

eBook

GX SOLUTIONS

The first professional medical-grade refrigerators

BY HELMER SCIENTIFIC



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KEY OBJECTIVES

- What is a Professional Medical-grade Refrigerator?
- How does OptiCool™ refrigerator technology deliver superior performance characteristics?
- How do Variable Capacity Compressors & Hydrocarbon Refrigerant create an energy-efficient cooling system?



WHAT IS A PROFESSIONAL MEDICAL-GRADE REFRIGERATOR?

Professional medical-grade refrigerators are designed with the unique needs of the healthcare environment in mind. Only professional medical-grade refrigerators deliver optimized control in three important areas:



Temperature Management

to ensure that samples, blood therapies and medications/vaccines are stored safely.



Noise Management

to provide a more comfortable environment for patients and a more productive workplace for staff.



Energy Management

to meet changing regulations, improve resource management, and reduce operating costs.

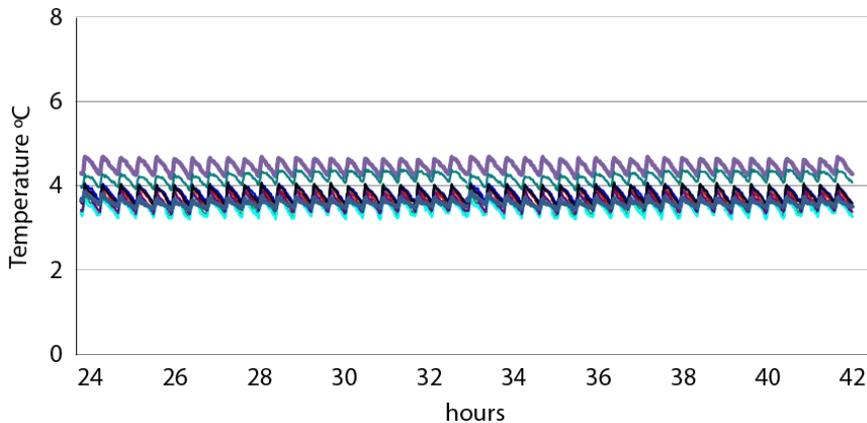


TEMPERATURE MANAGEMENT



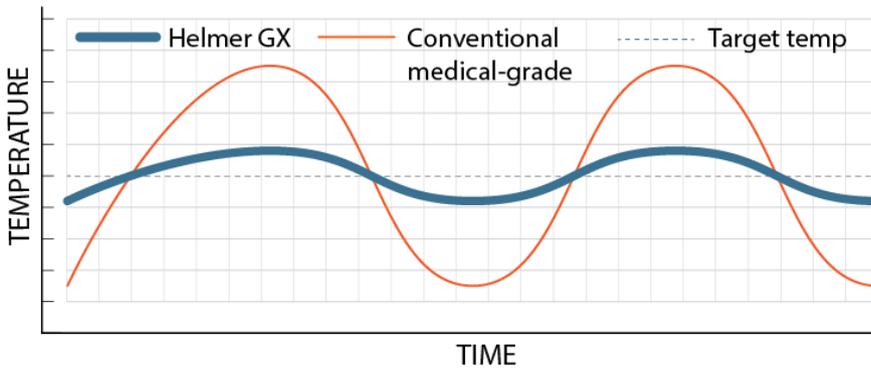
Professional medical-grade refrigerators excel in **three** key temperature management areas:

