



# 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



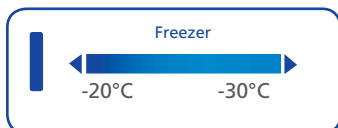
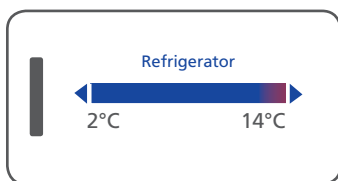
Optimum Footprint



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

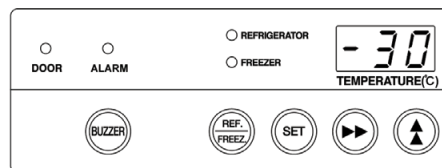
## Refrigeration Systems

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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