PHCbi

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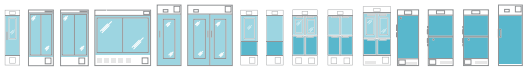
MEETS CDC PHARMACY RECOMMENDATION

MEETS CDC VACCINE RECOMMENDATION

DESIGNED FOR VACCINE, PHARMACEUTICAL AND MEDICAL PRODUCT STORAGE.

PHCbi brand refrigerators and freezers are specifically designed to create and maintain the precise temperatures needed for safe storage of vaccines and pharmaceuticals.



High Performance Biomedical Refrigerators and Freezers

PHC Corporation of North America

Life Science Innovator Since 1966

IT'S THE **QUALITY OF COLD**

that determines the efficacy of internal storage conditions.

*MPR-N450FH-PA | **76353-814***
Combo Refrigerator/Freezer

*MDF-U731M-PA | **10067-690***
-30°C Manual Defrost
Biomedical Freezer

*MPR-722-PA | **76355-506***
Pharmaceutical Refrigerator

*MPR-S300H-PA | **76383-298***
Pharmaceutical Refrigerator

Storage temperatures specified in pharmaceutical product inserts are categorized as refrigerated or frozen. While frozen products typically tolerate a broader temperature environment, refrigerated products must be kept from freezing.

The combination of temperature control accuracy, interior temperature uniformity, quick recovery, resistance to high ambient temperature and multiple monitoring processes delivers a quality of cold that characterizes our commitment to engineering, storage safety and reliability.

MEETS CDC VACCINE RECOMMENDATION

MEETS CDC PHARMACY RECOMMENDATION

Our pharmacy storage cabinets are designed to meet current CDC pharmacy guidelines and upcoming standards for vaccine storage.

The CDC estimates that more than $20 million is lost each year - in the Vaccines for Children program alone - on wasted pharmaceuticals stored under insufficient conditions. In addition, it is impossible to visually verify if a vaccine has been frozen during a temperature excursion in cold chain storage. This may render the vaccine ineffective and may negate the purpose of the immunization itself, leading to a potential exposure to disease. [1,2,3,4]

Excellence in cold chain storage.

Our refrigerators, freezers and combo refrigerators/freezers represent more than fifty years of engineering excellence in cold chain storage and temperature controlled products. From the refrigeration platform to the control center and cabinet configuration, each model delivers an extra measure of protection for safety and viability of high value pharmaceuticals.

GOVERNING BODIES

More information on standards associated with improving storage and safety of vaccines and other pharmaceutical independent reports is available from these and other agencies.

- American National Standards Institute (ANSI), Ann Arbor, MI
- National Institute for Standards and Technology (NIST), Gaithersburg, MD
- NSF International, Ann Arbor, MI
- U.S. Centers for Disease Control and Prevention (CDC), Atlanta, GA
- Vaccines for Children Program (VFC), NSF. Atlanta, GA
- World Health Organization (WHO), Geneva, Switzerland

ENERGY STAR

We have earned ENERGY STAR certification for a selection of high performance biomedical refrigerators and freezers that operate over a temperature range of 10°C to -40°C. ENERGY STAR products are third-party certified based on testing in EPA-recognized laboratories. For the latest information on our ENERGY STAR products visit www.phchd.com/us/biomedical/energy-star.

Designed for Vaccine, Pharmaceutical and Medical Product Storage.

ACCURACY

Temperature accuracy is a critical requirement in the quality of cold. Our refrigerators are factory pre-set at 5°C (41°F). This assures interior storage temperature is sufficiently above the freezing point of vaccines and other liquid-based pharmaceuticals that can lose efficacy if frozen. This margin is essential for storage of small-volume doses in microsyringes that can freeze quickly if exposed to 0°C (32°F) for a short time following a door-open recovery period.

UNIFORMITY

The quality of cold starts with interior temperature uniformity from top-to-bottom, front-to-back and side-to-side. Uniformity assures stored product safety regardless of where in the refrigerator it is placed.

RECOVERY

Frequent door openings are common in facilities where vaccines are stored for distribution and administration. Vaccines are sensitive to freezing temperatures. PHCbi brand refrigerators protect against the possibility of freezing with a combination of precise temperature control and positive airflow balanced within the cabinet and monitored by a microprocessor-based controller.

AMBIENT TOLERANCE

High ambient temperatures are common in all US markets during the summer months, especially when HVAC demand is stressed due to low-voltage or brown-out conditions. PHCbi brand refrigerators and freezers are designed with high-efficiency insulation, peripheral gaskets to prevent cold air loss and robust refrigeration components selected for broad voltage tolerance. Dual pane glass doors on selected models reduce or eliminate condensation.

MONITORING

Microprocessor controllers include secure setpoint management with factory pre-sets, high visibility digital temperature displays, battery backup, local audio/visual deviation alarms, USB log download, and remote alarm contacts. For reliable independent monitoring, utilize the LabAlert® Monitoring System.

Vaccine Storage Recommendations

If a vaccine freezes, its efficacy may be diminished or destroyed without visible indication. Thus, vaccines inadvertently frozen in cold chain distribution or local storage may not offer protection to patients.[1]

In an effort to assure the quality of vaccines at the end of the distribution cold chain, the United States Centers for Disease Control and Prevention (CDC) has published guidelines for best practices in vaccine storage.[3] These guidelines, which continue to evolve, are based on studies conducted by the National Institute of Standards and Technology (NIST).[2]

Established in 2014, these guidelines are designed to isolate and identify the conditions that affect vaccine efficacy and storage integrity, including the following areas of focus:

- Must not be a household or dormitory type of refrigerator. Dormitory-style units should not be used under any circumstances. This type of refrigerator poses a significant risk of freezing a vaccine even when it is used for temporary storage. A NIST report showed that this type of unit demonstrated inconsistent temperature control, regardless of where the vaccine was located in the chamber. Within two weeks of use, median temperature of the refrigerator setpoint had drifted approximately 4°C lower, freezing the vaccines contained inside[4]
- Must offer dedicated storage in a stand-alone refrigerator specifically designed to establish and maintain key performance parameters
- Must maintain accurate, uniform and repeatable storage temperature over a range of 2°C to 8°C (36°F to 46°F). The factory setpoint is 5°C (41°F)
- Must protect from freezing temperatures anywhere in the refrigerator. This is critical for storage of small vaccine doses and microsyringes that can freeze quickly
- For vaccines that require frozen storage, freezer temperature range must be between -15°C to -50°C (5°F to -58°F)
- May require NIST calibrated thermometer with certificate of calibration

ANIMAL VACCINE APPLICATIONS

High performance biomedical refrigerators and freezers are also recommended for storage of vaccines and other pharmaceuticals developed for veterinary use. These applications include veterinary offices, zoological and animal preservation reserves, farm cooperatives and large-scale dairy operations where herd management is required and vaccines are stored.

