



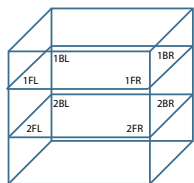
Helmer Scientific, Noblesville, Indiana  
www.helmerinc.com

## Technical Data Sheet

### High-Performance, Medical-grade Refrigerator

Model: HBR105-GX, Horizon Series™ Blood Bank / Undercounter

Application, Rating, & Electrical Data	
Application	High-performance storage of blood and other medical and scientific products
Storage Volume	5.3 cu ft (150 L)   78 Blood bags
Temperature Range	+2°C to +10°C
Set Point	+4.0°C
Electrical Power	115V 60Hz   220-240V 50/60Hz
Maximum Current	1.4A   0.85A
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/UL61010-2-01: 2016   IEC 61010-1:2010, AMD1:2016
Energy Star	Yes, ENERGY STAR® Certified High Performance Refrigerator
ADA Compliant	Yes, fits under standard 34" ADA compliant countertop
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, standalone, 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, 9 volt, non-rechargeable, lithium



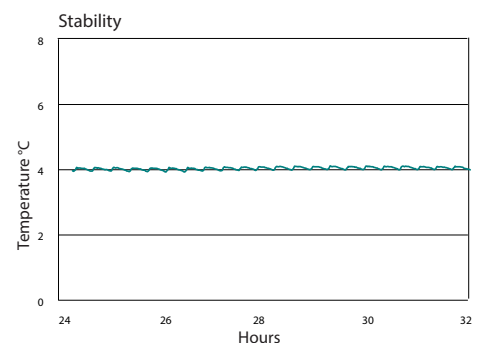
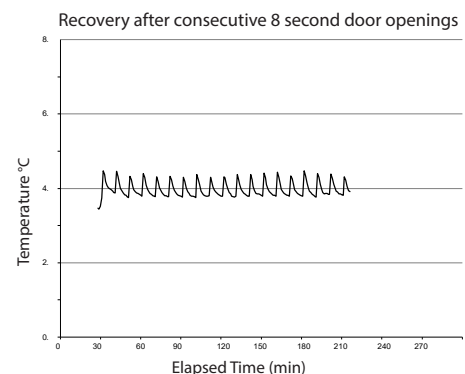
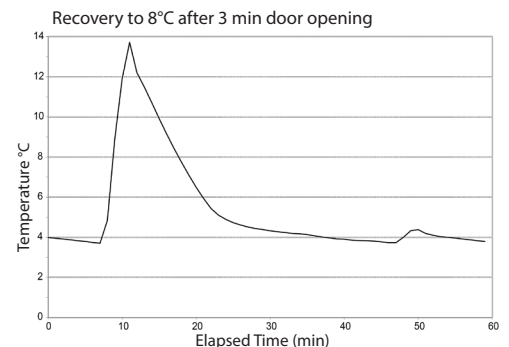
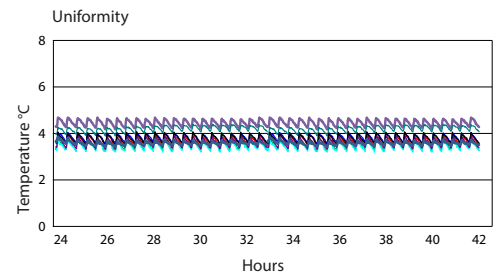
Location of test probes

Typical Temperature Map  
5 cu ft. Temperature Map (°C)

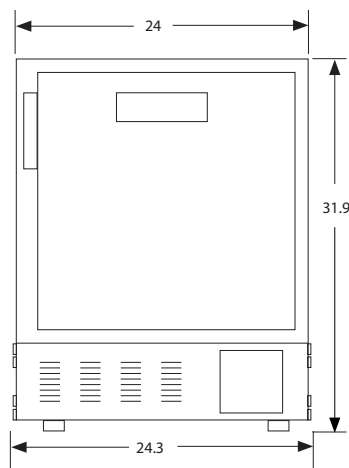
	1BL	1BR	1FL	1FR	2BL	2BR	2FL	2FR
Avg	4.1	4.0	3.9	4.1	4.2	3.8	4.3	4.0
Max	4.6	4.6	4.3	4.6	4.6	4.2	4.5	4.3
Min	3.7	3.6	3.5	3.7	3.9	3.4	4.1	3.7

