

Helmer Scientific, Noblesville, Indiana www.helmerinc.com

## Technical Data Sheet High-Performance, Medical-grade Refrigerator

Model: HBR256-GX, Horizon Series™ Blood Bank / Upright

Application, Rating, & Electrical Data		
Application	High performance storage of blood and other medical and scientific products	
Storage Volume	56 cu ft (1586 L)   1008 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/UL61010-2-01: 2016   IEC 61010-1:2010, AMD1:2016	
Energy Star	Yes	
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 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 battery	
Temperature Monitoring Ballast	Yes, 4 oz bottle with screw cap, solid ballast optional	
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Performance Characteristics	
Uniformity   °C	+/-1.0
Recovery to 8°C after 3 min door opening   min	3
Stability   °C	0.06
Energy Consumption   kWh/day	3.87
Noise emission   dB	52
Heat Rejection / Emission   BTU/hr	1195
Pull-down time to 4°C   min	93

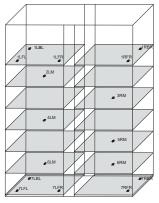
All performance data from 56 cu ft refrigerator, 24.8 °C ambient, 4.0 °C

## Recovery after consecutive 8 second door openings

## Typical Temperature Map

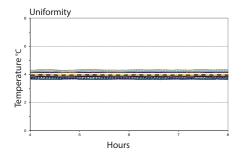
Elapsed Time (min)

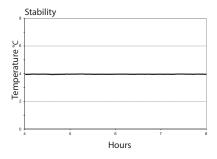
## 56 cu ft. Temperature Map ℃



Location of Test Probes

	AVG	MAX	MIN
1LBL	4.4	4.8	4.4
1LFL	4.5	4.9	4.5
1LFR	4.6	4.8	4.6
1RBR	4.2	4.6	4.1
1RFR	4.5	4.8	4.4
2LM	4.2	4.5	4.1
3RM	4.3	4.4	4.2
4LM	4.2	4.4	4.2
5RM	4.2	4.4	4.2
6LM	4.0	4.2	3.9
6RM	4.1	4.3	4.1
7LBL	4.0	4.5	4.0
7LFL	4.1	4.4	4.1
7LFR	4.0	4.2	4.0
7RBR	4.1	4.4	4.1
7RFR	4.1	4.3	4.0







Dimensions and Construction		
Interior (w x h x d)	54.7 x 58.1 x 30 in   1390 x 1476 x 762 mm	
Exterior (w x h x d)	59 x 78.3 x 34.2 in   1499 x 1989 x 867 mm	
Overall Exterior (w x h x d)	59 x 78.3 x 37.7 in   1499 x 1989 x 956 mm *Includes handles and electrical box	
Insulation	Sustainable, US EPA, SNAP and GRAS 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 26.7 in   546 x 100 x 679 mm, 100 lb   46 kg max capacity/drawer	
Casters	Yes, swivel-locking	
Net Weight	853 lb   387 kg	
Shipping Weight	983 lb   446 kg	
Clearance Requirements	Minimum of 8" (203mm) above and 3" (76mm) behind unit for 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™ Warranty- 5 years compressor, 2 years parts, 1 year labor Outside US and Canada- Contact your distributor for warranty information	



