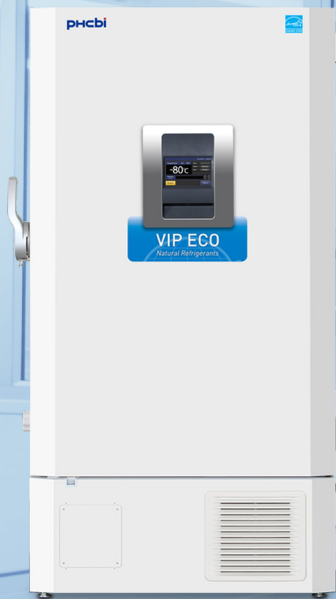


## PRODUCT COLLECTION OVERVIEW



Ultra-Low Temperature and  
Cryogenic Freezers



High Performance Biomedical  
Refrigerators and Freezers



Multigas, CO<sub>2</sub> and  
Laboratory Incubators

Lab Monitoring System

# The Life Science Equation

Our product lines are designed to support the life science equation from incubation to storage. Our suite of laboratory equipment builds a circle of protection around your valuable work to ensure the reproducibility, dependability and high performance you demand.



## Ultra-Low Temperature and Cryogenic Freezers

Long-term storage and sample security. Ultra-low temperature freezers are required for storage of samples and certain vaccines at temperatures as low as  $-86^{\circ}\text{C}$ . The PHCbi brand cryogenic freezer offers cost-effective and safe alternatives to liquid nitrogen vapor or liquid storage systems for extended preservation without the constant need for refilling.



## High Performance Biomedical Refrigerators and Freezers

Our refrigerators, freezers and combo refrigerators/freezers represent more than fifty years of engineering excellence in cold chain storage and temperature controlled products. From the refrigeration platform to the control center and cabinet configuration, each model delivers the protection needed for the safety and viability of high value vaccines and pharmaceuticals.



## CO<sub>2</sub>, Multigas, Laboratory Incubators and Plant Growth Chambers

Our full collection of incubators is designed to deliver reproducibility. Our Cell-IQ™ CO<sub>2</sub> and multigas CO<sub>2</sub>/O<sub>2</sub> incubators ensure a precise and repeatable *in vitro* chamber environment. Our heated and cooled laboratory incubators permit accurate temperature control and consistent uniformity. The PHCbi brand plant growth chamber provides a temperature controlled, humidified environment with programmable lighting protocols.



## Monitoring and Data Acquisition

Real-time monitoring and notification. Protection for valuable products and laboratory equipment investment. LabAlert is an independent wireless monitoring solution for environmental conditions in refrigerators and freezers. Our secure, cloud-based solution offers customizable monitoring for refrigerators and freezers with no software installation required.

# Ultra-Low Temperature and Cryogenic Freezers

Tested to meet the toughest quality standards, our ultra-low temperature freezers offer proven performance and reliability. The cooling and insulation systems in ultra-low temperature freezers maintain uniform conditions throughout the freezer's interior, even in response to frequent door openings. Find the right freezer for your needs.



MDF-DU702VXC-PA | 76019-348

MDF-DC700VXC-PA | 75788-512

MDF-DU702VH-PA | 76020-716

MDF-C8V1-PA | 10046-902

MDF-C2156VANC-PA | 10046-900

## TwinGuard® Series

Two refrigeration systems work independently to double security for your samples.

### -86°C Ultra-Low Temperature Freezers

MDF-DU702VXC-PA | 76019-348  
25.7 cu.ft. (729 L)

MDF-DC700VXC-PA | 75788-512  
25.3 cu.ft. (715 L)

MDF-DU502VXC-PA | 76019-346  
18.6 cu.ft. (528 L)

MDF-DU302VX-PA | 76200-148  
12.7 cu.ft. (360 L)

5 year parts and labor warranty

## VIP® Series

Better reliability in your freezer with optimal performance and maximum energy savings.

### VIP ECO Natural Refrigerant Freezer

MDF-DU901VHA-PA | 76371-774\*  
29.8 cu.ft. (845 L) 115V

MDF-DU703VH-PA | 76637-154\*  
25.7 cu.ft. (729 L) 115V

MDF-DU703VHA-PA | 76637-152\*  
25.7 cu.ft. (729 L) 220V

MDF-DU702VH-PA | 76020-716\*  
25.7 cu.ft. (729 L) 220V

MDF-DU702VHA-PA | 76305-598\*  
25.7 cu.ft. (729 L) 115V

MDF-DU503VH-PA | 76637-150\*  
18.6 cu.ft. (528 L) 220V

MDF-DU503VHA-PA | 76637-148\*  
18.6 cu.ft. (528 L) 115V

MDF-DU502VH-PA | 76269-676\*  
18.6 cu.ft. (528 L) 220V

MDF-DU502VHA-PA | 76305-596\*  
18.6 cu.ft. (528 L) 115V

5 year parts and labor warranty

\*Temperature Range -40°C to -86°C

## Chest Freezer

Energy efficiency and high performance cooling with space saving design.