1) A 2012 Centers for Disease Control and Prevention (CDC) report revealed improper storage of some vaccines from the Vaccines for Children (VFC) program serving an estimated 40 million children through a national network.

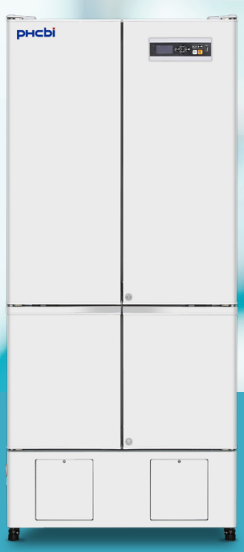
2) NSF International (NSF) and The U.S. Center for Disease Control and Prevention have assigned industry consultants comprised of leading refrigeration and freezer cabinet manufacturers, including PHC Corporation of North America, to establish vaccine storage guidelines with an emphasis on establishing criteria for storage refrigerators to protect refrigerated vaccines from freezing. These criteria will require that all vaccines be stored in refrigerators that meet performance standards currently offered by PHC Corporation of North America.

3) U.S. Centers for Disease Control and Prevention. (2016). *CDC Vaccine Storage and Handling Toolkit*. Atlanta, GA. Retrieved from http://www.cdc.gov/vaccines/recs/storage/toolkit/storage-handling-toolkit.pdf.

4) U.S. National Institute of Standards and Technology. (2009). *Thermal analysis of refrigeration systems used for vaccine storage.* Gaithersburg, MD: Chojnacky, M., Miller, W., Ripple, D., & Strouse, G. Retrieved from http://www.nist.gov/customcf/get_pdf.cfm?pub_id=904574.

Use of non-compliant household or domestic refrigerators for pharmaceutical storage may be unsafe, costly and creates liabilities for any audited dispensing pharmacy clinician at a leading hospital or health agency that cannot assure the efficacy of vaccines associated with federally funded programs or other public health initiatives. [1,2,3,4]

High Performance
Model MPR-S300H-PA | **76383-298**
Pharmaceutical Refrigerator



High Performance
Model MPR-N450FSH-PA | **76353-816**
Combo Refrigerator/Freezer

CDC Regulatory Compliance Requirements for Vaccine Storage

MPR Series Refrigerators, Combo Refrigerators/Freezers, and Freezers are designed to meet best practice and performance directives established by the CDC.

- NIST certified calibrated temperature control and indicating probes (optional)*
- Accurate refrigerator temperature control, 2°C to 8°C (36°F to 46°F), factory pre-set at 5°C (41°F)
- Automatic defrost; elimination of ice and water while maintaining product temperature within specification
- Protection from inadvertent freezing in refrigerator chamber
- Independent temperature controls for refrigerator and freezer chambers
- Tight peripheral door seals
- Freezer range, -15°C to -50°C (5°F to -58°F), chambers must maintain -15°C (5°F) throughout

PHCbi MPR Series Refrigerators and Freezers vs Domestic/Household Products

Performance	MPR Series	Domestic/Household
Meets CDC Criteria for Vaccine Safety	Yes	—
Precise Temperature Setting, Digital Display	Microprocessor Control, 1°C Setpoint Accuracy	—
Uniform Top-to-Bottom Temperature	Forced Airflow, ±3°C (Refrigerators), ±5°C (Freezers)	—
Fast Temperature Recovery	Reserve Cooling Power	—
Ambient Temperature Protection	High Performance Insulation	—
Protection from Vaccine Freezing	Tight Temperature Uniformity To Protect Stored Product From Freezing	—
Design Attributes	Specifically for Vaccine/Biological/ Pharmaceutical Use	—
Dual Pane Glass Door	Transparent UV Screening	—
Integrated Systems Supervision	Microprocessor Monitoring	—
Deviation Alarms	Temperature, Door Ajar	—
Remote Alarm Terminal	Standard NO/NC/C - DC 24V 2A Connection	—
Self-Diagnostic Functions	Continuous	—
Access Ports for Independent Probes	Yes	—
NIST Traceable Temperature Probe	Optional	—
Automatic Defrost on Demand, Evaporator Sensor Initiated	Maintains Stored Product Temperature	—
Independently Controlled Freezer Section	On Combo Refrigerator/ Freezer Units Only	—

* National Institute of Standards and Technology (NIST) and the American Society for Testing and Materials (ASTM Standard).

Standard Features Guide

All MPR Series Refrigerators, Combo Refrigerators/ Freezers, and Freezers come standard with:

- CFC Free insulation
- Microprocessor temperature controller with alarms
- CFC Free refrigerants
- Highly visible LED digital temperature display
- Remote alarm contacts
- Keypad lockout
- Key door lock
- Diagnostics
- Access ports with plugs
- Leveling feet & casters

Temperature Operation and Defrost

Refrigerators

- Exceptional uniformity prevents vaccines from freezing
- Unique defrost system keeps refrigerator free from frost build up. Electronically monitored and initiates only when needed

Freezers

- Freezers incorporate either forced air, cold wall or cold evaporator shelves to achieve freezing temperatures
- Freezers have either automatic or manual defrost

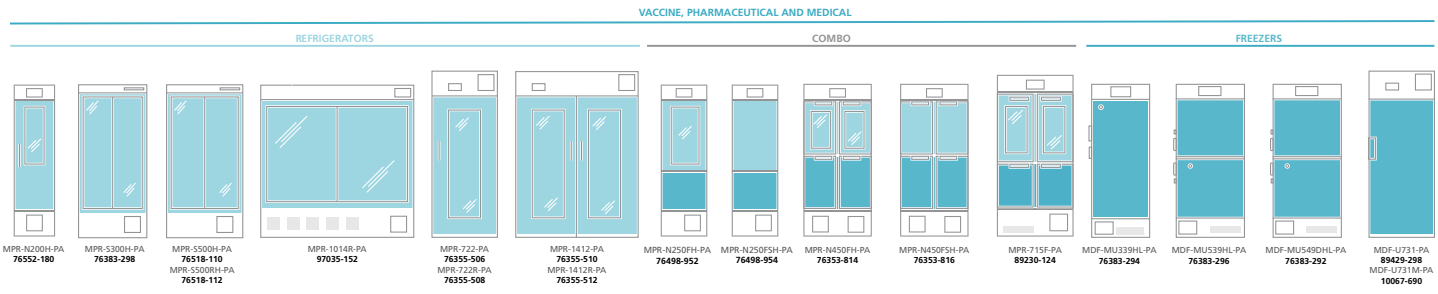
Selection

PHCbi brand vaccine/pharmacy refrigerators and biomedical freezers are available in a variety of configurations, including undercounter and upright models with shelves. Pull-out wire baskets or pull-out solid drawers are available on select models.

