



Biomedical Refrigerator with Freezer

Uniformity with Forced Air Circulation

Fan-forced air circulation in the refrigerator allows for precise temperature uniformity. Efficient temperature recovery properties allow for minimal temperature fluctuations around set points.

Sample Security Design

Refrigerator evaporator operates above freezing temperatures therefore reducing the need for defrost and avoiding exposing products to freezing temperatures. Ideal for biological, reagents and vaccine storage.

Temperature Controls and Sensors

Accurate temperature sensors and controllers inside the refrigerator maintain a set temperature between the 2°C to 8°C. Alarms and temperature monitoring allow for quick notification of adverse operating conditions.

Dedicated Refrigeration



Uniformity



Optimum Footprint

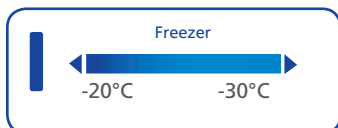
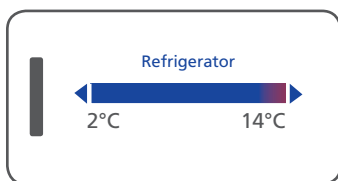


6.2 cu.ft. Ref | 1.4 cu.ft. Frzr



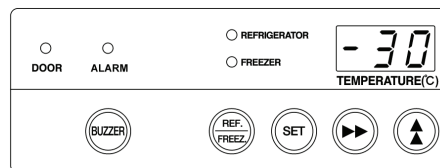
Refrigeration Systems

Separate refrigeration systems and compressors allow differential control of individual refrigerator and freezer compartments, allowing freezer section to maintain temperatures as low as -30°C.



Microprocessor Controls

Comprehensive **setpoint, alarm, monitoring and diagnostic functions** are maintained by a microprocessor controller with digital display of all critical functions.



Validated Storage

MPR refrigeration systems are designed to assure stored product safety to **meet regulatory guidelines** for vaccine and biologicals.

MPR Series

CDC RECOMMENDATIONS	✓
FDA STANDARDS	✓
AABB GUIDELINES	✓
ICH GUIDELINES	✓
USDA GUIDELINES	✓



Biomedical Refrigerator with Freezer

The MPR Series biomedical refrigerator with freezer combines high performance refrigeration, control and alarm/monitoring systems with energy efficient, cost-effective cabinet design.

- Microprocessor controller and interior forced air circulation in the refrigerator.
- Safe and secured storage behind a keyed locking door.
- Integrated alarm functions.
- One unit with dual temperature zone needs only minimal installation space.
- Double-pane windows with heat reflection film reduces the condensation.
- Calibration adjustment through the control panel.
- MPR series combo units have two separate specially designed compressors for the refrigerator and the freezer sections and offers quiet operation.
- Optional wireless cloud-based monitoring through LabAlert™.

SAFETY FUNCTIONS

SAFETY FUNCTIONS	MPR Series
TEMPERATURE ALARM	✓
OVERHEATING PROTECTION	✓
MEMORY BACK-UP FUNCTION	✓
SELF-DIAGNOSTIC FUNCTION	✓
KEY LOCK SWITCH	✓

Cycle Defrost

Unique cycle defrost (refrigerator only) initiates only as required and maintains internal temperature uniformity without fluctuations.

Key Advantages of MPR Series for Vaccine Storage

- Accurate temperature sensors maintain a set temperature within the 2°C to 8°C (refrigerator) and -20°C to -30°C (freezer) temperature range
- Refrigerator evaporator operates above freezing temperatures, therefore reducing the need for defrost
- Alarms and temperature monitoring for quick notification of adverse operating conditions
- Fan-forced air circulation for precise temperature uniformity in the refrigerator
- Minimal fluctuations and efficient temperature recovery properties

General Applications - Freezer

Restriction enzyme and reagent preservation

-20°C



Biological sample preservation

-30°C



Vaccine preservation

-30°C



MODEL	MPR-215F-PA
AIR TEMPERATURE UNIFORMITY	+/- 3°C (for 2°C to 14°C in the Refrigerator) +/- 5°C (for -35°C to -15°C in the Freezer)
EXTERIOR DIMENSIONS (W X F-B X H)	21.3" x 21.9" x 70.6" (540 x 557 x 1794 mm)
EFFECTIVE CAPACITY	Refrigerator: 6.2 cu. ft. (176 liters) Freezer: 1.4 cu. ft. (39 liters)
EXTERIOR FINISH	Polyester resin finish baked on zinc galvanized steel
INTERIOR FINISH	Refrigerator: Styrene Resin Freezer: Colored Aluminum Plate
INSULATION	CFC-Free rigid polyurethane foamed in place
NET WEIGHT	190 lbs. (86 kg.)
TEMPERATURE CONTROL	Microprocessor L.E.D. Display
COOLING METHOD	Refrigerator: Fan-Forced Air Circulation Freezer: Direct Cooling (manual defrost)
ENERGY CONSUMPTION	2.86 kWh/Day (At 5°C in the refrigerator and -20°C in the freezer)
REFRIGERANT	R-134a (HFC)
SHELVES	Refrigerator: 3 (44 lbs. per shelf) Freezer: 1 (22 lbs. per shelf)
ALARMS AND SAFETY	High/low temperature alarm, Door ajar alarm, Memory back-up during power failure, Self-diagnostics, Remote alarm contacts (N.O./N.C., DC30V, 2A), Door lock with key
CASTERS	4 Casters with 2 adjustable leveling feet
ACCESS PORT	30 mm (left) for both refrigerator and freezer sections



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Specifications are subject to change without notice. For latest specification information contact PHC Corporation of North America at info@us.phcd.com. Performance data herein is based on independent testing at time of publication.