Panasonic

Preservation
above-zero

Blood Bank Refrigerators

Specially designed to provide precise and reliable temperature control that meets various criteria for whole blood and blood derivatives.

MBR-305GR   MBR-704GR   MBR-1405G   MBR-107D(H)   MBR-506D(H)

The Panasonic MBR Series provides two styles of storage systems: G-type (coated hard steel wire shelf) and GR-type (stainless steel roll-out drawers with card holder).

Designed to conform to AABB criteria, the series ensures stable and reliable temperature control utilizing Panasonic original technology. A special highly efficient compressor designed and developed by Panasonic provides 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-704GR, MBR-1405G/GR)
- **Temperature-maintained defrost** designed with thermal sensors and heaters on the evaporator, all under precise microprocessor control.

Temperature Variations Prevented

The Panasonic 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** in the walls and **magnetic sealed outer doors with double-pane glass window** prevent chamber air leakage and promote complete door closings.
- **Large air circulation fan** enables rapid temperature recovery after door openings. (Double fan for MBR-1405G/GR.)

User-Friendly Design

- **Selectable storage system** (G-type and GR-type) to suit user's needs.
- **Fluorescent interior lamp** with ON/OFF switch and a **large view window** in the outer door provide a clear view of stored items.
- **Digital display** is easy to see, and is calibratable through the control panel.

Easy-access front control panel (MBR-305D/DR/GR, 1405G/GR)

- Filterless construction eliminates bothersome filter cleaning. (MBR-305D/ DR/GR)

MBR-305GR

MBR-704GR

* Descriptions in this catalog are based on the models MBR-305D/DR, 305GR, 704GR and 1405G/GR.
* Appearance and specifications are subject to change without notice.

MBR-305D/DR
MBR-305GR

Temperature: **4°c ±1.5°c** *(Ambient temp. 35°C)*

Effective capacity

304 *liters*
(10.7 cu.ft.) MBR-305D

302 *liters*
(10.7 cu.ft.) MBR-305DR/GR

90 *bags/*
450mℓ blood bag (with baskets)

MBR-704GR

Temperature: **4°c ±1°c** *(Ambient temp. 35°C)*

Effective capacity

617 *liters*
(21.8 cu.ft.) MBR-704GR

360 *bags/*
450mℓ blood bag (without baskets)

Dimensions Unit : mm (inch)

MBR-305D

MBR-305DR

MBR-305GR

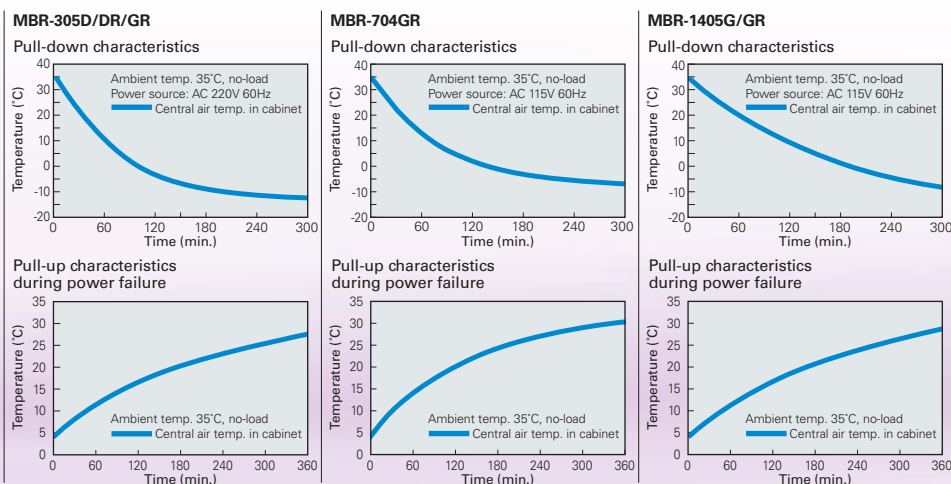MBR-704GR
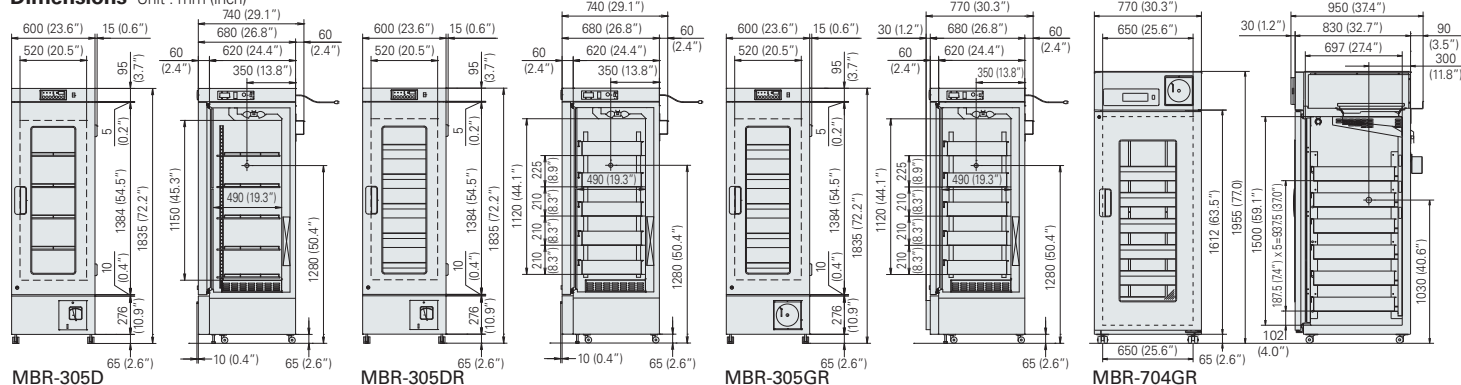
Alarm and Safety Functions

