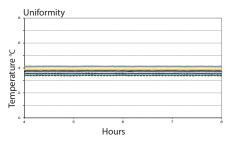
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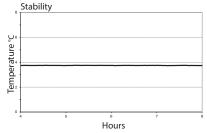
Helmer Scientific, Noblesville, Indiana

www.helmerinc.com

**Technical Data Sheet** High-Performance, Medical-grade Refrigerator Model: HBR245-GX, Horizon Series<sup>™</sup> Blood Bank / Upright

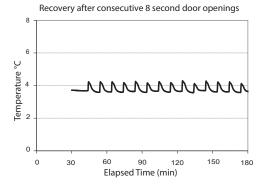
Application, Rating, & Electrical Data		
Application	High performance storage of blood and other medical and scientific products	
Storage Volume	44.9 cu ft (1271 L)   728 Blood bags	
Temperature Range	+2°C to +10°C	
Set Point	+4°C	
Electrical Power	115V 60Hz   220-240V 50-60Hz	
Maximum Current	4.3A   2.5A	
Facility Supply Rating	Branch circuit with earth ground, meeting plug/cord ratings as well as local electrical safety codes and requirements 110-120V AC: 15 A (minimum) 220-240V AC: 10 A (minimum)	
Power Plug/Power Cord Length	NEMA 5-15 hospital-grade   115V 60Hz, 8 to 10 ft (2.4-3.0m) Inquire about additional plug/cord options	
Certification/Agency Listing	QPS (Certified to UL and CSA Standards) IEC/UL61010-2-011: 2016   IEC 61010-1:2010, AMD1:2016	
Energy Star	Yes, ENERGY STAR® Certified High Performance Refrigerator	
Indoor/Outdoor Use	Indoor use only, non-residential	
Application Environment	Non-corrosive, non-flammable, non-explosive	
Ambient Operating Temperature	+15°C to +32°C   +59°F to +90°F	
Refrigeration		
Refrigeration System	VCC compressor-based, forced-air hydrocarbon	
Compressor	Hermetic, variable speed (VCC). Rated speed range: 1300-4000 rpm	
Condenser Type	Air-cooled fin and tube, sealed	
Expansion Device	Cap tube	
Evaporator Type	Direct expansion with forced-air fin and tube	
Defrost Method	Automatic	
Refrigerant	R600a, Isobutane, EPA SNAP compliant	
Controller / Configuration Settings		
User Interface	LED digital display, °C or °F	
Power Switch	On/Off	
Controller Type	Microprocessor-based with alarm/monitor	
Security	Lockable doors	
Control Sensor	RTD, stainless steel	
Communication Ports	Remote alarm contacts	
Power Failure Alarm	Yes	
High/Low Alarms	Yes, fully adjustable	
Door Ajar Alarm	Yes	
Min/Max Temperature	Yes, display and reset	
Chart Recorder	Yes, integrated, 4" (102mm) diameter, inkless pressure-sensitive charts, backup batter	
Temperature Monitoring Ballast	Yes, 4 oz bottle with screw cap, solid ballast optional	
Battery Back-up	Yes, 9V, non-rechargeable, lithium	



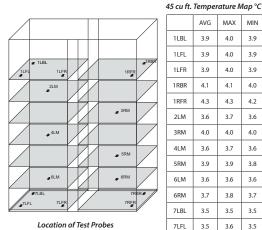


Performance Characteristics		
Uniformity   °C	+/-1.0	
Recovery to 8°C after 3 min door opening   min	1	
Stability   °C	0.06	
Energy Consumption   kWh/day	3.69	
Noise emission   dB	52	
Heat Rejection / Emission   BTU/hr	1199	
Pull-down time to 4°C   min	75	

All performance data from 45 cu ft refrigerator, 25°C ambient, 4.0°C



## Typical Temperature Map

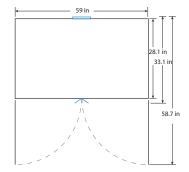


AVG MAX MIN 3.9 1LBL 3.9 4.0 4.0 3.9 1LFL 3.9 3.9 1LFR 3.9 4.0 1RBR 4.1 4.1 4.0 1RFR 4.3 4.3 4.2 2LM 3.6 3.7 3.6 4.0 4.0 3RM 4.0 4LM 3.6 3.7 3.6 3.9 3.8 5RM 3.9 6LM 3.6 3.6 3.6 3.7 3.7 3.8 6RM 7LBL 3.5 3.5 3.5 7LFL 3.5 3.6 3.5 7LFR 3.6 3.7 3.6 7RBR 3.9 4.0 3.9 7RFR 3.7 3.7 3.6

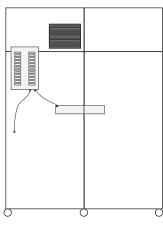
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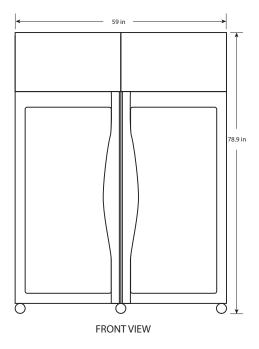
Dimensions and Construction	
Interior (w x h x d)	54.7 x 58.1 x 24 in   1390 x 1476 x 609 mm
Exterior (w x h x d)	59 x 78.9 x 28.1 in   1499 x 2003 x 712 mm
Overall Exterior (w x h x d)	59 x 78.9 x 33.1 in   1499 x 2003 x 840 mm *Includes handles and electrical box *subtract 0.2" from depth for units prior to serial number 2150000
Insulation	Sustainable, US EPA, and SNAP approved foam
Exterior/Interior Finish	Bacteria-resistant powder-coating
Door	2, dual-pane glass
Access Port	Top Access Port- for external monitoring probe(s) (0.75 in   19 mm diameter)
Interior Storage (w x h x d)	14 drawers, liquid-tight, stainless steel, adjustable 21.5 x 3.9 x 20.7 in   546 x 100 x 527 mm, 100 lb   46 kg max capacity/drawer
Casters	Yes, swivel-locking
Net Weight	808 lb  367 kg
Shipping Weight	929 lb   422 kg
Clearance Requirements	Minimum of 8" (203mm) above and 3" (76mm) behind unit for proper ventilation, clearance, and feature access
Options   Accessories	Stainless steel interior, Chart paper, Leveling feet, Solid ballast, Remote alarms, Floor and Wall bracket kit, Seismic anchoring kit, Storage trays, Locking drawer, Solid or heated glass doors, Top cover, Side-wall access ports, Certificate of calibration, Temperature validation, Validation guide (IQ/OQ), Extended warranty
Warranty	Rel.i <sup>™</sup> Warranty- 5 years compressor, 2 years parts, 1 year labor Outside US and Canada- Contact your distributor for warranty information

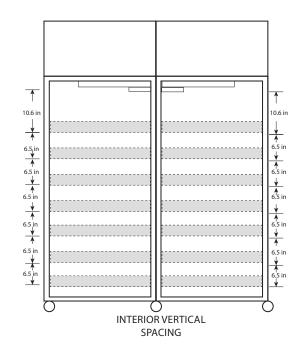












**BACK VIEW** 

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