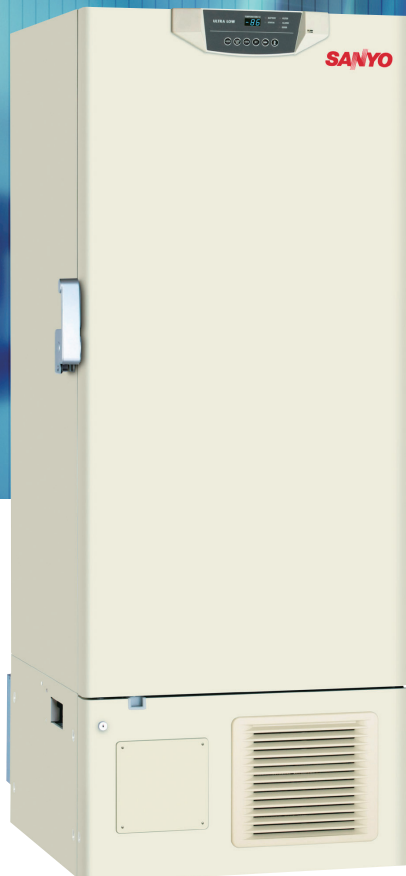


Ultra-Low Temperature V.I.P.™ Freezer

SANYO

MDF-U55V

Preservation
sub-zero



MDF-U55V

Energy Saving

30% less energy consumption than the previous model

-86°C

519 liters/18.3 cu.ft.

Patented V.I.P.™

(Vacuum Insulation Panel)

Large capacity, space saving Ultra-Low Freezer with improved energy consumption

- V.I.P.™ technology maximises storage capacity
- New refrigeration system enables more energy efficient operation
- Safe operation with Status Alert continuous condition monitoring
- Inner doors removable for cleaning and defrosting
- Enhanced security with new rugged outer door latch
- Improved accessibility
- Quiet operation
- Can hold up to 352 pcs 2-inch boxes or 224 pcs 3-inch boxes
- Class IIa Medical Device

VIP
Vacuum Insulation Panel series

CE 0123

MDF-U55V

Features

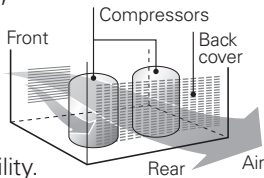
EVOLUTIONARY DESIGN

- SANYO V.I.P.™ Series -86°C ultra-low temperature freezers use patented revolutionary vacuum insulation cabinet construction that reduces the wall thickness from 14cm to 7cm (5.5" to 2.8") and achieves up to 30% more storage capacity than conventionally insulated freezers, without increasing its footprint.

- The newly developed refrigeration circuit regulates high stage compressor ON-OFF cycles, resulting in a reduction in energy consumption of approx. 30%* compared to the previous model.

*The data is a measured example (AT 23°C, 230V 50Hz, no load). Actual power consumption will vary depending on set and ambient conditions, loading and local voltage.

- The rear ventilation cover combines with the aerodynamically designed and positioned components in the refrigeration compartment to provide superior air flow, drastically reducing the load on the freezer and contributing to improved durability.



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

RELIABILITY

- Status Alert (Condition monitor) monitors ambient and system conditions continuously and notifies of any abnormalities before a problem happens.

ACCESSIBILITY

- A beak style inner door latch tightly closes the inner door against the freezer frame. It also helps make opening and closing the door smoother.
- The condenser filter is situated at the bottom right side of the front panel to make filter removal and cleaning easier.



SAFETY

- Alarm lamp and buzzer offer secure warning of power failure or abnormal temperature increase.
- High and low temperature warning provides an audible and visual alarm when the temperature deviates more than $\pm 5^\circ\text{C}$ to $\pm 20^\circ\text{C}$ (adjustable) from the set point.
- Alarm ring-back function ensures the buzzer will resume operation, should alarm conditions continue after it is silenced.
- Microprocessor-controlled blocked filter alarm protects the refrigeration circuit.
- The rugged, one-handed outer door latch allows a padlock to be used to securely protect valuable samples.



