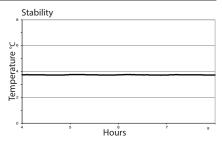


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Technical Data Sheet High-Performance, Medical-grade Refrigerator Model: HLR120-GX, Horizon Series™ Laboratory / Upright

Application High performance storage of medical and scientific products Storage Volume 20.2 or ft 572 L Temperature Range +2°C to +10°C Bet Point +4°C Bettrical Power 115 (90Hz 220-240V 50/60Hz Maximum Current 2.8A 1.55A Facility Supply Rating Branch circuit with earth ground, meeting plug/cord ratings as well as local electrical safety cotes and requirements. 120-240V AC: 15 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 QS (Certified to UL and CSA Standards) IEC/ULIO102-201: 2016 16 EG 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°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 Evaporator Type Direct expansion with forced-air fin and tube Defrost Method	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 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 Ops (Scriffed to UL and CSA Standards) (EC/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 +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 Air-cooled fin and tube, sealed Expansion Device Cap tube Evaporator Type Direct expansion with 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 Remote alarm contacts Power Fallure 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	Application	High performance storage of medical and scientific products		
Set Point	Storage Volume	20.2 cu ft 572 L		
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Assimum Current 2.8A 1.55A	Set Point	+4°C		
Branch circuit with earth ground, meeting plug/cord ratings as well as local electrical safety codes and requirements 110-120W AC: 15 A (minimum) 220-240V AC: 10 A (minim	Electrical Power	115V 60Hz 220-240V 50/60Hz		
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Inquire about additional plug/cord options	Facility Supply Rating	safety codes and requirements 110-120V AC: 15 A (minimum)		
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Indoor/Outdoor Use Indoor use only, non-residential Application Environment Non-corrosive, non-flammable, non-explosive ### ### ### ### #### #### ##########	Certification/Agency Listing			
Application Environment Non-corrosive, non-flammable, non-explosive **Refrigeration** **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** **Refrigerant** **Ref00a, 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 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 Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Energy Star	Yes		
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 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 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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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 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 Temperature Monitoring Ballast Yes, 4 oz bottle with screw cap, solid ballast optional	Refrigerant	R600a, Isobutane, EPA SNAP compliant		
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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 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		
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	Communication Port	Remote alarm contacts		
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		

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Performance Characteristics	
Uniformity °C	+/-1.0
Recovery to 8°C after 3 min door opening min	9
Stability °C	0.07
Energy Consumption kWh/day	3.04
Noise emission dB	49
Heat Rejection / Emission BTU/hr	879
Pull-down time to 4°C min	44

All performance data from 20 cu ft refrigerator, 24.8°C ambient, 4.0°C

Recovery after consecutive 8 second door openings

Typical Temperature Map

Elapsed Time (min)

#FL #M GFR

Location of Test Probes

20 cu ft. Temperature Map °C

	AVG	MAX	MIN
1BL	3.6	3.6	3.5
1BR	3.5	3.6	3.5
1FL	3.8	3.8	3.8
1FR	4.0	4.0	4.0
1M	3.8	3.8	3.7
2BL	3.4	3.4	3.3
2BR	3.5	3.5	3.4
2M	3.7	3.7	3.7
3FL	4.0	4.0	3.9
3FR	4.1	4.1	4.0
3M	3.7	3.7	3.6
4BL	3.4	3.5	3.4
4BR	3.6	3.6	3.5
4FL	4.3	4.3	4.2
4FR	4.0	4.1	4.0
4M	3.6	3.7	3.6



Dimensions and Construction		
Interior (w x h x d)	24.7 x 58.1 x 24 in 628 x 1476 x 609 mm	
Exterior (w x h x d)	29 x 78.3 x 28.2 in 737 x 1989 x 715 mm	
Overall Exterior (w x h x d)	29 x 78.3 x 31.7 737 x 1989 x 803 mm *add 0.5" to width if choosing optional access control	
Insulation	Sustainable, US EPA, SNAP and GRAS 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 22.5×21.9 in $ 572 \times 557$ mm, 100 lb $ 46$ kg max capacity/shelf	
Casters	Yes, swivel-locking	
Integrated Access Control	Optional- electromagnetic-lock with PIN entry via keypad	
Net Weight	442 lb 201 kg	
Shipping Weight	535 lb 243 kg	
Clearance Requirements	Minimum of 8" (203mm) above and 3" (76mm) behind unit for 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, 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	



