

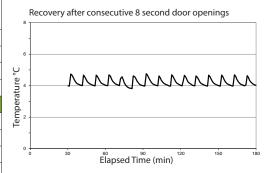
Helmer Scientific, Noblesville, Indiana www.helmerinc.com

Technical Data Sheet High-Performance, Medical-grade Refrigerator

Model: iLR120-GX, i.Series* Laboratory / Upright

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	3.01
Noise emission dB	49
Heat Rejection / Emission BTU/hr	879
Pull-down time to 4°C min	44

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



Typical Temperature Map

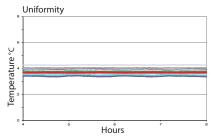
20 cu ft. Temperature Map °C

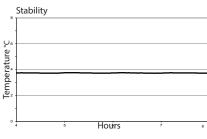
∌ 1FL	1BL 1M 1FF	•1BR
	2BL 2M	2BR
3 FL	3M 3FR	
A FL	^{4BL} ^{4M} 4FR	a 4BB

	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

Application, Rating, & Electrical Data	
Application	High performance storage of medical and scientific products
Storage Volume	20.2 cu ft 572 L
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	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	i.C3° color touchscreen, door mounted, 7in 177mm, °C or °F
Power Switch	On/Off
Controller Type	Microprocessor with touchscreen input & display
Security	Lockable door, password protected settings, PIN access via optional access control
Control Sensor	RTD, stainless steel
Communication Ports	USB, Remote alarm contacts, RJ45 (Ethernet). API available for Ethernet connectivity development
Power Failure Alarm	Yes
High/Low Alarms - Tests	Yes, fully adjustable, automatic (Peltier) testing
Door Ajar Alarm	Yes, fully adjustable
Condenser Temperature Alarm	Yes, fully adjustable
Min/Max Temperature	Yes, display and reset
Download	Yes, via USB. CSV and PDF
Event Log	Yes, all alarms, door openings, download via USB
Temperature Log	Yes, download via USB
Access Log	Yes, with optional access control, download via USB
Interactive Temperature Graph	Yes
Temperature Monitoring Ballast	Yes, two 4 oz bottles with screw caps, solid ballasts optional
Battery Back-up	Yes, 20 hr display & alarm back up for i.C3* touchscreen Rechargeable 12V, lead acid

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

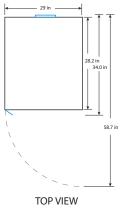


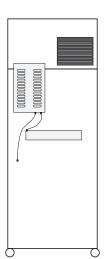




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Dimensions and Construction	
Interior (w x h x d)	24.7 x 58.1 x 24 in 628 x 1476 x 609 mm
Exterior (w x h x d)	29 x 79.6 x 28.2 in 737 x 2021 x 715 mm
Overall Exterior (w x h x d)	29.1 x 79.6 x 34 in 738 x 2021 x 862 mm *add 0.5" to width if choosing 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 21.9 in 572 x 557 mm, 100 lb 46 kg max capacity/shelf
Casters	Yes, swivel-locking
Integrated Access Control	Optional- electromagnetic-lock with PIN entry via i.C3® user interface
Net Weight	445 lb 202 kg
Shipping Weight	535 lb 243 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, Screen protector, 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, Temperature validation, Judicalion 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™ Plus Warranty- 7 years compressor, 2 years parts, 1 year labor Outside US and Canada- Contact your distributor for warranty information







BACK VIEW