To ensure the safety of precious blood supply, the Panasonic 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 contact. (30 min. after buzzer stops)
- Built-in temperature recorder.

Environmentally Friendly

Panasonic refrigerators feature commercially-available HCFC-free, HFC refrigerants and HCFC-free insulation.

Performance Data (Reference Data)

MBR-305D/DR/GR

Pull-down characteristics

Ambient temp. 35°C, no-load
Power source: AC 220V 60Hz
— Central air temp. in cabinet

Pull-up characteristics during power failure

Ambient temp. 35°C, no-load
— Central air temp. in cabinet

MBR-704GR

Pull-down characteristics

Ambient temp. 35°C, no-load
Power source: AC 115V 60Hz
— Central air temp. in cabinet

Pull-up characteristics during power failure

Ambient temp. 35°C, no-load
— Central air temp. in cabinet

MBR-1405G/GR

Pull-down characteristics

Ambient temp. 35°C, no-load
Power source: AC 115V 60Hz
— Central air temp. in cabinet

Pull-up characteristics during power failure

Ambient temp. 35°C, no-load
— Central air temp. in cabinet

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

MBR-1405GR

MBR-107D(H)   MBR-506D(H)

MBR-1405G/GR

Temperature:
4°c ±1.5°c
(Ambient temp. 35°C)

Effective capacity

1301 liters
(45.9 cu.ft.)

720 bags/
450mℓ blood bag
(without baskets)

MBR-107D(H)
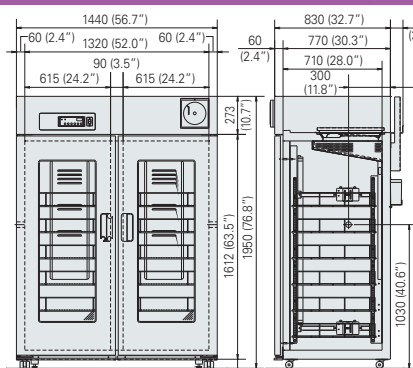## MBR-506D(H)

Temperature:
4°c ±1°c
(Ambient temp. 35°C)

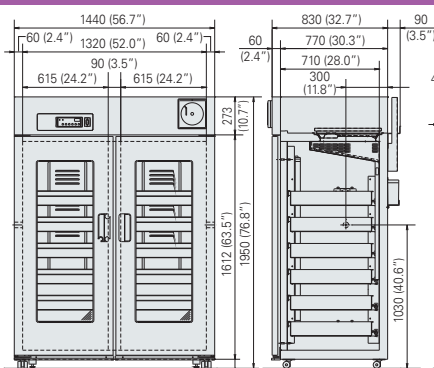*Effective capacity*

79 liters
(2.8 cu.ft.) MBR-107D(H)

