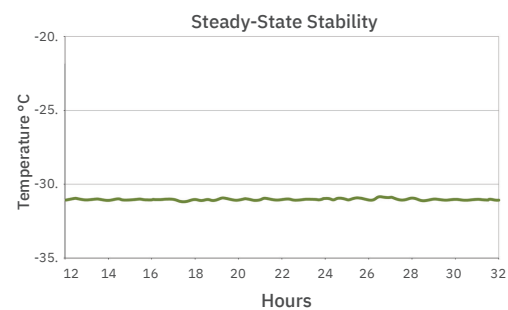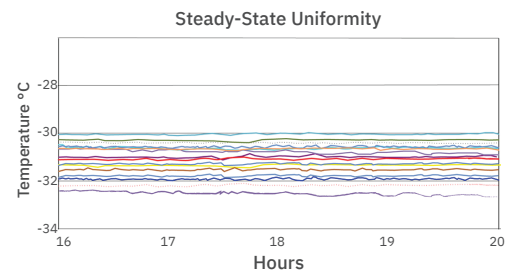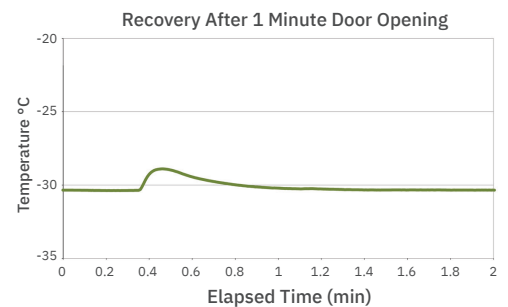## Application, Rating, and Electrical Data

Application	Precision temperature storage for biopharmaceutical and life science research applications
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*
Indoor/Outdoor Use	Indoor use only, non-residential
Energy Star	Yes, ENERGY STAR® Certified High Performance Freezer
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	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 Alarm	Yes, fully adjustable
Door Ajar Alarm	Yes
Min/Max Temperature	Yes, display and reset
Temperature Monitoring	Yes, 4 oz bottle with screw cap
Battery Back-up	Yes, 9 volt, non-rechargeable, lithium

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	8.60
Noise emission | dB	52
Heat rejection | BTU/hr	2318
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

Steady-State Uniformity

Steady-State Stability

Dimensions and Construction

Interior (w x h x d)	24.7 x 58.1 x 24 in | 628 x 1476 x 609 mm
Exterior (w x h x d)	29 x 80.3 x 28.4 in | 737 x 2039 x 720 mm
Overall Exterior (w x h x d)	30.2 x 80.3 x 32.6 in | 766 x 2039 x 827 mm *Includes handle, electrical box and top cover
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 (h x d)	4 ventilated shelves 22.5 x 21.9 in | 572 x 557 mm
Casters	Yes, swivel-locking
Net Weight	397 lb | 181 kg
Shipping Weight	487 lb | 222 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 (Certificate of Calibration is included with the NSF/ANSI 456 Vaccine Storage Certification option)
Warranty	3 years compressor, 2 years parts, 1 year labor (Outside US/Canada: Please consult with your local representative for labor warranty information.)

30.2 in
28.4 in
32.6 in
59.7 in

TOP VIEW

BACK VIEW

29 in
80.3 in

FRONT VIEW

8 in
14 in
14 in
14 in

INTERIOR VERTICAL SPACING

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