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Helmer Scientific, Noblesville, Indiana
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Technical Data Sheet
High-Performance, Medical-grade Freezer

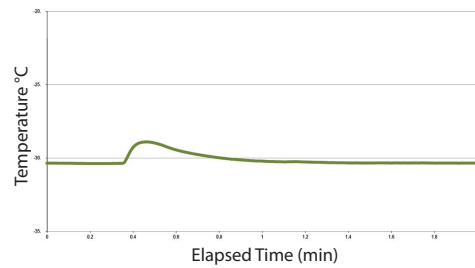Model: iLF120-GX, i.Series® Laboratory / Upright

Application, Rating, & Electrical Data

Application	High-performance storage of medical and scientific products, including vaccines
Storage Volume	20.2 cu ft (572 L)
Temperature Range	-15° to -35°C
Set-Point	-30°C
Electrical Power	115V 60Hz | 220-240V 50/60Hz
Maximum Current	6.6A | 3.1A
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 Freezer
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: 1600-5000 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	R290, Propane, EU F-Gas and EPA SNAP compliant

Controller / Configuration Settings

User Interface	i.C³® color touchscreen, door-mounted, 7 in | 177 mm, °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 Port	USB, Remote alarm contacts, RJ45 (Ethernet), API available for Ethernet connectivity development
Power Failure Alarm	Yes
High/Low Alarm	Yes, fully adjustable
Door Ajar Alarm	Yes
Min/Max Temperature	Yes, display and reset
Download	Yes, via USB in PDF or CSV format
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	Yes, two, 4 oz bottles with screw caps
Battery Backup	Yes, 20 hr display and 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)
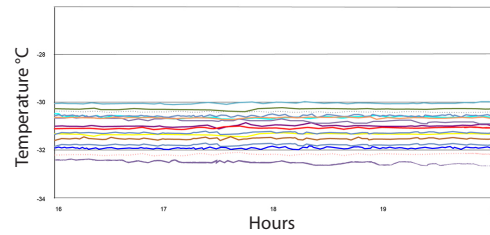
Performance Characteristics (normal operating conditions)

Uniformity | °C	+/-2.0
Recovery to -29.5°C after 1 min door opening | min	20
Stability | °C	0.3
Energy consumption | kWh/day	8.12
Noise emission | dB	52
Heat rejection | BTU/hr	2177
Pull-down time to -30°C | min	59

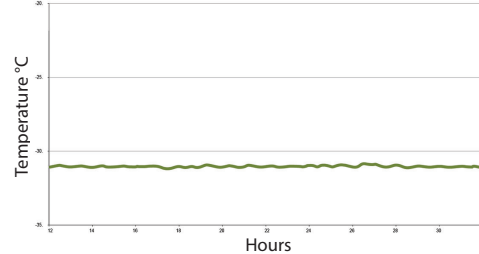All performance data from 20 cu ft freezer, 25°C ambient, -30.0°C
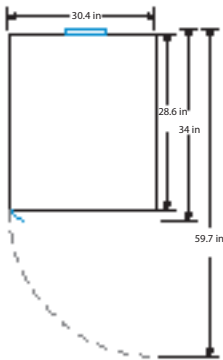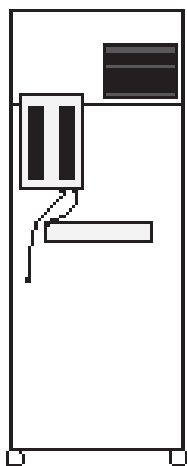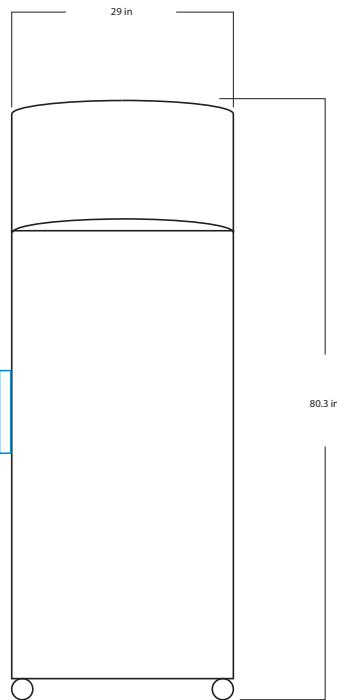

Recovery after 1 minute door opening

Uniformity

Stability

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Dimensions and Construction

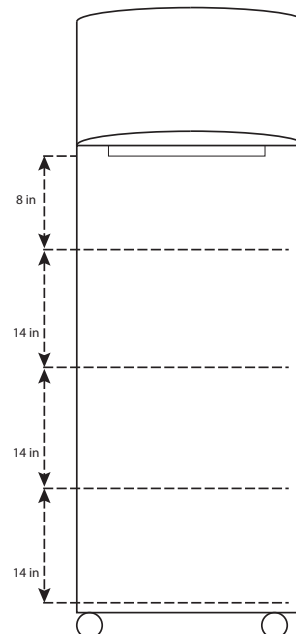|	
Interior (w x h x d)	24.7 x 58.1 x 24 in | 628 x 1476 609 mm
Exterior (w x h x d)	29 x 80.3 x 28.6 in | 737 x 2039 x 725 mm
Overall Exterior (w x h x d)	30.4 x 80.3 x 34.0 in | 773 x 2039 x 862 mm *Includes i.Series bezel, handle and electrical box *subtract 0.3" from depth for units prior to serial number 2150000
Insulation	Sustainable, US EPA and SNAP approved foam
Exterior/Interior Finish	Bacteria-resistant powder-coating
Door	1, solid, right-hinged
Access Port	Top Access Port- for external monitoring probe(s) (0.75 in | 19 mm diameter)
Interior Storage (w x h x d)	4 ventilated shelves 22.5 x 21.9 in | 572 x 557 mm
Casters	Yes, swivel-locking
Integrated Access Control	Optional - electromagnetic-lock with PIN entry via i.C³® user interface
Net Weight	400 lb | 182kg
Shipping Weight	490 lb | 223 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, Remote alarms, Floor and Wall bracket kit, Seismic anchoring kit, Storage trays, Ventilated drawers, Drawer dividers, Screen protector, USB drive for downloading, Left-hinge door, 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

TOP VIEW

FRONT VIEW

INTERIOR VERTICAL SPACING

BACK VIEW

Helmer Scientific 380472-1/C 01/22

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