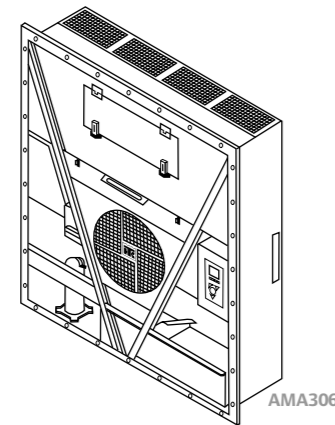


## Specifications

System Net Cooling Capacity - Full Cool <b>MAGNUM+ Model - Air Cooled Condensing*</b>			
Return air to evaporator coil inlet	460/230V, 3 Phase, 60 Hz Power		
	Net Cooling Capacity		Power Consump
	60 Hz Capacity B/hr	60 Hz Capacity kW	60 Hz Power kW
21.1 °C (70 F)	56,700	16.603	11.550
1.7 °C (35 F)	40,945	11.990	11.030
-17.8 °C (0 F)	24,785	7.258	7.570
-29 °C (-20 F)	17,215	5.041	6.600
-35 °C (-31 F)	14,000	4.104	6.030

\*System net cooling capacity with a 38 °C (100 F) ambient air temperature and R-404 A.

Dimensions	
Height	2,235 mm (88 inches)
Width	2,026 mm (79.8 inches)
Depth	420 mm (16.5 inches)
Weight	397 Kg (875 lb)



MAGNUM+	Evaporator Airflow Specifications			System Net Heating Capacity*		
	460/230V, 3 Phase, 60 Hz Power			380/190V, 3 Phase, 50 Hz Power		
	Heating Capacity			Heating Capacity		
	Watts	Kcal/hr	BTU/hr	Watts	Kcal/hr	BTU/hr
	5,250	4,515	17914	3,900	3,353	13,300

\*System net heating capacity includes electric resistance rods and fan heat.

### Insist on Genuine Thermo King Replacement Parts

Engineered to provide optimal performance and maximum life,

Thermo King genuine service parts protect your investment and provide

you peace of mind and confidence no matter where your equipment

operates. Genuine Thermo King replacement parts are proven time after time

to beat the competition in side-by-side testing. Never settle for less.

### WARRANTY SUMMARY

Thermo King Warranty are available on request from your local Thermo King Dealer. Please refer to document TK50048 for the Thermo King Container unit warranty.

Ingersoll Rand Climate Control Technologies provides equipment and services for:

### TRANSPORT REFRIGERATION

- Sea Cargo
- Air Cargo
- Road Cargo

### HEATING, VENTILATION & AIR CONDITIONING

- Bus
- Rail

### STATIONARY REFRIGERATION

- Commercial Applications
- Industrial Applications



Providing equipment and services to manage controlled-temperature environments for food and other perishables, 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® - Koxka® manufacturer of refrigeration and food merchandising equipment.

[www.thermoking.com](http://www.thermoking.com) [www.hussmann.com](http://www.hussmann.com) [www.koxka.com](http://www.koxka.com) [www.ingersollrand.com](http://www.ingersollrand.com)

For further information please contact:

Ingersoll Rand Climate Control Technologies NCI Building - 4th Floor, Culliganlaan 1B, 1831 Diegem, Belgium.

© 2008 Ingersoll-Rand Company Limited TK 60281-4-PL EN (01-2009)



# MAGNUM PLUS

Efficiency without compromise

## Container Refrigeration



# MAGNUM PLUS

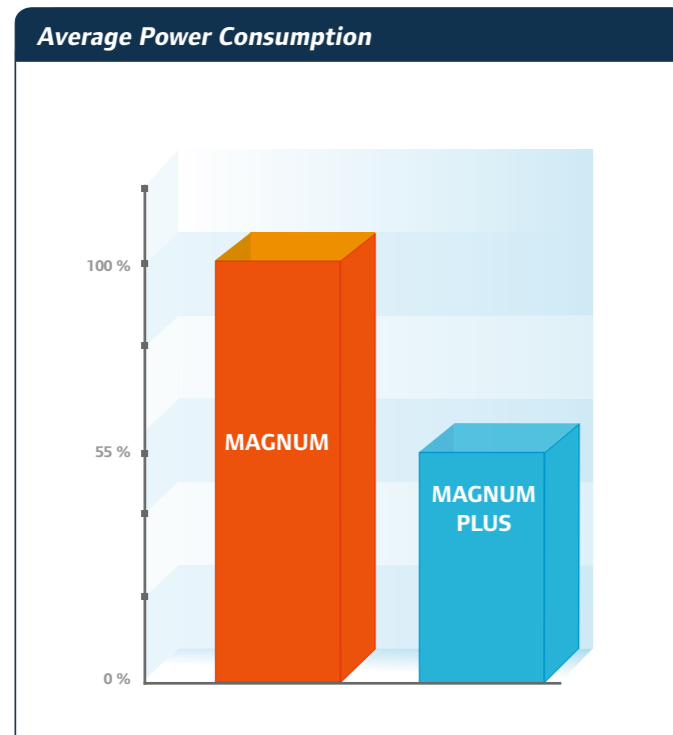
- Efficiency
- Low Environmental Impact
- Reliability
- Performance



