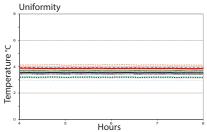


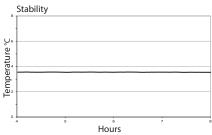
Helmer Scientific, Noblesville, Indiana www.helmerinc.com

Technical Data Sheet High-Performance, Medical-grade Refrigerator Model: HLR125-GX, Horizon Series[™] Laboratory / Upright

Application High performance storage of medical and scientific products Storage Volume 25.2 cu ft [714 L Temperature Range 42°C to +10°C Set Point 44°C Electrical Fower 115V 60Hz [220-240V 50/60Hz Maximum Current 2.8A [1.55A Facility Supply Rating Branch circuit with earth ground, meeting pluy/cord ratings as well as local electrical safety codes and requirements 102-204 VAC 10 A finninum. 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 OPPS Certified to U. and CSA Standards) EC/LUG-1010-2-011-2016 [EC-G 1010-1-2010, MD1.2016 ET-Lertified 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°E to +90°E 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 Ca	Application, Rating, & Electrical Data				
Temperature Range +2°C to +10°C Set Point +4°C Electrical Power 115V 60Hz 220-240V 50/60Hz Maximum Current 2.8A 1.55A Facility Supply Rating	Application	High performance storage of medical and scientific products			
Set Point	Storage Volume	25.2 cu ft 714 L			
Electrical Power 115V 60Hz 220-240V 50/60Hz Maximum Current 2.8A 1.55A 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-pade 115V 60Hz, 8 to 10 ft (2.4-3.0m) Inquire about additional plug/cord options Certification/Agency Listing OPS (Certified to UL and CSA Standards) IEC/Ulci1010-2-011: 2016 IEC 61010-12010, AMD1:2016 ETL certified to UL and CSA Standards) IEC/Ulci1010-2-011: 2016 IEC 61010-12010, AMD1:2016 ETL certified to UL and CSA Standards' Pes, 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 System VCC compressor-based, forced-air hydrocarbon Compressor Hermetic, variable speed (VCC). Rated speed range: 1300-4000 rpm Air-cooled fin and tube, sealed Expansion Device Cap tube Evaporator Type Direct expansion forced-air fin and tube Defrost Method Automatic Refrigerat Refoge, about the diametic of the 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 door, PIN access via optional access control Controller Type Microprocessor-based with alarm/monitor Remote alarm contacts Power Fallure Alarm Yes High/Low Alarms Yes Sulty Judy adjustable Door Ajar Alarm Yes Min/Max Temperature Temperature Monitoring Ballast Yes, display and reset Temperature Monitoring Ballast Yes, do z bottle with screw cap, solid ballast optional	Temperature Range	+2°C to +10°C			
Maximum Current 2.8A 1.55A Facility Supply Rating Branch circuit with earth ground, meeting plug/cord ratings as well as local electrical safety codes and requirements 110-120/4 Ac: 15 A (minimum) 220-240V Ac: 10 A (minim	Set Point	+4°C			
Facility Supply Rating Branch circuit with earth ground, meeting plug/cord ratings as well as local electrical safety codes and requirements 110-1209 AC: 15 A (minimum) 220-240V AC: 10 A (minimum)	Electrical Power	115V 60Hz 220-240V 50/60Hz			
safety codes and requirements 110-120 AC: 15 A (minimum) 220-240V AC: 10 A (minimum) 220-243V AC: 10 A (minimum) 220-240V AC: 10 A (minimum) 2	Maximum Current	2.8A 1.55A			
Inquire about additional plug/cord options Certification/Agency Listing OPS (Certified to UL and CSA 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 forced-air fin and tube Defrost Method Automatic Refrigerant Refo0a, 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 door, PIN access via optional access control Remote alarm contacts Power Failure Alarm Yes High/Low Alarms Yes, fully adjustable Door Ajar Alarm Yes, display and reset Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Facility Supply Rating	safety codes and requirements 110-120V AC: 15 A (minimum)			
IEC/LLG1010-2-011: 2016 IEC 61010-1:2010, AMD1:2016 ETL certified to NSF/ANSI 456 Vaccine Storage Standard*	Power Plug/Power Cord Length				
Indoor/Outdoor Use Indoor/Soutdoor 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 forced-air fin and tube Defrost Method Automatic Refrigerant Re600a, 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 door, PIN access via optional access control Control Sensor RTD, stainless steel Communication Ports Remote alarm contacts Power Failure Alarm Yes Min/Max Temperature Yes, display and reset Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Certification/Agency Listing	IEC/UL61010-2-011: 2016 IEC 61010-1:2010, AMD1:2016			
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 forced-air fin and tube Pefrost Method Automatic Refrigerant Re600a, 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 door, PIN access via optional access control Control Sensor RTD, stainless steel Communication Ports Remote alarm contacts Power Failure Alarm Yes Min/Max Temperature Yes, fully adjustable Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Energy Star	Yes, ENERGY STAR® Certified High Performance Refrigerator			
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 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 door, PIN access via optional access control 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 Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Indoor/Outdoor Use	Indoor use only, non-residential			
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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 door, PIN access via optional access control 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 Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Expansion Device	Cap tube			
Refrigerant Refri	Evaporator Type	Direct expansion forced-air fin and tube			
User Interface LED digital display, °C or °F Power Switch On/Off Controller Type Microprocessor-based with alarm/monitor Security Lockable door, PIN access via optional access control 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 Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Defrost Method	Automatic			
User Interface LED digital display, °C or °F Power Switch On/Off Controller Type Microprocessor-based with alarm/monitor Security Lockable door, PIN access via optional access control 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 Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Refrigerant	R600a, Isobutane, EPA SNAP compliant			
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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 Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Controller Type	Microprocessor-based with alarm/monitor			
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 Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Security	Lockable door, PIN access via optional access control			
Power Failure Alarm Yes High/Low Alarms Yes, fully adjustable Door Ajar Alarm Yes Min/Max Temperature Yes, display and reset Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Control Sensor	RTD, stainless steel			
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Door Ajar Alarm Yes Min/Max Temperature Yes, display and reset Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Power Failure Alarm	Yes			
Min/Max Temperature Yes, display and reset Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	High/Low Alarms	Yes, fully adjustable			
Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Door Ajar Alarm	Yes			
	Min/Max Temperature	Yes, display and reset			
Battery Back-up Yes, 9V, non-rechargeable, lithium	Temperature Monitoring Ballast	Yes, 4 oz bottle with screw cap, solid ballast optional			
	Battery Back-up	Yes, 9V, non-rechargeable, lithium			

