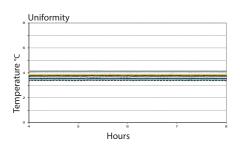


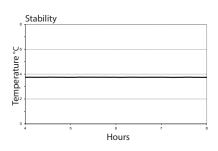
## Helmer Scientific, Noblesville, Indiana www.helmerinc.com

## **Technical Data Sheet** High-Performance, Medical-grade Refrigerator Model: HLR245-GX, Horizon Series<sup>™</sup> Laboratory / Upright

Application, Rating, & Electrical Data			
Application	High performance storage of medical and scientific products		
Storage Volume	44.9 cu ft   1271 L		
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 ETL certified to NSF/ANSI 456 Vaccine Storage Standard*		
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		
Control Sensor	Remote alarm contacts		
Communication Ports	Remote alarm contacts		
	Remote alarm contacts Yes		
Communication Ports			
Communication Ports Power Failure Alarm	Yes		
Communication Ports Power Failure Alarm High/Low Alarms	Yes Yes, fully adjustable		
Communication Ports  Power Failure Alarm  High/Low Alarms  Door Ajar Alarm	Yes Yes, fully adjustable Yes		

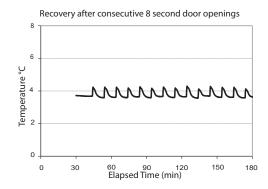
*Must be configured with NSF/ANSI 456 Vaccine Storage	e Certification option (includes Certificate of Calibration)





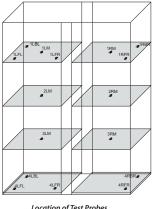
Performance Characteristics	
Uniformity   °C	+/-1.0
Recovery to 8°C after 3 min door opening   min	2
Stability   °C	0.05
Energy Consumption   kWh/day	3.69
Noise emission   dB	52
Heat Rejection / Emission   BTU/hr	1199
Pull-down time to 4°C   min	47

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



## Typical Temperature Map

## 45 cu ft. Temperature Map °C



	AVG	MAX	MIN
1LBL	3.4	3.5	3.4
1LFL	3.9	3.9	3.8
1LFR	3.8	3.8	3.7
1LM	3.5	3.6	3.5
1RBR	3.8	3.8	3.8
1RFR	4.1	4.2	4.1
1RM	3.9	3.9	3.8
2LM	3.4	3.4	3.4
2RM	3.7	3.8	3.7
3LM	3.4	3.4	3.4
3RM	3.8	3.9	3.8
4LBL	3.6	3.6	3.6
4LFL	4.1	4.1	4.1
4LFR	3.7	3.7	3.6
4RBR	3.7	3.7	3.6
4RFR	4.1	4.1	4.1



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) Left Sidewall Port - with interior and exterior plugs (1.75 in   45 mm diameter)
Interior Storage (w x d)	8 ventilated, powder-coated shelves, adjustable 22.5 $\times$ 21.9 in   572 $\times$ 557 mm, 100 lb   46 kg max capacity/shelf
Casters	Yes, swivel-locking
Net Weight	667 lb   303 kg
Shipping Weight	788 lb   358 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 recorder, Chart paper, Leveling feet, Solid ballast, Remote alarms, Floor and Wall bracket kit, Seismic anchoring kit, Storage trays, Locking drawer, Left, Solid or heated glass doors, Top cover, Side-wall access ports, NSF/ANSI 456 Vaccine Storage Certification (includes Certificate of calibration), Temperature validation, Validation guide (IQ/OQ), Certificate of calibration, Extended warranty
Certificate of Calibration	Yes, available as an option, generated with an ISO 17025 certified, NIST traceable thermometer (Certificate of Calibration is included with the NSF/ANSI 456 Vaccine Storage Certification option)
Warranty	Rel.i™ Warranty- 5 years compressor, 2 years parts, 1 year labor Outside US and Canada- Contact your distributor for warranty information



