

-86°C FREEZER



-86°C ULTRA LOW TEMPERATURE FREEZER UPRIGHT LUF-86-100 SERIES

Labocon -86°C Ultra Low Temperature Freezer Upright LUF-86-100 Series ensures safe long-term storage of samples at -86°C with 1°C temperature precision. It offers reliable operation with capacities ranging from 100L to 828L, user-friendly microprocessor controller with digital display.

Features

- ▶ SS304 Grade Stainless steel interior and painted Galvanized steel board exterior 130mm thick Painted steel, low temperature resistance anti-corrosion Paint for long service life and easy cleaning
- ▶ Front lockable door for safety operation design with full height handle and vacuum release port with Heated Air Vent. The door with new-type assisting door handle to be opened easily
- ▶ Two-times foaming technology with triple silicon gasket seal
- ▶ Adjustable stainless steel shelves, 4 units Heavy-duty lockable casters with adjustable feet for easy handling
- ▶ Insulation material and its thickness: High density Polyurethane foam with thickness of 155mm & Advance Six side VIP (Vacuum Insulated Panel of Thickness 1.8 Inches)
- ▶ Low-noise compressor less than 53dB, heavy-duty & commercially-available in market.
- ▶ Digital temperature display and Microprocessor-based temperature controller.
- ▶ Display and controller: 7 Inch Touchscreen Digital display and controller,
- ▶ No. of Ports for access : 2 in no.- 20 mm
- ▶ Dual Compressor based cooling System with variable speed, where one compressor will always maintain the temperature below -70°C if other compressor fails.
- ▶ Hermetically-sealed cascade cooling system in parallel connection to reduce noise and improve the cooling rate & Washable Filter along with cleaning Indicator
- ▶ Unique refrigeration circulation and unipolar compressor oil-lubricated technology
- ▶ Mixed Refrigerant: CFC/HCFC Free R134a, R404a, R23, R410A, N2 for best in in class temperature stability and uniformity across the chamber, Operating temperature : at ambient 32°C-35°C
- ▶ In built Temperature printer which record 7 days data
- ▶ USB port compatible with capacity of USB DRIVE of 16GB/32GB/128GB
- ▶ 72 hours battery backup for printer and controller display. EBM fan electromotor.
- ▶ Keyboard lock and password protected configuration page
- ▶ Freezer contains inbuilt stabilizer.
- ▶ Power consumption: Less than 7-11 kWh/day
- ▶ "CO2/LN2 back up system & Pull down time to -80° C Temperature: 2.5 hrs.
- ▶ Warm up time from -80° C to 0° C-39Hrs, Recovery Time after door opening for 90 sec to -80 °C: 18.5 min, Temperature -80° C Hold time during Power Failure: 5.5Hrs
- ▶ Safety functions: audible and visual alarm for high or low temperature, power failure, low battery, door open, filter blocking, system failure, Built in Diagnostic Software system with alarm function to provide fault codes to trace and solve system errors. In built Air Filter block alarms and cleaning indicator which indicates the time to clean the air Filter
- ▶ Optional: Chart recorder, CO2/N2 back up system, storage racks/boxes, remote alarm system, shelves RS-485 PC Interface
- ▶ 1KΩ Platinum RTD Temperature sensor for better temperature uniformity and accuracy.

Application

Labocon -86°C Ultra Low Temperature Freezer Upright LUF-86-100 Series is widely used in hospitals, clinics, blood banks and research institutes for incubation or preservation of plasma, tissue cultures, microbial cultures etc.

Specification

Model	LUF-86-101	LUF-86-102	LUF-86-103	LUF-86-104
Capacity (L)	100 L	218 L	328 L (Discontinued)	410 L
Temp. range	-10°C to -86°C with accuracy of +/- of 0.5 °C , Set Point Increment: 1°C			
Internal Dimension (W x D x H)	450 x 439 x 514 mm	582x470x768 mm	580x450x1200 mm	440x696x1266 mm
Overall Dimension (W x D x H)	1066x742x820 mm	940x840x1552 mm	940x840x1999 mm	785x1041x1947 mm
Total Inner chamber/ Inner door-Std.	2/1	2/1	4/2	4/2
Power/Power supply	3.0 kWh/24 hrs 220V/110V, 50Hz	4.0 kWh/24 hrs 220V/110V, 50Hz	220V/50Hz	5.0 kWh/24 hrs 220V/110V, 50Hz
Weight (Net/ Gross)	120/140 kg	225/250 kg	320/350 kg	330/360 kg
Catalog no.	9428101343	9428102343	9428103343	9428104343

