

Preservation
sub-zero

Temperature
(Ambient temperature 30°C)

-150°C

Effective capacity

231 liters/8.2cu.ft.

Patented V.I.P.
(Vacuum Insulation Panel)

Ideally suited for cryogenic and long-term storage in laboratories

- V.I.P. PLUS technology maximises storage capacity.
- Comfortable operation via LCD control panel
 1. Chamber temperature recorded for up to 1 month
 2. Warning messages displayed in LCD panel
 3. Records history of door opening/closing (more than 2 minutes)
- Safe operation with Status Alert continuous condition monitoring
- Equipped with LN₂ backup system as standard
- Can hold up to 14,000 tubes (2ml)



MDF-C2156VAN

VIP
Vacuum Insulation Panel series

MDF-C2156VAN

Features

Evolutionary Design

- Panasonic V.I.P. PLUS Evolution Series -150°C ultra-low temperature freezers use patented revolutionary vacuum insulation cabinet construction that reduces the wall thickness from 175mm to 135mm (6.9" to 5.3") and achieves up to 25% more storage capacity than a conventionally insulated freezer without increasing the footprint.
- The newly developed refrigeration system and the freezer structure offer a quiet experimental environment.
- Achieves 50% higher energy conservation than previous model. (For model rated 220V, 50Hz)

Reliability

- Status Alert monitors ambient and system conditions continuously and notifies of any abnormalities before a problem happens.
- Equipped with LN₂ backup system as standard to prepare for any contingency.

Ideal replacement for LN₂ storage

Compared to liquid nitrogen systems, Panasonic MDF-C2156VAN offers the following advantages:

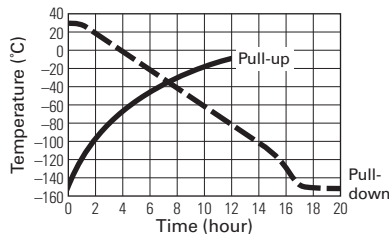
- Lower running cost
- Easy maintenance
- No occurrence of contamination

Performance Data

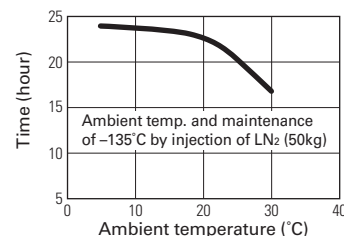
Pull-down characteristics

Pull-up characteristics during power failure

Central air temp.in cabinet Ambient temp. 30°C, No-load

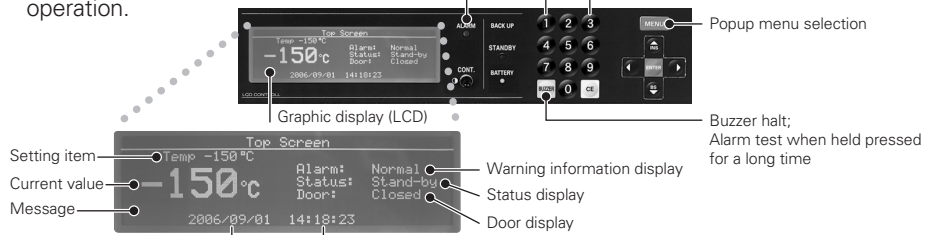


LN₂ back up system operation characteristics



Innovative Control Panel

- Graphic LCD panel with pop-up menu function on control panel provides more visual display and allows intuitive operation.



Setting display

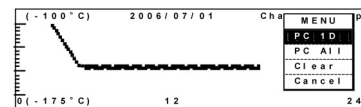
Temp. Setting	
Temperature	16.0°C (-12.5°C)
High Alarm	10°C (5°C-20)
Low Alarm	10°C (5°C-20)
Ring Back	15min (0. OFF 1. 99min)
Door Delay	2min (1. 15min)
Alarm Test	0 (0. OFF 1. ON)

Access control

To prevent unauthorized access to freezer settings, the key lock can only be cancelled by inputting the password.

Data logging function

Recording of internal temperature for 1 month or 1 week period
Recording of history of door opening/closing (more than 2 minutes)



Specifications

	MDF-C2156VAN
Temperature range	-125°C to -150°C (in 1°C increments)
Maximum cooling performance	-150°C (Ambient Temperature 30°C)
Exterior dimensions (W x D x H)	1730 x 765 x 1010 (mm) / 68.1 x 30.1 x 39.8 (inch)
Interior dimensions (W x D x H)	760 x 495 x 615 (mm) / 29.9 x 19.5 x 24.2 (inch)
Net weight	Approx. 318kg (701 lbs.)
Effective capacity	231 liters (8.2 cu.ft.)
Access port	40mm diameter, 1 location
Compressor	Hermetic type, Output: 1100 W (high stage side), 1100 W (low stage side)
Refrigerant	HFC
Alarm	High/Low temperature, Power failure, Filter check, Self diagnosis, Door check, Part replacement notification
Remote alarm contact	Allowable contact capacity, DC 30V, 2A
Accessories	1 set of keys, 1 scraper, Connecting tube for LN ₂ backup system

Voltage specification by destination

Representative destination	Voltage specification	Model No.
Europe	230V, 50Hz (CE)	MDF-C2156VAN-PE
Korea	220V, 60Hz	MDF-C2156VAN-PK
Thailand	220V, 50Hz	MDF-C2156VAN-PB

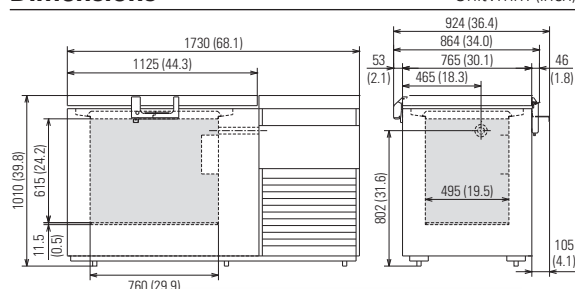
*Cooling performance is indicated by the temperature reached at the center of the freezer (at ambient temperature of 30°C with no load).

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: Panasonic guarantees the product under certain warranty conditions. Panasonic 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



Options

- Strip chart recorder **MTR-155H-PW**
- Recorder mounting bracket (for MTR-155H-PW) **MDF-S30150-PW**
- Inventory rack **IR-210C-PW**
- Max capacity: 14pcs
- Ink pen **DF-38FP-PW**
- Chart paper **RP-155**

- Data acquisition system **MTR-5000-PW**
- Interface board **MTR-L03-PW** or **MTR-480-PW**



Panasonic Healthcare Co., Ltd., Biomedical Business Unit is certified for:
Quality management system: ISO9001
Medical devices quality management system: ISO13485



Panasonic Healthcare Co., Ltd., Biomedical Business Unit is certified for:
Environmental management system: ISO14001

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