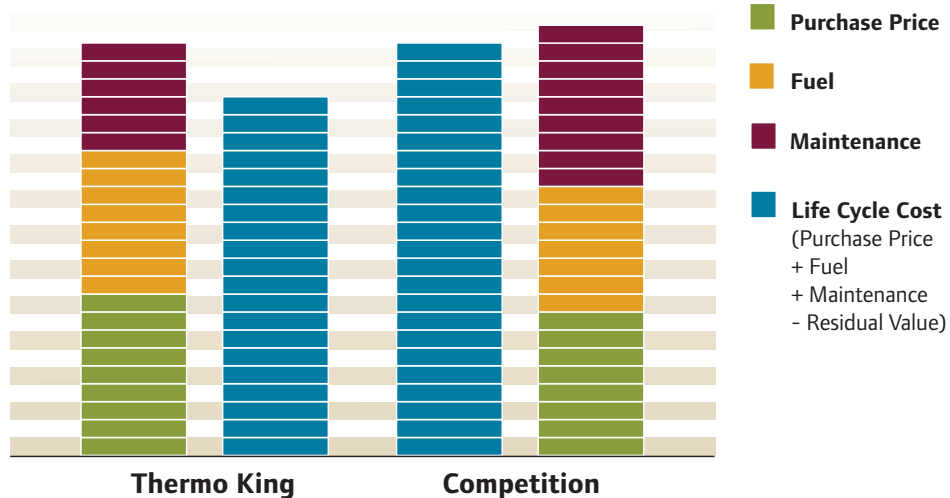


Save Money and run cleaner with the **MD-100!**

Life Cycle Cost

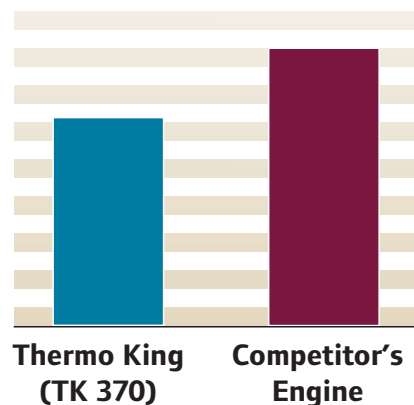
Lower fuel costs, lower maintenance costs and higher resale values mean that a Thermo King unit's total life cycle cost is actually lower than competitive products.

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

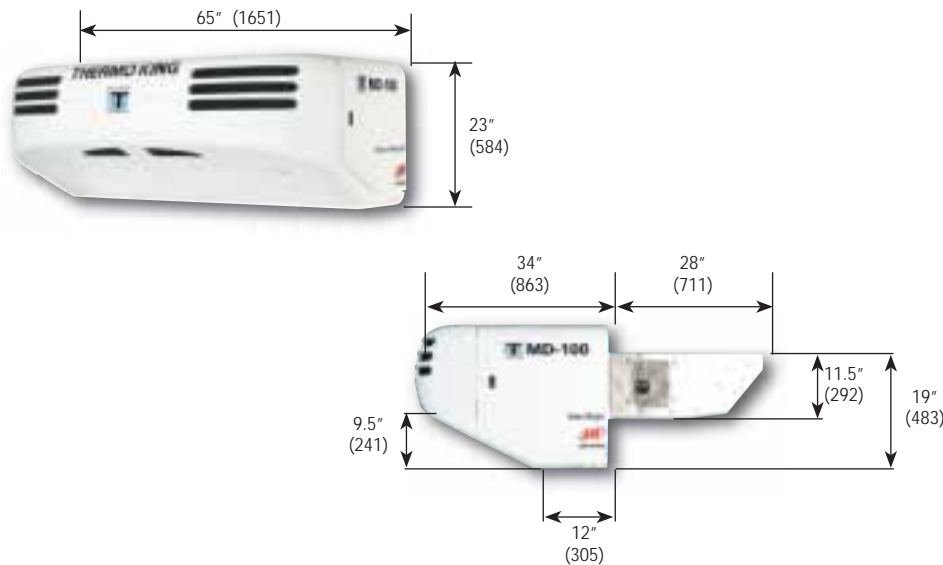
System Performance

Refrigeration capacity: System net cooling capacity at 100°F ambient temperature and high speed engine/60 Hertz electric power				MD-100		
Return air to evaporator	35°F	0°F	-20°F			
With Standard R-404A Refrigerant Package				BTU/hr (Up to)		
Capacity on engine power	11,000	8,200	5,000			
Capacity on electric standby	8,900	7,100	4,800			
With Optional R-134a Refrigerant Package						
Capacity on engine power	13,500	6,700	n/a			
Capacity on electric standby	10,500	5,800	n/a			
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)



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.

www.thermoking.com www.hussmann.com www.ingersollrand.com

TK 53425-1-PL (6-06)

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