

Preservation

sub-zero

ULT Chest Freezers

SANYO Ultra-Low Temperature Chest Freezer
lineups for ultra-low temperature storage needs to
support the forefront of life science researches.



MDF-794

Advanced Features

Specially designed compressor and cascade refrigeration system

Specially designed for rugged ultra-low temperature applications in a laboratory environment (HFC refrigerants only).



Micro-processor Temperature Control with LED Digital Display

Extremely accurate, easy-to-read display. The temperature inside the freezer can be set and monitored easily by means of a microprocessor temperature control with an LED digital display. The thermostat incorporates a platinum resistor (Pt. 100Ω), precision and durability.

Integrated Cabinet Design

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

Self-diagnostic function

The temperature sensor, filter sensor and cascade sensor monitor operation conditions continuously. Should abnormality be picked up, an error code and the current temperature will be displayed in turn.

Ring back function

The alarm buzzer can be silenced by pressing the BUZZER key on the control panel. (The remote alarm signal is not cancelled.) Should the alarm condition continue after a certain suspension, the alarm buzzer sound will resume.

Easy Maintenance

(MDF-193/193AT have no filters)

Filter check lamp notifies the user of a clogged condenser filter. The condenser filter is situated at the front panel to make filter removing and cleaning easier.



Note: The position of the filter check lamp is shown on the control panel (see photo shown at the bottom of this page).

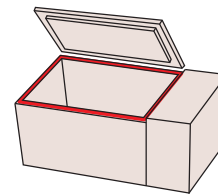
Standard casters and levelling feet

Standard-equipped heavy duty casters make it easy to move a freezer when necessary. The levelling feet keep a freezer level and firm on the floor.

Safety Device

Built-In Temperature & Power Failure Alarms (Lamp/Buzzer)

In case of power failure or an irregular rise in temperature, a rechargeable battery-operated indicator lamp and alarm will be activated. A compact recording unit which automatically records the inside temperature, and a backup system with liquefied CO₂ or N₂ which is selfactivated when a power outage occurs are also available separately. This equipment helps insure that the contents will be protected in the event of any power failure or mechanical trouble.



Hot line

-86°C Ultra-Low Temperature Chest Freezers

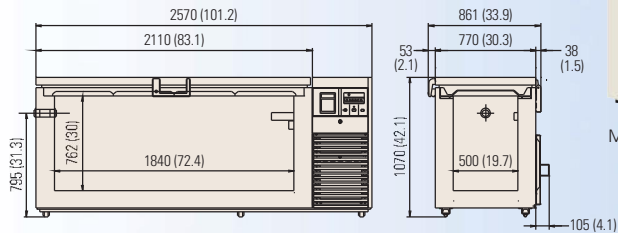
Ideal for large-capacity preservation

MDF-794/794AT

TEMPERATURE EFFECTIVE CAPACITY

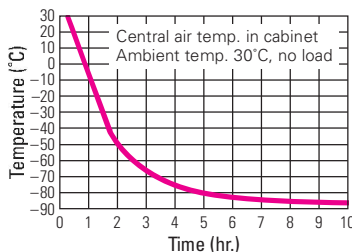
-86°C 701 L (24.8cu.ft.)

Dimensions Unit: mm (inch)

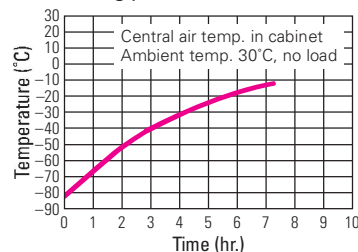


Performance Data

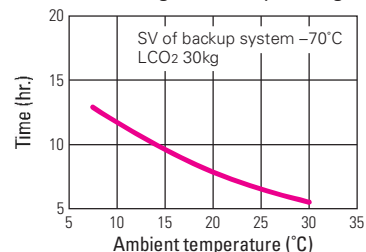
Pull-down characteristics under no-load condition



