

Helmer Scientific, Noblesville, Indiana www.helmerinc.com

Technical Data Sheet High-Performance, Medical-grade Refrigerator Model: iLR256-GX, i.Series* Laboratory / Upright

Application, Rating, & Electrical Data			
Application	High performance storage of medical and scientific products		
Storage Volume	56 cu ft 1586 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	i.C3° color touchscreen, door mounted, 7in 177mm, °C or °F		
Power Switch	On/Off		
Controller Type	Microprocessor with touchscreen input & display		
Security	Lockable doors, password protected settings		
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		
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		

Performance Characteristics	
Uniformity °C	+/-1.0
Recovery to 8°C after 3 min door opening min	7
Stability °C	0.07
Energy Consumption kWh/day	3.94
Noise emission dB	52
Heat Rejection / Emission BTU/hr	1195
Pull-down time to 4°C min	46

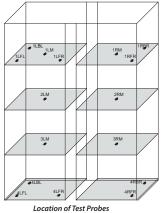
All performance data from 56 cu ft refrigerator, 24.8°C ambient, 4.0°C

Recovery after consecutive 8 second door openings

Elapsed Time (min)

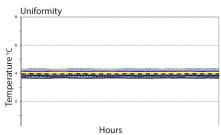
Typical Temperature Map

56 cu ft. Temperature Map °C



	AVG	MAX	MIN
1LBL	3.7	3.7	3.7
1LFL	4.0	4.0	4.0
1LFR	4.1	4.2	4.1
1LM	3.7	3.7	3.6
1RBR	3.9	3.9	3.8
1RFR	4.3	4.4	4.3
1RM	4.0	4.0	3.9
2LM	3.7	3.8	3.7
2RM	3.9	3.9	3.8
3LM	ND	ND	ND
3RM	3.9	3.9	3.9
4LBL	3.7	3.8	3.7
4LFL	4.3	4.3	4.3
4LFR	4.1	4.2	4.1
4RBR	3.8	3.9	3.8
4RFR	4.2	4.2	4.2

 ${}^*\!Must\,be\,configured\,with\,NSF/ANSI\,456\,Vaccine\,Storage\,Certification\,option\,(includes\,Certificate\,of\,Calibration)$







Dimensions and Construction	
Interior (w x h x d)	54.7 x 58.1 x 30 in 1390 x 1476 x 762 mm
Exterior (w x h x d)	59 x 79.6 x 34.1 in 1499 x 2021 x 865 mm
Overall Exterior (w x h x d)	59 x 79.6 x 40 in 1499 x 2021 x 1015 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 x 27.9 in $ $ 572 x 709 mm, 100 lb $ $ 46 kg max capacity/shelf
Casters	Yes, swivel-locking
Net Weight	703 lb 319 kg
Shipping Weight	823 lb 374 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, Screen protector, Locking drawer, 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 [™] Plus Warranty- 7 years compressor, 2 years parts, 1 year labor Outside US and Canada- Contact your distributor for warranty information



