

PRO Series

-86°C Ultra-low Temperature Freezer



Reliable Technology

The PRO Series is time-tested technology that has provided safe long-term storage of high-valued samples. Scientists rely on Panasonic's proven engineering and design to protect their research.

Uniform Temperatures

Superior insulation and sealing inner doors allow the PRO Series to maintain uniform temperatures throughout the freezer, protecting your samples' integrity.

Intuitive Usage

The PRO Series has simple and easy controls to configure temperature, alarms, monitoring, and diagnostic functions allowing your lab to get set-up quickly and efficiently.

Panasonic Compressors



Temperature Uniformity



Intuitive Usage



17.1 cu.ft. | 23.5 cu.ft.



Ultra-Low Temperature Specific Compressor

The PRO Series' refrigeration compressor is specifically designed for ultra-low applications, allowing it to handle more strenuous day-to-day temperature maintenance and recovery. It also [extends the freezer's lifetime](#), making it one of the most reliable freezers on the market.



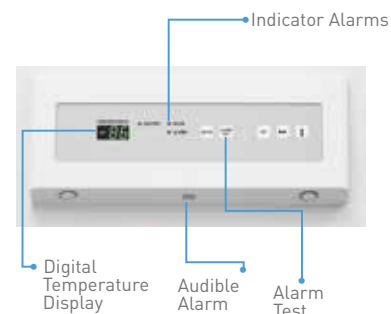
Foamed-In-Place Insulation and Sealing Inner Doors

Superior cabinet insulation [maximizes interior temperature uniformity and protects against fluctuating ambient temperatures](#). With insulated sealing inner doors that latch, the PRO Series maintains the interior temperature even if the outer door remains open.



Optimized Digital Touch-Pad

The centrally located touch panel on the PRO Series outer door [allows for easy eye-level configuration of key settings](#), such as temperature, alarms, and diagnostics.





PRO Series -86°C Freezer

Affordable and Reliable Sample Storage with Quality Construction

1. PRO series uses high density, foamed-in-place polyurethane insulation. This design provides superior insulation that maintains set temperature even in high ambient conditions.
2. Ergonomic outer door latch comes with padlock capabilities for better sample security.
3. Microprocessor-based controller for better parameter management.
4. Remote alarm is compatible with independent monitoring system.
5. Insulated inner door gaskets form a tight seal to maintain temperature following routine openings. Two inner doors come standard in one unit.
6. Easy front access to air condenser filter for routine cleaning.
7. Purpose-built, Panasonic-designed ultra-low refrigeration compressors offer maximum reliability.
8. Multiple access ports permit independent probes, instrumentation, or liquid CO₂ / LN₂ back-up system injection.
9. Vacuum release port is standard on each unit.
10. In the event of power failure, compressor is programmable for a delayed start reducing strain on electrical circuits.

MODEL	MDF-U5586SC-PA
TEMPERATURE	-50°C to -86°C (ambient temp. 30°C, no load)
TEMPERATURE CONTROLLER	Microcomputer control system
INTERIOR DIMENSIONS (WxDxH)	24.8" x 23.6" x 50.4" (630 x 600 x 1280 mm)
EXTERIOR DIMENSIONS (WxDxH)	35.0" x 34.3" x 78.3" (890 x 870 x 1990 mm)
AREA FOOTPRINT (NOMINAL)	8.37 sq.ft. (0.78 m ²)
VOLUME	17.1 cu.ft. (483 liters)
BOX STORAGE	2"/51 mm boxes: 320 3"/76 mm boxes: 192
STORAGE RACKS FOR 2" FIBERBOARD BOXES	16 - Each rack stores 20 boxes (5 boxes high x 4 boxes deep)
STORAGE RACKS FOR 3" FIBERBOARD BOXES	16 - Each rack stores 12 boxes (3 boxes high x 4 boxes deep)
POWER REQUIREMENTS	208-230V / 60 Hz / 1 phase / NEMA 6-15R / 15 amp breaker
ENERGY CONSUMPTION	17.48 kWh/day at 23°C ambient
NET WEIGHT	705 lbs (320 kg)
ALARMS	High temp. alarm, Low temp. alarm, Power failure alarm, Filter check, Battery check, Fan motor check
SHELVES	Stainless steel, 3 shelves (adjustable) W 23.9" x D 21.0" (W 608 mm x D 535 mm), Load; 110 lbs /shelf
ACCESS PORT	0.6" (17mm) diameter, 2 locations (back, bottom left corner)
COMPRESSOR SYSTEM	Hermetic type, Output; 1100W (high stage side), 1100W (low stage side)

MODEL	MDF-U7586SC-PA
TEMPERATURE	-50°C to -86°C (ambient temp. 30°C, no load)
TEMPERATURE CONTROLLER	Microcomputer control system
INTERIOR DIMENSIONS (WxDxH)	34.3" x 23.6" x 50.4" (870 x 600 x 1280 mm)
EXTERIOR DIMENSIONS (WxDxH)	44.5" x 34.4" x 78.3" (1130 x 870 x 1990 mm)
AREA FOOTPRINT (NOMINAL)	10.63 sq.ft. (0.99 m ²)
VOLUME	23.5 cu.ft. (668 liters)
BOX STORAGE	2"/51 mm boxes: 480 3"/76 mm boxes: 384
STORAGE RACKS FOR 2" FIBERBOARD BOXES	24 - Each rack store 20 boxes (5 boxes high x 4 boxes deep)
STORAGE RACKS FOR 3" FIBERBOARD BOXES	24 - Each rack stores 16 boxes (4 boxes high x 4 boxes deep)
POWER REQUIREMENTS	208-230V / 60 Hz / 1 phase / NEMA 6-15R / 15 amp breaker
ENERGY CONSUMPTION	19.85 kWh/day at 23°C ambient
NET WEIGHT	804 lbs. (365 kg.)
ALARMS	High temp. alarm, Low temp. alarm, Power failure alarm, Filter check, Battery check, Fan motor check
SHELVES	Stainless steel, 3 shelves (adjustable) W33.4in x D20.9 in (W848 mm x D533 mm), Load; 110 lbs /shelf
ACCESS PORT	0.6 in (17mm) diameter, 2 locations (back, bottom left corner)
COMPRESSOR SYSTEM	Hermetic type, Output; 1100W (high stage side), 1100W (low stage side)