Configuration

Model	No. of Inner doors	No. of Inner chambers per door	Total no. of chambers per freezer Standard/Optional	Total nos of 2" cryo racks per freezer	No. Of Cryo boxes		Total Nos of Cryo vials- 2 ml cap.
					Per rack	For Freezer	
LUF-86-101	1	2	(02/04)	6	9	54	4374/5400
LUF-86-102	1	2	(02/04)	6	20	120	9720/12000
LUF-86-104	2	2	(04/06)	12	25	300	24300/30000
LUF-86-105	2	2	(04/06)	16	25	400	32400/40000
LUF-86-106	4	1	(04/06)	20	25	500	40500/50000
LUF-86-107	4	1	(04/06)	24	25	600	48600/60000
LUF-86-108	4	1	(04/06)	24	12x(5x5) +	660	53460/66000
					12x(6x5)		Max vials: 69000

-86°C ULTRA LOW TEMPERATURE FREEZER UPRIGHT

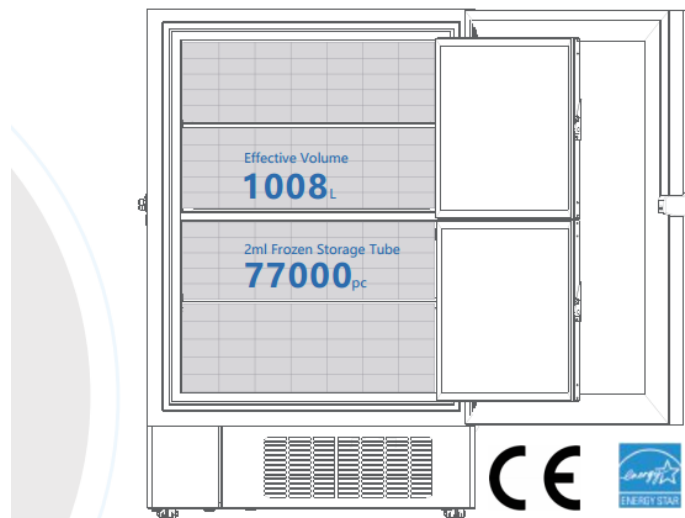


Model	LUF-86-105	LUF-86-106	LUF-86-107	LUF-86-108
Capacity (L)	528 L	678 L	778 L	858 L
Temp. range	-10°C to -86°C with accuracy of +/- of 0.5 °C			
Internal Dimension (W x D x H)	585x696x1266 mm	750x696x1286 mm	865x696x1286 mm	877x696x1378 mm
Overall Dimension (W x D x H)	930x1041x1947 mm	1090x1025x1955 mm	1205x1025x1955 mm	1217x1025x2005 mm
Total Inner chamber/ Inner door-Std.	4/2	4/4	4/4	4/4
Power/Power Supply	5.8 kWh/24 hrs 220V/110V, 50Hz	6.5 kWh/24 hrs 220V/110V, 50Hz	7.14 kWh/24 hrs 220V/110V, 50Hz	8.0 kWh/24 hrs 220V/110V, 50Hz
Weight (Net/ Gross) (kg)	300/340 kg	400/420 kg	420/450 kg	430/460 kg
Catalog no.	9428105343	9428106343	9428107343	9428108343



Note: Optional shelves for models LUF-86-106, 107 & 108 are available on request

Model	LUF-86-109
Capacity (L)	1008 L
Temp. range	-10°C to -86°C with accuracy of +/- of 0.5 °C
Internal Dimension (W x D x H)	1022 x 696 x 1378 mm
Overall Dimension (W x D x H)	1362 x 1025 x 2002 mm
Total Inner chamber/ Inner door-Std.	4/2
Power/Power Supply	5.8 kWh/24 hrs 220V/110V, 50Hz
Weight (Net/ Gross) (kg)	430/470 kg
Catalog no.	94281053431



Targeted Refrigeration



Unique
Refrigeration Circuit



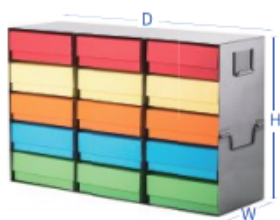
Energy Saving
Environmental Protection



VIP Plus
Vacuum Insulation Panel

-86°C Vertical ULT Freezer Rack Matching Solution

We will recommend the perfect frozen layer rack matching scheme to improve freezer space utilization and satisfy storage requirements of biobanks.