Purchasing Guide by Storage Volume

Choosing a pharmacy refrigerator or freezer is often based on storage volume needs. The below chart shows estimated storage capacities of PHCbi brand refrigerators and freezers based on standard 5 ml vials.

	Pharmacy Refrigerators		Pharmacy Freezers	
Vial Storage Capacity	Cabinet Size	PHCbi Refrigerator Model	Cabinet Size	PHCbi Freezer Model
Low Volume, less than 500 vials	3.0 cu.ft. to 12.0 cu.ft.	MPR-N200H-PA | **76552-180** Refrigerator MPR-N250FH-PA | **76498-952** Combo Refrigerator/Freezer MPR-N250FSH-PA | **76498-954** Combo Refrigerator/Freezer MPR-N450FH-PA | **76353-814** Combo Refrigerator/Freezer MPR-N450FSH-PA | **76353-816** Combo Refrigerator/Freezer	2.8 cu.ft. to 12.0 cu.ft.	MPR-N250FH-PA | **76498-952** Combo Refrigerator/Freezer MPR-N250FSH-PA | **76498-954** Combo Refrigerator/Freezer MPR-N450FH-PA | **76353-814** Combo Refrigerator/Freezer MPR-N450FSH-PA | **76353-816** Combo Refrigerator/Freezer
Moderate Volume, 500 to 2,000 vials	12.0 cu.ft. to 17.3 cu.ft.	MPR-S300H-PA | **76383-298** Refrigerator MPR-715F-PA | **89230-124** Combo Refrigerator/Freezer	12.0 cu.ft. to 17.3 cu.ft.	MDF-MU339HL-PA | **76383-294** Freezer MDF-MU549DHL-PA | **76383-292** Freezer
Large Volume, 2,000 to 10,000 vials	17.3 cu.ft. to 48.0 cu.ft.	MPR-S500RH-PA | **76518-112** Refrigerator MPR-S500H-PA | **76518-110** Refrigerator MPR-722R-PA | **76355-508** Refrigerator MPR-722-PA | **76355-506** Refrigerator MPR-1014R-PA | **97035-152** Refrigerator	17.3 cu.ft. to 48.0 cu.ft.	MDF-MU539HL-PA | **76383-296** Freezer MDF-U731-PA | **89429-298** Freezer MDF-U731M-PA | **10067-690** Freezer
Very Large Volume, 10,000+ vials	48.0 cu.ft.	MPR-1412R-PA | **76355-512** Refrigerator MPR-1412-PA | **76355-510** Refrigerator	—	—



MPR SERIES REFRIGERATORS

High Performance Biomedical Refrigerators–Swing Door Models

MPR-N200H-PA
76552-180

MPR-722-PA
76355-506
MPR-722R-PA
76355-508

MPR-1412-PA
76355-510
MPR-1412R-PA
76355-512

PHCbi brand Lab and Pharmacy Refrigerators include significant design and performance properties for storage of temperature sensitive vaccines and other pharmaceutical materials.

Swing Door Model Features

- Swing door models include dual glass viewing window
- Positive internal airflow maintains precise top-to-bottom temperature uniformity to protect stored product in every location within the refrigerator
- Top mount refrigeration system and controls
- Interior light

ALL CABINETS MEET ESSENTIAL CRITERIA FOR VACCINE AND PHARMACY USE:

- Accuracy
- Uniformity
- Recovery
- Ambient Tolerance
- Monitoring

MEETS CDC VACCINE RECOMMENDATION

MEETS CDC PHARMACY RECOMMENDATION

NEMA	Plug (P)	Receptacle (R)
5-15		

Model Number		MPR-N200H-PA | **76552-180** (w/shelves)
External Dimensions (W × D × H) nominal	inches | mm	18.2 × 22.9 × 68.3 | 460 × 580 × 1735
Internal Dimensions (W × D × H) nominal	inches | mm	14.9 × 18.75 × 52.4 | 380 × 477 × 1333
Volume	cu.ft. | liters	7.6 | 218
Net Weight	lbs. | kg	141 | 64
Performance		
Temperature Control Range	°C	+2 to +14
Vaccine Storage Operating Temperature	°C	+2 to +8
Factory Pre-Set Temperature	°C	+5
Highest Ambient Temperature and Maintains Cabinet Temperature	°C	+40
Control		
Microprocessor Controller, Adjustable	°C	Increments of 1
Digital Temperature Display		OLED Selectable increments of 1 or 0.1
Controller Security		Lockable with keypad
Electronics Diagnostics		Total control system
Refrigeration		
Cooling Method Internal Airflow for Precise Temperature		Uniformity forced air
Defrost Method Initiated Only as Needed		Electronically monitored evaporator
Refrigeration System		Air cooled, CFC free
Insulation		CFC free urethane
Construction		
Outer Door	qty	1- With insulated glass
Interior		ABS Resin
Exterior		Colored Steel
Outer Door Lock		Key
Interior Light		Yes-with control panel switch
Shelves	qty	4- Adjustable, wire
Drawers	qty	—
Casters	qty	2- Swivel; 2- fixed
Adjustable Feet	qty	2- Front of base; for securing unit in place
Access Port	qty	1 Rear
Access Port Diameter	inches | mm	1.2 | 30
Alarms (V=Visual, B=Buzzer, R=Remote Alarm Contacts, A=Adjustable, D=Settable Delay, L=Logged)		
Power Failure		R(V-B optional)
High Temperature		V-B-L-R-A
Low Temperature		V-B-L-R-A
Door Open		V-B
Remote Alarm Contacts		Normally open, normally closed, common
Remote Alarm Output		DC 24V 2A
Electrical and Noise Level		
Power Supply		15V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle
Noise Level	dB(A)	40
Options		
Black-Out Panel for Photosensitive Product		1- Optional
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System