Pull-up characteristics during power failure



Effect of ambient temp. on holding time of liquefied gas



Specifications

Model No.	MDF-794
Temperature Range	-20°C to -86°C
Exterior Dimensions (W x D x H)	2570 x 770 x 1070 (mm) 101.2 x 30.3 x 42.1 (inch)
Interior Dimensions (W x D x H)	1840 x 500 x 762 (mm) 72.4 x 19.7 x 30.0 (inch)
Effective Capacity	701 liters (24.8 cu.ft.)
Exterior Cabinet	Galvanised steel with baked on finish
Interior Cabinet	Stainless steel
Inner Lid	4
Insulation	Foamed-in-place rigid polyurethane
Compressor	High stage side: Hermetic type, 1,100 W Low stage side: Hermetic type, 1,100 W
Evaporator	High stage side: Cascade condenser Low stage side: Tube on sheet (shared with interior)
Condenser	High stage side: Fin and tube type Low stage side: Shell and tube type
Temperature Control	Microprocessor: Keypad input Set value memory: non-volatile memory
Temperature Display	Digital display
Sensor	Platinum resistance (Pt. 100 W)
Safety	Cylinder key on the lid handle
Alarm system	Selectable high temp. alarm (+10°C & +15°C from set point) Power failure alarm, Filter check lamp (Except MDF-193/193AT which have no filters), Remote alarm contact
Net Weight (Approx.)	335kg (739 lbs.) —794

Voltage specification by destination

Representative destination	Europe 230V, 50Hz (CE)	MDF-794-PE/794AT-PE
	Korea 220V, 60Hz	MDF-794-PK/794AT-PK
	Thailand 220V, 50Hz	MDF-794-PB

ATN: LN₂ backup system, temperature recorder
AT: LCO₂ backup system, temperature recorder

Optional Accessories

Storage Racks (Aluminium)

Model No.	MDF-193C-PW	MDF-395C-PW	MDF-495C-PW	MDF-595C-PW
Case Dimensions (W x D x H)	207 x 144 x 413 (mm) 8.1 x 5.7 x 16.3 (inch)	155 x 155 x 515 (mm) 6.1 x 6.1 x 20.3 (inch)	207 x 144 x 539 (mm) 8.1 x 5.7 x 21.2 (inch)	207 x 144 x 665 (mm) 8.1 x 5.7 x 26.2 (inch)
Number of Drawers	3	4	4	5
Applicable Model (Rack capacity)	MDF-193/193AT (6)	MDF-394 (20)	MDF-1156/1156ATN (6)	MDF-594/594AT (18) MDF-794/794AT (24)

Temperature Recorder

Model No.	MTR-85H-PW	MTR-155H-PW
Recording Range	-100 to +50°C	-170 to +30°C
Freezer Model	MDF-193 MDF-394 MDF-594 MDF-794	MDF-1156

Inventory Racks (Stainless steel)

Model No.	Box Type (Capacity)	External Dimensions (mm)			Freezer Model (Rack capacity)
		Width	Depth	Height	
IR-207C-PW	2" (7)	144	142	405	MDF-193 (6)
IR-209C-PW	2" (9)	144	142	518	MDF-394 (21), 1156 (9)
IR-213C-PW	2" (13)	144	142	592	MDF-594 (24), 794 (36)
IR-305C-PW	3" (5)	144	142	405	MDF-193 (6)
IR-306C-PW	3" (6)	144	142	518	MDF-394 (21), 1156 (9)
IR-309C-PW	3" (9)	144	142	747	MDF-594 (24), 794 (36)



ULT-Freezer Backup Kits

CVK-UB2-PW/UB2I-PW:
LCO₂ Backup Kit for MDF-794/594/394
CVK-UBN2-PW/UBN2I-PW:
LN₂ Backup Kit for MDF-794/594/394
CVK-AT2-PW:
LCO₂ Backup Kit for MDF-1156
CVK-ATN2-PW:
LN₂ Backup Kit for MDF-1156
I : version for North America only



*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.



Preservation Equipment, Experimental Environment Equipment, Dispensary Equipment, Culturing Equipment and Drying & Sterilising Equipment for General Laboratory use
The management of the design, development, production and servicing of the above.
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