



### **Temperature**

(Ambient temperature 30°C)

-20°C to -30°C

## **Effective capacity**

**623** liters **690** liters (MDF-U731)

Auto defrost or Manual defrost

## Large-capacity biomedical freezer

- High freezing power
- Large capacity
- •Top-mount cooling unit design for usability
- Adjustable wire shelves
- •Alarm and safety devices
- •Self-diagnosis function

#### **Features**

#### Stable temperature control

The units provide precise and uniform storage temperatures regardless of ambient conditions through microprocessor temperature control.

#### **Energy-saving operation**

The specially designed compressor results in an energy-saving medical freezer with superior cooling and quiet operation.

#### Improved security

Standard door lock and independent padlock ensure extra security. (\*padlock not supplied)

# Sturdy cabinet construction with superior insulation

The integral foamed cabinet structure is extra strong and prevents cold air loss.

Forced Air Circulation (MDF-U731 only)
Temperature uniformity throughout the freezer ensures that all samples can be stored in identical conditions. The Forced Air Circulation technology quickly restores temperature uniformity following routine door openings. Coupled with fast-response microprocessor temperature control this ensures a stable environment for precious samples.

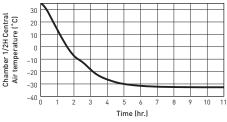
# Movable wire shelves allow free position adjustment

#### Control panel

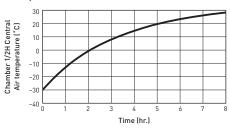


#### **Performance Data**

#### Pull-down characteristics



#### Pull-up characteristics



Conditions: AT 35°C, no load, measured at center of chamber

#### **Specifications**

Model No.	MDF-U731-PA	MDF-U731M-PA	MDF-U731M-PE
Temperature range	-20°C to -30°C (1°C increments)		
Maximum cooling performance	-30°C (Ambient temperature: 35°C)		
External dimensions (W x D x H)*1	770 x 830 x 1955 mm		
Internal dimensions (W x D x H)	650 x 700 x 1370 mm	650 x 700 x 1520 mm	
Effective capacity	623 liters	690 liters	
Net weight (approx.)	155 kg	152 kg	
Exterior	Painted steel		
Interior	Painted steel		
Insulation	Rigid polyurethane foamed in-place		
Temperature control	Electronics controller		
Compressor	Hermetic type (400 W)		
Cooling method	Forced air	Cold wall	
Defrosting sysmte	Automatic	Manual	
Refrigerant	HFC		
Shelves (max. load)	4 adjustable wire shelves (50 kg/110 lbs.)		
Access port	ø 30 mm, 2 locations (left and top)		
Casters	4 casters with 2 adjustable feet		
Alarm and safety	High / Low temperature alarm, Power failure alarm, Door alarm, Compressor temperature alarm, Self-diagnosis function, Remote alarm contact (DC 30 V, 2 A), Memory backup		
Accessories	1 scraper, 1 set of key, 2 large & 2 small nylon clips (for temperature recorder)		
Power supply	115 V 230 V/240 V		
Frequency	60	Hz	50 Hz

<sup>\*</sup>Cooling performance is indicated by the temperature reached at the center of the freezer (at ambient temperature of 30°C with no load). In order to use the freezer at a stable temperature for a long time, it is recommended that the temperature be set to at least 5°C higher than the indicated lowest temperature.

Caution: PHC Corporation guarantees the product under certain warranty conditions. PHC Corporation is in no way shall be responsible for any loss of content or damage to content. The battery for power failure alarm is an article for consumption. It is recommended that the battery will be replaced about every 3 years.

#### **Options**



7-day circular recorder MTR-G85A-PA MTR-G85C-PE

Recorder mounting bracket MPR-S7-PW

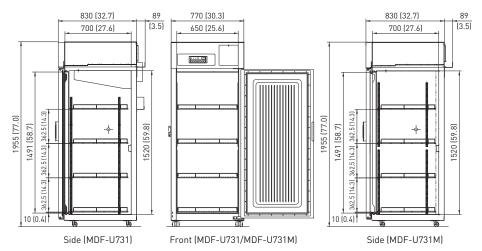


Recorder mounting bracket MPR-S30-PW

# Wire shelf (3 sets) MDF-T07ST-PW Storage case (2 sets) MDF-T07SC-PW

Unit : mm (inch)

#### **Dimensions**





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In addition, depending on the usage conditions, it may not be possible to reach the indicated lowest temperature.

Appearance and specifications are subject to change without notice.

<sup>\*1</sup> External dimensions of main cabinet only - see dimension drawings showing handles and other external projections.