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For Life and the Earth

**SANYO**

## HCFC-Free Ultra-Low Temperature Freezer

MDF-U4186S

- Advanced refrigeration system
- Quiet operation
- Enhanced security
- Removable inner doors for cleaning and defrosting



MDF-U4186S

**-86°C**

Effective capacity

**382L** (13.5 cu.ft.)

**192** 2" inventory boxes

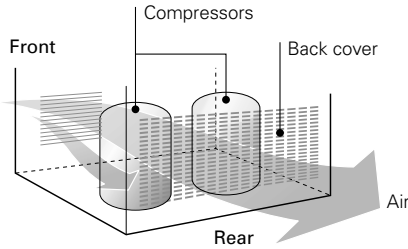


# MDF-U4186S

## Features

### EVOLUTIONARY DESIGN

- The newly developed refrigeration system and the freezer structure offer a quiet experimental environment.
- The newly developed back cover combined with new aerodynamically designed and placed components in the refrigeration compartment provide superior air flow, making it possible to drastically reduce the stress to the freezer and contributing to excellent durability.



- Two independent and insulated inner doors prevent cold air leakage.

### ACCESSIBILITY

- The condenser filter is situated at the bottom right side of the front panel to make filter removal and cleaning easier.



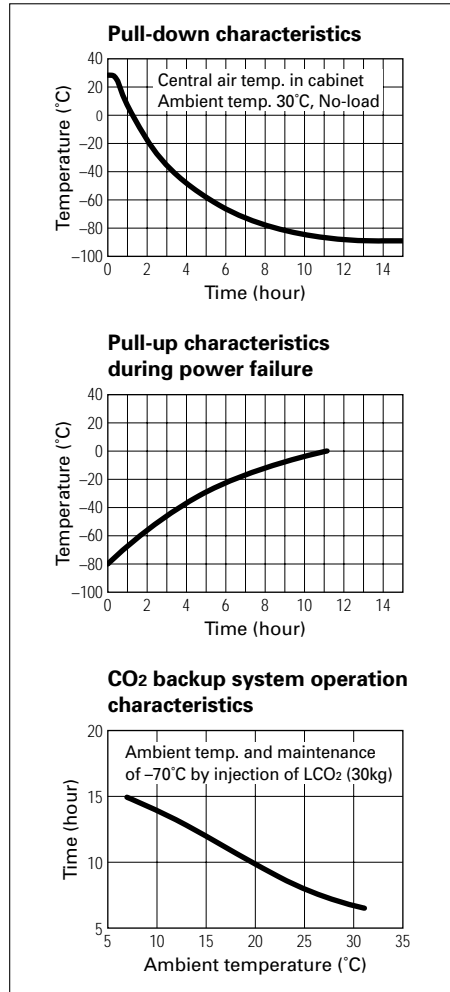
### SAFETY

- The backup battery sounds an alarm in the event of power failure or AC interruption or abnormality.
- Provides both an audible and visual temperature alarm when the temperature goes up more than +10°C/+15°C from the set point.
- Alarm ring back function ensures that buzzer will resume operation, should alarm conditions continue after it is silenced.
- Microprocessor-controlled filter-clog check function protects the refrigeration circuit.
- Control panel with digital display for easy operation.



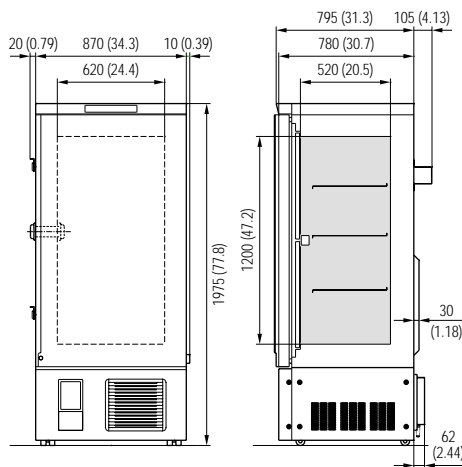
Control panel

## Performance Data



## Dimensions

[Unit: mm (inch)]



## Specifications

Model	MDF-U4186S
Temperature range	-20°C to -86°C (1°C increment)
Maximum cooling performance	-86°C (Ambient temperature 30°C)
Exterior dimensions (W x D x H)	870 x 780 x 1975 mm (34.2" x 30.7" x 77.8")
Interior dimensions (W x D x H)	620 x 515 x 1200 mm (24.4" x 20.3" x 47.2")
Net weight	Approx. 281 kg (619 lbs.)
Effective capacity	382 L (13.5 cu.ft.)
Shelf	Stainless steel, Adjustable, 3 shelves
Access port	40 mm diameter, 1 location (left side)
Compressor	Hermetic type, Output: 1100 W (high stage side), 1100 W (low stage side)
Refrigerant	HFC refrigerant
Alarm	High temperature, Power failure, Filter check, Part replacement notification
Remote alarm contact	Allowable contact capacity: DC 30V, 2A
Accessories	1 set of keys, 1 scraper

\*Appearance and specifications are subject to change without notice.

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

## Options



IR-212U  
Inventory rack:  
**IR-212U**  
(for 2-inch box)  
**IR-309U**  
(for 3-inch box)

Rack Capacity	
IR-212U	16
IR-309U	16
MDF-48SC	8



MDF-48SC  
Storage rack:  
**MDF-48SC**  
(3 drawers)



Strip chart recorder  
**MTR-85H**



LCO<sub>2</sub> backup system  
**CVK-UB2**  
LN<sub>2</sub> backup system  
**CVK-UBN2**

Further details regarding this product can be accessed at <http://www.sanyo.co.jp/cm/g/biomedical>  
We design and manufacture products in accordance with ISO9001 & 14001 requirements.

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