Uniformity



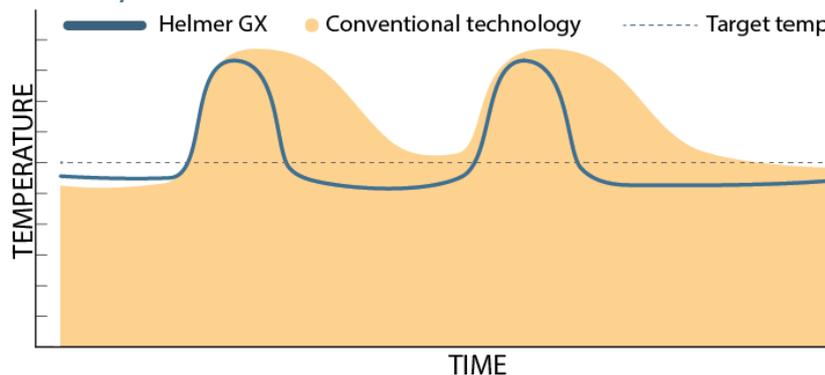
Achieve **superior temperature uniformity throughout the unit** keeping temperatures within **+/-1°**, giving you the confidence that your contents are stored at the right temperature regardless of where they're placed within the unit.

Recovery



Offer faster recovery after prolonged door openings. Powerful forced-air circulation keeps contents at the right temperature even when the unit is opened multiple times per hour for stocking, inventory counts and product retrieval.

Stability



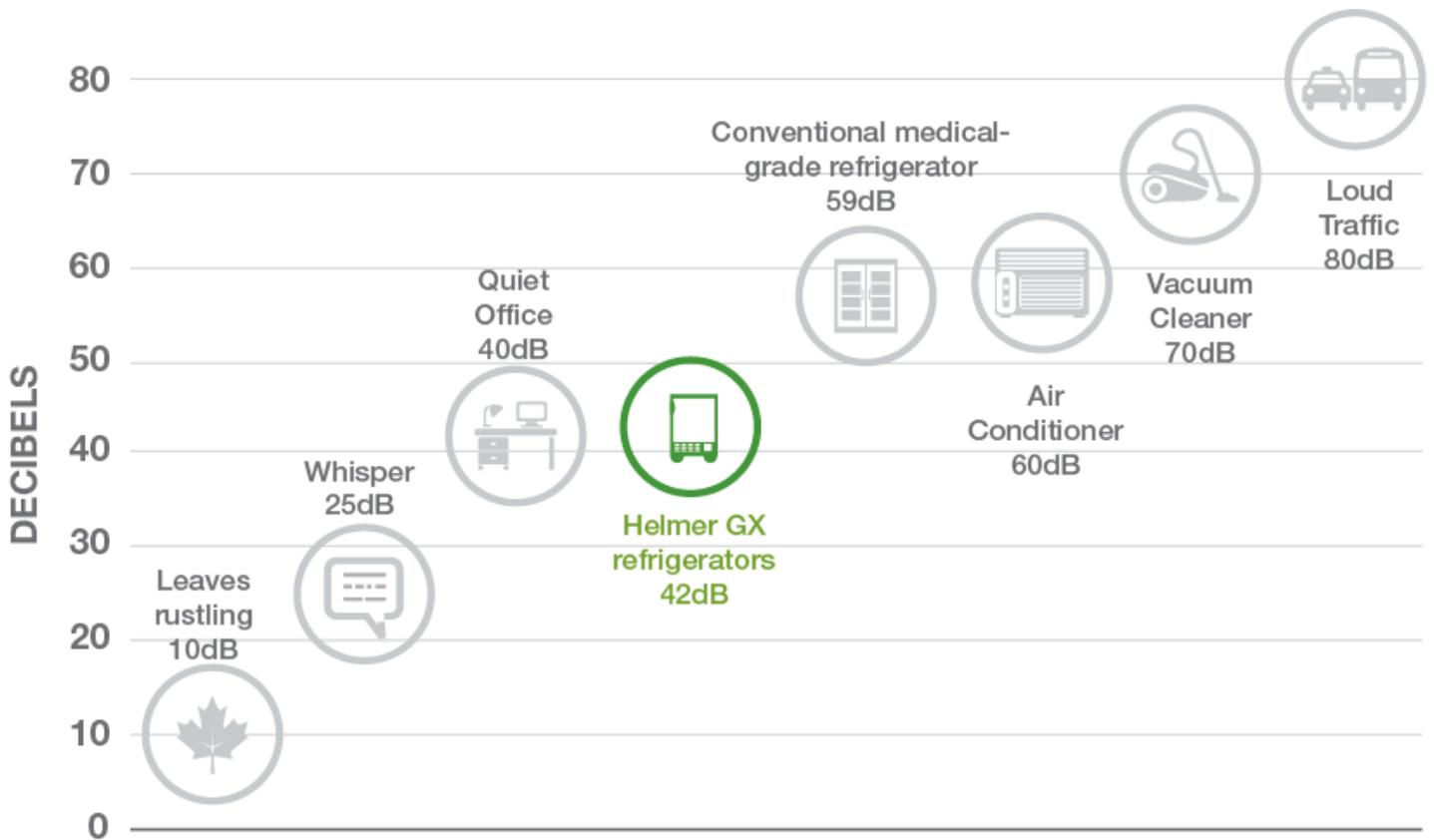
Maintain **superior temperature stability, creating fewer deviations from the set point and avoiding rapid, significant changes in temperature.** This ensures patient samples, medications/vaccines or blood therapies are always in their optimal storage environment.

