Application, Rating, and Electrical Data

Application	Precision temperature storage for biopharmaceutical and life science research applications
Storage Volume	44.9 cu ft	1271 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
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, EPA SNAP and EU F-Gas compliant natural hydrocarbon refrigerant

Controller / Configuration Settings

|	
User Interface	LED digital display, °C or °F
Power Switch	On/Off
Controller Type	Microprocessor with alarm/monitor
Security	Lockable exterior door, locking interior drawers available as an accessory
Control Sensor	RTD, stainless steel
Communication Ports	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, maintenance-free anodized aluminum solid ballast thermal buff
Battery Back-up	Yes, 9V, non-rechargeable, lithium

Performance Characteristics

Uniformity	°C	+/-1.0
Recovery to 8°C after 3 min door opening	min	2
Stability	°C	0.05
Energy Consumption	kWh/day	3.69
Noise emission	dB	52
Heat Rejection / Emission	BTU/hr	1199
Pull-down time to 4®C	min	47

All performance data from 45 cu ft refrigerator, 25ºC ambient, 4.0ºC

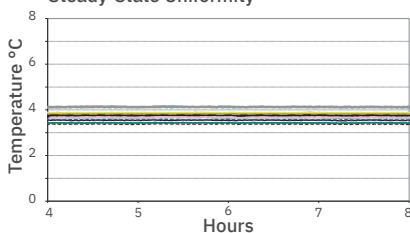Recovery After Consecutive 8 Second Door Openings
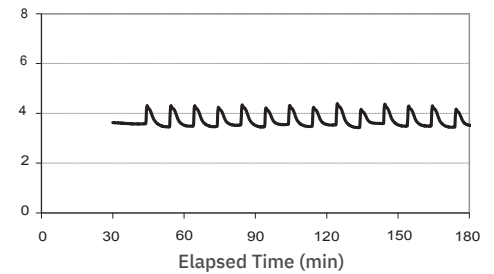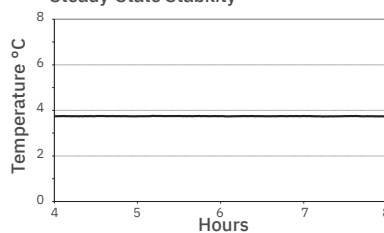

Typical Temperature Map
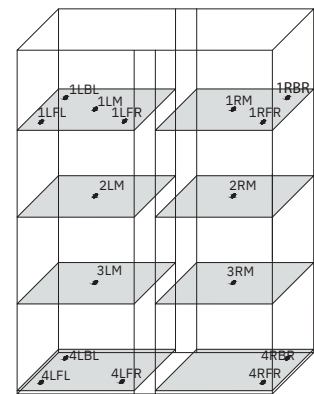
Location of Test Probes

45 cu ft. Temperature Map °C

	AVG	MAX	MIN
1LBL	3.4	3.5	3.4
1LFL	3.9	3.9	3.8
1LFR	3.8	3.8	3.7
1LM	3.5	3.6	3.5
1RBR	3.8	3.8	3.8
1RFR	4.1	4.2	4.1
1RM	3.9	3.9	3.8
2LM	3.4	3.4	3.4
2RM	3.7	3.8	3.7
3LM	3.4	3.4	3.4
3RM	3.8	3.9	3.8
4LBL	3.6	3.6	3.6
4LFL	4.1	4.1	4.1
4LFR	3.7	3.7	3.6
4RBR	3.7	3.7	3.6
4RFR	4.1	4.1	4.1

Steady-State Uniformity

Steady-State Stability

Dimensions and Construction

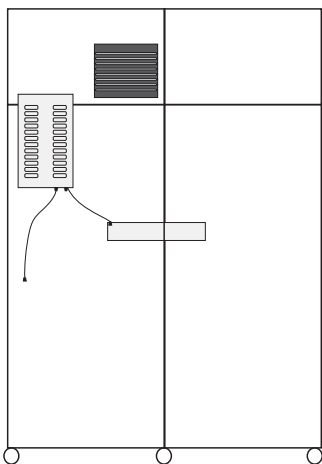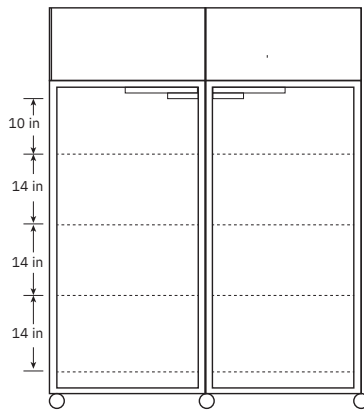|	
Interior (w x h x d)	54.7 x 58.1 x 24 in | 1390 x 1476 x 609 mm
Exterior (w x h x d)	59 x 78.9 x 28.1 in | 1499 x 2003 x 712 mm
Overall Exterior (w x h x d)	59 x 78.9 x 33.1 in | 1499 x 2003 x 840 mm
Insulation	EPA SNAP and EU F-Gas compliant insulation and foaming agents
Exterior/Interior Finish	Bacteria-resistant powder-coating
Door	Dual glass doors, right and left hinges
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 21.9 in | 572 x 557 mm, 100 lb | 46 kg max capacity/shelf
Mobility	Easily movable locking casters
Net Weight	667 lb | 303 kg
Shipping Weight	788 lb | 358 kg
Clearance Requirements	Minimum of 8" (203mm) above and 3" (76mm) behind unit for proper ventilation, clearance, and feature access
Available Accessories	Remote alarms, remote lock adapter kit, floor and wall seismic bracket kits, stacking kit, pedestal, storage trays, locking interior drawers, certificate of calibration, temperature validation, validation guide (IQ/OQ), extended warranty
Certificate of Calibration	Yes, available as an option, generated with an ISO 17025 certified, NIST traceable thermometer
Warranty	5 years compressor, 2 years parts, 1 year labor (Outside US/Canada: Please consult with your local representative for labor warranty information.)

TOP VIEW

59 in

28.1 in
33.1 in

58.7 in

FRONT VIEW

59 in

78.9 in
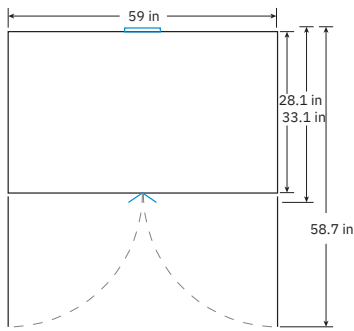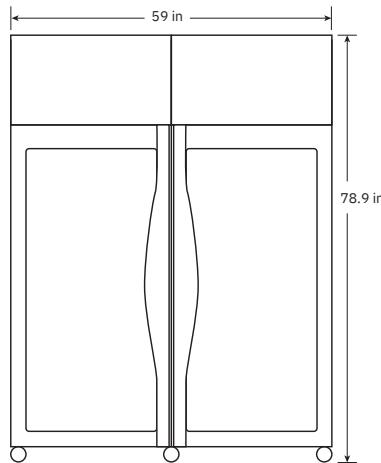
BACK VIEW

INTERIOR VERTICAL SPACING

10 in

14 in

14 in

14 in

ENERGY STAR

bsi ISO 13485 Medical Devices Quality Management FM 536280

CE 2797

RoHS COMPLIANT

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