High Performance Biomedical Refrigerators–Swing Door Models

Model Number		MPR-722-PA | **76355-506** (w/shelves)	MPR-722R-PA | **76355-508** (w/drawers)	MPR-1412-PA | **76355-510** (w/shelves)	MPR-1412R-PA | **76355-512** (w/drawers)
External Dimensions (W × D × H) nominal	inches | mm	30.3 × 36.2 × 76.8 | 770 × 920 × 1955*	30.3 × 36.2 × 76.8 | 770 × 920 × 1955*	56.7 × 36.2 × 76.8 | 1440 × 920 × 1951*	56.7 × 36.2 × 76.8 | 1440 × 920 × 1951*
Internal Dimensions (W × D × H) nominal	inches | mm	25.6 × 27.9 × 59.1 | 650 × 710 × 1500	25.6 × 27.9 × 59.1 | 650 × 710 × 1500	52.0 × 28.0 × 59.1 | 1320 × 710 × 1500	52.0 × 28.0 × 59.1 | 1320 × 710 × 1500
Volume	cu.ft. | liters	24.2 | 684	23.7 | 671	48.2 | 1364	48.0 | 1359
Net Weight	lbs. | kg	334 | 174	425 | 193	547 | 248	633 | 287
Performance					
Temperature Control Range	°C	+2 to +23	+2 to +23	+2 to +23	+2 to +23
Vaccine Storage Operating Temperature	°C	+2 to +8	+2 to +8	+2 to +8	+2 to +8
Factory Pre-Set Temperature	°C	+5	+5	+5	+5
Highest Ambient Temperature and Maintains Cabinet Temperature	°C	+40	+40	+40	+40
Control					
Microprocessor Controller, Adjustable	°C	Increments of 1	Increments of 1	Increments of 1	Increments of 1
Digital Temperature Display		LED	LED	LED	LED
Controller Security		Lockable with keypad	Lockable with keypad	Lockable with keypad	Lockable with keypad
Electronics Diagnostics		Total control system	Total control system	Total control system	Total control system
Refrigeration					
Cooling Method Internal Airflow for Precise Temperature		Uniformity forced air	Uniformity forced air	Uniformity forced air	Uniformity forced air
Defrost Method Initiated Only as Needed		Electronically monitored evaporator	Electronically monitored evaporator	Electronically monitored evaporator	Electronically monitored evaporator
Refrigeration System		Air cooled, CFC free	Air cooled, CFC free	Air cooled, CFC free	Air cooled, CFC free
Insulation		CFC free urethane	CFC free urethane	CFC free urethane	CFC free urethane
Construction					
Outer Door	qty	1- With insulated glass	1- With insulated glass	2- With insulated glass	2- With insulated glass
Interior		Zinc galvanized steel, acrylic finish	Zinc galvanized steel, acrylic finish	Zinc galvanized steel, acrylic finish	Zinc galvanized steel, acrylic finish
Exterior		Zinc galvanized steel, acrylic finish	Zinc galvanized steel, acrylic finish	Zinc galvanized steel, acrylic finish	Zinc galvanized steel, acrylic finish
Outer Door Lock		Key	Key	Key	Key
Interior Light		Yes-with control panel switch	Yes-with control panel switch	Yes-with control panel switch	Yes-with control panel switch
Shelves	qty	4- Adjustable, wire	—	8- Adjustable, wire	—
Drawers	qty	—	5- Solid	—	10- Solid
Casters	qty	2- Swivel; 2- fixed	2- Swivel; 2- fixed	2- Swivel; 2- fixed	2- Swivel; 2- fixed
Adjustable Feet	qty	2- Front of base; for securing unit in place	2- Front of base; for securing unit in place	2- Front of base; for securing unit in place	2- Front of base; for securing unit in place
Access Port	qty	3; 1 left , 1 right, 1 top	3; 1 left, 1 right, 1 top	3; 1 left, 1 right, 1 top	3; 1 left, 1 right, 1 top
Access Port Diameter	inches | mm	1.2 | 30	1.2 | 30	1.2 | 30	1.2 | 30
Alarms (V=Visual, B=Buzzer, R=Remote Alarm Contacts, A=Adjustable, D=Settable Delay, L=Logged)					
Power Failure		R(V-B optional)	R(V-B optional)	R(V-B optional)	R(V-B optional)
High Temperature		V-B-R	V-B-R	V-B-R	V-B-R
Low Temperature		V-B-R	V-B-R	V-B-R	V-B-R
Door Open		V-B	V-B	V-B	V-B
Remote Alarm Contacts		Normally open, normally closed, common	Normally open, normally closed, common	Normally open, normally closed, common	Normally open, normally closed, common
Remote Alarm Output		DC 24V 2A	DC 24V 2A	DC 24V 2A	DC 24V 2A
Electrical and Noise Level					
Power Supply		115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle	115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle	115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle	115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle
Noise Level	dB(A)	48	48	48	48
Options					
Black-Out Panel for Photosensitive Product		1- Optional	1- Optional	2- Optional	2- Optional
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System	LabAlert® Monitoring System	LabAlert® Monitoring System	LabAlert® Monitoring System

* Consult product sales rep for doorway entry instructions, less than 36.2".

MPR SERIES REFRIGERATORS

High Performance Biomedical Refrigerators–Sliding Door Models

MPR-S300H-PA
76383-298

MPR-S500H-PA
76518-110
MPR-S500RH-PA
76518-112

MPR-1014R-PA
97035-152

Sliding Door Model Features

- Tinted, dual pane glass with reflective coating sliding doors
- Unique slim line, front to back design. These models are ideal where lab and aisle space is limited
- Full view glass to observe stored product for inventory control
- Back wall plenum provides horizontal airflow for maintaining precise top-to-bottom temperature uniformity to protect stored product in every location within the refrigerator
- Horizontal airflow allows maximum shelf loading
- Interior light

PURPOSE DESIGNED REFRIGERATORS FOR VACCINE STORAGE:

- Internal air plenum for superior temperature accuracy and uniformity even when shelves and pull-out wire shelves are fully loaded
- Installation made easy with slim line design for easy access through doorways
- Stainless steel interior–easy to clean and corrosion resistant
- Easy access to inventory with pull-out wire baskets

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NEMA	Plug (P)	Receptacle (R)
5-15		

