

Helmer Scientific, Noblesville, Indiana www.helmerinc.com

Technical Data Sheet High-Performance, Medical-grade Freezer

Model: HLF120-GX, Horizon Series[™] Laboratory / Upright

Application, Rating, & Electrical Data		
Application	High-performance storage of medical and scientific products, including vaccines	
Storage Volume	20.2 cu ft (572 L)	
Temperature Range	-15° to -30°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 (pending)	
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, 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 Backup	Yes, 9 volt, non-rechargeable, lithium	

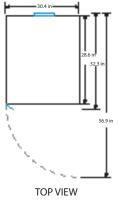
Performance Characteristics (normal operating conditions)		
Uniformity °C	+/-2.0	
Recovery to -29.5°C after 1 min door opening min	20	
Stability °C	0.3	
Energy consumption kWh/day	10.28	
Noise emission dB	52	
Heat rejection BTU/hr	2318	
Pull-down time to -30°C min	59	

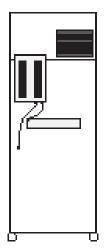
All performance data from 20 cu ft freezer, 25°C ambient, -30.0°C



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 28.6 in 737 x 2039 x 726 mm	
Overall Exterior (w x h x d)	30.4 x 80.3 x 32.3 in 773 x 2039 x 820 mm	
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	
Integrated Access Control	Optional - electromagnetic-lock with PIN entry via keypad	
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	
Options Accessories	Integrated access control, Stainless steel interior, Chart Recorder, 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	Rel.i™ Warranty - 3 years compressor, 2 years parts, 1 year labor Outside US and Canada- Contact your distributor for warranty information	







BACK VIEW