32 bags/
450mℓ blood bag (with baskets)

425 liters
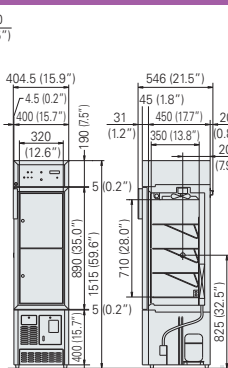**(15.0 cu.ft.)** MBR-506D(H)

120 bags/
450mℓ blood bag (with baskets)

MBR-1405G

MBR-1405GR

MBR-107D(H)
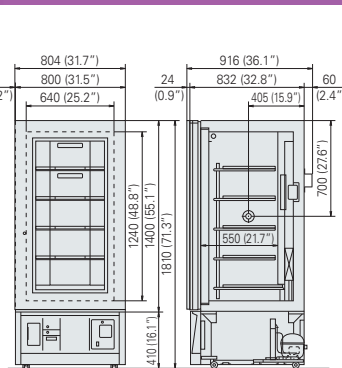
MBR-506D(H)

Specifications

Model No.	MBR-305D/DR	MBR-305GR	MBR-704GR	MBR-1405G/GR
Exterior dimensions (W x D x H)	600 x 680 x 1835 (mm) / 23.6 x 26.8 x 72.2 (inch)		770 x 830 x 1955 (mm) / 30.3 x 32.7 x 77.0 (inch)	1440 x 830 x 1950 (mm) / 56.7 x 32.7 x 76.8 (inch)
Interior dimensions (W x D x H)	520 x 490 x 1150 (mm) / 20.5 x 19.3 x 45.3 (inch)		650 x 697 x 1500 (mm) / 25.6 x 27.4 x 59.1 (inch)	1320 x 710 x 1500 (mm) / 52.0 x 28.0 x 59.1 (inch)
Net weight	132kg (D), 147kg (DR/GR)		210kg	276kg (G), 315kg (GR)
Effective capacity	304 liters [10.7 cu.ft.] (D), 302 liters [10.7 cu.ft.] (DR/GR)		617 liters [21.8 cu.ft.] (GR)	1301 liters [45.9 cu.ft.]
Storage capacity	90 bags (450mℓ), with MBR-56B		360 bags (450mℓ), without baskets	720 bags (450mℓ), without baskets
Exterior cabinet	Galvanised steel with baked-on finish			
Interior cabinet	Galvanised steel with baked-on finish			
Cabinet insulation	Foamed-in-place rigid polyurethane			
Outer door	Insulated steel frame with double-layer glass windows			
Door lock	1		1	2
Inner door (acrylic)	2		3	6
Shelves	5 coated hard steel wire shelves		—	12 coated hard steel wire shelves
Drawers	5 stainless steel roll-out drawers (DR/GR)		6 stainlss steel roll-out drawers	12 stainlss steel roll-out drawers (GR)
Casters	4			
Compressor	150W hermetically sealed		220W hermetically sealed	250W hermetically sealed
Refrigerant	HFC			
Temperature	4°C ±1.5°C (Ambient temperature 35°C)		4°C ±1°C (Ambient temperature 35°C)	4°C ±1.5°C (Ambient temperature 35°C)
Air circulation	Forced air circulation			
Defrost	Fully automatic			
Temprature control	Microprocessor control			
Temperature alarm	High (6°C), Low (2°C), Audible and visual alarm			
Power failure alarm	Audible and visual alarm (24 hours), Automatic rechargable battery (Ni-MH)			
Door alarm	Audible and visual alarm			
Part replacement notification	Fan morter, Battery		—	Fan morter, Battery
Remote alarm contact	DC30V, 2A, Temperature alarm or power failure alarm			
Temperature monitor	2 bottles with thermistor sensor			
Lighting	15W fluorescent lamp		20W fluorescent lamp	40W fluorescent lamp
Access port	1		2	
Accessories	30-day recorder, Door lock key	1/7/30-day circular recorder, Door lock key		
Options	Recording paper (RP-06-PW)	Recording paper (RP-G04-PW), Recording pen (PG-R-PW)		
	Panasonic DAQ system (MTR-5000-PW/MTR-L03-PW or MTR-480-PW), Baskets (MBR-55B-PW, 56B-PW)		—	Panasonic DAQ system (MTR-5000-PW/ MTR-L03-PW or MTR-480-PW)