Model Number		MPR-S300H-PA | **76383-298**
External Dimensions (W × D × H) nominal	inches | mm	31.5 × 19.7 × 71.7 | 800 × 500 × 1820
Internal Dimensions (W × D × H) nominal	inches | mm	28.3 × 14.2 × 56.1 | 720 × 360 × 1425
Volume	cu.ft. | liters	12.2 | 345
Net Weight	lbs. | kg	229 | 104
Performance		
Temperature Control Range	°C	+2 to +14
Vaccine Storage Operating Temperature	°C	+2 to +8
Factory Pre-Set Temperature	°C	+5
Highest Ambient Temperature and Maintains Cabinet Temperature	°C	+35
Control		
Microprocessor Controller, Adjustable	°C	Increments of 0.1 - door mounted
Digital Temperature Display		White graphic OLED
Controller Security		Lockable with keypad
Electronics Diagnostics		Sensors only
Refrigeration		
Cooling Method Internal Airflow for Precise Temperature		Fan forced air circulation
Defrost Method Initiated Only as Needed		Electronically actuated cycle defrost
Refrigeration System	qty	1- Air cooled SNAP approved (R-600a)
Insulation		CFC/HFC free
Construction		
Outer Door	qty	2- (Highly insulated glass door with tempered glass)
Interior		Painted steel
Exterior		Painted steel
Outer Door Lock		Key
Interior Light		LED
Shelves	qty	6- Coated steel wires
Baskets	qty	—
Casters	qty	2- Swivel; 2- fixed
Adjustable Feet	qty	2- Front of base; for securing unit in place
Access Port	qty	1- Side wall
Access Port Diameter	inches | mm	1.2 | 30
Alarms (V=Visual, B=Buzzer, R=Remote Alarm Contacts, A=Adjustable, D=Settable Delay, L=Logged)		
Power Failure		(B-M-R optional)
High Temperature		V-B-M-R
Low Temperature		V-B-M-R
Door Open		V-B-M
Remote Alarm Contacts, Optional		Normally open, normally closed, common
Remote Alarm Output, Optional		DC 24V 2A
Electrical and Noise Level		
Power Supply		115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle
Noise Level	dB(A)	38
Options		
Black-Out Panel for Photosensitive Product		BPANELS300
Self Powered Output Module		MTR420MAC
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System

Model Number		MPR-S500H-PA | **76518-110** (w/shelves)	MPR-S500RH-PA | **76518-112** (w/shelves & baskets)	MPR-1014R-PA | **97035-152** (w/shelves & baskets)
External Dimensions (W × D × H) nominal	inches | mm	35.4 × 25.5 × 71.8 | 900 × 650 × 1824	35.4 × 25.5 × 71.8 | 900 × 650 × 1824	70.9 × 23.6 × 70.5 | 1800 × 600 × 1790
Internal Dimensions (W × D × H) nominal	inches | mm	31.4 × 20.0 × 56.1 | 800 × 510 × 1425	31.4 × 20.0 × 56.1 | 800 × 510 × 1425	66.9 × 18.3 × 51.2 | 1700 × 465 × 1300
Volume	cu.ft. | liters	19.5 | 554	19.4 | 550	36.3 | 1029
Net Weight	lbs. | kg	300 | 139	320 | 145	569 | 258
Performance				
Temperature Control Range	°C	+2 to +14	+2 to +14	+2 to +14
Vaccine Storage Operating Temperature	°C	+2 to +8	+2 to +8	+2 to +8
Factory Pre-Set Temperature	°C	+5	+5	+5
Highest Ambient Temperature and Maintains Cabinet Temperature	°C	+35	+35	+35
Control				
Microprocessor Controller, Adjustable	°C	Increments of 0.1	Increments of 0.1	Increments of 1
Digital Temperature Display		White graphic OLED	White graphic OLED	LED
Controller Security		Lockable with keypad	Lockable with keypad	Lockable with keypad
Electronics Diagnostics		Sensors only	Sensors only	Total control system
Refrigeration				
Cooling Method Internal Airflow for Precise Temperature		Fan forced air circulation	Fan forced air circulation	Internal plenum
Defrost Method Initiated Only as Needed		Electronically actuated cycle defrost	Electronically actuated cycle defrost	Electronically monitored evaporator
Refrigeration System		SNAP approved (R-600A), 45 g	SNAP approved (R-600A), 45 g	1- Air cooled, SNAP approved (R-513a)
Insulation		PUF (rigid polyurethane foamed insulation)	PUF (rigid polyurethane foamed insulation)	CFC free urethane
Construction				
Outer Door	qty	2 (Highly insulated glass door with tempered glass)	2 (Highly insulated glass door with tempered glass)	2- Tinted, dual pane, reflective coating
Interior		Painted steel	Painted steel	Stainless steel
Exterior		Painted steel	Painted steel	Zinc galvanized steel, acrylic finish
Outer Door Lock		Included	Included	Key
Interior Light		LED	LED	Yes- with control panel switch
Shelves	qty	6 (Adjustable, wire) full width	6 (Adjustable, wire) left side	5- Adjustable, wire
Baskets	qty	—	5 - Wire	10- Wire
Casters	qty	4 (2 Leveling feet)	4 (2 Leveling feet)	2- Swivel; 2- fixed
Adjustable Feet	qty	2- Front of base; for securing unit in place	2- Front of base; for securing unit in place	2- Front of base; for securing unit in place
Access Port	qty	(1) Standard	(1) Standard	1- Side wall
Access Port Diameter	inches | mm	1.2 | 30	1.2 | 30	1.2 | 30
Alarms (V=Visual, B=Buzzer, R=Remote Alarm Contacts, A=Adjustable, D=Settable Delay, L=Logged)				
Power Failure		R (V-B-M optional)	R (V-B-M optional)	R (V-B optional)
High Temperature		V-B-M-R	V-B-M-R	V-B-R
Low Temperature		V-B-M-R	V-B-M-R	V-B-R
Door Open		V-B-M	V-B-M	V-B
Remote Alarm Contacts, Optional		Normally open, normally closed, common	Normally open, normally closed, common	Normally open, normally closed, common
Remote Alarm Output, Optional		DC 24V 2A	DC 24V 2A	DC 24V 2A
Electrical and Noise Level				
Power Supply		115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle	115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle	115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle
Noise Level	dB(A)	42	42	44
Options				
Black-Out Panel for Photosensitive Product		BPANELS500	BPANELS500	BPANEL1014 | **76501-130**
Self Powered Output Module		MTR420MAC	MTR420MAC	MTR420MAC
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System	LabAlert® Monitoring System	LabAlert® Monitoring System

MPR SERIES COMBO REFRIGERATORS/FREEZERS

High Performance Biomedical Combo Refrigerator/Freezer

MPR-N250FH-PA
76498-952
MPR-N250FSH-PA
76498-954

MPR-N450FH-PA
76353-814
MPR-N450FSH-PA
76353-816

MPR-715F-PA
89230-124

Combo Refrigerator/Freezer cabinets are popular for installations where space is limited. Both refrigeration and freezer functions are self-contained and independently controlled in separate compartments with individual doors.

