



MPR-N450FH-PA

# Pharmaceutical

Refrigerator with Freezer

+2°C to +14°C Refrigerator

-30°C to -20°C Freezer

MPR-N450FH-PA

MPR-N450FSH-PA

11.5 cu.ft. | 326 L

4.8 cu.ft. | 136 L



The PHCbi brand Pharmaceutical Refrigerator with Freezer offers a complete storage solution in one cabinet. This multipurpose cabinet is designed for safe, reliable storage of vaccines and biological materials. Refrigerated and frozen products can be maintained within a single footprint.

## Superior Uniformity

The refrigerator provides superior uniformity throughout. Temperatures remain stable wherever products are stored, even in a fully loaded chamber. The refrigerator is engineered to prohibit inadvertent freezing of temperature sensitive vaccines.

## Independent Refrigeration Systems

The single cabinet includes two independent temperature controlled chambers with separate refrigeration systems. The refrigerator section operates on a high efficiency inverter compressor running at variable speed upon demand to reduce energy consumption. New EPA SNAP refrigerants help meet facility sustainability goals and lower global environmental impact.

## Security Control and Monitoring

The microprocessor controller and softkey interface are door mounted at eye level. An OLED alphanumeric display provides convenient, secure user management. Refrigerator and freezer temperatures can be displayed simultaneously or individually. Minimum/maximum temperatures can be displayed and reset at 12 or 24 hour intervals. All alarm conditions are displayed and recorded. Data transfer is through a USB port.



## Temperature Distribution

Temperature uniformity is maintained at all storage levels even at full load conditions. This provides even, horizontal airflow across the solid adjustable glass shelves at all shelf levels to assure optimum temperature uniformity under full load conditions.



## Natural Refrigerants

Hydrocarbon refrigerants help achieve facility sustainability objectives by minimizing any environmental impact without compromising cooling performance, ambient tolerance and recovery speeds following door openings.



## Easy to Use

Adjustable audible and visual alarms are standard, along with integrated system diagnostics and predictive performance supervision. The password-protected control panel provides security and minimizes risk of accidental changes in setpoint.

# Pharmaceutical Refrigerator with Freezer

## MPR-N450FH-PA MPR-N450FSH-PA



### Slim Profile Cabinet Design

The space saving, ergonomic design has double doors for refrigerator and freezer chambers. The 15" door open allowance permits easy cabinet installation in narrow aisles and hallways for greater flexibility. Independent key locks on the refrigerator and freezer compartments increase security. The MPR-N450FH-PA has triple-pane viewing windows.

### Maximized Storage

The refrigerator includes three adjustable, tempered glass shelves. The solid shelf construction eliminates tipping of bottles and vials. A rear wall LED light is included for product viewing.

Model MPR-N450FSH-PA with solid doors for storage of light-sensitive products.

### Defrost Methods

Both models include manual defrost for the freezer compartment. The refrigerator compartment includes an automatic defrost, which activates electronically when needed. The refrigerator evaporator operates above freezing at all times. This prevents vaccines and lab supplies from freezing.

### Dimensions

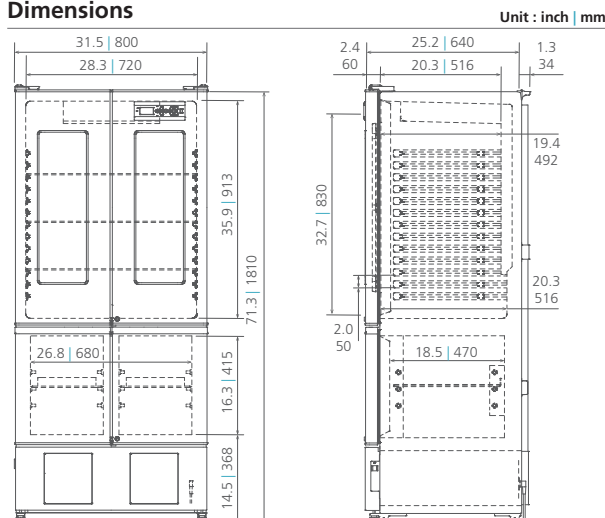


Illustration shown for Model MPR-N450FH-PA. Dimensions apply to models with windows and models with solid doors.