- Control panel with digital display for easy operation.



Specifications

Model	MDF-U55V
Temperature range	-50°C to -86°C (1°C increments)
Maximum cooling performance	-86°C (Ambient temp. 30°C)
Exterior dimensions (W x D x H)	770 x 870 x 1990mm (30.3" x 34.3" x 78.3")
Interior dimensions (W x D x H)	630 x 600 x 1380mm (24.8" x 23.6" x 54.3")
Net weight	Approx. 288kg (635 lbs.)
Effective capacity	519 l (18.3 cu.ft.)
Shelves	Stainless steel, 3 shelves
Access ports	17mm diameter, 3 locations (back, bottom left/right corners)
Compressor	Hermetic type, Output: 450 W (high stage side), 750 W (low stage side)
Refrigerant	HFC
Alarm	High/low temperature, Power failure, Filter check, Self diagnostics, Door check, Part replacement notification
Remote alarm contact	Allowable contact capacity: DC 30V, 2A
Accessories	1 set of keys, 1 scraper

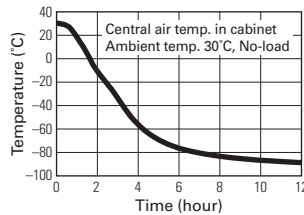
*Cooling performance is indicated by the temperature reached at the center of the freezer (at ambient temperature of 30°C with no load). In order to use the freezer at a stable temperature for a long time, it is recommended that the temperature be set to at least 5°C higher than the indicated lowest temperature. In addition, depending on the usage conditions, it may not be possible to reach the indicated lowest temperature.

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.

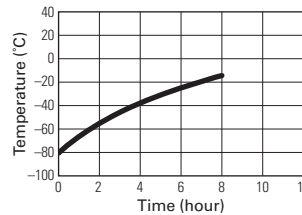
•Appearance and specifications are subject to change without notice.

Performance Data

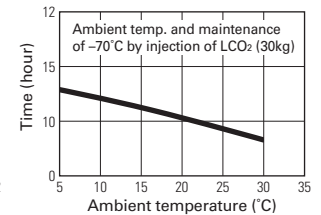
Pull-down characteristics



Pull-up characteristics during power failure

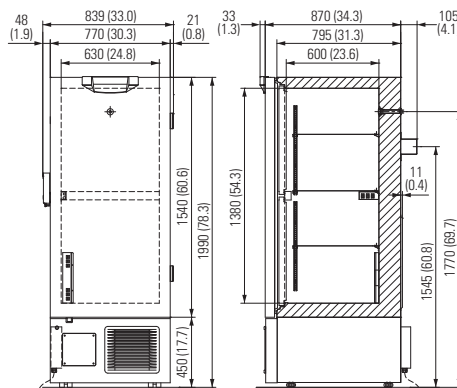


CO₂ backup system operation characteristics




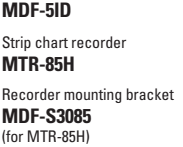



Dimensions

[Unit : mm (inch)]



Options

 Inventory rack IR-220U IR-224U	 3 drawers (for lower chamber) MDF-50R Inner door (small) MDF-51D	 Circular recorder MTR-G85	 Strip chart recorder MTR-85H Recorder mounting bracket MDF-S3085 (for MTR-85H)	 LCO ₂ backup system CVK-UB2/UB2(I) LN ₂ backup system CVK-UBN2
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SANYO DAQ (data acquisition) System **MTR-5000**
RS232C/RS485 Interface **MTR-480**

The MDF-U55V is certified as a Class IIa Medical Device (93/42/EEC and 2007/47/EC) for medical purposes of storing cells, DNA and/or frozen plasma.



SANYO Electric Co., Ltd., Biomedical Division, Gunma Factory is certified for:
Quality management system: **ISO9001**
Medical devices quality management system: **ISO13485**

SANYO Electric Co., Ltd., Biomedical Division, Gunma Factory is certified for:
Environmental management system: **ISO14001 (JACO)**

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