Refrigerator Features

- Includes dual glass viewing window
- Positive internal airflow maintains precise top-to-bottom temperature uniformity to protect stored product in every location within the refrigerator

Freezer Features

- Cold wall cooling system
- Manual defrost

MULTIPURPOSE, SPACE EFFICIENT, HIGH PERFORMANCE:

- Slim line cabinet design
- Single cabinet with two independent temperature controlled chambers
- Each chamber has its own refrigeration and control system
- Cost effective storage of refrigerated and frozen vaccines

MEETS CDC VACCINE RECOMMENDATION

MEETS CDC PHARMACY RECOMMENDATION

NEMA	Plug (P)	Receptacle (R)
5-15		

Model Number		MPR-N250FH-PA | **76498-952** refrigerator / freezer	MPR-N250FSH-PA | **76498-954** refrigerator / freezer
External Dimensions (W × D × H) nominal	inches | mm	20 × 25.1 × 71.2 | 510 × 640 × 1810	
Internal Dimensions (W × D × H) nominal	inches | mm	16.9 × 20.3 × 35.5 | 430 × 516 × 903 15.3 × 19.7 × 16.2 | 390 × 501 x 413	
Volume	cu.ft. | liters	6.3 | 179 / 2.8 | 80	
Net Weight	lbs. | kg	210 | 95	200 | 91
Chambers	qty	1- Top / 1- Lower	
Performance			
Temperature Control Range	°C	+2 to +14 (max +2) / -30 to -20 (max -30)	
Vaccine Storage Operating Temperature	°C	+2 to +8 / -15 or Colder	
Factory Pre-Set Temperature	°C	+2 to +14 / -30 to -20	
Highest Ambient Temperature and Maintains Cabinet Temperature	°C	+35	
Control			
Microprocessor Controller, Adjustable	°C	Increments of 1 - independently controls refrigerator & freezer	
Digital Temperature Display		White graphic OLED	
Controller Security		Lockable with keypad	
Electronics Diagnostics		Total control system	
Refrigeration			
Cooling Method Internal Airflow for Precise Temperature		Forced air / Direct cold wall cooling	
Defrost Method		Automatic* / Manual	
Refrigeration System	qty	2- Independent air cooled, CFC free	
Insulation		Polyurethane foam-in-place, CFC free	
Construction			
Outer Door, Swing door with CFC Insulation	qty	1- Dual pane, glass 1- Solid	2- Solid
Interior		Colored steel / ABS resin (REF) | Painted steel (FRZ)	
Exterior		Colored steel / ABS resin (REF) | Painted steel (FRZ)	
Outer Door Lock	qty	1- Key, locks both top and bottom	
Interior Light	qty	1- LED, control panel switch / 0	
Shelves	qty	(3) Tempered glass, adjustable / (1) PE coated wire	
Casters	qty	4 (Plus 2 leveling feet on front base)	
Adjustable Feet	qty	2- Front of base; for securing unit in place	
Access Port	qty	(1) Back wall, left 1.2 | 30 (1) Lower back middle 1.2 | 30	
Access Port Diameter	inches | mm	1.2 | 30 / 1.2 | 30	
Alarms (V=Visual, B=Buzzer, R=Remote Alarm Contacts, A=Adjustable, D=Settable Delay, L=Logged)			
Power Failure		R (V-B-M-L optional)	
High Temperature		V-B-R-A-D-L	
Low Temperature		V-B-R-A-D-L	
Door Open		V-B-A-D-L	
Remote Alarm Contacts		Yes	
Remote Alarm Output		DC 24V 2A	
Electrical and Noise Level			
Power Supply		115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle	
Noise Level	dB(A)	40	
Options			
Black-Out Panel for Photosensitive Product		MPR-25BP-PW	—
Self Powered Output Module		MTR420MAC	
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System	

* Electronically monitored defrost only when needed. Evaporator operates above freezing. Prevents vaccines from freezing.

High Performance Biomedical Combo Refrigerator/Freezer

Model Number		MPR-N450FH-PA | **76353-814** refrigerator / freezer	MPR-N450FSH-PA | **76353-816** refrigerator / freezer	MPR-715F-PA | **89230-124**** refrigerator / freezer
External Dimensions (W × D × H) nominal	inches | mm	31.9 x 25.2 x 72.4 | 810 x 640 x 1838	31.9 x 25.2 x 72.4 | 810 x 640 x 1838	31.9 x 25.2 x 72.4 | 810 x 640 x 1838
Internal Dimensions (W × D × H) nominal	inches | mm	28.3 x 20.3 x 35.9 | 720 x 516 x 913 26.8 x 18.5 x 16.3 | 680 x 470 x 415	28.3 x 20.3 x 35.9 | 720 x 516 x 913 26.8 x 18.5 x 16.3 | 680 x 470 x 415	31.9 × 24.2 × 35.2 | 810 × 615 × 894 15.1 × 21.7 × 16.6 | 385 × 552 × 422 (each chamber)
Volume	cu.ft. | liters	11.5 | 326 / 4.8 | 136	11.5 | 326 / 4.8 | 136	14.7 | 415 / 6.2 | 176
Net Weight	lbs. | kg	284 | 129	266 | 121	357 | 162
Chambers	qty	1- Top / 1- Lower	1- Top / 1- Lower	1- Top / 2- Lower
Performance				
Temperature Control Range	°C	+2 to +14 / -30 to -20	+2 to +14 / -30 to -20	+2 to +14 / -15 to -35
Vaccine Storage Operating Temperature	°C	+2 to +8 / -15 or Colder	+2 to +8 / -15 or Colder	+2 to +8 / -15 or Colder
Factory Pre-Set Temperature	°C	+5 / -20	+5 / -20	+5 / -30
Highest Ambient Temperature and Maintains Cabinet Temperature	°C	+30	+30	+30
Control				
Microprocessor Controller, Adjustable	°C	Increments of 1 - independently controls refrigerator & freezer	Increments of 1 - independently controls refrigerator & freezer	Increments of 1 - independently controls refrigerator & freezer
Digital Temperature Display		Select refrigerator, freezer or concurrent	Select refrigerator, freezer or concurrent	LED
Controller Security		Lockable with keypad	Lockable with keypad	Lockable with keypad
Electronics Diagnostics		Total control system	Total control system	Total control system
Refrigeration				
Cooling Method Internal Airflow for Precise Temperature		Forced air / Direct cold wall cooling	Forced air / Direct cold wall cooling	Forced air / Direct cold wall cooling
Defrost Method Initiated Only as Needed		Automatic* / Manual	Automatic* / Manual	Automatic* / Manual
Refrigeration System		2- Independent air cooled, CFC free	2- Independent air cooled, CFC free	2- Independent air cooled, CFC free
Insulation		CFC free urethane	CFC free urethane	CFC free urethane
Construction				
Outer Door, Swing door with CFC Insulation	qty	2-Top, bi-parting with dual pane glass / 2-Solid	2-Top, solid bi-parting / 2-Solid	2- Top, bi-parting with dual pane glass / 2-Solid
Interior		Painted steel / ABS resin	Painted steel / ABS resin	Painted steel / Painted steel
Exterior		Painted steel	Painted steel	Painted steel
Outer Door Lock		1-Key, center right, locks upper left and right doors 1-Key, lower center right, locks lower left and right doors	1-Key, center right, locks upper left and right doors 1-Key, lower center right, locks lower left and right doors	1-Key, center left, locks top left and lower left 1-Key, center right, locks top right and lower right
Interior Light		1- LED, control panel switch / 0	1- LED, control panel switch / 0	1- LED, control panel switch / 0
Shelves	qty	(3) Tempered glass, adjustable / 2-PE Coated wire	(3) Tempered glass, adjustable / 2-PE Coated wire	(3) Adjustable, wire / (2) Wire
Casters	qty	2- Swivel; 2- fixed	2- Swivel; 2- fixed	2- Swivel; 2- fixed
Adjustable Feet	qty	2- Front of base; for securing unit in place	2- Front of base; for securing unit in place	2- Front of base; for securing unit in place
Access Port	qty	1- Back wall, left / 1- Lower back middle	1- Back wall, left / 1- Lower back middle	2- Side wall, left top and bottom / 0
Access Port Diameter	inches | mm	1.2 | 30 1.2 | 30	1.2 | 30 1.2 | 30	1.2 | 30
Alarms (V=Visual, B=Buzzer, R=Remote Alarm Contacts, A=Adjustable, D=Settable Delay, L=Logged)				
Power Failure		R (V-B-M-L optional)	R (V-B-M-L optional)	R (V-B optional)
High Temperature		V-B-M-R-L	V-B-M-R-L	V-B-R
Low Temperature		V-B-M-R-L	V-B-M-R-L	V-B-R
Door Open		V-B-M-L	V-B-M-L	V-B
Remote Alarm Contacts		Normally open, normally closed, common	Normally open, normally closed, common	Normally open, normally closed, common
Remote Alarm Output		DC 24V 2A	DC 24V 2A	DC 24V 2A
Electrical and Noise Level				
Power Supply		115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle	115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle	115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle
Noise Level	dB(A)	41	41	43
Options				
Black-Out Panel for Photosensitive Product		MPR-45BP-PW | **76501-136**	—	BPANEL715 | **76501-138**
Self Powered Output Module		MTR420MAC	MTR420MAC	MTR420MAC
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System	LabAlert® Monitoring System	LabAlert® Monitoring System