NOISE MANAGEMENT



Managing noise in the professional healthcare environment:

GX professional medical-grade refrigerators are **designed for noise-sensitive areas** such as medication rooms, pharmacies, labs and patient rooms. Less equipment noise means fewer distractions while healthcare personnel work or patients rest.



Every increase of 10dB on the scale is equivalent to a 10-fold increase in sound intensity.

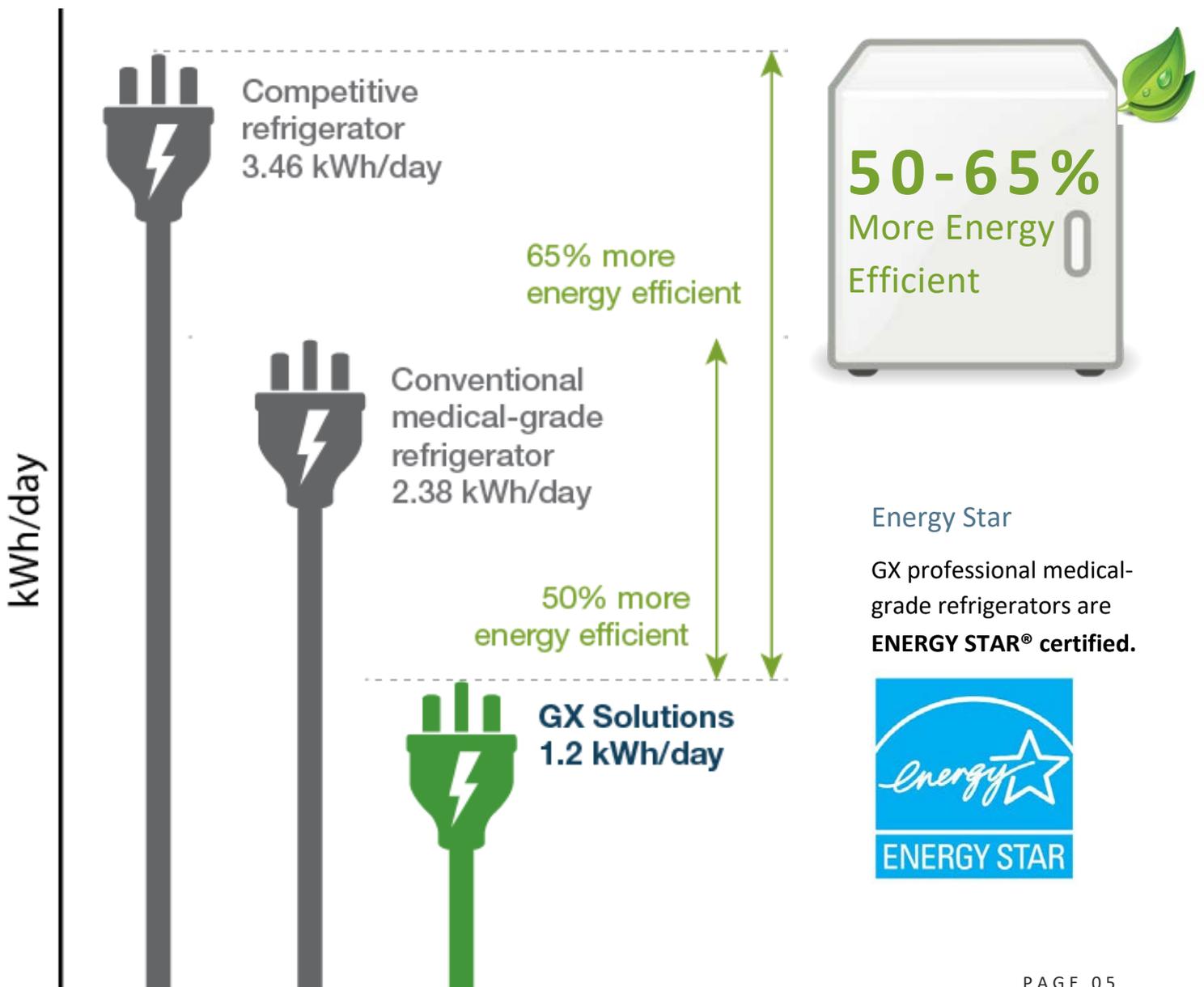
ENERGY MANAGEMENT



Energy management for the professional healthcare environment:

Energy Consumption

GX professional medical-grade refrigerators are **50-65% more energy efficient than conventional units.**



OPTICOOL™ COOLING SYSTEM

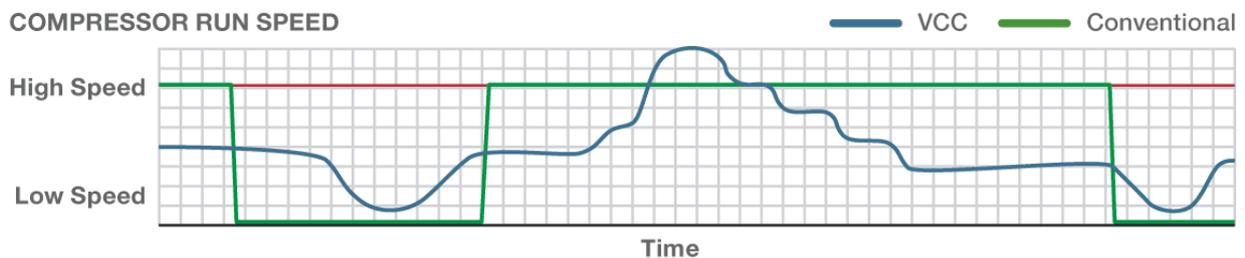


Powering the first professional medical-grade refrigerators:

OptiCool™ cooling system technology pairs a variable capacity compressor (VCC) and naturally occurring hydrocarbon (HC) refrigerants to **ensure optimal temperature, reduce noise output, and efficiently manage energy consumption and environmental conditions.**

Variable Capacity Compressor System

The OptiCool™ cooling system uses intelligent sensors to monitor operating conditions. Fixed capacity compressors (FCC) cycle off and on to maintain the temperature inside the cabinet. Rather than cycling off, VCCs run at a lower or higher speed depending on the operating conditions, a much more efficient way to maintain temperature. When the door of the unit is opened, the VCC runs at a higher speed to deliver optimal temperature performance. When the temperature stabilizes, the VCC runs at a lower speed.

