



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



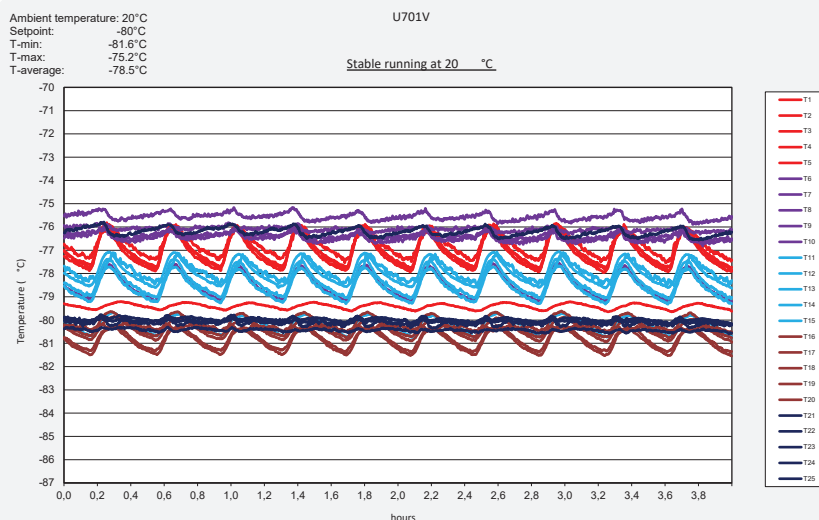
# KEY PRODUCT FEATURES

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

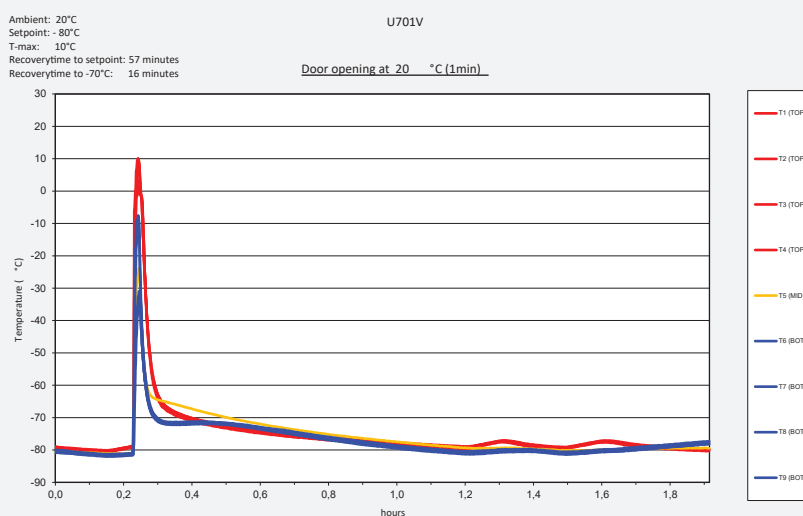
### Temperature Uniformity & Stability

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



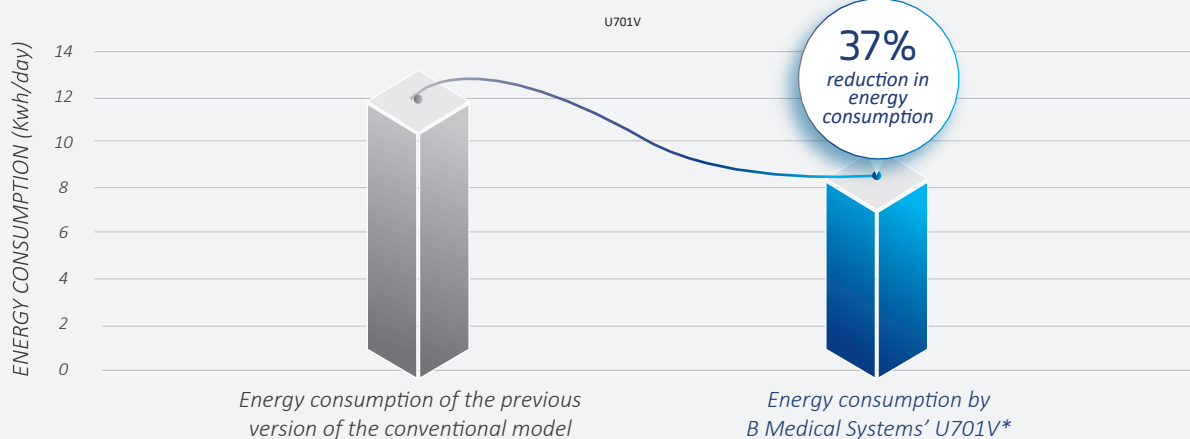
### Door Opening Recovery

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

	U401V	U501V	U701V
Gross / Net volume (L)	477/454 L	633/602 L	790/751 L
Set temperature (preset)	-80°C		
Temperature range	-86°C to -20°C		
Preset cold / warm alarm limit	-85°C   -75°C		
Climate class (ambient temperature range)	SN/T (+10°C to +43°C)		
Defrosting technique	Manual		
Refrigerant type	R290 / R170		
External dimensions H x W x D (mm)	1988 x 699 x 1039 mm	1988 x 845 x 1039 mm	1988 x 992 x 1039 mm
Inner dimensions H x W x D (mm)	1375 x 447 x 738 mm	1375 x 593 x 738 mm	1375 x 740 x 738 mm
Net weight (kg)	262 kg	285 kg	305 kg
Supply voltage (V)	220V - 240V		
Frequency (Hz)	50Hz - 60Hz		
Power (W)	2000W		
Energy consumption (kWh/24h) <sup>1</sup>	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
Hold over time (-80°C to -60°C) <sup>1</sup>	1.82 h	1.37 h	2.2 h
Heat ejection (Kcal/h)	291.6 Kcal/h	297.7 Kcal/h	309.54 Kcal/h
Warranty	5 years   7 years on compressor		
VHP Sterilization - Optional	Compatible with Vaporized Hydrogen Peroxide (VHP) decontamination systems		
Medical Device Regulation	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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