-86°C Ultra Low Temperature Freezer - Upright ULT Freezer - 338 to 838 L - Cascade Cooling

Model **MSULF86-340SWISS, MSULF86-410SWISS, MSULF86-590SWISS, MSULF86-730SWISS, MSULF86-840SWISS** | Brand **Master Science**







The Master Science -86°C ULT Freezer stores plasma, vaccines, reagents, strains, biological products and other samples between -40 and -86 °C. Two SECOP compressors in a cascade refrigeration system cool the cabinet quickly and hold the lowest setting steadily over long periods.

KEY HIGHLIGHTS

- Deep, stable cold
- Less frost, less cold loss
- Lower heat gain
- Sample protection
- Traceable storage

AT A GLANCE

-40 to -86 °C (ambient 10 to 32 °C) TEMPERATURE RANGE	**0.1 °C** CONTROL ACCURACY
338 / 408 / 588 / 728 / 838 L CAPACITY	**inner doors and tight seal.** TEMPERATURE RISE DURING DOOR OPENING

Request a Quotation
Contact us for pricing, configuration options and delivery details.

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www.themsci.com

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Overview

Four insulated inner doors divide the chamber into separate compartments, which cuts cold loss and frost when the door is opened. Five upright sizes cover 338 to 838 litres.

Specifications of the Master Science -86°C ULT Freezer range (340 / 410 / 590 / 730 / 840):

Key Benefits

Deep, stable cold
the Master Science -86°C ULT Freezer reaches -86 °C with 0.1 °C control.

Less frost, less cold loss
four separate inner compartments.

Lower heat gain
VIP insulation panels and special door seal.

Sample protection
wide range of audible and visual alarms with 72 h battery backup.

Traceable storage
USB temperature data download.

For -25 °C storage, see the Master Science laboratory instrument range.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSULF86-340SWISS, MSULF86-410SWISS, MSULF86-590SWISS, MSULF86-730SWISS, MSULF86-840SWISS
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Capacity	**338 / 408 / 588 / 728 / 838 L**
Temperature Range	**-40 to -86 °C (ambient 10 to 32 °C)**
Control Accuracy	**0.1 °C**
Sensor	PT100
Controller	Microprocessor with LCD
Refrigeration	Cascade system, 2 SECOP compressors, HC (CFC-free) refrigerant
Insulation	VIP vacuum insulation panels
Defrost	Manual
Alarms	High/low temperature, high ambient, sensor error, abnormal voltage, low battery, power failure (72 h backup), door ajar, dirty filter
Materials	304 stainless steel interior and inner doors; powder-coated steel exterior
Shelves	3
Test Ports	2 × Ø25 mm
Standard Features	USB port, remote alarm port, castors
Capacity with Racks	**192 / 288 / 400 / 504 / 600 two-inch boxes (19200 to 60000 × 2 mL tubes)**
Noise	50 to 53 dB

DIMENSIONS & WEIGHT

Internal Dimensions (W × D × H)	488 × 607 × 1140 / 606 × 575 × 1180 / 606 × 738 × 1310 / 963 × 571 × 1350 / 894 × 718 × 1310 mm
External Dimensions (W × D × H)	854 × 1072 × 1907 / 891 × 992 × 1945.5 / 891 × 1155 × 1994.5 / 1248 × 975 × 1994.5 / 1179 × 1135 × 1994.5 mm
Net Weight	296 / 292 / 335 / 380 / 397 kg

POWER

Power Supply	AC 110 or 220 V ±10 %, 50/60 Hz
Power Consumption	870 / 845 / 815 / 935 / 890 W

HOW THE MASTER SCIENCE -86°C ULT FREEZER PROTECTS VALUABLE SAMPLES	
Temperature rise during door opening	inner doors and tight seal.
Unnoticed power failures	72 h battery-backed alarm.
Frost build-up	compartment design.
Compressor overload	balanced cascade control.

Applications

The Master Science -86°C ULT Freezer is used to store
Plasma and blood components Vaccines and biological products Reagents and chemical standards Microbial strains and cell samples Low-temperature tests of special materials

Refrigeration

- Cascade system with two SECOP compressors
- HC CFC-free refrigerant
- Designed for long running at -86 °C

Control and Alarms

- Microprocessor, 0.1 °C steps
- High/low temperature setpoints
- Remote alarm contacts

Cabinet

- VIP insulation
- Four insulated inner doors
- Adjustable shelves and castors

Optional Accessories

- Chart recorder
- Temperature data logger
- Freezer racks and 2-inch boxes
- LN2 backup system