Application, Rating, & Electrical Data

Application	Storage of blood plasma and other medical and scientific products
Storage Volume	25.2 cu ft (714 L)	464 plasma boxes
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
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
Chart Recorder	Yes, integrated, 4" (102 mm) diameter, inkless pressure-sensitive charts, backup battery
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 bottle with screw cap
Battery Backup	Yes, 20 hr display and alarm back-up for i.C³® touchscreen	Rechargeable 12V, lead acid

Performance Characteristics (normal operating conditions)

Uniformity	°C	+/-2.0
Recovery to -29.5°C after 1 min door opening	min	16
Stability	°C	0.2
Energy consumption	kWh/day	7.39
Noise emission	dB	52
Heat rejection	BTU/hr	2215
Pull-down time to -30°C	min	93

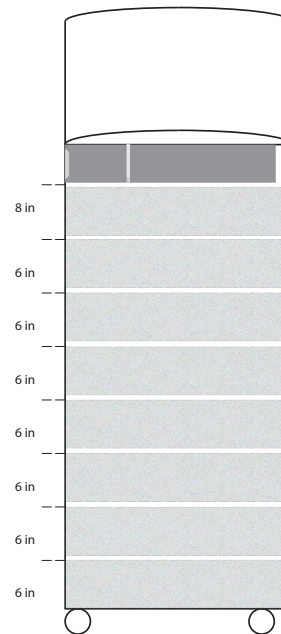All performance data from 25 cu ft freezer, 25°C ambient, -30.0°C

Recovery after 1 minute door opening

Uniformity

Stability

![Helmer Scientific logo]
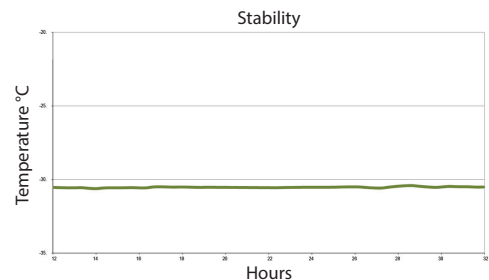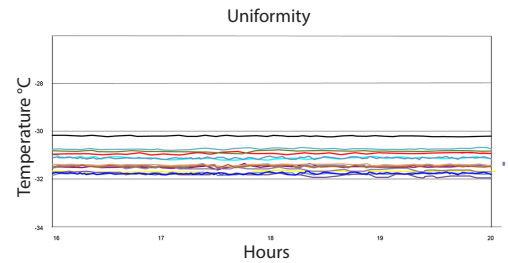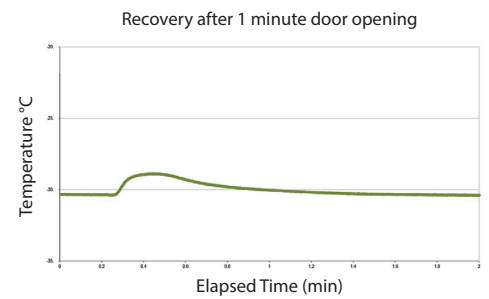
Dimensions and Construction

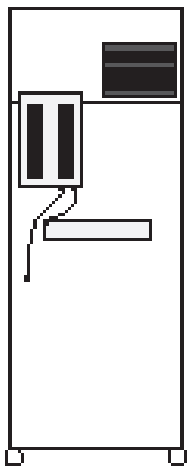|	
Interior (w x h x d)	24.7 x 58.1 x 30 in | 628 x 1476 x 762 mm
Exterior (w x h x d)	29 x 80.3 x 34.4 in | 737 x 2039 x 874 mm
Overall Exterior (w x h x d)	30.4 x 80.3 x 40 in | 772 x 2039 x 1014 mm *Includes i.Series bezel, handle and electrical box *subtract 0.3" from depth for units prior to serial 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)	8 drawers, liquid-tight, plus Cold-Shield™, stainless steel, adjustable 21.5 x 3.8 x 26.7 in | 546 x 98 x 679 mm
Casters	Yes, swivel-locking
Integrated Access Control	Optional - electromagnetic-lock with PIN entry via i.C³® user interface
Net Weight	524 lb | 238 kg
Shipping Weight	614 lb | 249 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 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, 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
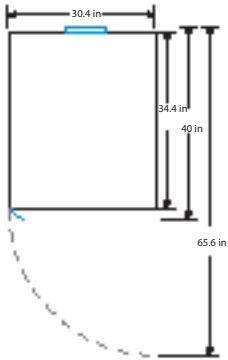
TOP VIEW
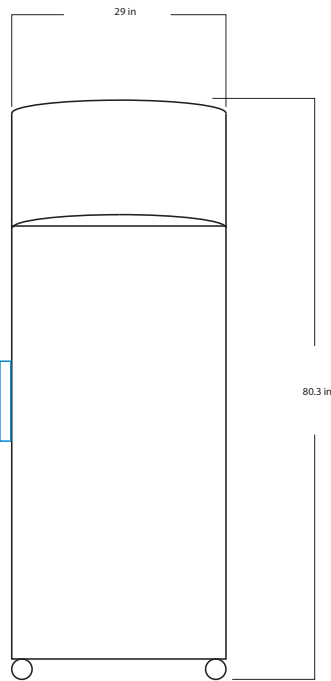
BACK VIEW

FRONT VIEW

INTERIOR VERTICAL SPACING