



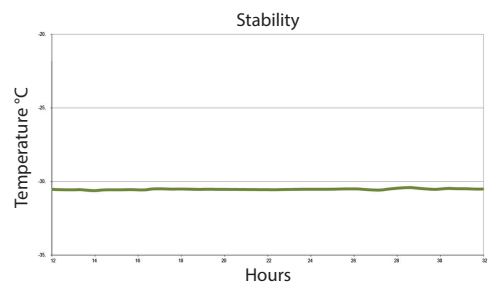
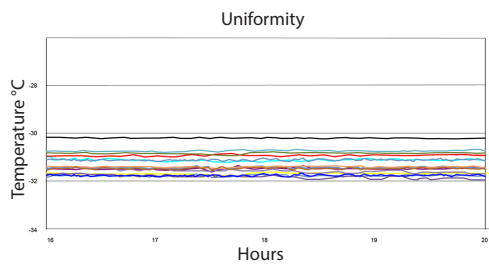
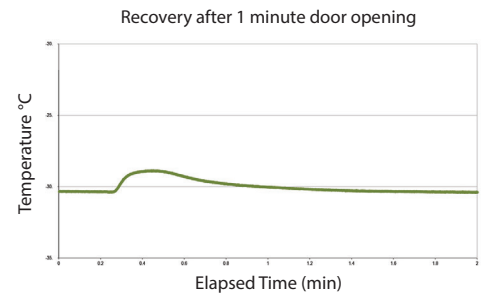
Helmer Scientific, Noblesville, Indiana
www.helmerinc.com

Technical Data Sheet
High-Performance, Medical-grade Freezer
Model: HBF120-GX, Horizon Series™ Plasma / Upright

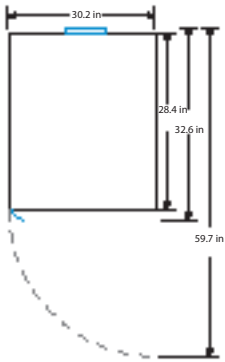
Application, Rating, & Electrical Data	
Application	Storage of blood plasma and other medical and scientific products
Storage Volume	20.2 cu ft (572 L) 360 plasma boxes
Temperature Range	-15° to -35°C
Set-Point	-30°C
Electrical Power	115V 60Hz 220-240V 50/60Hz
Maximum Current	6.6A 3.1A
Facility Supply 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	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
Chart Recorder	Yes, integrated, 4" (102 mm) diameter, inkless pressure-sensitive charts, backup battery
Temperature Monitoring	Yes, 4 oz bottle with screw cap
Battery Backup	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	25
Stability °C	0.1
Energy consumption kWh/day	8.60
Noise emission dB	52
Heat rejection BTU/hr	2318
Pull-down time to -30°C min	79

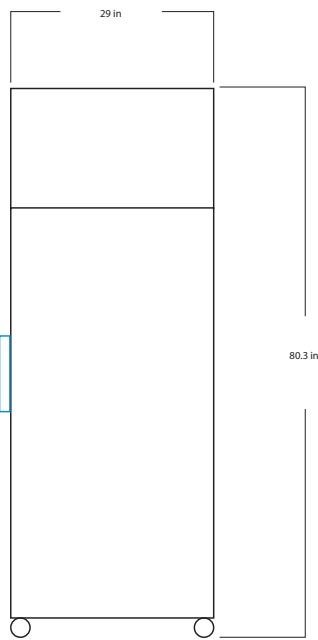
All performance data from 20 cu ft freezer, 25°C ambient, -30.0°C



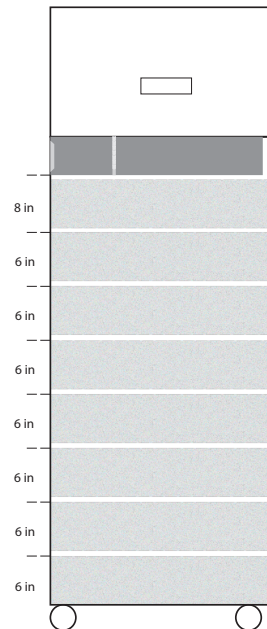
Dimensions and Construction	
Interior (w x h x d)	24.7 x 58.1 x 24 in 628 x 1476 x 609 mm
Exterior (w x h x d)	29 x 80.3 x 28.4 in 737 x 2039 x 720 mm
Overall Exterior (w x h x d)	30.2 x 80.3 x 32.6 in 766 x 2039 x 827 mm *Includes handle, electrical box and top cover *subtract 0.3" from depth for units 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 20.7 in 546 x 98 x 527 mm
Casters	Yes, swivel-locking
Integrated Access Control	Optional - electromagnetic-lock with PIN entry via keypad
Net Weight	466 lb 212 kg
Shipping Weight	556 lb 253 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, Left-hinge door, Certificate of calibration, Temperature validation, Validation guide (IQ/OQ), Extended warranty
Warranty	Reli™ Warranty - 3 years compressor, 2 years parts, 1 year labor Outside US and Canada- Contact your distributor for warranty information



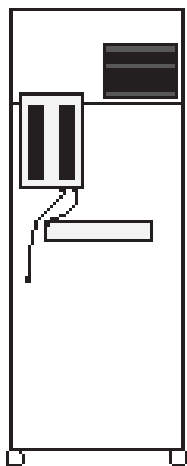
TOP VIEW



FRONT VIEW



INTERIOR VERTICAL SPACING



BACK VIEW