Model Number	MPR-N450FH-PA refrigerator / freezer	MPR-N450FSH-PA refrigerator / freezer
External Dimensions (W x D x H) <sup>1)</sup>	inches   mm	31.5 x 25.2 x 71.3   800 x 640 x 1810
Internal Dimensions (W x D x H)	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
Volume	cu.ft.   liters	11.5   326 / 4.8   136
Net Weight	lbs.   kg	284   129
<b>Performance</b>		
Warranty <sup>2)</sup>		3 years parts and labor
Cooling Performance <sup>3)</sup>	°C	+2 to +14 (max +2) / -30 to -20 (max -30)
Temperature Setting Range	°C	+2 to +14 / -30 to -20
<b>Control</b>		
Controller		Microprocessor, softkey data entry, password protected
Display		White graphic OLED
Temperature Display		Select refrigerator, freezer or concurrent
USB Logging Function		Logs 3 months of data at 1 minutes intervals
<b>Refrigeration</b>		
Compressor	W	(1) 120, inverter / (1) 170
Natural Refrigerant		HC R-600a / HC R-290
<b>Construction</b>		
Exterior and Interior Material		Painted steel / ABS resin
Insulation Material, SNAP Compliant		Polyurethane foam-in-place, CFC free
Key Lock		(1) Standard / (1) Standard
Shelves	qty	(3) Tempered glass, adjustable / (2) PE Coated wire
Shelf – Dimension (W x D)	inches   mm	28.2 x 17.7   715 x 449 / 11.5 x 17.6   293 x 446
Max. Load per Shelf	lbs.   kg	55   25 / 33   15
Max. Load – Total	lbs.   kg	165   75 / 132   60
Access Port	inches   mm	(1) Back wall, left 1.2   30 (1) Lower back middle 1.2   30
Casters	qty	4 (plus 2 leveling feet on front base)
<b>Alarms (V=Visual, B=Buzzer, R=Remote Alarm Contacts, A=Adjustable, D=Settable Delay, L=Logged)</b>		
High and Low Temperature		V-B-R-A-D-L
Power Failure <sup>4)</sup>		R
Power Failer With Optional Battery Kit		V-B-R-L
Fan, Compressor, Inverter		V-B-R-L
Sensor Error		V-B-R-L
Door Open		V-B-L-D
Freeze Warning		V-B-R-L
LED Chamber Lighting		Adjustable on/off/on door opening (refrigerator only)
Min/Max Temperature Logging		Included
Remote Alarm Contact		Yes
<b>Electrical and Noise Level</b>		
Power Supply		115V, 60Hz, 1Ø, NEMA 5-15R, requires NEMA 5-15R receptacle
Noise Level <sup>5)</sup>	dB(A)	41
<b>Temperature Recorders</b>		
Circular Type, Dual Pen	6", 7 Day Circular	MTRC955
Chart Paper	52 charts per box	C740306REV
Ink Pen, Red	pack of 6	R252
Ink Pen, Blue	pack of 6	R253
<b>Accessories</b>		
Black-Out Panel for Photosensitive Product		MPR-45BP-PW
Alarm Battery, Powers Alarm if Power Fails		MPR-48B2-PW
Analog Temperature Transmitter		MTR420MAC
<b>Optional Communication System</b>		
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System

<sup>1)</sup> Exterior dimensions of 26.5", 673 mm includes allowance for removable standoff brackets

<sup>2)</sup> Current warranty offered at time of printing and may be subject to change

<sup>3)</sup> Air temperature measured at chamber center, ambient temperature +30°C, no load

<sup>4)</sup> Remote alarm activates at power failure, for messaging and logging must purchase accessory MPR-48B2-PW (V-B-L alarm).

<sup>5)</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.



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