

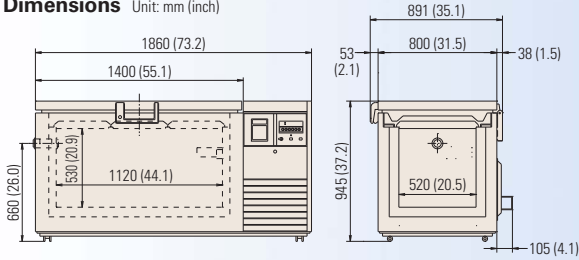
Low-profile design for easy access to stored materials

MDF-394

TEMPERATURE EFFECTIVE CAPACITY

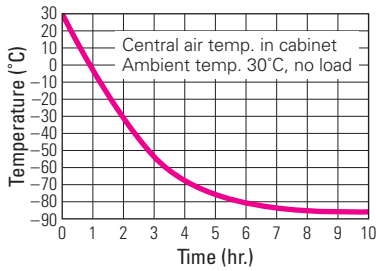
-86°C **309 L (10.9 cu.ft.)**

Dimensions Unit: mm (inch)

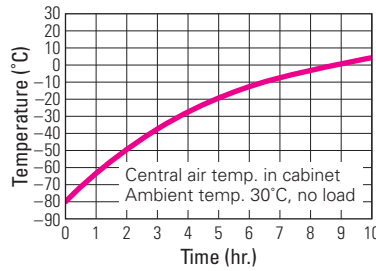


Performance Data

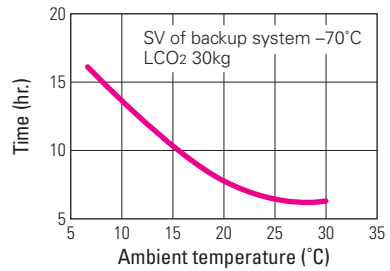
Pull-down characteristics under no-load condition



Pull-up characteristics during power failure



Effect of ambient temp. on holding time of liquefied gas



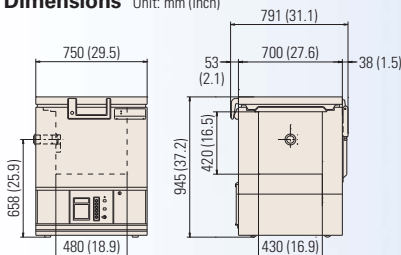
Compact, space-saving unit optimized for private use

MDF-193/193AT

TEMPERATURE EFFECTIVE CAPACITY

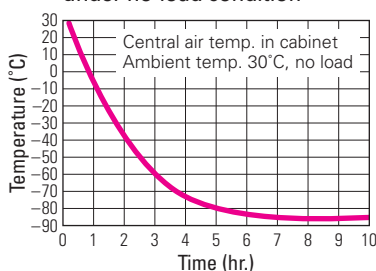
-86°C **86 L (3.0 cu.ft.)**

Dimensions Unit: mm (inch)

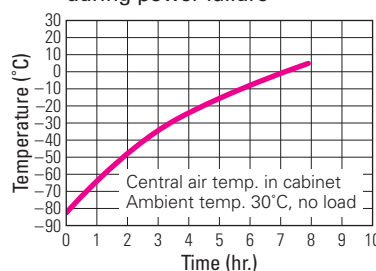


Performance Data

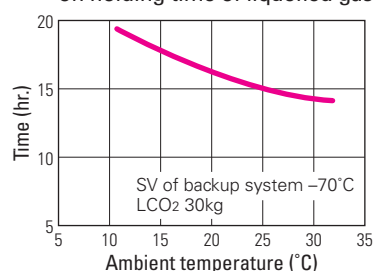
Pull-down characteristics under no-load condition



