

PRO Series

-86°C Upright Ultra-Low Temperature Freezers

17.1 cu.ft. | 483 L
23.5 cu.ft. | 668 L



MDF-U7586SC-PA

The PRO Series includes time-tested technology that provides safe, long-term storage of high valued samples. Scientists rely on our proven engineering and advanced design to protect their research.

Reliable Sample Storage

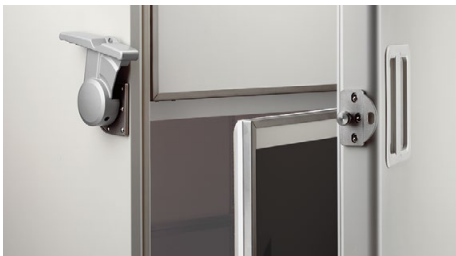
These high performance ultra-low temperature freezers are designed for safe, reliable storage of biological materials in repositories, medical research facilities, hospitals and clinics. The PRO Series provides a reliable storage solution where budgets are limited.

Refrigeration Design

The refrigeration compressor is specifically designed for ultra-low temperature freezer applications and high performance during strenuous day-to-day operations. PRO Series refrigeration components balance temperature performance and energy management while reserve refrigeration power assures fast temperature recovery following door openings.

Microprocessor Control and Alarm System

PRO Series freezers include adjustable audible and visual alarms for high/low temperature deviation, a battery backup and a self-diagnostic messaging system. Additional alarm notifications include power failure, air filter check, battery check and fan motor check.



Temperature Uniformity

PRO Series freezers maintain temperature uniformity even in high ambient conditions through superior cabinet construction using foamed-in-place, cfc-free urethane insulation.



Storage Capacity

Three solid stainless steel adjustable shelves create four storage sections. The freezer accepts storage racks that hold up to 480 standard 2" inventory boxes.



User-Friendly LED Display

The door mounted, eye level controller includes a five button menu with softkey inputs for easy management of all freezer functions through the user-friendly LED display.

Pro Series -86°C ULT Upright Freezer



Model MDF-U5586SC-PA

Additional Features

1. Front access air condenser filter for easy routine cleaning
2. Two access ports, provided standard, permit independent probes, instrumentation, or liquid CO₂/LN₂ backup system injection
3. Vacuum relief port provided standard
4. Remote alarm compatible with independent monitoring system

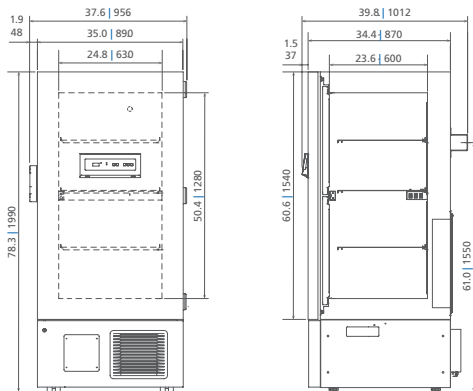
Affordable and Reliable

We have dedicated more than 50 years to the development and innovation of ultra-low temperature storage solutions. PRO Series freezers provide the level of PHCbi brand performance and reliability with straightforward features and an affordable price. The superior design and construction extends freezer lifetime for optimum return-on-investment.