* Electronically monitored defrost only when needed. Evaporator operates above freezing. Prevents vaccines from freezing.

** Minor refrigerator uniformity deviation falls outside CDC parameters for vaccine storage. This cabinet is ideal for general pharmacy use.

MDF SERIES FREEZERS

High Performance -15°C, -30°C and -40°C Biomedical Freezers

MDF-MU339HL-PA
76383-294

MDF-MU539HL-PA
76383-296

MDF-MU549DHL-PA
76383-292

MDF-U731-PA
89429-298
MDF-U731M-PA
10067-690

PHCbi brand Biomedical Freezers include design and performance properties for storage of pharmaceuticals and biomedical materials that require freezing temperatures for long-term storage at -15°C to -40°C (-5°F to -104°F).

Freezer Features

Select from 5.0 to 24.4 cu.ft. storage capacities.
Freezer temperature achieved through:

- Cold wall design*
- Forced air*
- Cold evaporator shelf design*
- Unique double door freezer
- Minimizes cold air loss during door opening
- Quick temperature recovery after door opening

* Method of achieving temperature depends on the model

FOR BULK STORAGE OF FROZEN PHARMACEUTICALS:

- Cold wall design and shelf evaporator require manual defrost
- Unit cooler with fan and electronic automatic defrost
- Cabinet temperature increase is minimal during automatic defrost
- Straight line, constant temperature achieved with cold wall or shelf evaporator cooling

MEETS CDC VACCINE RECOMMENDATION

MEETS CDC PHARMACY RECOMMENDATION

NEMA	Plug (P)	Receptacle (R)
5-15		

Model Number		MDF-MU339HL-PA | **76383-294**
External Dimensions (W × D × H) nominal	inches | mm	24.3 × 30.3 × 70.9 | 616 × 770 × 1802
Internal Dimensions (W × D × H) nominal	inches | mm	18.6 x 24.2 × 49.7 | 472 × 614 × 1262
Volume	cu.ft. | liters	13.0 | 369
Net Weight	lbs. | kg	269 | 122
Performance		
Temperature Control Range	°C	-20 to -30
Vaccine Storage Operating Temperature	°C	-15 or Colder
Factory Pre-Set Temperature	°C	-30
Highest Ambient Temperature and Maintains Cabinet Temperature	°C	+35
Control		
Microprocessor Controller, Adjustable	°C	Increments of 1
Digital Temperature Display		LED
Controller Security		Lockable with keypad
Electronics Diagnostics		Total control system
Refrigeration		
Cooling Method		Cold wall
Defrost Method		Manual
Refrigeration System		1- Air cooled, environmentally friendly natural refrigerants
Insulation		Rigid polyurethane, foamed-in-place, low GWP
Construction		
Outer Door, Swing door with CFC Insulation	qty	1- Solid
Interior		Painted steel
Exterior		Painted steel
Outer Door Lock		Key
Additional Door Lock	qty	Hasp for pad lock
Shelves	qty	6- (5 Adjustable), vinyl coated wire
Bins	qty	Optional
Casters	qty	2- Swivel; 2- fixed
Adjustable Feet	qty	2- Front of base; for securing unit in place
Access Port	qty	1- Back wall, left hand corner (facing unit)
Access Port Diameter	inches | mm	1.2 | 30
Alarms (V=Visual, B=Buzzer, R=Remote Alarm Contacts, A=Adjustable, D=Settable Delay, L=Logged)		
Power Failure		V-B-R
High Temperature		V-B-R
Low Temperature		V-B-R
Door Open		—
Remote Alarm Contacts		Normal open, normal closed, common
Remote Alarm Output		DC 24V 2A
Electrical and Noise Level		
Power Supply		115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle
Noise Level	dB(A)	42
Options		
Stackable		—
Self Powered Output Module		MTR420MAC
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System

