



medical
systems

Variable Speed Ultra-Low Freezers

U401V | U501V | U701V



✓ INTENSIVE USE ✓ RELIABLE ✓ ENERGY EFFICIENT

Variable Speed Ultra-Low Temperature Freezer for the safe storage of specimens, samples, pharmaceuticals, blood and blood components at temperatures ranging from -86°C to -20°C.

Variable Speed Ultra-Low Freezers

Operating temperature range: -86°C to -20°C

Durable Design

- Stainless steel construction with an external antibacterial coating that ensures durability and hygiene
- Ergonomic door handle for seamless operations and durability
- Sturdy door hinges ensure a secure seal, preventing frost buildup
- Designed for tropical climates with ambient temperatures reaching as high as +43°C

Innovative Electronics

- 7" full touchscreen display with digital control and functionalities
- Access control using NFC card and password protection
- Advanced alarm system with audio and visual alarms
- Easy data export using a USB/SD card
- Bi-frequency operation (50/60 Hz)

Advanced Insulation Technology

- Innovative vacuum valves in the door permit faster openings
- Improved long-lasting VIP panels reduce temperature fluctuations
- Magnetic gasketed inner doors provide superior cabinet insulation

Reliable & Green Refrigeration System

- Bottom-mounted refrigeration system offers easy access and an optimised storage space
- Uses green refrigerants with zero Ozone Depletion Potential (ODP)
- Unique evaporator technology ensures an even cold air distribution and eliminates oil clogging

Versatile Modularity

- Optimised cryobox storage capacity
- Large choice of racks offering modularity for every need



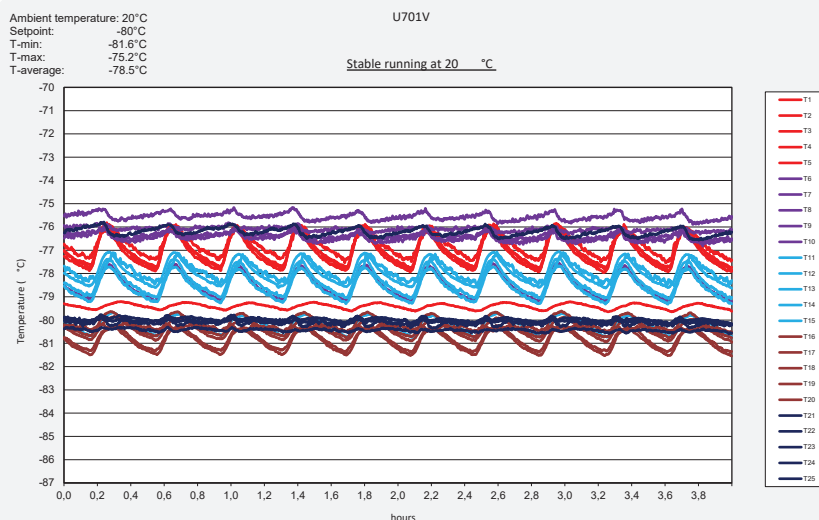
KEY PRODUCT FEATURES

The Variable Speed Ultra-Low Freezer delivers, with its innovative technology, Superior Temperature Uniformity and Door Opening Recovery with Low Energy Consumption even during intensive use.

CASE STUDY: U701V

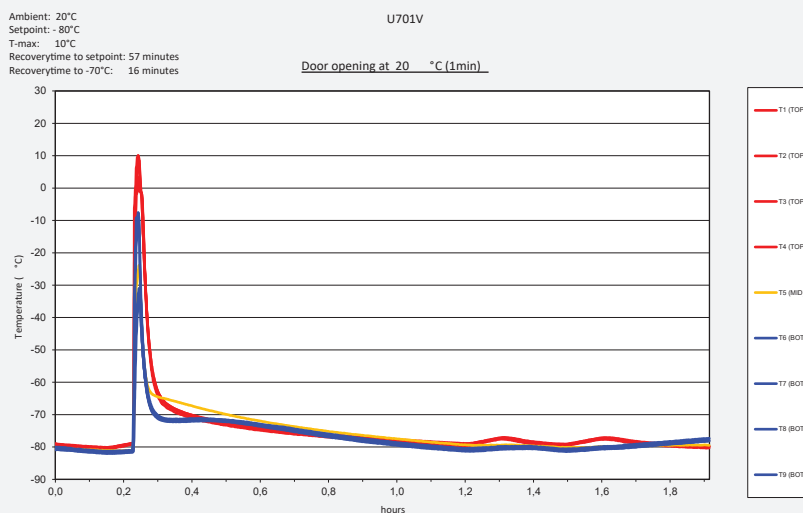
Temperature Uniformity & Stability

Superior temperature uniformity ensures even temperatures throughout the cabinet, maintaining sample integrity.



