





MPR-N450FH-PA

Pharmaceutical

Refrigerator with Freezer

+2°C to +14°C Refrigerator -30°C to -20°C Freezer





Innovator

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



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.

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.



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.

Security Control and Monitoring

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 are displayed and recorded. Data transfer is through a USB port.



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



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.

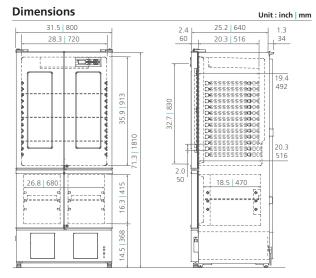


Illustration shown for Model MPR-N450FH-PA. Dimensions apply to models with windows and models with solid doors.



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	MPR-N450FSH-PA	
Model Number		MPR-N450FH-PA MPR-N450FSH-PA refrigerator / freezer
External Dimensions (W \times D \times H) ¹⁾	inches mm	31.5 x 25.2 x 71.3 800 x 640 x 1810
Internal Dimensions (W × D × H)	inches mm	28.3 × 20.3 × 35.9 720 × 516 × 913 26.8 × 18.5 × 16.3 680 × 470 × 415
Volume	cu.ft. liters	11.5 326 / 4.8 136
Net Weight	lbs. kg	284 129
Performance		25.1
Warranty ²⁾		3 years parts and labor
Cooling Performance 3)	°C	+2 to +14 (max +2) / -30 to -20 (max -30)
Temperature Setting Range	°C	+2 to +14 / -30 to -20
Control		
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
Refrigeration		
Compressor	W	(1) 120, inverter / (1) 170
Natural Refrigerant		HC R-600a / HC R-290
Construction		
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 × D)	inches mm	28.2 × 17.7 715 × 449 / 11.5 × 17.6 293 × 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
Casters	qty	(1) Lower back middle 1.2 30 4 (plus 2 leveling feet on front base)
Alarms (V=Visual B=B)		
		n Contacts, A=Adjustable, D=Settable Delay, L=Logged)
High and Low Temperature		n Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L
High and Low Temperature Power Failure 4)		n Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R
High and Low Temperature Power Failure 4) Power Failer With Optional Battery Kit		n Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L
High and Low Temperature Power Failure 4 Power Failer With Optional Battery Kit Fan, Compressor, Inverter		n Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L
High and Low Temperature Power Failure 4 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error		n Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L
High and Low Temperature Power Failure 4 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open		n Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L
High and Low Temperature Power Failure 4 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning		N Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L V-B-R-L V-B-R-L
High and Low Temperature Power Failure 4 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting		n Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L V-B-R-L V-B-R-L
High and Low Temperature Power Failure 4 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting		N Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only)
High and Low Temperature Power Failure 4 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging		N Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included
High and Low Temperature Power Failure 4 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact		N Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included
High and Low Temperature Power Failure 40 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level		N Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 10, NEMA 5-15P,
High and Low Temperature Power Failure 40 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply Noise Level 50	uzzer, R=Remote Alarn	Near-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle
High and Low Temperature Power Failure 4) Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply	uzzer, R=Remote Alarn	Near-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle
High and Low Temperature Power Failure 40 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply Noise Level 50 Temperature Recorders	uzzer, R=Remote Alarn	N Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptade
High and Low Temperature Power Failure 40 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply Noise Level 50 Temperature Recorders Circular Type, Dual Pen	dB(A)	N Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptade 41 MTRC955
High and Low Temperature Power Failure 4) Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply Noise Level 5) Temperature Recorders Circular Type, Dual Pen Chart Paper Ink Pen, Red	dB(A) 6*, 7 Day Circular 52 charts per box	Near-A-D-L R V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptade 41 MTRC955 C740306REV
High and Low Temperature Power Failure 4) Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply Noise Level 5) Temperature Recorders Circular Type, Dual Pen Chart Paper Ink Pen, Red	dB(A) 6*, 7 Day Circular 52 charts per box pack of 6	Nontacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptade 41 MTRC955 C740306REV R252
High and Low Temperature Power Failure 40 Power Failure 40 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply Noise Level 50 Temperature Recorders Circular Type, Dual Pen Chart Paper Ink Pen, Red Ink Pen, Red Ink Pen, Blue Accessories	dB(A) 6*, 7 Day Circular 52 charts per box pack of 6	N Contacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle 41 MTRC955 C740306REV R252 R253
High and Low Temperature Power Failure 40 Power Failure 40 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply Noise Level 50 Temperature Recorders Circular Type, Dual Pen Chart Paper Ink Pen, Red Ink Pen, Blue Accessories Black-Out Panel for Photosensitive Product	dB(A) 6*, 7 Day Circular 52 charts per box pack of 6	Nontacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 10, NEMA 5-15P, requires NEMA 5-15R receptacle 41 MTRC955 C740306REV R252 R253
High and Low Temperature Power Failure 40 Power Failure 40 Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply Noise Level 50 Temperature Recorders Circular Type, Dual Pen Chart Paper Ink Pen, Red Ink Pen, Blue Accessories Black-Out Panel for Photosensitive Product Alarm Battery, Powers Alarm if Power Fails	dB(A) 6*, 7 Day Circular 52 charts per box pack of 6	Nontacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle 41 MTRC955 C740306REV R252 R253 MPR-45BP-PW MPR-48B2-PW
High and Low Temperature Power Failure 4) Power Failure 4) Power Failer With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply Noise Level 5) Temperature Recorders Circular Type, Dual Pen Chart Paper Ink Pen, Red Ink Pen, Red Ink Pen, Blue Accessories Black-Out Panel for Photosensitive Product Alarm Battery, Powers Alarm if Power Fails Analog Temperature Transmitter	dB(A) 6*, 7 Day Circular 52 charts per box pack of 6	Nontacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 10, NEMA 5-15P, requires NEMA 5-15R receptacle 41 MTRC955 C740306REV R252 R253
High and Low Temperature Power Failure 40 Power Failure With Optional Battery Kit Fan, Compressor, Inverter Sensor Error Door Open Freeze Warning LED Chamber Lighting Min/Max Temperature Logging Remote Alarm Contact Electrical and Noise Level Power Supply Noise Level 50 Temperature Recorders Circular Type, Dual Pen Chart Paper Ink Pen, Red Ink Pen, Blue Accessories Black-Out Panel for Photosensitive Product Alarm Battery, Powers Alarm if Power Fails	dB(A) 6*, 7 Day Circular 52 charts per box pack of 6	Nontacts, A=Adjustable, D=Settable Delay, L=Logged) V-B-R-A-D-L R V-B-R-L V-B-R-L V-B-R-L V-B-R-L Adjustable on/off/on door opening (refrigerator only) Included Yes 115V, 60Hz, 10, NEMA 5-15P, requires NEMA 5-15R receptacle 41 MTRC955 C740306REV R252 R253 MPR-45BP-PW MPR-48B2-PW

- 1) Exterior dimensions of 26.5", 673 mm includes allowance for removable standoff brackets
- ²⁾ Current warranty offered at time of printing and may be subject to change
- 3) Air temperature measured at chamber center, ambient temperature +30°C, no load
- 4) Remote alarm activates at power failure, for messaging and logging must purchase accessory MPR-48B2-PW (V-B-L alarm).
- 5) 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.phchd.com.