Helmer Scientific, Noblesville, Indiana
www.helmerinc.com

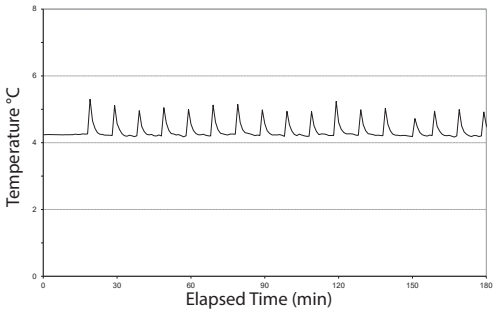
Technical Data Sheet
High-Performance, Medical-grade Refrigerator
Model: HBR113-GX, Horizon Series™ Blood Bank / Upright

Application, Rating, & Electrical Data	
Application	High-performance storage of blood and other medical and scientific products
Storage Volume	13.3 cu ft (377 L) | 198 Blood bags
Temperature Range	+2°C to +10°C
Set Point	+4°C
Electrical Power	115V 60Hz | 220-240V 50/60Hz
Maximum Current	2.3A | 1.12A
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 with alarm/monitor
Security	Lockable door, PIN access via optional access control
Control Sensor	RTD, stainless steel
Communication Port	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" (102 mm) diameter, inkless pressure-sensitive charts, backup battery
Temperature Monitoring Ballast	Yes, 4 oz bottle with screw cap, solid ballast optional
Battery Back-up	Yes, 9V, non-rechargeable, lithium

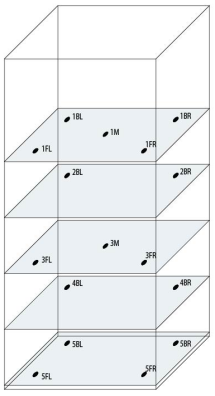
Performance Characteristics	
Uniformity | °C	+/-1.0
Recovery to 8°C after 3 min door opening | min	13
Stability | °C	0.62
Energy Consumption | kWh/day	2.47
Noise emission | dB	39
Heat Rejection / Emission | BTU/hr	751
Pull-down time to 4°C | min	64

All performance data from 13 cu ft refrigerator, 24.8ºC ambient, 4.0ºC

Recovery after consecutive 8 second door openings



Typical Temperature Map

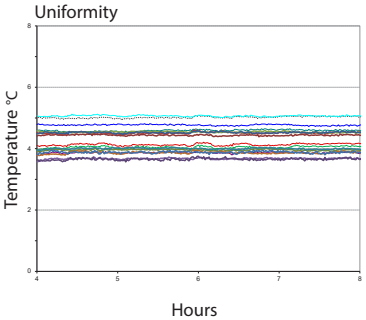


Location of Test Probes

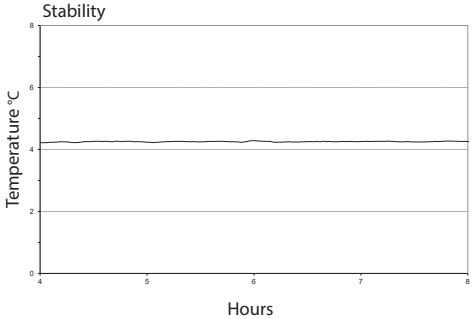
13 cu ft. Temperature Map °C

	AVG	MAX	MIN
1BL	4.1	4.2	4.0
1BR	3.9	4.0	3.8
1FL	4.5	4.5	4.4
1FR	4.3	4.4	4.3
1M	4.3	4.3	4.2
2BL	3.9	3.9	3.8
2BR	3.9	3.9	3.8
3FL	4.1	4.2	4.1
3FR	4.1	4.1	4.0
3M	3.8	3.9	3.8
4BL	3.8	3.9	3.8
4BR	3.9	4.0	3.8
5BL	3.7	3.7	3.6
5BR	3.7	3.7	3.6
5FL	3.8	3.9	3.8
5FR	3.4	3.4	3.3