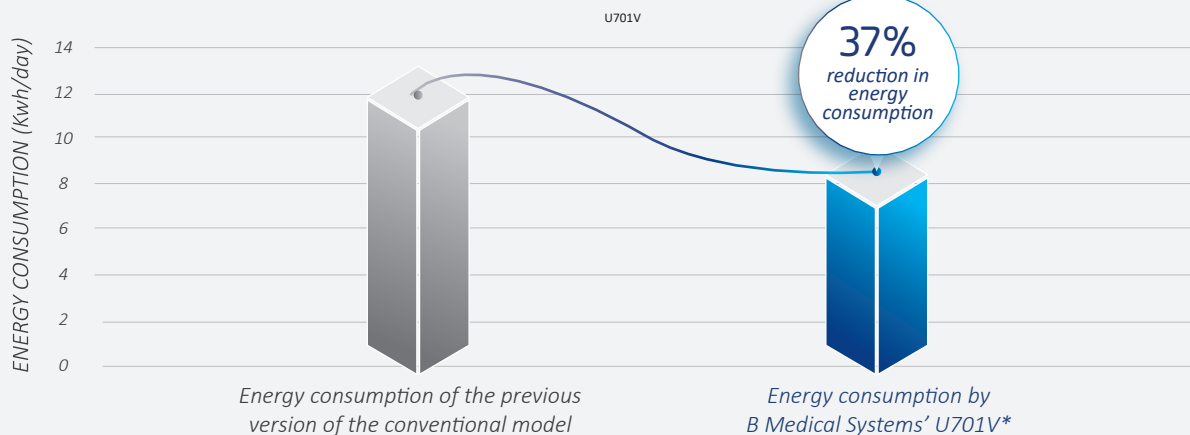
Door Opening Recovery

Rapid return to the set temperature even during intensive use, ensuring sample protection.



Energy Efficiency

High energy efficiency irrespective of the usage pattern, enabling operational efficiency.



*Measured at +20°C ambient temperature with a set point of -80°C

TECHNICAL DATA

Key Specifications

Gross / Net volume (L)

Set temperature (preset)

Temperature range

Preset cold / warm alarm limit

Climate class (ambient temperature range)

Defrosting technique

Refrigerant type

External dimensions H x W x D (mm)

Inner dimensions H x W x D (mm)

Net weight (kg)

Supply voltage (V)

Frequency (Hz)

Power (W)

Energy consumption
(kWh/24h)¹

Hold over time (-80°C to -60°C)¹

Heat ejection (Kcal/h)

Warranty

VHP Sterilization - Optional

Medical Device Regulation



U401V



U501V



U701V

477/454 L

633/602 L

790/751 L

-80°C

-86°C to -20°C

-85°C | -75°C

SN/T (+10°C to +43°C)

Manual

R290 / R170

1988 x 699 x 1039 mm

1988 x 845 x 1039 mm

1988 x 992 x 1039 mm

1375 x 447 x 738 mm

1375 x 593 x 738 mm

1375 x 740 x 738 mm

262 kg

285 kg

305 kg

220V - 240V

50Hz - 60Hz

2000W

6.7 kWh/24h for -80°C
5.5 kWh/24h for -70°C

7.1 kWh/24h for -80°C
6.0 kWh/24h for -70°C

7.5 kWh/24h for -80°C
6.3 kWh/24h for -70°C

1.82 h

1.37 h

2.2 h

291.6 Kcal/h

297.7 Kcal/h

309.54 Kcal/h

5 years | 7 years on compressor

Compatible with Vaporized Hydrogen Peroxide (VHP) decontamination systems

MDR (EU) 2017/745, Class IIa

1. Tested at +20°C ambient temperature

SAVING LIVES THROUGH RELIABLE AND INNOVATIVE TECHNOLOGY

B Medical Systems S.à r.l

B Medical Systems is a global manufacturer and distributor of medical-grade devices with over 40 years of industrial experience.

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