Side-access:5 Layers and 3 Columns
(LSL304-532-FG)



Side-access:4 Layers and 3 Columns
(LSL304-432-FG)



Drawer Type:5 Layers and 4 Columns
(LSL304-542-CT)



Drawer Type:5 Layers and 3 Columns
(ZKL304-532-CT)



Side-access Freezer Rack

- Made of 304 stainless steel for durability and better appearance.
- No sharp edges to avoid risk of injury.
- Steel plate thickness:combination of 0.5 and 1 mm.
- Side-access design makes it convenient and economic.

Sliding-drawer Freezer Rack

- Made of 304 stainless steel for durability and better appearance.
- No sharp edges to avoid risk of injury.
- Steel plate thickness:combination of 0.6 and 1.2 mm.
- Suitable for common low temperature freezers and standard sized freezer boxes.

Product	Model	Rack Description	Rack Dimension (W*D*H) mm	ULT Freezer Models
2 inch stainless steel rack	LSL304-432B-FG	2 inch stainless rack 4*3 (2 inch box*12)	140*413*235	LUF-86-101 / 103
	LSL304-542B-FG	2 inch stainless rack 5*4 (2 inch box*20)	140*549*293	LUF-86-102 / 103
	LSL304-552B-FG	2 inch stainless rack 5*5 (2 inch box*25)	140*685*293	LUF-86-104 / 105 / 106 / 107 / 108 / 109
	LSL304-432B-CT	2 inch stainless rack 4*3 (2 inch box*12)	140*413*235	LUF-86-101 / 103
	LSL304-542B-CT	2 inch stainless rack 5*4 (2 inch box*20)	140*549*293	LUF-86-102 / 103
	LSL304-552B-CT	2 inch stainless rack 5*5 (2 inch box*25)	140*685*293	LUF-86-104 / 105 / 106 / 107 / 108 / 109

-86°C ULTRA LOW TEMPERATURE FREEZER + CONSUMABLES



Freezer Model	Freezer Rack Model	Rack Description	Freezer Rack Quantity	Freezer Box Quantity	Cryo Tube Quantity (2ml)
LUF-86-101M	LSL304-332B-CT	2 inch stainless steel sliding -drawer freezer rack 3*3 (2 inch freezer box*9)	4	36	3600
	LSL304-632B-CT	2 inch stainless steel sliding -drawer freezer rack 6*3 (2 inch freezer box*18)	2	36	3600
LUF-86-101	LSL304-432B-CT	2 inch stainless steel sliding -drawer freezer rack 4*3 (2 inch freezer box*12)	3	63	6300
	LSL304-332B-CT	2 inch stainless steel sliding -drawer freezer rack 3*3 (2 inch freezer box*9)	3		
	LSL304-432B-FG	2 inch stainless steel side -access freezer rack 4*3 (2 inch freezer box*12)	3	63	6300
	LSL304-332B-FG	2 inch stainless steel side -access freezer rack 3*3 (2 inch freezer box*9)	3		
LUF-86-102	LSL304-542B-CT	2 inch stainless steel sliding -drawer freezer rack 5*4 (2 inch freezer box*20)	3	132	13200
	LSL304-642B-CT	2 inch stainless steel sliding -drawer freezer rack 6*4 (2 inch freezer box*24)	3		
	LSL304-542B-FG	2 inch stainless steel side -access freezer rack 5*4 (2 inch freezer box*20)	3	132	13200
	LSL304-642B-FG	2 inch stainless steel side -access freezer rack 6*4 (2 inch freezer box*24)	3		
LUF-86-103	LSL304-542B-CT	2 inch stainless steel sliding -drawer freezer rack 5*4 (2 inch freezer box*20)	9	216	21600
	LSL304-432B-CT	2 inch stainless steel sliding -drawer freezer rack 4*3 (2 inch freezer box*12)	3		
	LSL304-542B-FG	2 inch stainless steel side -access freezer rack 5*4 (2 inch freezer box*20)	9	216	21600
	LSL304-432B-FG	2 inch stainless steel side -access freezer rack 4*3 (2 inch freezer box*12)	3		
LUF-86-104	LSL304-552B-CT	2 inch stainless steel sliding -drawer freezer rack 5*5 (2 inch freezer box*25)	12	300	30000
	LSL304-552B-FG	2 inch stainless steel side -access freezer rack 5*5 (2 inch freezer box*25)	12	300	30000
LUF-86-105	LSL304-552B-CT	2 inch stainless steel sliding -drawer freezer rack 5*5 (2 inch freezer box*25)	16	400	40000
	LSL304-552B-FG	2 inch stainless steel side -access freezer rack 5*5 (2 inch freezer box*25)	16	400	40000
LUF-86-106	LSL304-552B-CT	2 inch stainless steel sliding -drawer freezer rack 5*5 (2 inch freezer box*25)	20	500	50000
	LSL304-552B-FG	2 inch stainless steel side -access freezer rack 5*5 (2 inch freezer box*25)	20	500	50000
LUF-86-107	LSL304-552B-CT	2 inch stainless steel sliding -drawer freezer rack 5*5 (2 inch freezer box*25)	24	600	60000
	LSL304-552B-FG	2 inch stainless steel side -access freezer rack 5*5 (2 inch freezer box*25)	24	600	60000
LUF-86-108	LSL304-552B-CT	2 inch stainless steel sliding -drawer freezer rack 5*5 (2 inch freezer box*25)	12	660	66000
	LSL304-652B-CT	2 inch stainless steel sliding -drawer freezer rack 6*5 (2 inch freezer box*30)	12		
	LSL304-552B-FG	2 inch stainless steel side -access freezer rack 5*5 (2 inch freezer box*25)	12	660	66000
	LSL304-652B-FG	2 inch stainless steel side -access freezer rack 6*5 (2 inch freezer box*30)	12		
LUF-86-109	LSL304-552B-CT	2 inch stainless steel sliding -drawer freezer rack 5*5 (2 inch freezer box*25)	14	770	77000
	LSL304-652B-CT	2 inch stainless steel sliding -drawer freezer rack 6*5 (2 inch freezer box*30)	14		
	LSL304-552B-FG	2 inch stainless steel side -access freezer rack 5*5 (2 inch freezer box*25)	14	770	77000
	LSL304-652B-FG	2 inch stainless steel side -access freezer rack 6*5 (2 inch freezer box*30)	14		