Model Number		MDF-MU539HL-PA | **76383-296**	MDF-MU549DHL-PA | **76383-292**	MDF-U731-PA | **89429-298**	MDF-U731M-PA | **10067-690**
External Dimensions (W × D × H) nominal	inches | mm	31.2 × 30.3 × 70.9 | 793 × 770 × 1802	31.2 × 30.3 × 70.9 | 793 × 770 × 1802	30.3 × 32.7 × 77 | 770 × 830 × 1955	30.3 × 32.7 × 77 | 770 × 830 × 1955
Internal Dimensions (W × D × H) nominal	inches | mm	25.6 × 24.2 × 49.7 | 649 × 614 × 1262	25.6 x 24.2 x 23.6 | 649 x 614 x 600 (each chamber)	25.6 × 27.6 × 53.9 | 650 × 700 × 1370	25.6 × 27.6 × 59.8 | 650 × 700 × 1520
Volume	cu.ft. | liters	17.8 | 504	16.9 | 479 (total); 8.46 | 239.5 (each chamber)	22.0 | 623	24.4 | 690
Net Weight	lbs. | kg	317.5 | 144	363.8 | 165	342 | 155	335 | 152
Performance					
Temperature Control Range	°C	-20 to -30	-20 to -40	-15 to -30	-18 to -30
Vaccine Storage Operating Temperature	°C	-15 or Colder	-15 or Colder	-15 or Colder	-15 or Colder
Factory Pre-Set Temperature	°C	-30	-40	-30	-30
Highest Ambient Temperature and Maintains Cabinet Temperature	°C	+35	+35	+35	+35
Control					
Microprocessor Controller, Adjustable	°C	Increments of 1	Increments of 1	Increments of 1	Increments of 1
Digital Temperature Display		LED	LED	LED	LED
Controller Security		Lockable with keypad	Lockable with keypad	Lockable with keypad	Lockable with keypad
Electronics Diagnostics		Total control system	Total control system	Total control system	Total control system
Refrigeration					
Cooling Method		Cold wall	Cold wall	Forced air	Cold wall
Defrost Method		Manual	Manual	Automatic	Manual
Refrigeration System		1- Air cooled, environmentally friendly natural refrigerants	1- Air cooled, environmentally friendly natural refrigerants	1- Air cooled, CFC free	1- Air cooled, CFC free
Insulation		Rigid polyurethane, foamed-in-place, low GWP	Rigid polyurethane, foamed-in-place, low GWP	CFC free urethane	CFC free urethane
Construction					
Outer Door, Swing door with CFC Insulation	qty	1- Solid	2- Solid	1- Solid	1- Solid
Interior		Painted steel	Painted steel	Styrene resin	Styrene resin
Exterior		Painted steel	Painted steel	Zinc galvanized steel, acrylic finish	Zinc galvanized steel, acrylic finish
Outer Door Lock		Key	Key	Key	Key
Additional Door Lock	qty	Hasp for pad lock	Hasp for pad lock	Hasp for pad lock	Hasp for pad lock
Shelves	qty	6- (5 Adjustable), vinyl coated wire	6- (4 Adjustable), vinyl coated wire	4- Adjustable, wire	4- Adjustable, wire
Bins	qty	Optional	Optional	Optional	Optional
Casters	qty	2- Swivel; 2- fixed	2- Swivel; 2- fixed	2- Swivel; 2- fixed	2- Swivel; 2- fixed
Adjustable Feet	qty	2- Front of base; for securing unit in place	2- Front of base; for securing unit in place	2- Front of base; for securing unit in place	2- Front of base; for securing unit in place
Access Port	qty	1- Back wall, left hand corner (facing unit)	2- (one each chamber)- Back wall, left hand corner (facing unit)	2; 1 Left side 1 top	2; 1 Left side 1 top
Access Port Diameter	inches | mm	1.2 | 30	1.2 | 30	1.2 | 30	1.2 | 30
Alarms (V=Visual, B=Buzzer, R=Remote Alarm Contacts, A=Adjustable, D=Settable Delay, L=Logged)					
Power Failure		V-B-R	V-B-R	V-B-R	V-B-R
High Temperature		V-B-R	V-B-R	V-B-R	V-B-R
Low Temperature		V-B-R	V-B-R	V-B-R	V-B-R
Door Open		—	—	V-B	V-B
Remote Alarm Contacts		Normal open, normal closed, common	Normal open, normal closed, common	Normal open, normal closed, common	Normal open, normal closed, common
Remote Alarm Output		DC 24V 2A	DC 24V 2A	DC 24V 2A	DC 24V 2A
Electrical and Noise Level					
Power Supply		115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle	115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle	115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle	115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle
Noise Level	dB(A)	42	42	40	40
Options					
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System	LabAlert® Monitoring System	LabAlert® Monitoring System	LabAlert® Monitoring System

LABALERT® MONITORING

A real-time monitoring and notification system, LabAlert was developed to protect your stored product investment. LabAlert provides independent wireless monitoring for storage refrigerators and freezers. The secure, cloud-based solution offers comprehensive monitoring with customizable dashboards for easy user interface. No software installation is required. Supports FDA 21 CFR Part 11 compliance. LabAlert is scalable to meet corporate enterprise standards for pharmaceutical / vaccine efficacy and safety. It works across multiple units, multiple locations and easily adapts to growing facilities.

CALIBRATION SERVICES

PHC Corporation of North America offers both pre-delivery and on-site calibration services. Services are specifically designed to verify quality compliance and ensure display accuracy to manufacturing and regulatory specifications. Procedures and documentation are designed to conform to NIST/ISO requirements. ISO/IEC 17025* calibration is available upon request.

VALIDATION SERVICES

PHC Corporation of North America offers a full line of validation services that range from pre-delivery to comprehensive on-site equipment qualification. Services are specifically designed to verify quality compliance to manufacturing and regulatory specifications. Advanced technology is integrated alongside contemporary processes for turnkey solutions using NIST/ISO calibrated instrumentation for calibration, validation and qualification in accordance with current GxP regulations [GMP, GLP, GCP], ISO, CAP, AABB, CLIA, USDA, local standards and other regulations. We offer assistance in product selection that meets customer applications, including equipment, service and support.

*ISO/IEC 17025.2005 specifies the general competence to carry out testing and/or calibration including sampling. It covers testing and calibration performed using standard methods, non-standard methods and laboratory-developed methods. (Ref: ISO Web Site, May 2016).

Specifications are subject to change without notice.

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PHC Corporation of North America is a leader in laboratory equipment for biopharmaceutical, life sciences, academic, healthcare and government markets. The company is operated as a subsidiary of PHC Holdings Corporation, Tokyo, Japan, which is a global healthcare company involved in the three core businesses of Medical Devices, Healthcare IT and Life Sciences. Product lines under the new PHCbi brand include the space saving and energy efficient VIP® ECO, TwinGuard® and VIP Series ultra-low temperature freezers, cryogenic and biomedical freezers, pharmacy and high performance refrigerators, cell culture CO_2 and multigas incubators, programmable heated and refrigerated microbiological incubators and Drosophila/Plant Growth Chambers.

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