Performance Characteristics (normal operating conditions)	
Uniformity   °C	+/-1.0
Recovery to 8°C from 3 min door opening   min	9
Stability   °C	0.73
Energy Consumption   kWh/day	1.2
Noise emission   dB	42
Heat rejection/emission   BTU/hr	460
Pull-down time to 4°C   min	41

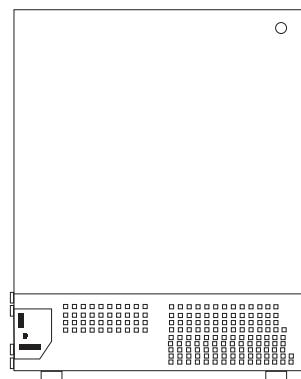
All performance data from 5 cu ft refrigerator, 24.8 ambient, 4.0°C



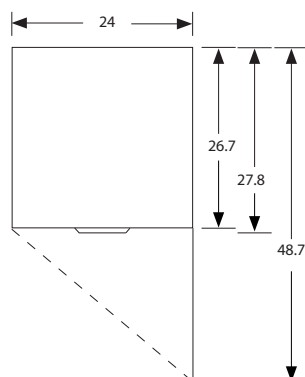
Dimensions and Construction	
Interior (w x h x d)	19.5 x 19.9 x 22.8 in   496 x 505 x 580 mm
Exterior (w x h x d)	24 x 31.5 x 26.7 in   610 x 798 x 678 mm *Add 2.5" to the height if choosing optional casters.
Overall Exterior (w x h x d)	24.3 x 31.9 x 27.8 in   616 x 809 x 705 mm *Add 0.2" to width if choosing optional access control *Includes leveling feet at lowest level, door handle, user interface, and access panels *The maximum height added with leveling feet at highest level or casters installed is 2" (51 mm)
Insulation	Sustainable, US EPA and SNAP approved foam
Exterior/Interior Finish	Bacteria-resistant powder-coating
Door	Solid, field-reversible
Access Port	Rear Access Port- for external monitoring probe(s) (0.75 in   19 mm diameter)
Interior Storage (w x h x d)	2 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
Leveling Feet	Yes, adjustable *leveling feet or casters are required for operation
Integrated Access Control	Optional- electromagnetic-lock with PIN entry via keypad
Net Weight	184 lb   84 kg
Shipping Weight	245 lb   112 kg
Clearance Requirements	Minimum 3" (76 mm) behind unit for for plug/cord and feature access Front ventilation eliminates the need for top or side clearance
Options   Accessories	Integrated access control, Stainless steel exterior/interior, Chart paper, Swivel/Locking casters, Solid ballast, Remote alarms, Remote lock adapter kit, Floor and Wall bracket kit, Stacking kit, Pedestal, Storage trays, LED light, Locking drawer, Drawer dividers, Left-hinge door, Glass door, Certificate of Calibration, Temperature validation, Validation guide (IQ/OQ), Extended warranty
Warranty	Reli™ Warranty- 5 years compressor, 2 years parts, 1 year labor Outside US and Canada- Contact your distributor for warranty information



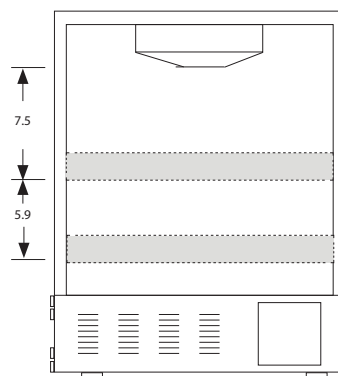
FRONT VIEW



BACK VIEW



TOP VIEW



INTERIOR  
VERTICAL SPACING