



MPR-S500H-PA

Medical Refrigerator

+2°C to +14°C



19.5 cu.ft. | 554 L
19.4 cu.ft. | 550 L

This medical refrigerator is purpose built to meet CDC requirements for vaccine and biologics storage. The sliding door configuration, affording easy access while maintaining stable internal temperatures throughout the chamber, is suitable for clinics, hospitals, distribution centers or pharmacies where frequent access is required.

Easy Access

Argon insulated dual-pane sliding glass doors provide greater access to contents without the external clearance needed by conventional hinged doors. The sliding doors greatly reduce air transfer during door openings, minimize energy use and maintain stable internal temperatures throughout the cabinet. An integrated keyed lock provides added security.

Environmental Friendly SNAP Compliance

Clean, natural hydrocarbon [HC] refrigerants used in the refrigerator provide efficient cooling with low global warming potential (GWP) and zero ozone depletion potential (ODP). In addition, the combination of HC refrigerants with inverter compressor technology delivers low energy consumption of 0.82 kWh/day based on factory testing.

Energy Saving Inverter Compressor Algorithm

The PHCbi brand proprietary inverter compressor algorithm [ICA] modulates the compressor motor speed according to temperature need. Unlike standard on/off compressors, the ICA uses less energy following door openings with swift recovery times. This provides stable uniform temperature during long-term storage and extended compressor life with less wear and tear than conventional compressor refrigerators.



Data Archiving

Onboard data logs monitor and record minimum and maximum temperatures over 12- and 24-hour periods supporting CDC clinical recording recommendations. Temperature, alarm, door opening and closing data are retained for three months and are accessible for download via USB to ensure daily logs are complete.



Temperature Uniformity

Cool air distribution throughout the cabinet assures temperature uniformity even at full load capacity. Shelves and drawers are designed to allow even circulation. The ICA technology drives fast temperature recovery upon each door opening. Airflow is directed to reduce condensation on the door glass. Detailed temperature mapping is available upon request.



Automated Evaporator Coil Defrost

Ice buildup on cooling coils forces the compressor to work harder. Comparable systems use a timed defrost, which may elevate temperatures. This model utilizes integrated sensors that monitor evaporator coil temperatures and automatically remove accumulated ice from the coils only when required. Temperature is maintained during the defrost cycle. There is no need to power down or empty contents.

MPR-S500H-PA
MPR-S500RH-PA



Model MPR-S500RH-PA shown with wire shelves (left), sliding drawer racks (right).

Choose between alternate inventory configurations, including a combination of wire shelving and sliding drawer racks. A chart recorder installs in the cabinet base. A battery backup option provides power to the control panel display for up to 8 hours in the event of a power outage. A door blackout panel protects light-sensitive contents. See Options.

Setpoint 5°C, Ambient temperature 23°C

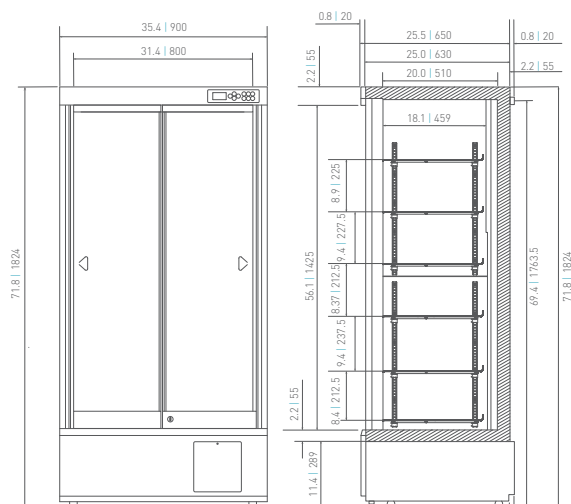
Internal Temperature (°C)

Time (minutes)

The graph displays multiple data series (colored lines) representing internal temperature over time. The y-axis ranges from 0 to 10°C, and the x-axis ranges from 0 to 50 minutes. The temperature fluctuates between approximately 3°C and 7°C, with a general trend of decreasing temperature over time. The lines are clustered together, indicating similar behavior across different trials or conditions.

As interior air temperature stabilizes at the desired setpoint, large mass storage volume sustains tight temperature uniformity of the load inside the insulated cabinet.

Unit : inch | mm



Model Number		MPR-S500H-PA	MPR-S500RH-PA
Exterior Dimensions (W x D x H) ¹⁾	inches mm	35.4 x 25.5 x 71.8 900 x 650 x 1824	
Interior Dimensions (W x D x H)	inches mm	31.4 x 20.0 x 56.1 800 x 510 x 1425	
Volume	cu.ft. liters	19.5 554	19.4 550
Net Weight	lbs kg	300 139	320 145
Performance			
Warranty ²⁾		3 years parts and labor	
Temperature Control Range ³⁾	°C	2 to 14	
Control			
Controller		Microprocessor with non-volatile memory	
Digital Temperature Display		Digital (white graphic OLED), 1°C (increment of 0.1)	
Temperature Sensor		Thermistor	
Refrigeration			
Cooling Method		Fan forced air circulation	
Defrost Method		Electronically actuated cycle defrost	
Refrigerant		SNAP approved (R-600A), 45 g	
Insulation		PUF (rigid polyurethane foamed insulation)	
Construction			
Exterior Material		Painted steel	
Interior Material		Painted steel	
Outer Doors	qty	2 (highly insulated double glass door with tempered glass)	
Outer Door Lock		Included	
Shelves	qty	6 (adjustable, wire) full width	6 (adjustable, wire) left side
Sliding Drawer Racks		-	5 right side
Shelf Dimensions (W x D)	inches mm	30.7 x 16.5 781 x 420	16.9 x 16.5 430 x 420
Max. Load – Per Shelf	lbs kg	110 50	44 20
Access Port	qty	(1) Standard	
Access Port Position		Rear, middle back wall	
Access Port Diameter	inches mm	1.2 30	
Casters	qty	4 (2 Leveling feet)	
Interior Light		LED	
Accessories			
Key	set	x 2	
Alarms (V=Visual, B=Buzzer, R=Remote Alarm, L=Logged)			
Power Failure ⁴⁾		R	
High Temperature		V-B-L-R	
Low Temperature		V-B-L-R	
Door Open		V-B-L	
Electrical and Noise Level			
Power Supply		115V, 60Hz, 1Ø, NEMA 5-15P, requires NEMA 5-15R receptacle	
Noise Level ⁵⁾	dB(A)	42	
BTU Output	btu/hr	785	
Options			
Circular Type Chart Recorders		MTRC954	
Chart Paper		C738176	
Ink Pen	pack of 6	R252	
Battery Kit For Power Failure Alarm		MPR-48B2-PW	
Name Card Holder		MPR-50CH-PW	MPR-50RCH-PW
Optional Communication System			
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System	
Self-Powered Output Module		MTR-420-MAC	
Quality Management System			
Certification		QPS Listed	

¹⁾ External dimensions of main cabinet only, excluding external projections. See dimensions' drawings on website for full details.

²⁾ Current warranty offered at time of printing and may be subject to change; US and Canada only

³⁾ Air temperature measured at refrigeration compartment center and freezer compartment center, ambient temperature +35°C, no load.

⁴⁾ Remote alarm includes optional, audible, power failure alarm with battery pack MPR-48B2-PW (B-R alarm).

⁵⁾ Nominal value - background noise 20 dB(A).

Specifications are subject to change without notice.

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

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



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