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Helmer Scientific, Noblesville, Indiana
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Technical Data Sheet
High-Performance, Medical-grade Refrigerator
Certified to NSF/ANSI 456 Vaccine Storage Standard
Model: HPR105-GX, Horizon Series™ Pharmacy / Undercounter

Application, Rating, & Electrical Data

Application	High-performance storage of medical and scientific products
Storage Volume	5.3 cu ft | (150 L)
Temperature Range	+2°C to +10°C
Set Point	+5°C
Electrical Power	115V 60Hz | 220-240V 50/60Hz
Maximum Current	1.4A | 0.85A
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/UL61010-2-01: 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
ADA Compliant	Yes, fits under standard 34" high ADA compliant countertop
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	LED digital display, °C or °F
Power Switch	On/Off
Controller Type	Microprocessor 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
Battery Back-up	Yes, 9 volt, non-rechargeable, lithium

Performance Characteristics (normal operating conditions)

Uniformity | °C	+/-1.0
Recovery to 8°C after 3 min door opening | min	11
Stability | °C	0.72
Energy consumption | kWh/day	1.2
Noise emission | dB	42
Heat rejection/emission | BTU/hr	460
Pull-down time to 4°C | min	37

All performance data from 5 cu ft refrigerator, 24.8 ambient, 4.0°C
Meets temperature performance requirements as included in NSF/ANSI 456 Vaccine Storage Standard.

Uniformity

Recovery to 8°C after 3 min door opening

Recovery after consecutive 8 second door openings

Stability
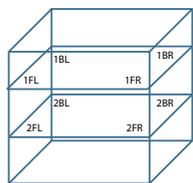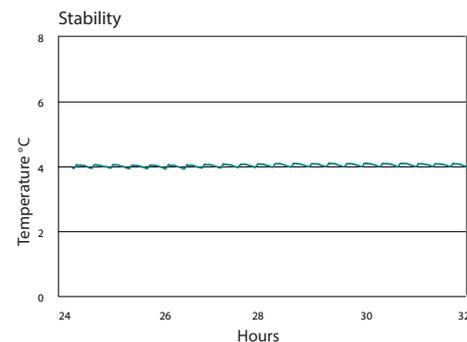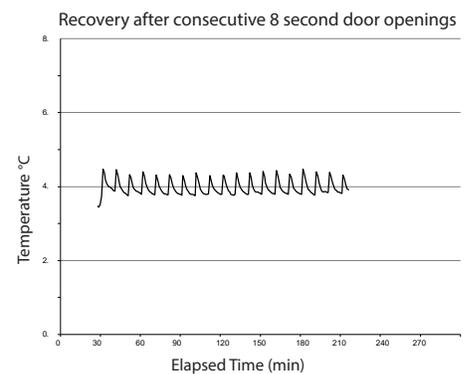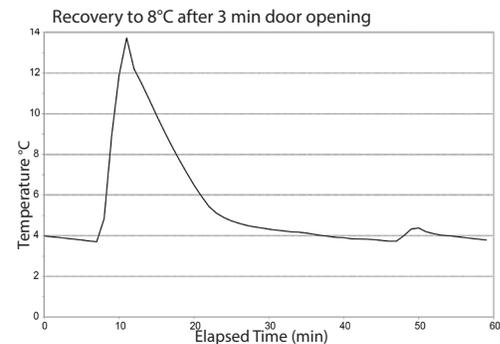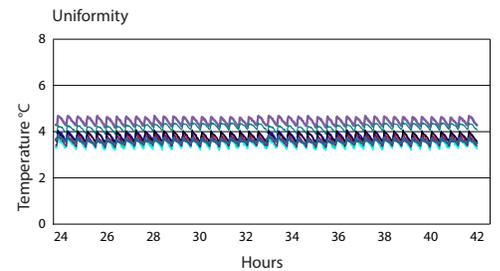
Typical Temperature Map

5 cu ft. Temperature Map (°C)

	1BL	1BR	1FL	1FR	2BL	2BR	2FL	2FR
Avg	3.6	3.4	3.2	3.3	4.4	3.4	4.1	3.7
Max	4.0	4.0	3.5	3.6	4.7	3.8	4.4	4.0
Min	3.2	3.0	2.9	2.9	4.1	3.1	3.8	3.3

