

## Pharmaceutical Refrigerators

MPR-161D(H)  
MPR-311D(H)



**Temperature range**

**+2°C to 14°C**

**Effective capacity**

**158 liters/5.6 cu.ft.** (MPR-161D(H))

**340 liters/12.0 cu.ft.** (MPR-311D(H))

**Compact and  
Large capacity**

### Medical Refrigerators for reliable storage of pharmaceutical and medical supplies

- Precise temperature control
- Superior cooling performance
- Cycle defrost function
- Forced air circulation
- Double-paned glass door
- Slim, space saving design
- Logical storage arrangement



MPR-161D(H)



MPR-311D(H)

# MPR-161D(H)/311D(H)

## Features

### Remarkable Cooling Efficiency

Taking into consideration that pharmaceutical must be opened frequently, a highly efficient hermetic compressor is utilized in MPR-161D(H) and MPR-311D(H). The hermetic compressor provides powerful, immediate cooling which is effective in maintaining the inside temperature at a constant level.

### Effective Temperature Control

#### 1. Electric Temperature Control System

A thermistor sensor monitors temperature inside the chamber, and microprocessor and electric temperature control ensure that the set temperature is maintained. Even if the door is opened and closed frequently, the circulation fan ensures rapid temperature adjustment to provide a highly reliable, stable preservation environment that is not affected by ambient temperature.

#### 2. Fan-Forced Air Circulation

The temperature stays even throughout the inside of the refrigerator with the fan-forced air circulation system. No matter how the load is distributed, every corner of the unit is immediately cooled with no noticeable variation in temperature apparent inside the cabinet.

#### 3. Cyclical Defrosting System

During normal operation, the cyclical defrosting system permits defrosting to take place without increasing the temperature inside the cabinet. The chamber temperature goes up to approximately 10°C temporarily during defrosting.

### Equipped with Digital Temperature Display

Easy-to-read digital temperature display provides at-a-glance confirmation of the current operating temperature. To simplify temperature control, temperature readings are displayed in graduations of 1°C for temperatures ranging from 0°C to 15°C.

### Easy-to-Use, Newly Designed Doors

#### 1. Double-Paneled Glass with Heat-Reflective Film

The refrigerator doors, constructed of double-paned glass with heat-reflective film, allow easy loading and unloading of medical supplies while preventing ultraviolet rays, which may damage the stored items, from entering the unit. SANYO's unique heat-reflective film blocks the passage of radiant heat rays through the glass panels and keeps the inside temperature from being adversely affected by excessive amounts of heat.

#### 2. Door Open Alarm

When the door is opened, the Door Open indicator lamp lights automatically. After approx. 30 seconds, a buzzer alarm will sound if the door has not been closed. When you want to keep the door open for more than 30 seconds, you can deactivate the alarm via the buzzer switch provided.

### Abnormal Temperature and Safety Devices

#### 1. Abnormal Temperature Alarm

If the inside temperature suddenly descends to below 0°C or rises to above 15°C, the buzzer sounds an alarm. Simultaneously, the digital temperature display flashes.

#### 2. Abnormal Temperature Safety Device

If the internal temperature reaches below -2°C or above 20°C (approx.), the low- and high-temperature safety devices prevent the contents of the refrigerator from freezing or the temperature from rising abnormally while visible and audible alarms are activated.

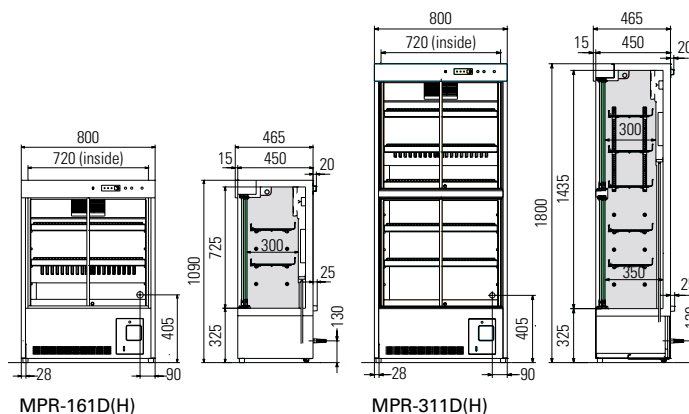
## Specifications

Model No.	MPR-161D(H)	MPR-311D(H)
<b>External dimensions (W x D x H)</b>	800 x 450 x 1,090mm (31.4" x 17.7" x 42.9")	800 x 450 x 1,800mm (31.4" x 17.7" x 70.8")
<b>Internal dimensions (W x D x H)</b>	720 x 300 x 725mm (28.3" x 11.8" x 28.5")	720 x 350 x 1,435mm (28.3" x 13.8" x 56.4")
<b>Effective capacity</b>	158 liters (5.6 cu.ft.)	340 liters (12.0 cu.ft.)
<b>Net weight</b>	59kg (129 lbs.)	90kg (198 lbs.)
<b>External cabinet</b>	Galvanised steel with baked-on finish	
<b>Internal cabinet</b>	Stainless steel	
<b>Insulation</b>	Polyurethane foam	
<b>Doors</b>	Sliding glass doors, double-paned glass with heat-reflective film	
<b>Shelves</b>	Rigid wire with polyethylene coating	
<b>Access port</b>	30mm ø on back wall	
<b>Lighting / Casters</b>	20W fluorescent lamp / 2 casters	
<b>Compressor</b>	Hermetic type, 90W	Hermetic type, 160W
<b>Refrigerant</b>	HFC	
<b>Evaporator</b>	Fin & Tube, Forced-air circulation	
<b>Condenser</b>	Wire & Tube	
<b>Defrosting</b>	Cyclical defrosting & evaporator temp. detection system	
<b>Defrosting heaters</b>	101W	114W
<b>Temperature control</b>	2 to 14°C	
<b>Temperature display</b>	Digital (display range: 0 to 15°C)	
<b>High-temperature alarm system</b>	Flashing digital indicator [above 15°C], Buzzer [above 15°C], High-temp. indicator lamp [above approx. 20°C]	
<b>Low-temperature alarm system</b>	Flashing digital indicator [below 0°C], Buzzer [below 0°C]	
<b>Door ajar alarm</b>	Buzzer / door ajar lamp	
<b>Options</b>	Strip Chart Recorder (MTR-0621LH), Recorder Mounting Bracket (MDF-53RO)	

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

## Dimensions

[Unit: mm]



• Water condensation may sometimes appear on the glass doors, but this is normal and not a malfunction.

SANYO Electric Co., Ltd., Biomedical Division, Gunma is certified for:

**Quality management system: ISO9001 / Medical devices quality management system: ISO13485 / Environmental management system: ISO14001**

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Biomedical Division  
<http://biomedical.sanyo.com/>

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SHR149

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