

# Biomedical Freezers

-30°C Upright Freezers

22.0 cu.ft. | 623 L

24.4 cu.ft. | 690 L



MDF-U731M-PA

Our biomedical freezers offer automatic or manual defrost storage solutions. Both models provide uniform, reliable and environmentally safe operation and are designed for long, intermediate and short-term storage at temperatures as low as -30°C. These freezers can be used in clinical, biotechnology and industrial laboratories.

## Refrigeration Design

These biomedical freezers utilize unique high performance laboratory and clinical grade refrigeration systems to provide dependable cooling by balancing temperature performance and energy management. The reserve refrigeration power, initiated automatically on demand, assures fast temperature recovery following door openings.

## Uniform Storage Environment

Uniform temperatures are maintained throughout the storage chamber through unique electrical control of the refrigeration system. This assures product safety regardless of storage location. This freezer is ideal for storage of biologics, enzymes, culture media, vaccines, lab specimens and other temperature sensitive materials.

## Manual Defrost Systems

Model MDF-U731M-PA includes a cold wall evaporator with a manual defrost system. Coils are placed strategically within the chamber for maximum cooling performance. The chamber storage area is maintained at a constant temperature until a manual defrost is initiated. This stability is ideal for temperature sensitive biological materials, such as enzymes.



## Uniform Storage Environment

Uniform temperatures are maintained throughout the storage chamber for assured product safety regardless of storage location. This is ideal for storage of biologics, enzymes, culture media, vaccines, lab specimens and other temperature sensitive materials.



## Microprocessor Control and Alarm System

Our biomedical freezers include factory preset audible and visual alarms for power failure and door ajar, battery backup and a self-diagnostic messaging system. The softkey six button menu allows for easy management of all freezer functions.



## Automatic Defrost Systems

Model MDF-U731-PA incorporates a forced air evaporator system with an electronic controlled automatic defrost that occurs only when needed with no need for user intervention.

*Image above shows optional storage bins.*

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Cam latch provides positive door closure.

The key lock and integrated hasp, padlock optional, increase security.

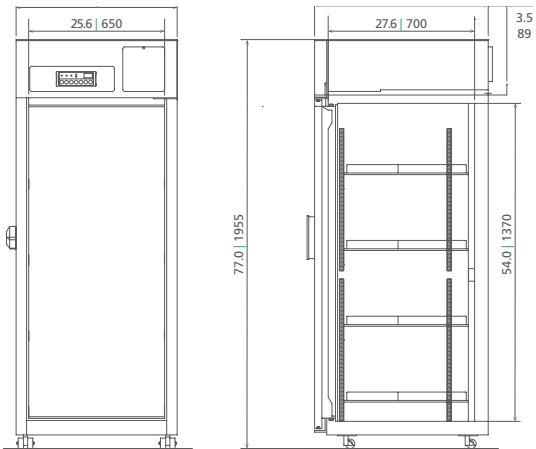
Model MDF-U731M-PA shown with optional storage bins.

## Maximize Floor Space

The upright cabinet design offers maximum storage with minimal floor space required.

## Dimensions

Unit : inch | mm



# MDF-U731-PA | MDF-U731M-PA

Model Number		MDF-U731-PA	MDF-U731M-PA
External Dimensions (W x D x H) <sup>1)</sup>	inches   mm	30.3 x 32.7 x 77.0   770 x 830 x 1955 mm	30.3 x 32.7 x 77.0   770 x 830 x 1955 mm
Internal Dimensions (W x D x H)	inches   mm	25.6 x 27.6 x 53.9   650 x 700 x 1370 mm	25.6 x 27.6 x 59.8   650 x 700 x 1520 mm
Volume	cu.ft.   liters	22.0   623	24.40   690
Net Weight	lbs   kg	342   155	335   152
<b>Performance</b>			
Warranty		2 years parts and labor, 3 years compressor parts	
Cooling Performance <sup>2)</sup>	°C	-30	-30
Temperature Setting Range	°C	-15 to -35 in 1°C increments	-18 to -35 in 1°C increments
Temperature Control Range <sup>2)</sup>	°C	-20 to -30 in 1°C increments	-20 to -30 in 1°C increments
<b>Control</b>			
Controller		Microprocessor, softkey data entry, password protected, memory	
Display		LED	
Temperature Sensor		Thermistor	
<b>Refrigeration</b>			
Refrigeration System		Single, hermetic, reciprocal compressor	Single, hermetic, reciprocal compressor
Compressors	W	(1) 400	(1) 400
Refrigerant		SNAP and CARB Approved HFO R-449A	SNAP and CARB Approved HFO R-449A
Evaporator Type		Forced Air	Cold Wall
Defrost		Automatic	Manual
Insulation Material		Rigid polyurethane foamed-in-place	Rigid polyurethane foamed-in-place
<b>Construction</b>			
Exterior Material		Powder coated steel	
Interior Material		Painted steel	
Outer Door		1; Solid	
Key Lock		Standard	
Additional Door Lock		Hasp for pad lock	
Shelves		4; Adjustable, wire	
Shelf Dimension (W x D)	inches   mm	24.6 x 24.4   626 x 620	24.6 x 24.4   626 x 620
Max. Load - Total	lbs   kg	110   50	110   50
Access Port / Position	qty	2; Left side   1; top	2; Left side   1; top
Bins	qty	N/A	Optional
Access Port Diameter	inches   mm	1.1   30	1.1   30
Casters	qty	2; Swivel   2; fixed	2; Swivel   2; fixed
Leveling Feet	qty	2; Front of base for securing unit in place	2; Front of base for securing unit in place
<b>Alarms (V = Visual Alarm, B = Buzzer Alarm, R = Remote Alarm)</b>			
Power Failure		V-B-R	
High Temperature		V-B-R	
Low Temperature		V-B-R	
Door Ajar		V-B	
Remote Alarm Contacts / Outputs		Normal open, normal closed, common   DC 30V, 2A	
<b>Electrical and Noise Level</b>			
Power Supply		115V, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle	
Noise Level <sup>3)</sup>	dB(A)	40	
<b>Options</b>			
Bin Capacity	pack	5 packs of 2, total 10 bins	7 packs of 2, total 14 bins
Bin	part number	MDF075C	
Extra Shelf	part number	MDF730SLF	
<b>Temperature Recorders</b>			
Circular Type		MTRC954	
Chart Paper		C740306REV	
Ink Pen	pack of 6	R252	
<b>Optional Communication System</b>			
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System	

<sup>1)</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections

<sup>2)</sup> Air temperature measured at freezer center, ambient temperature +30°C, no load

<sup>3)</sup> 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.

Performance data herein is based on independent testing at time of publication.



PHC Corporation of North America  
1300 Michael Drive, Suite A, Wood Dale, IL 60191  
Toll Free USA (800) 858-8442, Fax (630) 238-0074  
www.phcd.com/us/biomedical

