

Zenith Lake Biotech ULT-Freezers

Double Safety. Double Performance.

Discover the new generation of ultra-low temperature freezing: The Zenith Lake Biotech Dual X ultra-low temperature freezers combine high cooling capacity, state-of-the-art dual inverter technology, and maximum sample protection. Designed for demanding applications in laboratories, research facilities, clinics, and biobanks, these ultra-low temperature freezers provide reliable storage conditions down to -86 °C.

Thanks to innovative inverter compressor technology, the units are exceptionally energy-efficient, durable, and quiet. The intelligent load distribution between the two independent cooling systems ensures maximum reliability while significantly extending the service life of the components.

With their excellent value for money, Zenith Lake Biotech ultra-low temperature freezers offer a cost-effective and sustainable solution for the safe storage of valuable samples and materials. Modern touchscreen controls, high temperature stability, and energy-efficient ECO technology make Zenith Lake Biotech the ideal choice for professional users.



Efficient, safe, and reliable

- ✓ Dual cooling system for maximum sample protection
- ✓ Maximum cooling capacity and rapid temperature recovery
- ✓ Intelligent dual-inverter technology for energy-efficient and quiet operation
- ✓ Durable and robust construction for daily laboratory use
- ✓ Reliable temperature stability from -40 °C to -86 °C
- ✓ Excellent value for money

Your benefits with CryoSolutions AG

- ✓ Everything from a single source: consulting, sales, service
- ✓ Many years of experience and a high level of specialization
- ✓ Fast and competent on-site service
- ✓ Backup units of various sizes available
- ✓ Complete spare parts inventory and service center in Switzerland

Features



Comprehensive Door Sealing

The exterior door's 5-layer silicone seal minimizes heat transfer and reduces frost buildup. In addition, each interior door has its own seal. This helps keep interior temperatures stable for longer, even with frequent opening or during power outages.



Maximum Cooling Capacity

Dual-compressor technology ensures exceptionally high cooling capacity and rapid temperature recovery after each time the door is opened. This ensures that valuable samples are preserved consistently, safely, and reliably at ultra-low temperatures.



Active ECO Technology

Intelligent dual-inverter compressors using eco-friendly refrigerants automatically adjust performance to match actual cooling needs. This lowers energy consumption while reducing the environmental impact.



Double the Safety

Two independent cooling systems ensure maximum operational safety and reliable sample protection. If one system fails, the second takes over and maintains a stable temperature of -80 °C, keeping valuable samples safely preserved even in the event of a malfunction.



Outstanding Temperature Stability

The patented D-Shape evaporator ensures optimized cold distribution and, as a result, uniform temperatures. The CFC-free, high-performance insulation reduces cold loss, ensures stable storage temperatures, and provides optimal protection for sensitive samples.



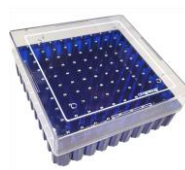
Options



CO₂ / LN₂ Backup



Rack Storage Systems



Cryoboxes



Remote Monitoring



ZL-86L580BS



ZL-86L720BS



ZL-86L860BS

Specifications

Storage

Storage Volume	580 L	720 L	860 L
Storage Capacity for Standard Racks	16	20	24
Storage Capacity for Standard 2-Inch Boxes	400	500	600
Storage Capacity for Standard 2-ml Vials	40,000	50,000	60,000
Temperature Range	-40 °C to -86 °C	-40 °C to -86 °C	-40 °C to -86 °C
Temperature Uniformity	+/- 5 °C	+/- 5 °C	+/- 3 °C
Temperature Stability	2.2 °C	3 °C	1.6 °C
Number of Compartments and Interior Doors	4	4	4
Load Capacity per Shelf	87 kg	87 kg	87 kg

Technical Specifications

Cooling System	Dual cooling system	Dual cooling system	Dual cooling system
Refrigerant	Mix (eco)	Mix (eco)	Mix (eco)
Cooling Time to -80 °C	2.8 h	3 h	3.4 h
Temperature recovery after door opening	19 min.	20 min.	27 min.
Power supply	230 V / 6,5 A / 50 Hz	230 V / 5,8 A / 50 Hz	230 V / 7 A / 50 Hz
Energy consumption	6.2 kWh/day	6.5 kWh/day	6.9 kWh/day
Noise level	46 dB	46 dB	46 dB
Display	25 cm Touch-Screen	25 cm Touch-Screen	25 cm Touch-Screen
Alarm output, data export	Remote alarm contacts, USB	Remote alarm contacts, USB	Remote alarm contacts, USB
Interior material	Stainless steel	Stainless steel	Stainless steel
Feed-throughs for external probes	2x 25 mm	2x 25 mm	2x 25 mm
Interior dimensions mm (W x D x H)	595 x 720 x 1,310	740 x 720 x 1,310	885 x 720 x 1,310
External dimensions mm (W x D x H)	885 x 995 x 1,980	1,030 x 995 x 1,980	1,175 x 995 x 1,980
Minimum door width for installation	90 cm	90 cm	90 cm
Certification	CE	CE	CE