Uniformity

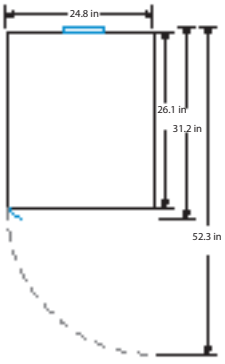


Stability

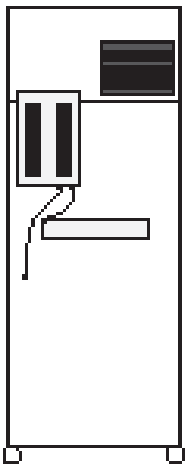


Dimensions and Construction	
Interior (w x h x d)	20 x 49.4 x 22.9 in | 508 x 1255 x 583 mm
Exterior (w x h x d)	24.8 x 70.5 x 26.1 in | 628 x 1790 x 663 mm
Overall Exterior (w x h x d)	24.9 x 70.5 x 31.2 in | 631 x 1790 x 792 mm *add 0.5" to width if choosing optional access control; Includes handle 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	1, dual-pane glass, right-hinge
Access Port	Top Access Port- for external monitoring probe(s) (0.75 in | 19 mm diameter)
Interior Storage (w x h x d)	5 drawers, liquid-tight, stainless steel, adjustable, 16.7 x 3.8 x 19.2 in | 424 x 97 x 488 mm, 100 lb | 46 kg max capacity/drawer
Casters	Yes, swivel-locking
Integrated Access Control	Optional - electromagnetic-lock with PIN entry via keypad
Net Weight	337 lb | 153 kg
Shipping Weight	404 lb | 183 kg
Clearance Requirements	Minimum of 8" (203mm) above and 3" (76mm) behind unit for proper ventilation, clearance, and feature access
Options | Accessories	Integrated access control, Stainless steel interior, Chart paper, Leveling feet, Solid ballast, Remote alarms, Remote lock adapter kit, Floor and Wall bracket kit, Seismic anchoring kit, Storage trays, Locking drawer, Drawer dividers, Left-hinge door, Solid or heated glass door, Side-wall access ports, Certificate of calibration, Temperature validation, Validation guide (IQ/OQ), Extended warranty
Warranty	Rel.i™ Warranty- 5 years compressor, 2 years parts, 1 year labor Outside US and Canada- Contact your distributor for warranty information

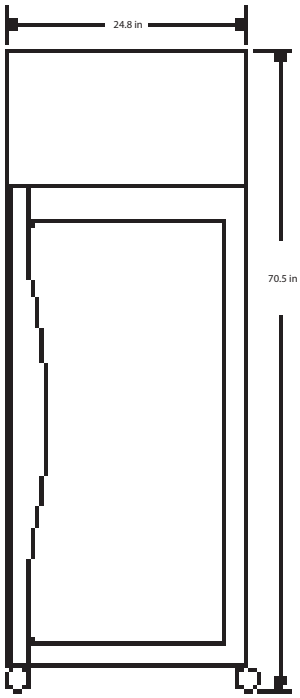




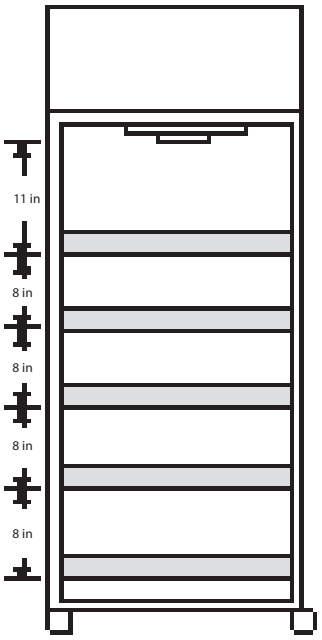
TOP VIEW



BACK VIEW



FRONT VIEW



INTERIOR VERTICAL SPACING

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