Model No.	MBR-107D(H)	MBR-506D(H)
Exterior dimensions (W x D x H)	400 x 495 x 1515 (mm) / 15.7 x 19.5 x 59.6 (inch)	800 x 832 x 1810 (mm) / 31.5 x 32.8 x 71.3 (inch)
Interior dimensions (W x D x H)	320 x 350 x 710 (mm) / 12.6 x 13.8 x 28.0 (inch)	640 x 550 x 1240 (mm) / 25.2 x 21.7 x 48.8 (inch)
Net weight	70kg	185kg
Effective capacity	79 liters [2.8 cu.ft.]	425 liters [15.0 cu.ft.]
Storage capacity	32 bags (450mℓ), with MBR-16B	120 bags (450mℓ), with MBR-56B
Exterior cabinet	Galvanised steel with baked-on finish	
Interior cabinet	Stainless steel	
Cabinet insulation	Foamed-in-place rigid polyurethane	
Outer door	Triple layer glass windows	
Door lock	1	
Inner door (acrylic)	2	5
Shelves	3 zinc-plated steel wire and 1 stainless steel	5 coated hard steel wire shelves
Casters	—	4
Compressor	110W hermetically sealed	160W hermetically sealed
Refrigerant	HFC	
Temperature	4°C ±1°C (Ambient temperature 35°C)	
Air circulation	Forced air circulation	
Defrost	Fully automatic	
Temprature control	Microprocessor	
Temperature alarm	High (6°C), Low (2°C), Audible and visual alarm	
Power failure alarm	Audible and visual alarm (9 hours), Automatic rechargable battely (Ni-Cd)	
Door alarm	Visual alarm	
Remote alarm contact	DC30V, 1A	DC24V, 1A
	Temperature alarm or power failure alarm	
Lighting	6W fluorescent lamp	15W fluorescent lamp
Access port	1	
Accessories	30-day recorder, Door lock key 1 set	
Options	Recording paper (RP-06-PW)	
	Basket (MBR-15B-PW) Max.8pcs/unit 220ml bags x 7pcs/basket	Basket (MBR-55B-PW) Max.20pcs/unit 220ml bags x 10pcs/basket
	Basket (MBR-16B-PW) Max.8pcs/unit 450ml bags x 4pcs/basket	Basket (MBR-56B-PW) Max.20pcs/unit 450ml bags x 6pcs/basket

Voltage specification by destination

Model No.		Representative destination	Power supply
MBR-305GR	MBR-305GR-PE	Europe	230V, 50Hz (CE)
	MBR-305GR-PK	Korea	220V, 60Hz
	MBR-305GR-PB	Thailand	220V, 50Hz
MBR-704GR	MBR-704GR-PE	Europe	230V, 50Hz (CE)
	MBR-704GR-PK	Korea	220V, 60Hz
MBR-1405GR	MBR-1405GR-PE	Europe	230V, 50Hz (CE)
	MBR-1405GR-PB	Thailand	220V, 50Hz
MBR-107D(H)	MBR-107DH-PE	Europe	230V, 50Hz (CE)
	MBR-107DH-PK	Korea	220V, 60Hz
	MBR-107DH-PB	Thailand	220V, 50Hz
MBR-506D(H)	MBR-506DH-PE	Europe	230V, 50Hz (CE)
	MBR-506DH-PK	Korea	220V, 60Hz

Caution: Panasonic guarantees the product under certain warranty conditions. Panasonic in no way shall be responsible for any loss of content or damage to content.
• Appearance and specifications are subject to change without notice.

Panasonic Healthcare Co., Ltd., Gunma Factory is certified for:
Quality management system: ISO9001
Medical devices quality management system: ISO13485

Panasonic Healthcare Co., Ltd., Gunma Factory is certified for:
Environmental management system: ISO14001

DISTRIBUTED BY:

Panasonic®