-86°C ULTRA LOW TEMPERATURE FREEZER CHEST LCF-86-100 SERIES

Labocon -86°C Ultra Low Temperature Freezer Chest type LCF-86-100 Series has the finest standards of quality construction and excellent refrigeration system. These are equipped with durable steel, audio / visual alarm function and CFC & HCFC free refrigerant.

Features

- ▶ Stainless steel interior and painted steel board exterior
- ▶ Door with key lock and rotatable door handle
- ▶ Two-times foaming technology with double seal design
- ▶ High density Polyurethane foam with thickness of 155mm & Advance Six side VIP(Vacuum Insulated Panel)
- ▶ Digital temperature display
- ▶ Microprocessor-based temperature controller
- ▶ Danfoss compressor and EBM fan electromotor
- ▶ Unique refrigeration circulation and unipolar compressor oil-lubricated technology
- ▶ Mixed Refrigerant: CFC Free R134a, R404a, R23, R410A, N2
- ▶ Temperature printer which record 7 days data
- ▶ 72 hours battery backup for printer and controller display
- ▶ Keyboard lock and password protected configuration page
- ▶ 4 units casters for easy handling
- ▶ Safety functions: audible and visual alarm for high or low temperature, power failure, low battery, door open, filter blocking, system failure
- ▶ Optional: Chart recorder, CO2 back up, storage racks/boxes, remote alarm system

Application

Labocon -86°C Ultra Low Temperature Freezer Chest type LCF-86-100 Series is widely used in hospitals, clinics, blood banks and research institutes for incubation or preservation of plasma, tissue cultures, microbial cultures etc.

Specification

Model	LCF-86-101	LCF-86-102	LCF-86-103	LCF-86-104	LCF-86-105
Capacity (L)	50 L	138 L	328 L	400 L	668 L
Temp. range	-10°C to -86°C				
Internal Dimension (W x D x H)	343x343x415	470x570x490	470x1200x582	540x1270x590	815x1200x660
Overall Dimension (W x D x H)	600x560x910	890x1320x1009	890x2005x1009	890x2005x1009	1150x2050x1009
Power supply	300 W	800 W	1500 W	1500 W	2500 W
Weight (Net/ Gross) (kg)	60/66 kg	230/250 kg	300/320 kg	320/340 kg	340/360 kg
Catalog no.	9428120343	9428121343	9428122343	9428123343	9428124343



LCF -86°C - 101



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