### -80°C Ultra-Low Temperature Freezer

MDF-C8V1-PA | 10046-902  
3.0 cu.ft. (84 L)

5 year parts and labor warranty

## Cryogenic Freezer

Reliable mechanical cryogenic preservation with maximum storage capacity.

### -150°C Ultra-Low Temperature Freezer

MDF-C2156VANC-PA | 10046-900  
8.2 cu.ft. (231 L)

2 year parts and labor with an additional 3 year compressor warranty

# High Performance Biomedical Refrigerators and Freezers

This selection of high performance freezer and refrigeration systems offers outstanding performance and reliability, even in higher ambient temperatures and in response to frequent door openings. The cooling system also maintains uniform temperatures throughout the equipment's interior, which is especially important for GMP applications and vaccine storage.



MDF-MU339HL-PA | 76383-294



MPR-N450FH-PA | 76353-814



MPR-722-PA | 76355-506



MPR-S300H-PA | 76383-298

## Laboratory Freezers

Ideal for storage of vaccines, specimens and other biologics. Available with optional storage bins. Automatic and manual defrost models available.

### -30°C Freezers

MDF-U731M-PA | 10067-690\*  
24.4 cu.ft. (690 L)

MDF-U731-PA | 89429-298\*  
22.0 cu.ft. (623 L)

### -30°C ECO Natural Refrigerant Freezers

MDF-MU539HL-PA | 76383-296  
17.8 cu.ft. (504 L)

MDF-MU339HL-PA | 76383-294\*  
13.0 cu.ft. (369 L)

### -40°C ECO Natural Refrigerant Freezers

MDF-MU549DHL-PA | 76383-292  
16.9 cu.ft. (479 L)

3 year parts and labor warranty

## Combo Refrigerators/Freezers

Combines high performance refrigeration with an energy efficient design. Each temperature zone is engineered with separate refrigeration systems for demanding applications and to meet GMP guidelines.

### +2°C to +14°C Refrigerators -30°C Freezers

MPR-715F-PA | 89230-124  
14.7 cu.ft. Ref & 6.2 cu.ft. Frzr  
(415 L Ref & 176 L Frzr)

MPR-N450FH-PA | 76353-814  
11.5 cu.ft. Ref & 4.8 cu.ft. Frzr  
(326 L Ref & 136 L Frzr)

MPR-N450FSH-PA | 76353-816<sup>1</sup>  
11.5 cu.ft. Ref & 4.8 cu.ft. Frzr  
(326 L Ref & 136 L Frzr)

MPR-N250FH-PA | 76498-952  
6.3 cu.ft. Ref & 2.8 cu.ft. Frzr  
(179 L Ref & 80 L Frzr)

MPR-N250FSH-PA | 76498-954<sup>1</sup>  
6.3 cu.ft. Ref & 2.8 cu.ft. Frzr  
(179 L Ref & 80 L Frzr)

3 year parts and labor warranty

<sup>1</sup> Solid door model

## Swinging Door Refrigerators

Ideal temperature environment for clinical research, pharmaceutical and industrial use. Adjustable shelves and wide range setpoint for varying laboratory applications, including chromatography and pharmaceutical storage. Available with optional sliding drawers.

### +2°C to +14°C Refrigerators

MPR-1412-PA | 76355-510\*  
48.2 cu.ft. (1364 L)

MPR-1412R-PA | 76355-512<sup>1\*</sup>  
48.0 cu.ft. (1359 L)

MPR-722-PA | 76355-506\*  
24.2 cu.ft. (684 L)

MPR-722R-PA | 76355-508<sup>1\*</sup>  
23.7 cu.ft. (671 L)

MPR-N200H-PA | 76552-180\*  
7.6 cu.ft. (218 L)

3 year parts and labor warranty

<sup>1</sup> Pullout drawers

## Sliding Door Refrigerators

The slim design and optional sliding drawers or baskets give pharmaceutical refrigerators an ergonomic advantage, while complying with strict storage temperatures and easy product access.

