

Explosion Proof Ex-M Magnum Plus Reefer Unit

KC Trading B.V.

Key Benefits

- For use in ATEX Zone 2 environments – such as: Oil&Gas, Chemical, Pharmaceutical, etc.
- Based on the most capable reefer unit in international container shipping: the Thermo King Magnum Plus.
- Able to maintain -40°C box temperature @ +50°C ambient temperature
- High efficiency, low power usage allowing cost savings.
- Intuitive operation, user-friendly, efficient visualization of all data.
- High precision of temperature control, upto +/- 0.25°C

II 3G Ex h ec nA nR IIB T2/T3 GC



Best of both Worlds: Ex-Machinery's Magnum Plus for use in ATEX Zone 2

"Thermo King Magnum-Plus reefer units are already preferred by many end-users in the Oil&Gas, Pharmaceutical, Chemical and Marine industry. They are widely accepted as the most powerful, reliable and efficient reefer units currently on the market and are now also available for safe use in hazardous areas prone to Gas or Dust explosive atmospheres. The Ex-M Magnum-Plus offers temperature control with high precision, upto +/- 0.25°C. Combined with the broad setpoint range of -40° upto +30°C, this ensures your goods and substances remain in optimal condition.

The Ex-M Magnum-Plus offers all state-of-the-art functionality found in Thermo King's original product, including the famed easy and intuitive operation. The status of the reefer unit, indicated by smiley faces on the display, can still be viewed at a glance even though the display is now locked behind an impact-proof door."

Why should I choose the Ex-M Thermo King Magnum Plus?

- All Magnum Plus functionality has been preserved in the Hazardous Area Design
- Leadtime 5-8 weeks; international shipping
- Thermo King approves and collaborates with Ex-Machinery and K.C. Trading to offer the Zone 2 solution

Explosion Safety Specifications (ATEX)

EU Directive	2014/34/EU (ATEX114)
ATEX marking gas (inside reefer)	II 3G Ex h ec nA nR IIB T2/T3 GC
ATEX marking gas (outside reefer)	II 3G Ex h ec nA nR IIB T2/T3 GC
Applied standards	EN 60079-0, EN 60079-15, EN 60079-31, EN 80079-36, EN 80079-37

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Easy operation with Smiley interface, safely locked behind impact proof door.		Impact proof door, double lock.	Explosion proof compressor relay box – Ex nR

System net cooling capacity - Full cool

Magnum+ Model - Air Cooled Condensing*

Return air to evaporator coil inlet	460/230V, 3 Phase, 60 Hz Power		
	Net Cooling Capacity		Power Consumption
	60 Hz Capacity B/hr	60 Hz Capacity kW	60 Hz Power kW
21.1 C (70 F)	56,700	16.603	11.55
1.7 C (35 F)	40,945	11.990	11.03
-17.8 C (0 F)	24,785	7.258	7.57
-29 C (-20 F)	17,215	5.041	6.6
-35 C (-31 F)	14,000	4.104	6.03

Control Circuit Voltage	29 VAC @ 60 Hz
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Weight (net) Magnum+ Base Unit	380 Kg (875 lb.)
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Setpoint range	-40.0 to +30.0 C (-31.0 to +86.0 F)
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* System net cooling capacity with a 38°C (100 F) ambient air temperature and R-404A

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EU Declaration of Conformity ATEX DIRECTIVE 2014/34/EU		 <i>Equipment for Hazardous Areas</i>
No. EX-M23ATEX2403X.EU		
The product:		
Model:	Zone 2 Explosion Proof Container Refrigeration Unit EX-M MP4000+	
Consisting of:	Compressor, Evaporator fans, Condensor fan, Defrost heater with controller, Control cabinet with components and temperature sensors	
Type:	EX-M MP4000+	
Markings affixed:	  II 3G Ex ec h nA nR IIB T2/T3 Gc	
The manufacturer:		
Ex-Machinery Explosion Proof Equipment B.V., Tinststraat 33, 2984 AN, Ridderkerk, The Netherlands		
This declaration of conformity is issued under the sole responsibility of the manufacturer		
The object of the declaration described above is in conformity with the relevant Union harmonization legislation:		
ATEX DIRECTIVE 2014/34/EU: "Concerning equipment and protective systems intended for use in potentially explosive atmospheres"		
References to the relevant harmonized standards:		
The following harmonized standards are applied in relation to which conformity is declared:		
EN 60079-0:2018 EN 60079-15:2010 EN 60079-7: 2015 EN ISO 80079-36:2016 EN ISO 80079-37:2016		
Additional information considered relevant to this declaration:		
<input checked="" type="checkbox"/> (X) Specific conditions of use are specified in the accompanying user manual of the product		
Signed for and on behalf of		
 G.A. van Tienhoven, M.Sc. Eng. Managing Director		Ridderkerk, 20-03-2023
 Ex-Machinery Explosion Proof Equipment B.V. Tinststraat 33, 2984 AN Ridderkerk The Netherlands www.ex-machinery.com		
<small>THIS DECLARATION IS NOT A WARRANTY DECLARATION WITHIN THE MEANING OF THE LAW CONCERNING PRODUCT LIABILITY, THE SAFETY INSTRUCTIONS GIVEN IN THE INSTALLATION MANUAL MUST BE OBSERVED, THE APPARATUS SHALL ONLY BE OPERATED UNDER THE CONDITIONS AS DESCRIBED IN THE USER MANUAL</small>		

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