

MPR-N650FH-PA



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Pharmaceutical

Refrigerator with Freezer, Natural refrigerants



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

16.5 cu.ft. | 466 L
6.7 cu.ft. | 189 L

This high-capacity cabinet combines pharmaceutical refrigeration and a -30°C freezer within a single footprint. Offering 16.5 cu. ft. of refrigerated space and 6.7 cu. ft. of freezer capacity, it provides expanded storage for vaccines and biologicals. Natural refrigerants reduce environmental impact, delivering a sustainable, energy-efficient solution.

Independent Cooling Systems

Separate refrigeration systems create independently controlled chambers. The freezer system maintains temperatures as low as -30°C. The refrigerator compartment operates at temperature setpoints over a range of +2°C to 14°C. The integrated refrigeration system is engineered for quiet operation.

Security Control and Monitoring

The eye level, door-mounted microprocessor controller with softkey interface enables easy access. An OLED alphanumeric display provides convenient, secure user management. Refrigerator and freezer temperatures can be displayed together or individually, with minimum/maximum values viewable and resettable at 12 or 24-hour intervals. All alarm conditions are displayed and logged, and data can be transferred via USB.

Designed for Uniformity

Forced air circulation through a back wall plenum in the refrigerator provides even air distribution for precise temperature uniformity and efficient temperature recovery to set-point quickly following routine door openings. The freezer is configured with a cold wall cooling system with external coils strategically positioned within the insulation for excellent uniformity.



Natural Refrigerants

Natural hydrocarbon refrigerants are used to minimize environmental impact, helping facilities meet sustainability objectives without compromising cooling performance, ambient temperature tolerance, or recovery speed following door openings.



Easy to Use, Intuitive Operation

Standard features include adjustable audible and visual alarms, integrated system diagnostics, and predictive performance monitoring. The password-protected control panel enhances security and helps prevent accidental setpoint changes.



Access, Storage and Security

The refrigerator includes two insulated doors with triple pane glass viewing windows. Heat reflection film minimizes condensation from ambient humidity. The freezer has insulated solid doors. A keyed door lock assures inventory security. Refrigerator has three adjustable wire shelves and the freezer has two wire shelves with optional bins.

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Smart Alarm Control for Gel Pack Cooling

A dedicated feature temporarily silences the freezer high-temperature alarm—ideal for cooling gel packs or phase-change materials that require extended pull-down time. This adds flexibility without compromising safety.

Defrost Methods

The freezer compartment uses manual defrost, while the refrigerator features automatic, electronically activated defrost as needed. The evaporator remains above freezing at all times, helping prevent vaccines and lab supplies from freezing.

Dimensions

Unit : inch | mm

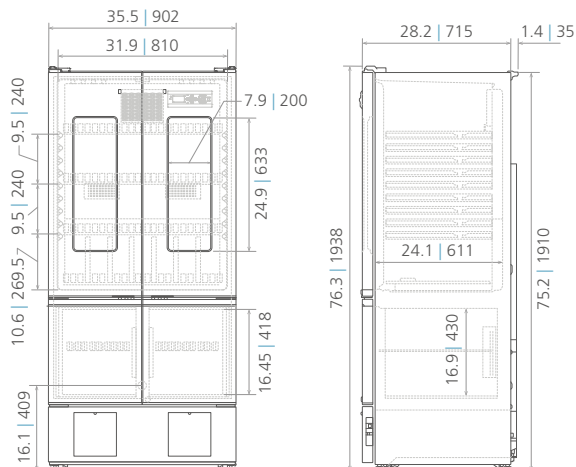


Illustration shown for Model MPR-N650FH-PA.



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Model Number		MPR-N650FH-PA Refrigerator / Freezer
External Dimensions (W x D x H) nominal	inches mm	35.1 x 28.1 x 75.2 890 x 715 x 1910
Internal Dimensions (W x D x H) nominal	inches mm	31.88 x 24.05 x 39.52 810 x 611 x 1004 30.31 x 22.66 x 16.46 770 x 575.5 x 418
Volume	cu.ft. liters	16.5 466 / 6.7 189
Net Weight	lbs. kg	370 168
Performance		
Temperature Control Range	°C	+2 to +14 / -20 to -30
Uniformity ¹	°C	± 3 / ± 4
Power Consumption ²	kWh/day	4.17 (@ SV +5/-30°C at 23) 3.71 (@ SV +5/-20°C at 23)
Noise Level ³	dB(A)	42
BTU Nominal	BTU/hr	593
Control		
Microprocessor Controller, Adjustable	°C	0.1 increments: Independent refrigerator & freezer control
Digital Temperature Display		OLED with alphanumeric messaging
Controller Security		Lockable with key pad
Data Retrieval		USB
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
Refrigerant		R600a (40g) / R290 (60g)
Insulation		Rigid polyurethane foamed-in place
Construction		
Exterior and Interior Material		Painted steel ABS resin / Painted steel
Insulation Material		PUF foamed in place, CFC free
Key Lock		Standard
Interior Light		LED lighting
Shelves	qty	(3) Adjustable, Wire / (2) Wire
Max Load per Shelf	lbs kg	55 / 33 25 / 15
Casters & Adjustable Feet	qty	2-swivel casters, 2-fixed casters; 2-front adjustable feet for securing unit in place
Access Ports	qty	2 (rear of refrigerator and freezer); Diameter: 1.1 in 30 mm
Alarms (V=Visual, B=Buzzer, R=Remote Alarm Contacts, A=Adjustable, L=Logged)		
Power Failure ⁴		R
High and Low Temperature		V-B-R-A-L
System Diagnostics (Sensor, Compressor, Inverter, Fan) Door Open Freezer Warning		V-B-R-L
Min/Max Temperature Logging		Yes
Remote Alarm Contacts		Yes
Electrical		
Power Supply		115V, 1Ø, 60Hz, NEMA 5-15P requires 5-15R receptacle
Noise Level ⁴	dB(A)	42
Amps		4.1
Options		
Circular Chart Recorder Chart Paper Ink Pen		MTR-G3504-PA RP-G3504-PW PG-RB-PW (1 Red / 1 Blue)
Battery Kit for Alarms During Power Failure		MPR-48B2-PW
Blackout Panel		MPR-45BP-PW
Storage Solutions	Wire Shelf Bin	MPR-715SC-PW MPR-650ST-PW
Optional Communication System		
Wireless, Cloud Based, Automatic Data Management	dB(A)	LabAlert®* LabSVIT® (Gen 2 Compatible)
4-20mA Output Module		MTR420MAC- Device Powered* MTR420MAL- Loop Powered* MTR-420MA-PW - Device Powered
Quality Management System		
Certification		QPS listed
Warranty ⁵		3 Year parts and labor

¹ Air temperature measuring 9 points unweighted temperature sensors , ambient temperature +23°C, no load.

² Internal test data.

³ Nominal value - background noise 20 dB(A).

⁴ The alarm for power failure (blink of alarm indicator, intermittent tone of buzzer) does not activate without MPR-48B1.

⁵ Current warranty offered at time of printing and may be subject to change; US and Canada only.

Specifications are subject to change without notice.

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