Dimensions

Unit : inch | mm

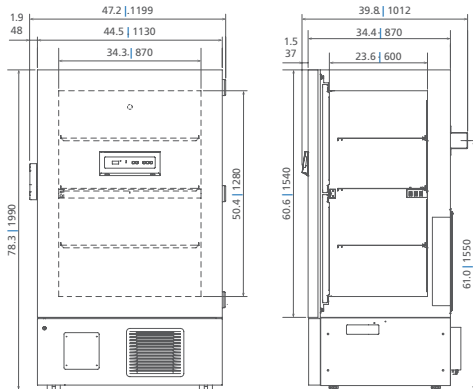
Model MDF-U5586SC-PA



Dimensions

Unit : inch | mm

Model MDF-U5786SC-PA



MDF-U5586SC-PA | MDF-U7586SC-PA

Model Number		MDF-U5586SC-PA	MDF-U7586SC-PA
External Dimensions (W x D x H) ¹⁾	inches mm	35.0 x 36.7 x 78.3 890 x 933 x 1990	44.5 x 36.7 x 78.3 1130 x 933 x 1990
Internal Dimensions (W x D x H)	inches mm	24.8 x 23.6 x 50.4 630x600 x 1280	34.3 x 23.6 x 50.4 870 x 600 x 1280
Volume	cu.ft. liters	17.1 483	23.5 668
Net Weight	lbs kg	705 320	804 365
Capacity (2" boxes)	qty	320	480
Capacity (3" boxes)	qty	192	384
Inventory Racks (2" boxes)	qty	16	24
Inventory Racks (3" boxes)	qty	16	24
Performance			
Warranty ²⁾		5 years parts and labor	
Cooling Performance ³⁾	°C	-86	
Temperature Setting Range	°C	-50 to -90 in 1° increments	
Temperature Control Range ³⁾	°C	-50 to -86 in 1° increments	
Control			
Controller		Microprocessor, softkey data entry, password protected	
Display		LED	
Temperature Sensor		Pt-1000	
Refrigeration			
Refrigeration System		Cascade	
Compressors	W	(1) 1100 High stage and (1) 1100 low stage	
Refrigerant		CFC-free R-404A and R-508B	
Insulation Material		Rigid polyurethane foamed-in-place	
Construction			
Exterior and Interior Material		Painted steel	
Outer Door	qty	1	
Outer Door Lock		Standard	
Inner Doors	qty	2; Insulated, ABS, stainless steel frames, positive latches	
Shelves	qty	3; Adjustable, stainless steel	
Shelf Dimensions (W x D)	inches mm	23.9 x 21.0 608 x 535	33.4 x 20.9 848 x 533
Max. Load per Shelf	lbs kg	110 50	110 50
Max. Load per Shelf	lbs kg	440 200	440 200
Vacuum Relief Port		Standard	
Access Ports	qty	1; Left side	
Access Port Diameter	inches mm	1.1 90	1.1 90
Casters	qty	4 (2 leveling feet)	
Alarms (V = Visual Alarm, B = Buzzer Alarm, R = Remote Alarm)			
Power Failure		V-B-R	V-B-R
Temperature (High and Low)		V-B-R	V-B-R
Sensor Failure		V-B-R	V-B-R
Filter Alarm		V-B	V-B
Fan Motor		V	V
Battery Check		V	V
Remote Alarm Contacts / Outputs		DC 30V 2A (normally open, normally closed, common)	
Electrical and Noise Level			
Power Supply		208-220V, 1Ø, NEMA 6-15P, requires NEMA 6-15R receptacle	208-220V, 1Ø, NEMA 6-15P, requires NEMA 6-15R receptacle
Noise Level ⁴⁾	dB(A)	51	51
Options			
Liquid CO ₂ Back-Up System		CVK-UB21-PW	CVK-UB21-PW
Temperature Recorder			
Circular Type	6", 7 day circular	MTRC954	MTRC954
Chart Paper	52 charts per box	C7100386REV	C7100386REV
Ink Pen	pack of 6	R252	R252
Optional Communication System			
Wireless, Cloud-Based, Automatic Data Management		LabAlert® Monitoring System	LabAlert® Monitoring System

¹⁾ Exterior dimensions of cabinet excluding handle, rear stand-off brackets and other external projections.

Consult sales rep for doorway entry instructions, less than 36.7".

²⁾ Current warranty offered at time of printing and may be subject to change; US and Canada only

³⁾ Air temperature measured at freezer center, ambient temperature +30°C, no load

⁴⁾ Actual value, background noise 20 dB[A]

Specifications are subject to change without notice.

For latest specification information contact PHC Corporation of North America at info@us.phcd.com.

Performance data herein is based on independent testing at time of publication.

