Specifications

**Power Voltage, Rated Frequency**
- 220 V, 50 Hz/60 Hz
- 230 V/240 V, 50 Hz (CE)
- 220 V, 230 V/240 V, 50 Hz (CE)

**External dimensions (W x D x H)**
- MBR-305GR: 300 x 690 x 980 (mm) / 11.8 x 27.2 x 38.6 (inch)
- MBR-107DH: 590 x 680 x 1740 (mm) / 23.2 x 26.8 x 68.5 (inch)
- MBR-506DH: 800 x 832 x 1810 (mm) / 31.5 x 32.8 x 71.3 (inch)
- MBR-705GR: 800 x 832 x 1810 (mm) / 31.5 x 32.8 x 71.3 (inch)
- MBR-1405GR: 800 x 832 x 1810 (mm) / 31.5 x 32.8 x 71.3 (inch)

**Net weight**
- MBR-305GR-PW: 79 kg
- MBR-107DH-PW: 180 kg
- MBR-506DH-PW: 205 kg
- MBR-705GR-PW: 205 kg
- MBR-1405GR-PW: 360 kg

**Effective capacity**
- MBR-305GR-PW: 1.65 cu.m. (59 cu.ft.)
- MBR-107DH-PW: 3.9 cu.m. (138 cu.ft.)
- MBR-506DH-PW: 9.45 cu.m. (335 cu.ft.)
- MBR-705GR-PW: 12.85 cu.m. (458 cu.ft.)
- MBR-1405GR-PW: 12.85 cu.m. (458 cu.ft.)

**Storage capacity**
- MBR-305GR-PW: 30 bags (450 ml), with MBR-16B
- MBR-107DH-PW: 120 bags (450 ml), with MBR-16B
- MBR-506DH-PW: 120 bags (450 ml), with MBR-16B
- MBR-705GR-PW: 120 bags (450 ml), with MBR-16B
- MBR-1405GR-PW: 120 bags (450 ml), with MBR-16B

**Temperature**
- MBR-305GR-PW: 2˚C ±1˚C (Ambient temperature 35˚C)
- MBR-107DH-PW: 2˚C ±1˚C (Ambient temperature 35˚C)
- MBR-506DH-PW: 2˚C ±1˚C (Ambient temperature 35˚C)
- MBR-705GR-PW: 2˚C ±1˚C (Ambient temperature 35˚C)
- MBR-1405GR-PW: 2˚C ±1˚C (Ambient temperature 35˚C)

**Cabinet insulation**
- Insulated steel frame with double layer glass windows
- 120 W hermetically sealed (MBR-107DH-PK)
- 150 W hermetically sealed (MBR-705GR-PK)
- 150 W hermetically sealed (MBR-1405GR-PK)

**Compressor**
- MBR-305GR-PW: 110 W hermetically sealed
- MBR-107DH-PW: 200 W hermetically sealed
- MBR-506DH-PW: 250 W hermetically sealed
- MBR-705GR-PW: 250 W hermetically sealed
- MBR-1405GR-PW: 250 W hermetically sealed

**Shelves**
- MBR-305GR-PW: 2 shelves
- MBR-107DH-PW: 2 shelves
- MBR-506DH-PW: 3 shelves
- MBR-705GR-PW: 3 shelves
- MBR-1405GR-PW: 3 shelves

**Inner door (acrylic)**
- MBR-305GR-PW: 1 layer
- MBR-107DH-PW: 1 layer
- MBR-506DH-PW: 1 layer
- MBR-705GR-PW: 1 layer
- MBR-1405GR-PW: 1 layer

**Door lock**
- MBR-305GR-PW: 1 lock
- MBR-107DH-PW: 1 lock
- MBR-506DH-PW: 1 lock
- MBR-705GR-PW: 1 lock
- MBR-1405GR-PW: 1 lock

**Access port**
- MBR-305GR-PW: Access port
- MBR-107DH-PW: Access port
- MBR-506DH-PW: Access port
- MBR-705GR-PW: Access port
- MBR-1405GR-PW: Access port

**Lighting**
- DC 24 V, 1 A, Temperature alarm or power failure alarm
- 2 fluorescent lamps

**Accessories and options**
- MBR-305GR-PW: Recording paper (RP-G04-PW), Recording pen (PG-R-PW)
- MBR-107DH-PW: —
- MBR-506DH-PW: —
- MBR-705GR-PW: —
- MBR-1405GR-PW: —

**Preservation (freezers, refrigerators) and Culturing (incubators)**
- Equipment
- The management of the design, development, production, sales support, and servicing of the above.
- Specially designed to provide precise and reliable temperature control that meets various criteria for whole blood and blood derivatives.

**Contact information**
- PHC Corporation, Biomedical Division
- 1-1 Sakado, Oozu-machi, Ora-gun, Gunma 370-0596, Japan
- https://www.phchd.com/global/biomedical/

**Environmental management system**
- ISO13485
The DH-type (stainless steel roll-out drawer with card holder) is designed to provide stable and reliable temperature control utilizing PHCbi original technology. A special highly efficient compressor designed and developed by PHCbi, to provide rapid cooling and quiet performance for each model.

**Stable Temperature Control**
- Temperature is controlled by two sensors located in the liquid-loaded monitor bottles, which are in the shape of a blood bag.
- Two thermistor sensors constantly monitor the temperature in both the upper and the lower part of chamber.
- Microprocessor control ensures the most accurate temperature control available.
- Multi air-flow plenum system ensures excellent temperature uniformity in larger capacity models. (MBR-705GR, MBR-1405GR)
- Temperature-maintained defrost designed with thermal sensors and heaters on the evaporator, all under precise microprocessor control.

**Temperature Variations Prevented**
The PHCbi MBR Series is designed to minimize cold air loss even with frequent door openings.
- Separated transparent inner doors minimize the chamber air leakage during door openings.
- Foamed-in-place insulation prevents chamber air leakage and promote complete door closings.
- Large air circulation fan enables rapid temperature recovery after door openings. (Double fan for MBR-1405GR)
- Digital display is easy to see, and is calibratable through the control panel.

**Alarm and Safety Functions**
To ensure the safety of precious blood supply, the PHCbi MBR Series provides the following safety functions.
- Audible and flashing LED visual alarms with remote alarm contacts, in case of power failure, high or low temperature condition, or any thermal sensor abnormality.
- Door alarm and key lock are standard features.
- Re-activating buzzer, lamp and remote alarm contacts, in case of power failure, high or low temperature condition, or any thermal sensor abnormality.

**Environmentally Friendly**
PHCbi MBR Series feature commercially-available HCFC-free refrigerants and HCFC-free insulation.

**User-Friendly Design**
- Fluorescent interior lamp with ON/OFF switch and a large view window in the outer door provide a clear view of stored items.
- Pull-up characteristics

![Pull-up Characteristics](image)

- Pull-down characteristics

![Pull-down Characteristics](image)

**Performance Data (Reference Data)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Effective capacity</th>
<th>Performance characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBR-305GR</td>
<td>450 ml blood bag</td>
<td>120 bags/360 bags (MBR-305GR)</td>
</tr>
<tr>
<td>MBR-705GR</td>
<td>450 ml blood bag</td>
<td>120 bags/360 bags (MBR-705GR)</td>
</tr>
<tr>
<td>MBR-1405GR</td>
<td>450 ml blood bag</td>
<td>120 bags/360 bags (MBR-1405GR)</td>
</tr>
</tbody>
</table>

* A continuously operating compressor was used to obtain data for the upper three graphs.

* Appearance and specifications are subject to change without notice.