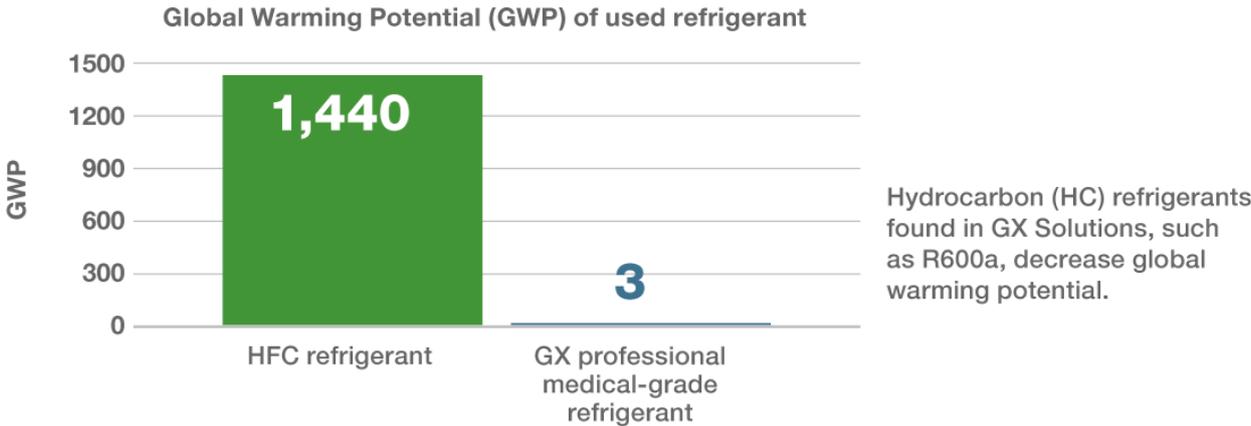


VCCs run at variable speeds (depending on operating conditions) to maintain temperature rather than simply cycling off and on like fixed capacity compressors in conventional medical-grade refrigerators.

OPTICOOL™ COOLING SYSTEM

Natural Hydrocarbon Refrigerants

The Opticool™ cooling system uses R600a, a naturally occurring refrigerant that is Environmental Protection Agency (EPA) and Significant New Alternatives Policy (SNAP) compliant. **This natural refrigerant is environmentally friendly, having no impact on ozone depletion and a very low Global Warming Potential (GWP) grade. HCs improve energy efficiency and system performance.**



Refrigerants and foaming agents are compliant with the United States Environmental Protection Agency (EPA) SNAP program to decrease Global Warming Potential.



LOWER COST OF OWNERSHIP



Good for the environment. Good for the bottom line.



Compared to traditional refrigeration technology, energy consumption is reduced by up to 50%

Lifetime reduction in energy costs up to \$1,300 per unit.

Heat output is reduced by 30% to 55%, depending on run conditions, compared to traditional refrigeration technology.

Lower long-term service costs: up to 45% less refrigerant is needed, reducing cost should it be necessary to recharge the system.



GX SOLUTIONS i.SERIES® & HORIZON SERIES™ MODELS



iBR105-GX



HBR105-GX



iPR105-GX



HPR105-GX



iLR105-GX



HLR105-GX

NEW pharmacy models configured with ventilated pharmacy drawer

NEW Configurable Option - Solids Ballast, alternative to probe bottle to eliminate management of glycol.

NEW GX SOLUTIONS FROM HELMER SCIENTIFIC

Professional Medical-grade Refrigerators delivering Optimized Performance.

- Optimized temperature management: Uniformity, Recovery, and Stability
- Optimed Noise Management: 42 dB provides comfortable work environment.
- Optimized Energy Management: 50-65% more energy efficient than conventional medical-grade refrigerators.
- OptiCool™ Cooling System: pairs variable capacity compressor (VCC) with natural hydrocarbons (HCs) to achieve performance standards. while decreasing energy consumption and global warming potential.
- Lower lifetime cost of ownership: Reduction in energy costs, heat output, and long term service costs.

About the Author:



Bringing over 20 years of marketing experience in clinical, pharmacy and life sciences industries, Donna is the Sr. Manager of Marketing Communications at Helmer Scientific. She has successfully developed marketing strategies and tactics integrating inbound and outbound methods, digital, and marketing technology to drive commercial business results.

