PHCbi

Ultra-Low Temperature Freezer

MDF-C8V1

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Space Saving Personal Size

-80°C 84liters/3.0cu.ft.

V.I.P. PLUS

(Vacuum Insulation Panel)

Personal size, space saving Ultra-Low Temperature Freezer with Improved energy consumption

- V.I.P. PLUS technology maximises storage capacity
- Space-saving design enables effective use of laboratory space
- Filterless structure makes cleaning unnecessary
- Alarms to protect valuable samples
- Low noise design
- Achieves energy savings of approx. 40 %*

*Internal comparison

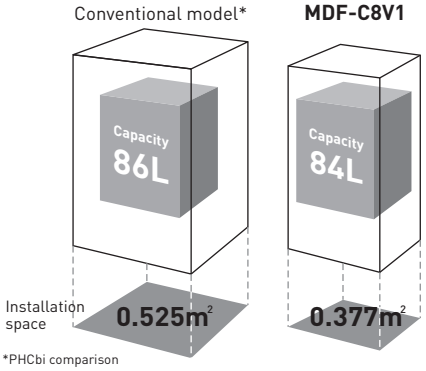
PHC Corporation, Biomedical Division

Life Science Innovator Since 1966

Features

Insulation system: V.I.P. PLUS

PHCbi's advanced insulation system V.I.P. PLUS enables reducing the thickness of insulation to approximately one half compared to conventional systems. Small freezers such as MDF-C8V1 takes full advantage of this feature. Use of V.I.P. PLUS insulation material on the front, left, and right sides enables a smaller installation space with the highest-class storage capacity ratio.



*PHCbi comparison

New cooling circuit enables filterless structure

A new cooling circuit makes the inconvenient customer maintenance procedure of filter cleaning unnecessary.

Newly developed single-compressor system

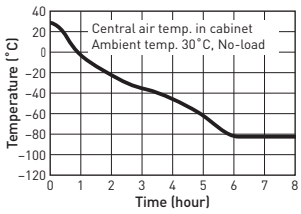
Use of a newly developed single-compressor system achieves an approximately 40 % reduction in power consumption and enables low-noise operation.

	Rated power consumption
MDF-C8V1	330 W/280 W
Conventional model*	550 W/600 W

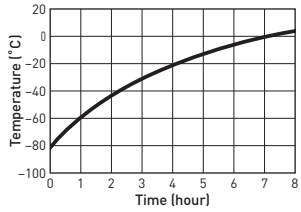
*Internal comparison (115 V, 60 Hz/230 V, 50 Hz)

Performance Data

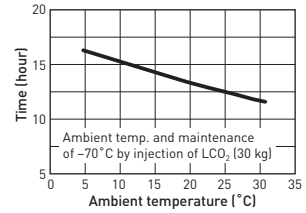
Pull-down characteristics



Pull-up characteristics during power failure



CO_2 backup system operation characteristics



Specifications

	Model No.
115 V, 60 Hz	MDF-C8V1-PA
220 V, 60 Hz	MDF-C8V1-PK MDF-C8V1-PR
220 V/230 V/240 V, 50 Hz (CE)	MDF-C8V1-PE
Temperature range	-60˚C to -80˚C (in 1˚C increments)
Maximum cooling performance	-80˚C (Ambient temperature 30˚C)
External dimensions (W x D x H)*1	550 x 685 x 945 (mm) / 21.6 x 27.0 x 37.2 (inch)
Internal dimensions (W x D x H)	405 x 490 x 425 (mm) / 15.9 x 19.3 x 16.7 (inch)
Effective capacity	84 liters (3.0 cu.ft.)
Net weight	Approx. 70 kg (154 lbs.)
Storage capacity	2" box: 42 pcs. (IR-207C x 6 racks)
Outer door/Inner door	Outer Lid: 1piece, Inner Lid: 1piece (PS + PE foam)
Insulation	V.I.P. PLUS + Rigid polyurethane foam (HC)
Cooling system	New mixed refrigerant cooling system
Compressor	Hermetic type, Output: 450 W (MDF-C8V1-PK, MDF-C8V1-PR only)
Refrigerant	HFC
Evaporator	Tube on sheet type
Alarm system	• High / Low temp. alarm (±5˚C to ±20˚C) • Power failure alarm • Remote alarm contact: DC 30 V, 2 A

*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.

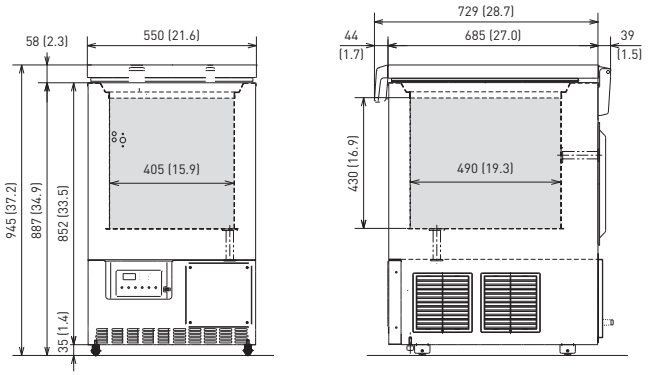
Caution: PHC Corporation guarantees the product under certain warranty conditions. PHC Corporation is in no way shall be responsible for any loss of content or damage to content. The battery for power failure alarm is an article for consumption. It is recommended that the battery will be replaced about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

•Appearance and specifications are subject to change without notice.

*1 External dimensions of main cabinet only - see dimension drawings showing handles and other external projections.

Dimensions

Unit : mm (inch)



Options

Temperature recorders

Circular recorder
MTR-G85A-PA
MTR-G85C-PE

Strip chart recorder
MTR-85H-PW

Recorder mounting bracket
MDF-S3085-PW
(for MTR-85H-PW)

Inventory rack
IR-207C-PW
IR-305C-PW

Sensor cover
MTR-C8-PW

LCO_2 Back-up system
CVK-UB4-PW

Back-up system mounting kit
MDF-UBK-PW

Preservation (freezers, refrigerators) and Culturing (incubators) Equipment

The management of the design, development, production, sales support, and servicing of the above.

PHC Corporation, Biomedical Division

1-1-1 Sakada, Oizumi-machi, Ora-gun, Gunma 370-0596, Japan

JAB CM021

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