

MDF-U5312-PA

Biomedical Freezer

-30°C Upright Freezer

17.0 cu.ft. | 482 L



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The MDF-U5312-PA biomedical freezer is designed for short and intermediate term storage of biologicals. The unique double door design provides two independent storage areas in one cabinet, which is ideal for sharing secure freezer storage space with another researcher in your lab or with another lab in your facility.

Uniform Temperature and Manual Defrost

The robust refrigeration system is powered by a purpose-built compressor. Each chamber maintains temperature by utilizing a cold floor/cold shelf evaporator design. A manual defrost means straight line temperature performance plus outstanding uniformity and stability without temperature spikes associated with automatic defrost cycle freezers.

Microprocessor Control and Alarm System

The microprocessor with LED display includes comprehensive setpoint, alarms, monitoring and diagnostic functions. Constant monitoring of ambient and system conditions allows the user to take quick action if any abnormalities were to arise. Self diagnostic error messages notify you to take corrective action.

High Performance Built

Biomedical freezers are purpose built with a biomedical grade refrigeration system, cfc-free foamed-in-place urethane insulation and heavy duty cabinet construction to meet and exceed the high quality standards required by today's laboratories.



Temperature Range
-20°C to -30°C

Proof of Performance

Ideal storage environment for enzymes, plasma, vaccines, test samples, reagents, test kits and other biologicals.



Intuitive Monitoring

Intuitive control panel for easy programming of operating temperature and alarm settings.



Secure Latch

Integrated and external door locks allow for utmost product protection. One key lock secures both doors. Locking mechanism on each door latch (padlock not included).

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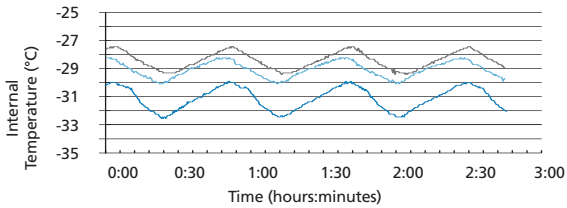
Extra Protection, Easy Access

Two insulated outer doors seal firmly against the cabinet to help minimize change in interior temperatures during routine door openings. With a double door design, when one door is opened, only half of the chamber is exposed to lab ambient. Outer door latches feature ergonomic design that allow one-handed access for comfortable operation. Balanced door hinges stop at any angle from 35° to 90° for user convenience.

Control inventory with multiple removable storage bins.

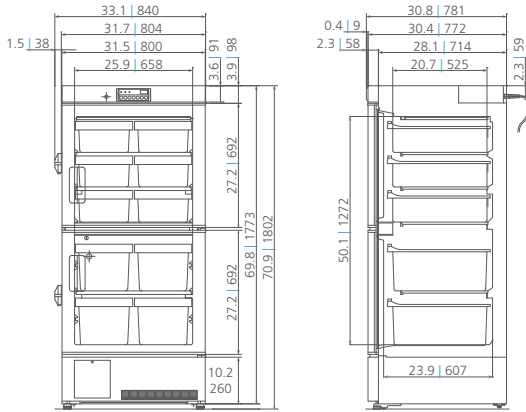
Temperature Uniformity Data

-30°C setpoint at 20°C ambient temperature, empty freezer



Dimensions

Unit : inch | mm



Model Number		MDF-U5312-PA
External Dimensions (W x D x H) ¹⁾	inches mm	31.7 x 30.4 x 70.9 804 x 772 x 1802
Internal Dimensions (W x D x H)	inches mm	25.9 x 23.9 x 50.1 658 x 607 x 1272
Volume	cu.ft. liters	17.0 482
Net Weight	lbs. kg	295 134
Shipping Weight	lbs. kg	320 145
Performance		
Warranty ²⁾		2 years parts/labor 3 years compressor parts
Cooling Performance ³⁾	°C	-30
Temperature Setting Range	°C	-10 to -35 in 1°C increments
Temperature Control Range	°C	-20 to -30 in 1°C increments
Control		
Controller	qty	(1) Microprocessor, touchpad data entry, password protected, memory
Display		LED
Cabinet Operation		Setpoint temperature maintained in both chambers
Temperature Sensor		Thermistor
Refrigeration		
Refrigeration System		Single rotary type compressor
Compressors	W	(1) 400
Refrigerant		CFC-free R-404A
Insulation Material		Rigid polyurethane foamed-in-place
Evaporator Type		Fixed shelves, top chamber floor, bottom chamber
Defrost		Manual (control panel button)
Insulation Thickness	inches mm	2.8 70
Construction		
Exterior Material		Zinc galvanized steel with acrylic finish
Interior Material		Styrene resin
Outer Door	qty	2
Key Lock		On lower chamber door – locks both doors
Hasp (requires optional padlock)	qty	2
Top Chamber – Fixed Shelves	qty	2
Bottom Chamber – Fixed Shelves	qty	1
Top Chamber – Medium Bins	qty inches mm	6 11.4 x 21 x 5.4 290 x 536 x 136
Top Chamber – Large Bins	qty inches mm	4 11.4 x 21 x 9.4 290 x 536 x 238
Access Port	qty	1
Access Port Position		Back Wall
Access Port Diameter	inches mm	1.1 30
Casters	qty	2 swivel (front base) and 2 fixed (rear base)
Leveling Feet	qty	2 (front of base)
Alarms		
Power Failure		V-B-R
High Temperature		V-B-R
Low Temperature		V-B-R
Battery Life		V
Condenser Fan Motor		V
Remote Alarm Contacts		Normal open, normal closed, common (rated 30VDC, 2A)
Electrical and Noise Level		
Power Supply		115V, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle
Frequency	Hz	60
Noise Level ⁴⁾	dB(A)	40
Temperature Recorders		
Circular Type	6", 7 Day Circular	MTRC954
Chart Paper	52 charts per box	C740306REV
Ink Pen	pack of 6	R252

¹⁾ Exterior dimensions of main cabinet only, excluding handle and other external projections

²⁾ Current warranty offered at time of printing and may be subject to change

³⁾ Air temperature measured at freezer center, ambient temperature +35°C, no load

⁴⁾ Nominal value – Background noise 20dB(A)

Specifications are subject to change without notice.

For latest specification information contact PHC Corporation of North America at info@us.phcd.com.



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