### +2°C to +14°C Refrigerators

MPR-1014-PA | 97035-150\*  
36.5 cu.ft. (1033 L)

MPR-1014R-PA | 97035-152<sup>1\*</sup>  
36.3 cu.ft. (1029 L)

MPR-S500H-PA | 76518-110\*  
19.5 cu.ft. (554 L)

MPR-S500RH-PA | 76518-112\*  
19.4 cu.ft. (550L)

MPR-S300H-PA | 76383-298<sup>2\*</sup>  
12.2 cu.ft. (345 L)

3 year parts and labor warranty

<sup>1</sup> Pullout wire baskets

<sup>2</sup> Optional pullout drawers

# CO<sub>2</sub> and Multigas Incubators

CO<sub>2</sub> and multigas incubators from PHCbi brand include benchtop, stackable and reach in models in a variety of sizes to meet a wide range of culture conditions, space needs and decontamination methods. All MCO CO<sub>2</sub> and multigas incubators come standard with inCu-saFe®, a cooper enriched stainless alloy that mitigates contamination while remaining corrosion resistant and easy to clean.



MCO-170AICUVDL-PA | 75856-512



MCO-170AICUVHL-PA | 76371-776



MCO-170MP-PA | 76383-302



MCO-50M-PA | 76480-250



MCO-170ACL-PA | 76371-772



MCO-80ICL-PA | 10046-928

## Cell-IQ CO<sub>2</sub> Incubator with High Heat Sterilization

Cell-IQ CO<sub>2</sub> incubator with high heat sterilization provides precise and accurate cell culture conditions with a unique dual heat sterilization system. SafeCell™ UV continuously mitigates contamination after every door closure. Touchscreen provides user friendly control of parameters with gloved hands.

### CO<sub>2</sub> Incubator

MCO-170AICUVDL-PA | 75856-512  
5.8 cu.ft. (165 L)

3 year parts and labor, additional 5 year for CO<sub>2</sub> sensor parts only

## Cell-IQ CO<sub>2</sub> Incubators with Vaporized H<sub>2</sub>O<sub>2</sub> Decontamination

Cell-IQ CO<sub>2</sub> incubators with H<sub>2</sub>O<sub>2</sub> decontamination provides the accuracy and precision of the MCO Cell-IQ line with the industry's fastest decontamination cycle.

### CO<sub>2</sub> Incubators

MCO-170AICUVHL-PA | 76371-776<sup>1</sup>  
5.8 cu.ft. (165 L)

MCO-230AICUVLG-PA | 76537-086<sup>2</sup>  
8.1 cu.ft. (230 L)

MCO-170AICUVL-PA | 10119-820<sup>2</sup>  
5.8 cu.ft. (165 L)

MCO-50AICL-PA | 76383-300<sup>3</sup>  
1.8 cu.ft. (50 L)

3 year parts and labor, additional 5 year for CO<sub>2</sub> sensor parts only

<sup>1</sup> H<sub>2</sub>O<sub>2</sub> decontamination standard

<sup>2</sup> H<sub>2</sub>O<sub>2</sub> decontamination available

<sup>3</sup> UV background decontamination and H<sub>2</sub>O<sub>2</sub> decontamination available.

## Cell-IQ Multigas Incubators

Cell-IQ multigas incubators are complete cell culture incubators for highly regulated applications like stem cell research, regenerative medicine and *in vitro* fertilization.

### Multigas Incubators

MCO-170MP-PA | 76383-302<sup>1</sup>  
5.7 cu.ft. (161 L)

MCO-50M-PA | 76480-250<sup>1</sup>  
1.8 cu.ft. (50 L)

3 year parts and labor, additional 5 year for CO<sub>2</sub> sensor parts only

<sup>1</sup> UV background decontamination and H<sub>2</sub>O<sub>2</sub> decontamination available.

## CytoGrow Optimal Incubators

CytoGrow Optimal CO<sub>2</sub> incubators are ideal for cell culture and clinical based research applications with an optimum value.

### CO<sub>2</sub> Incubators

MCO-170ACL-PA | 76371-772<sup>1</sup>  
5.8 cu.ft. (165 L)

3 year parts and labor warranty

<sup>1</sup> Optional UV background decontamination

## CytoGrow ReachIn Incubator

The CytoGrow ReachIn CO<sub>2</sub> incubator is engineered for accurate and precise cell culture conditions. Engineered with passive and active mitigation systems, the CytoGrow ReachIn incubator supports a greater capacity for large-scale cell cultures. Available with optional roller bottle apparatus ramp and reinforced shaker shelves.

### CO<sub>2</sub> Incubator

MCO-80ICL-PA | 10046-928<sup>1</sup>  
30.1 cu.ft. (851 L)

3 year parts and labor warranty

<sup>1</sup> Optional UV background decontamination



# Laboratory Incubators and Plant Growth Chamber

Our selection of laboratory incubators and plant growth chambers are designed to achieve the highest level of reproducibility. MIR Series heated and refrigerated incubators are suitable for a wide range of applications that require precise temperature control. The humidified plant growth chamber allows for precise temperature control and programmable lighting.



