

-86°C Ultra Low Temperature Freezer — MDF-U5386SC

MDF-5386SC

483L
(17.1 CU.FT.)

320 2"
INVENTORY
BOXES



ULTRA LOW TEMPERATURE FREEZERS (CONVENTIONALLY INSULATED)

- Ideal -86°C freezing environment by means of conventional insulation walls.
- Specially designed compressorS for ultra-low temperature applications.
- Microprocessor temperature control with digital input for precise setting and control.
- Built-in temperature and power failure alarms (audible/visible).

FEATURE

BENEFIT

Microprocessor Controls

Comprehensive setpoint, alarm, monitoring and diagnostic functions based on SANYO-built microprocessor controller with digital display

SANYO-Brand Refrigeration

Built by SANYO specifically for demanding ultra-low temperature applications in a laboratory environment; CFC-free refrigerants only

Integrated Cabinet Design

High performance refrigeration system with foamed-in-place insulation maximizes interior temperature uniformity and protects against fluctuating ambient temperatures

TECHNOLOGY

- Constant -86°C ■ Microprocessor Temperature Control ■ Improved Design ■ Temperature & Power Failure Alarms ■ Digital display

SANYO MDF-Series ultra-low temperature freezers maintain internal temperatures as low as -86°C (-123°F). All models use SANYO uniquely designed compressors for ultra-low temperature applications. Manufactured with foamed-in-place insulation, they are ideally suited for use in laboratories and hospitals for long-term preservation and storage of blood, specimens and components, as well as materials testing.

Advanced features include a microprocessor temperature control system with digital temperature display, a platinum resistance sensor for extra precision and reliability, a power failure warning system with built-in audible and visible indicators, double insulation polyurethane walls and easy open/ easy-close hinged outer door latch.

EVOLUTIONARY DESIGN

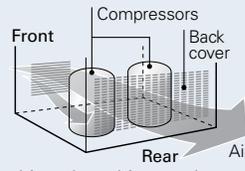
- The newly developed refrigeration system and freezer structure minimizes intrusive operating noise.
- Achieves 10% higher energy conservation than competing models.
- The newly developed back cover combined with new aerodynamically designed and placed components in the refrigeration compartment provide 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 ensure maximum interior chamber uniformity.

ACCESSIBILITY

- A new rugged inner door latch tightly closes the inner door and makes accessing chamber contents easier.
- The condenser filter is located at the bottom right side of the front panel to make filter removal and cleaning easier.
- Alarm lamp and buzzer offer secure warning of power failure or abnormal temperature increase.
- New rugged, one-handed outer door latch has a hasp to allow a padlock for additional security

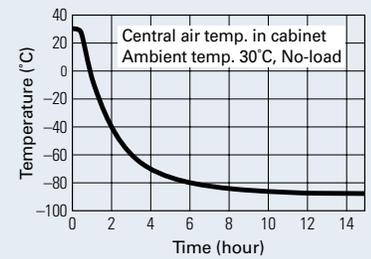
SAFETY

- 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 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.

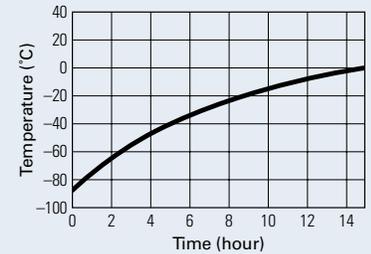


Performance Data

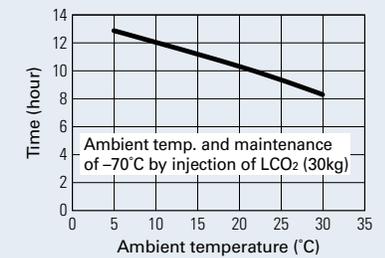
Pull-down characteristics



Pull-up characteristics during power failure



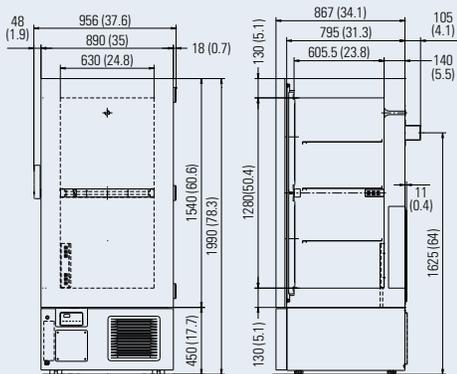
CO₂ backup system operation characteristics



Specifications

Model	MDF-U5386SC
Temperature range	-50°C to -86°C (1°C increment)
Maximum cooling performance	-86°C (Ambient temp. 30°C)
Exterior dimensions (W x D x H)	890 x 875 x 1990mm (35.0" x 34.4" x 78.3")
Interior dimensions (W x D x H)	630 x 600 x 1280mm (24.8" x 23.6" x 50.4")
Net weight	Approx. 305kg (672 lbs.)
Effective capacity	483 L (17.1 cu.ft.)
Shelf	Stainless steel, Adjustable, 3 shelves, W608 x D533mm, Max. load: 50kg (110 lbs.)/shelf
Access port	17mm diameter, 3 locations (back, bottom left/right corner)
Compressor	Hermetic type, Output: 1100 W (high stage side), 1100 W (low stage side)
Refrigerant	HFC refrigerant
Alarm	High/low temperature, Power failure, Filter check, Battery check
Remote alarm contact	Allowable contact capacity: DC 30V, 2A
Accessories	1 set of keys, 1 scraper
Power Requirement	220V / 60 Hz Built-in voltage booster

Dimensions [Unit : mm (inch)]



Options



ISO 9001 & 14001 certified

*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.

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