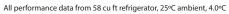


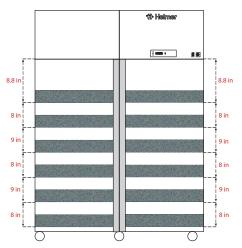
Helmer Scientific, Noblesville, Indiana www.helmerinc.com

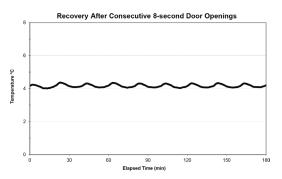
Technical Data Sheet High-Performance, Medical-grade Refrigerator Model: HBR458-GX, Horizon Series™ Blood Bank / Pass-Thru

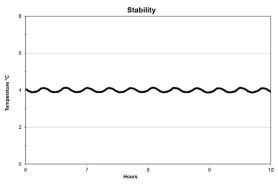
Application, Rating, & Electrical Data			
Application	High perforn products	nance storage of blood and other medical and scientific	
Storage Volume	58.5 cu ft 1656 L 864 Blood bags		
Temperature Range	+2°C to +10°C		
Set Point	+4°C		
Electrical Power	115V 60Hz 220-240V 50/60Hz		
Maximum Current	6.3A 3.5A		
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		ospital-grade 115V 60Hz, 8 to 10 ft (2.4-3.0m) it additional plug/cord options	
Certification/Agency Listing		d to UL and CSA Standards) 2-01: 2016 IEC 61010-1:2010, AMD1:2016	
Indoor/Outdoor Use	Indoor use only, non-residential		
Application Environment	Non-corrosiv	e, 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: 3500-4500 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 Setting	15		
User Interface	LED digital display, °C or °F		
Power Switch	On/Off		
Controller Type	Microprocessor with alarm/monitor		
Security	Lockable doors, key locks		
Control Sensor	RTD, stainless steel		
Communication Ports	Remote alarm contacts		
Power Failure Alarm	Yes		
High/Low Alarms	Yes, fully adju	ustable	
Door Ajar Alarm	Yes		
Min/Max Temperature	Yes, display and reset		
Chart Recorder	Yes, integrat	ed, 4" (102mm) diameter, inkless pressure-sensitive charts, ery	
Temperature Monitoring Ballast	Yes, 4 oz bottle with screw cap, solid ballast optional		
Battery Back-up	Yes, 9V, non-	rechargeable, lithium	
Performance Characteristics			
Uniformity °C		+/-1.0	
Recovery to 8°C after 3 min door opening min		6	
Stability °C		2.3	
Energy Consumption kWh/day		6.58	
Noise emission dB		54	
Heat Rejection / Emission BTU/hr		2002	
Pull-down time to 4°C min		45	
	All performance data from 58 cu ft refrigerator, 25°C ambient, 4.0°C		













Dimensions and Construction		
Interior (w x h x d)	54.7 x 58.1 x 31.8 in 1390 x 1476 x 809 mm	
Exterior (w x h x d)	59 x 79.3 x 35.8 in 1499 x 2013 x 1014 mm	
Overall Exterior (w x h x d)	59 x 79.3 x 40.1 in 1499 x 2013 x 1018 mm * includes handles	
Insulation	Sustainable, US EPA, and SNAP approved foam	
Exterior/Interior Finish	Bacteria-resistant powder-coating	
Trim/Skirt Kit Details (sold separately)	Trim kit - side rails 3 x 81.8 in 77 x 2078 mm; top rail 3 x 65 in 77 x 1651 mm; Bacteria-resistant powder-coating; 1 kit per side needed Skirt kit - 2.7 x 58.9 in 67 x 1495 mm; Clean room side only; Bacteria-resistant powder-coating	
Door	4, dual-pane glass	
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 h x d)	12 liquid-tight, stainless steel, 2-way drawers, adjustable 21.5 x 4.1 x 26.9 in 547 x 104 x 683 mm, 100 lb 46 kg max capacity/drawer	
Casters	Yes, swivel-locking	
Net Weight	899 lb 408 kg	
Shipping Weight	1035 lb 470 kg	
Clearance Requirements	Minimum of 8" (203mm) above the control side of the refrigerator. Clearance above the solid cover on the clean room side may be 0".	
Options Accessories	Chart Recorder, Chart Paper, Skirt Kit, Wall Trim Kit, Ventilated Shelves, Bridge Shelves, Liquid-tight Drawers, Storage Tray Package, Drawer Dividers, Solid Ballast, Left-hinge Door, Solid Door, Remote Alarms, Floor Bracket Kit, Stainless Steel Interior, Side Wall Access Ports, Temperature Validation, Certificate of Calibration, 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	

Pass-Thru Placement for Building-in

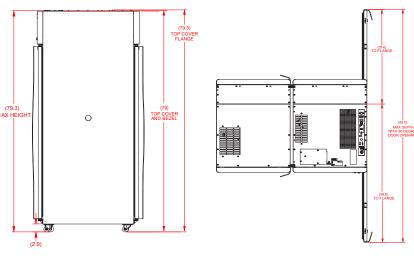
When placing a pass-thru refrigerator between two rooms, size the opening to fit the width of the cabinet. From front to back, the flange between the top covers indicates the separation between the clean room and ante-room (control) sides. The refrigerator should be positioned so that the wall header is over the solid cover, but not over the flange or the blue bezel. A minimum overhead clearance of 8" (204mm) is required on the ante-room side of the cabinet. Zero clearance is required above the clean room side, as well as on the left and right sides of the cabinet.

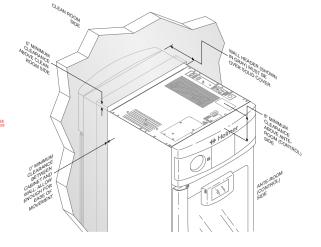


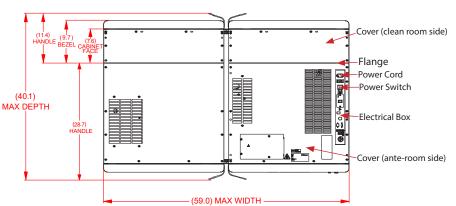
NOTICE

If adding Trim and/or Skirt kit(s) to the unit(s), kit dimensions must be considered prior to building-in.

Wall Header Placement and Required Clearances Shown from ante-room (control) side. Appearance may vary.







Optional Trim Kit and Skirt Kit Placement Shown from clean room side. Appearance may vary. Attaches to the wall around cabinet.

Trim Kit

Top piece extends across full width of unit; may be installed on the clean 3"x 81.8 room or ante-room side.

Clearance needed between adjacent units

- . 6.2" for full access to both units
- with trim around each unit • 5.0" for full access to both units
- with trim around one unit
 2.5" for full access to one unit
- with no trim installed.

Attaches to the underside of cabinet. Front piece extends across full width of unit; may only be installed on the clean