MIR-254-PA |  
97015-590

MIR-154-PA |  
97015-588

MIR-554-PA |  
97049-050

## Heated and Refrigerated Microbiological Incubators

MIR series incubators are designed to facilitate a wide range of applications requiring setpoint temperatures from -10°C to +60°C. A selection of three cabinet sizes offers programmed operation and integrated alarms for a wide temperature range. Save up to 10 light and temperature programs with up to 12 steps. "Join mode" allows users to combine saved programs for automated testing protocols.

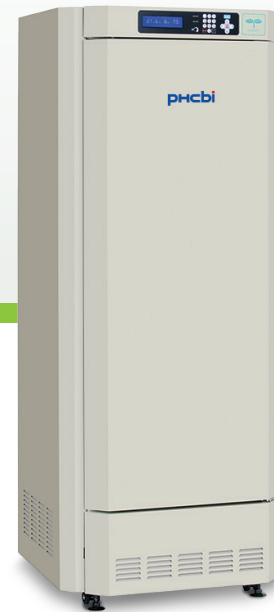
### CO<sub>2</sub> Incubators

MIR-554-PA | 97049-050  
14.3 cu.ft. (406 L) -10°C to +60°C heat and cool

MIR-254-PA | 97015-590  
8.4 cu.ft. (238 L) -10°C to +60°C heat and cool

MIR-154-PA | 97015-588  
4.3 cu.ft. (123 L) -10°C to +60°C heat and cool

*3 year parts and labor warranty*



MLR-352H-PA |  
10124-864

## Drosophila/Plant Growth Chamber

The humidified drosophila/plant growth chamber functions within a temperature range of +5°C to +50°C, with programmable lighting and humidity control for diurnal protocols in plant and insect experiments.

### CO<sub>2</sub> Incubators

MLR-352H-PA | 10124-864  
10.4 cu.ft. (294 L)

*3 year parts and labor warranty*

# LabAlert® Real-Time Monitoring & Notification System

LabAlert is a complete, end-to-end wireless, monitoring solution for all your laboratory equipment.



## SIMPLICITY

Easy setup, affordable pricing, infinite scalability, and an intuitive user interface. LabAlert makes advanced laboratory monitoring more accessible than ever!



## SECURITY

LabAlert is always on watch. Receive instant alerts pushed directly to your cell phone the instant anything goes wrong. Easily customizable alerts are also available to help you meet the demands of your lab.



## CONVENIENCE

Now checking on your lab is as easy as checking your email. All you need is a smart phone, tablet, or computer and you can access critical data from any location.

## What can be tracked?

ULT FREEZERS	LAB FREEZERS	LABREFRIGERATORS	INCUBATORS	GMP CLEAN ROOM	LN <sub>2</sub> STORAGE
<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Door Status</li> <li>• 0-5V DC</li> <li>• 4-20 mA</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Door Status</li> <li>• 0-5V DC</li> <li>• 4-20 mA</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Door Status</li> <li>• 0-5V DC</li> <li>• 4-20 mA</li> </ul>	<ul style="list-style-type: none"> <li>• CO<sub>2</sub> Concentration</li> <li>• Temperature</li> <li>• Humidity</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Humidity</li> <li>• Pressure</li> <li>• Water level</li> </ul>	<ul style="list-style-type: none"> <li>• Temperature</li> </ul>

Laboratory Equipment Parameters									
Product	Temperature	CO <sub>2</sub>	O <sub>2</sub>	Humidity	Door Status	Liquid Level	Pressure	RPM	Flow
Cryogenic Freezers	●	—	—	—	●	—	—	—	—
ULT Freezers	●	—	—	—	●	—	—	—	—
Lab Freezers	●	—	—	—	●	—	—	—	—
Lab Refrigerators	●	—	—	—	●	—	—	—	—
Incubators	●	●	●	●	●	●	—	—	—
LN <sub>2</sub> Storage	●	—	●	—	●	●	—	—	—
Environment Chambers	●	—	—	●	●	●	—	—	—
Clean Rooms	●	—	—	●	●	—	●	—	—
Environment Rooms	●	—	—	●	●	—	●	—	—
Ovens	●	—	—	—	●	—	—	—	—
Centrifuges	●	—	—	—	●	—	—	●	—
Facility Ambient	●	—	●	●	●	●	—	—	—
BioSafety Cabinets	●	—	—	—	—	—	●	—	●
Water Baths	●	—	—	—	—	●	—	—	●

\*Other parameters available.



PHC Corporation of North America

Specifications are subject to change without notice.

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