# Efficiency without compromise

As the founder of transport refrigeration, Thermo King has always been committed to engineering innovative products and technologies and providing new levels of efficiency and performance for customers across the globe.

The MAGNUM PLUS™ is the result of years of field experience acquired with its predecessor the MAGNUM™. Through advanced technology and research & development Thermo King has introduced with the MAGNUM PLUS™ a new industry benchmark in efficiency, performance, operability and reliability. The MAGNUM PLUS™ is conceived to answer to the most stringent requirements.



## Maximum performance through efficient design

### Low Energy Consumption

Setting a new standard in efficiency, the advanced features of the MAGNUM PLUS™ reefer require less energy and provide significant cost savings.

### Minimising Environmental Impact

The future is greener with MAGNUM PLUS™ due to its efficient operation which decreases the environmental impact without compromising temperature control.

### Lowest Temperature

The MAGNUM PLUS™ is the only unit on the market capable of reaching and maintaining -40°C box temperature in +50°C ambient environment, thereby preserving product quality and further increasing usable box life.

### Tight Temperature Control

Thanks to advanced temperature management control systems, MAGNUM PLUS™ delivers extremely accurate temperature control as required in modern refrigeration.

### Lower Total Cost of Ownership

The simple design of the system enables easy maintenance. This, together with reduced energy consumption, ensures a low total cost of ownership. This unit not only delivers great performance, but also promises to be an ideal and profitable investment.

### Faster pull down

With its superior cooling capacity, the MAGNUM PLUS™ can increase product storage life by reaching the set-point faster and more accurately.

### Reduced Weight

Advanced design methods and the optimization of components result in the lowest unit weight on the market, thereby significantly increasing overall cargo capacity.

### Tested Technology

With over 100,000 units in service and with years of experience, the MAGNUM™ platform has been recognised by the industry as extremely reliable.

### Global Service

Thermo King's global network will provide the support you need, where and when you need it.

## The MP-4000: A big leap forward in controller technology

### User-friendly interface

A high resolution VGA graphic display allows clear and efficient visualization of all data needed in every situation. Dynamic soft- and hot-keys in the navigation menus provide immediate access to key functions.

### Advanced communication capability

Interfacing capabilities with advanced telematics systems make the MP-4000 the controller of choice.

### Simple and robust controller design:

- Ruggedised box
- Safety door-locking mechanism
- Simplified keyboard and menu navigation system
- Long-life, solid-state components with patented architecture
- Reduced and simplified cabling connections



## Standard Features

- R-404A refrigerant
- Scroll Compressor with Digital Control Valve for capacity modulation, economizer circuit, ambient compensated internal overload and high temperature protection
- Proportional-integral differential (PID)
- Refrigeration capacity control system
- Non-corrosive maritime construction, which includes a marine-treated aluminum alloy frame, non-corrosive fittings, 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, which include stainless steel shafts and internal thermal overload protection
- CFC-free, foamed-in-place insulation
- Wired for 380/460 volt, three-phase, 50/60 Hz power supply with an 18 meter (60 ft) 11/4 power cable with CEE-17 plug
- Bottom air discharge
- Automatic electronic phase correction system
- 29 Vac control system
- On-demand defrost combined with intelligent timed defrost
- Manual defrost with initiation via MP-4000
- Indicator lights, which include Alarm, Alarm acknowledges, in range, and approaching in range
- Time delay start sequence

- Composite condenser and evaporator fans
- Conforms to ISO classifications and specifications 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

## Options

- Advanced Fresh Air Management System (AFAM+)
- Water Cooler Condenser
- Thermo King electronic chart recorder
- Partlow temperature recorder
- Saginomiya Temperature recorder
- Remote monitoring
- Transfresh provision
- 10/4 power cable
- De-humidification control