Pull-up characteristics during power failure



Effect of ambient temp. on holding time of liquefied gas



Specifications

Model No.	MDF-1156/1156ATN	MDF-794/794AT	MDF-594/594AT	MDF-394	MDF-193/193AT
Temperature Range	-130°C to -152°C	-20°C to -86°C		-50°C to -86°C	
Exterior Dimensions (W x D x H)	1400 x 800 x 945 (mm) 55.1 x 31.5 x 37.2 (inch)	2570 x 770 x 1070 (mm) 101.2 x 30.3 x 42.1 (inch)	2010 x 770 x 1070 (mm) 79.1 x 30.3 x 42.1 (inch)	1860 x 800 x 945 (mm) 73.2 x 31.5 x 37.2 (inch)	750 x 700 x 945 (mm) 29.5 x 27.6 x 37.2 (inch)
Interior Dimensions (W x D x H)	500 x 450 x 572 (mm) 19.7 x 17.7 x 22.5 (inch)	1840 x 500 x 762 (mm) 72.4 x 19.7 x 30.0 (inch)	1,280 x 500 x 762 (mm) 50.4 x 19.7 x 30.0 (inch)	1120 x 520 x 530 (mm) 44.1 x 20.5 x 20.9 (inch)	480 x 430 x 420 (mm) 18.9 x 16.9 x 16.5 (inch)
Effective Capacity	128 liters (4.5 cu.ft.)	701 liters (24.8 cu.ft.)	487 liters (17.1 cu.ft.)	309 liters (10.9 cu.ft.)	86 liters (3.0 cu.ft.)
Exterior Cabinet	Galvanised steel with baked on finish				
Interior Cabinet	Aluminum plate	Stainless steel			
Inner Lid	1	4	3	1	
Insulation	Foamed-in-place rigid polyurethane				
Compressor	High stage side	Hermetic type, 1,100 W		Hermetic type, 450 W	Hermetic reciprocated type, 450 W
	Low stage side	Hermetic type, 1,100 W		Hermetic type, 750 W	
Evaporator	High stage side	Cascade condenser			Tube-on-sheet type
	Low stage side	Tube on sheet (shared with interior)			
Condenser	High stage side	Fin and tube type	Fin and tube type		Finless tube type
	Low stage side	Cascade condenser	Shell and tube type	Cascade condenser	
Temperature Control	Microprocessor control system, Non-volatile memory	Microprocessor: Keypad input Set value memory: non-volatile memory			
Temperature Display	Digital display				
Sensor	Platinum resistance (Pt. 100 W)			Platinum resistance (Pt. 1000 W)	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)			Adjustable high and low temp. alarm (±5°C to ±20°C from set point)	
	Power failure alarm, Filter check lamp (Except MDF-193/193AT which have no filters), Remote alarm contact				
Net Weight (Approx.)	265kg (584 lbs.)—1156 272kg (600 lbs.)—1156ATN	335kg (739 lbs.)—794 345kg (761 lbs.)—794AT	291kg (642 lbs.)—594 301kg (664 lbs.)—594AT	219kg (483 lbs.)	103kg (227 lbs.)—193 109kg (240 lbs.)—193AT

Voltage specification by destination

Representative destination	Europe	230V, 50Hz (CE)	MDF-1156-PE/1156ATN-PE	MDF-794-PE/794AT-PE	MDF-594-PE/594AT-PE	MDF-394-PE	MDF-193-PE/193AT-PE
Korea	220V, 60Hz		MDF-1156-PK/1156ATN-PK	MDF-794-PK/794AT-PK	MDF-594-PK	—	MDF-193-PK
Thailand	220V, 50Hz		MDF-1156-PB/1156ATN-PB	MDF-794-PB	MDF-594-PB/594AT-PB	MDF-394-PB	—

ATN: LN₂ backup system, temperature recorder

AT: LCO₂ backup system, temperature recorder

Optional Accessories

Storage Racks (Aluminium)

Model No.	MDF-193C-PW	MDF-394C-PW	MDF-494C-PW	MDF-594C-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: LCO ₂ Backup Kit for MDF-794/594/394	
CVK-UBN2-PW/UBN2I-PW: LN ₂ Backup Kit for MDF-794/594/394	
CVK-A-PW: Built-in LCO ₂ Backup Kit for MDF-193	
CVK-AT2-PW: LCO ₂ Backup Kit for MDF-1156	
CVK-ATN2-PW: LN ₂ 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.



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