Location of test probes

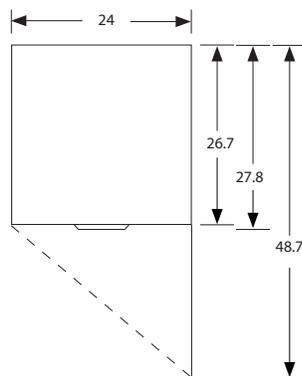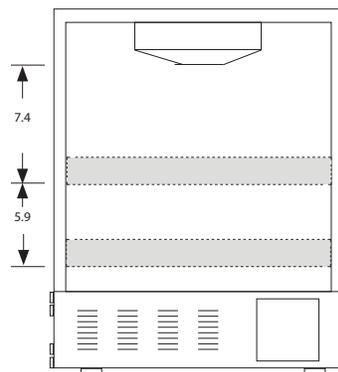| Dimensions and Construction	
Interior (w x h x d)	19.5 x 19.9 x 22.8 in | 496 x 505 x 580 mm
Exterior (w x h x d)	24 x 31.5 x 26.7 in | 610 x 798 x 678 mm *Add 2.5" to the height if choosing optional casters.
Overall Exterior (w x h x d)	24.3 x 31.9 x 27.8 in | 616 x 809 x 705 mm *Add 0.2" to width if choosing optional access control *Includes leveling feet at lowest level, door handle, user interface, and access panels * The maximum height added with leveling feet at highest level or casters installed is 2" (51 mm)
Insulation	Sustainable, US EPA and SNAP approved foam
Exterior/Interior Finish	Bacteria-resistant powder-coating
Door	Solid, field-reversible
Access Port	Rear Access Port- for external monitoring probe(s) (0.75 in | 19 mm diameter)
Interior Storage (w x h x d)	2 ventilated drawers, adjustable 16.7 x 4 x 20.6 in | 424 x 101 x 523 mm, 100 lb | 46 kg max capacity/drawer
Leveling Feet	Yes, adjustable *leveling feet or casters are required for operation
Integrated Access Control	Optional- electromagnetic-lock with PIN entry via keypad
Net Weight	182 lb | 83 kg
Shipping Weight	243 lb | 111 kg
Clearance Requirements	Minimum 3" (76 mm) behind unit for plug/cord and feature access Front ventilation eliminates the need for top or side clearance
Options | Accessories	Integrated access control, Stainless steel exterior/interior, Chart recorder, Chart paper, Swivel/Locking casters, Solid ballast, Remote alarms, Remote lock adapter kit, Floor and Wall bracket kit, Stacking kit, Pedestal, Storage trays, LED light, Locking drawer, Left-hinge door, Glass door, Temperature validation, Validation guide (IQ/OQ), Extended warranty
Certificate of Calibration	Yes, generated with ISO 17025 certified, NIST traceable thermometer
Warranty	Rel.i™ Warranty- 5 years compressor, 2 years parts, 1 year labor Outside US and Canada- Contact your distributor for warranty information
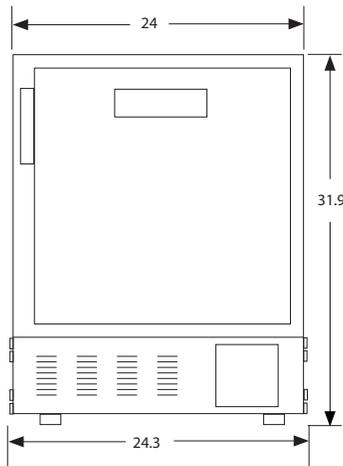
FRONT VIEW
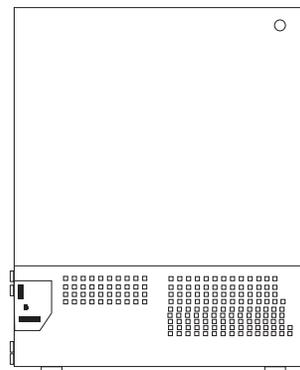
BACK VIEW

TOP VIEW

INTERIOR
VERTICAL SPACING

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