Yes, ENERGY STAR® Certified High Performance Refrigerator		
Yes, ENERGY STAR® Certified High Performance Refrigerator		
Indoor use only, non-residential		
Non-corrosive, non-flammable, non-explosive		
+15°C to +32°C +59°F to +90°F		
VCC compressor-based, forced-air hydrocarbon		
Hermetic, variable speed (VCC). Rated speed range: 1300-4000 rpm		
Air-cooled fin and tube, sealed		
Cap tube		
Direct expansion forced-air fin and tube		
Automatic		
R600a, Isobutane, EPA SNAP compliant		
LED digital display, °C or °F		
On/Off		
Microprocessor-based with alarm/monitor		
Lockable door, PIN access via optional access control		
RTD, stainless steel		
Remote alarm contacts		
Yes		
Yes, fully adjustable		
Yes		
Yes, display and reset		
Yes, 4 oz bottle with screw cap, solid ballast optional		
Yes, 9V, non-rechargeable, lithium		

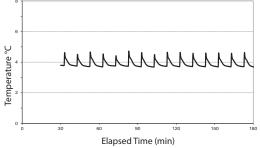




Performance Characteristics	
Uniformity °C	+/-1.0
Recovery to 8°C after 3 min door opening min	3
Stability °C	0.05
Energy Consumption kWh/day	3.01
Noise emission dB	49
Heat Rejection / Emission BTU/hr	915
Pull-down time to 4°C min	43

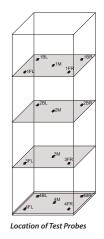
All performance data from 25 cu ft refrigerator, 24.8°C ambient, 4.0°C

Recovery after consecutive 8 second door openings



Typical Temperature Map

25 cu ft. Temperature Map °C



			•
	AVG	MAX	MIN
1BL	3.5	3.5	3.5
1BR	3.2	3.2	3.2
1FL	3.7	3.8	3.7
1FR	4.1	4.2	4.1
1M	3.7	3.7	3.7
2BL	3.0	3.0	2.9
2BR	3.1	3.2	3.1
2M	3.5	3.5	3.4
3FL	3.6	3.7	3.6
3FR	3.9	4.0	3.9
3M	3.6	3.6	3.6
4BL	3.2	3.2	3.2
4BR	3.4	3.4	3.4
4FL	3.8	3.8	3.7
4FR	3.9	3.9	3.9
4M	3.4	3.5	3.4



Dimensions and Construction		
Interior (w x h x d)	24.7 x 58.1 x 30 in 628 x 1476 x 762 mm	
Exterior (w x h x d)	29 x 78.9 x 34.1 in 737 x 2003 x 865 mm	
Overall Exterior (w x h x d)	29.1 x 78.9 x 39.1 in 738 x 2003 x 993 mm *add 0.5" to width if choosing optional access control *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) Left Sidewall Port - with interior and exterior plugs (1.75 in 45 mm diameter)	
Interior Storage (w x d)	4 ventilated, powder coated shelves, adjustable 22.5 x 27.9 in \mid 572 x 709 mm, 100 lb \mid 46 kg max capacity/shelf	
Casters	Yes, swivel-locking	
Integrated Access Control	Optional - electromagnetic-lock with PIN entry via keypad	
Net Weight	453 lb 206 kg	
Shipping Weight	546 lb 249 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 recorder, Chart paper, Leveling feet, Solid ballast, Remote alarms, Remote lock adapter kit, Floor and Wall bracket kit, Seismic anchoring Kit, Storage trays, Locking drawer, Left-hinge door, Solid or heated glass door, 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	



