



-86 °C ULTRA LOW TEMPERATURE UPRIGHT FREEZER
LD-LUF-D2 SERIES

-86 °C Ultra Low Temperature Freezer, Experience rapid cooling with our high-efficiency refrigeration system, designed to quickly reach the target temperature using an eco-friendly hydrocarbon refrigerant. Equipped with an ultra-low noise design, this unit promotes a quiet, environmentally conscious workspace. Energy efficiency is maximized with up to 40% reduced power consumption, while VIP vacuum insulation panels enhance thermal retention, ensuring stable performance and long-term reliability.

Features

- High-efficiency EMBRACO compressor for reliable and powerful performance
- Premium Germany EBM fans ensure stable airflow and cooling
- CFC-free patented hydrocarbon refrigerant for fast cooling and eco-friendliness
- PT-100 platinum resistance sensors for highly sensitive and accurate temperature detection
- VIP Plus vacuum insulation panels with 130 mm foamed insulation for enhanced temperature stability
- Lockable keyboard with password protection to prevent unauthorized parameter changes
- Lockable front door with full-height handle for secure access control
- Start-up delay and power-off protection ensure equipment safety during power fluctuations
- Four casters and two levelling feet for easy mobility and stable placement
- Ultra-low noise design for a quiet, environment-friendly operation
- Up to 40% energy savings with optimized power consumption
- Audio visual alarms for High/Low temperature, high ambient temperature, power failure, low battery, sensor failure, main board communication error, door ajar, condenser overheating & system failure
- Optional configurations available: Warning lamp, Smart temperature monitoring system, Temperature recorder, CO₂ backup system
- Equipped with twin compressor

Application

Upright Freezers is used in scientific research, cryogenic test on special materials, blood plasma cryopreservation, low temperature resistance test on biological materials, vaccines, biological products and military products, etc. and Suitable for use in research institutions, the electronic industry, the chemical industry, hospitals, the health & disease prevention system, laboratories in colleges & universities, military enterprises, etc.

Specification

Model No.	LD-LUF-D23	LD-LUF-D24	LD-LUF-D25
Cabinet Type	Upright		
Capacity	398 L	528 L	678 L
Temperature Range	-40 ~ -86 °C		
Cooling Performance	86 °C		
Climate Class	N		

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Controller	Microprocessor		
Display	Touch Screen		
Compressor	02 pcs		
Cooling Method	Direct Cooling		
Defrost Mode	Manual		
Refrigerant	HC		
Insulation Thickness	130 mm		
External Material	Cold Rolled Steel		
Internal Material	Stainless Steel		
Shelves	03 pcs		
Inner Door	02 doors	04 doors	
Door Lock with Key	Yes		
External Lock	Yes		
Access Port	02 pcs, Ø 25 mm		
Castors	4+ (2 levelling feet)		
Data Logging /Interval /Memory Capacity	USB /Record every 5 minutes /10 years		
Backup Battery	Yes		
Ambient Temperature	16 – 32 °C		
Internal Dimension (W x D x H)	440 x 696 x 1266 mm	585 x 696 x 1266 mm	750 x 696 x 1286 mm
External Dimension (W x D x H)	785 x 1041 x 1947 mm	930 x 1041 x 1947 mm	1090 x 1025 x 1955 mm
Package Dimension (W x D x H)	890 x 1165 x 2158 mm	1035 x 1165 x 2158 mm	1203 x 1155 x 2171 mm
Net Weight	237 kgs	286 kgs	330 kgs
Gross Weight	325 kgs	356 kgs	423 kgs

Model No.	LD-LUF-D26	LD-LUF-D27	LD-LUF-D28
Cabinet Type	Upright		
Capacity	778 L	858 L	1008 L
Temperature Range	-40 ~ -86 °C		
Cooling Performance	86 °C		
Climate Class	N		
Controller	Microprocessor		
Display	Touch Screen		

Compressor	02 pcs		
Cooling Method	Direct Cooling		
Defrost Mode	Manual		
Refrigerant	HC		
Insulation Thickness	130 mm		
External Material	Cold Rolled Steel		
Internal Material	Stainless Steel		
Shelves	03 pcs		
Inner Door	04 doors	02 doors	
Door Lock with Key	Yes		
External Lock	Yes		
Access Port	03 pcs, Ø 25 mm		
Castors	4+ (2 levelling feet)		
Data Logging /Interval /Memory Capacity	USB /Record every 5 minutes /10 years		
Backup Battery	Yes		
Ambient Temperature	16 – 32 °C		
Internal Dimension (W x D x H)	865 x 696 x 1286 mm	877 x 696 x 1378 mm	1022 x 696 x 1378 mm
External Dimension (W x D x H)	1205 x 1025 x 1955 mm	1217 x 1025 x 1994 mm	1362 x 1025 x 1994 mm
Package Dimension (W x D x H)	1320 x 1155 x 2171 mm	1330 x 1155 x 2176 mm	1473 x 1155 x 2176 mm
Net Weight	365 kgs	390 kgs	426 kgs
Gross Weight	455 kgs	470 kgs	510 kgs

Standard Accessories

- Remote Alarm Contact

Optional Accessories

- Chart Recorder
- CO2 Backup System