

ULTRA LOW TEMPERATURE FREEZERS



ULTRA LOW TEMPERATURE FREEZERS

Ultra Low-Temperature Freezers are pieces of equipment that are used for the storage of drugs, tissue samples, enzymes & other biological products. The ULT refrigeration system consists of a compressor, an evaporator, a condenser, an expansion valve, and interconnecting tubing. In Ultra-low temperature freezers, the circulation of the cooling air is forced by an engine-driven fan, and the expansion of the refrigerant fluids is obtained by capillary tubes. The steel plate exchangers with coil perform evaporation and the coil in the cabinet eliminates the efficiency issue in the heat exchange of freezers with the coil in the insulation cavity.

LTFRE10-2 -150°C ULTRA LOW TEMPERATURE FREEZER CHEST

Unique insulated inner door design for four separate storage compartments to minimize frost build-up inside the chamber

Specialized control system design for well-balanced operation of cascade refrigeration system

Unique door seal design for the minimum loss of cold temperature during door opening

200 mm thickness without CFC insulation to minimize cabinet heat gain and to improve temperature stability

Audible and visible alarm

Microprocessor-controlled system designed for controlled range of -40°C-150°C or cabinet space with 1°C increment

Settable high temperature and low temperature alarms



SPECIFICATIONS

Model	LTFRE10-2
Capacity	128 L
Temperature Range	-40°C~-150°C
Ambient Temperature	10°C ~ +32°C
Defrosting	Manual
Cooling Type	Direct Cooling
Insulation Material	PURF
Refrigerant	Mixed-gas
Internal Dimension	500x450x578 mm
Overall Dimension	1555x956x1047 mm
Package Size	1637x970x1295 mm
Interior	Stainless steel
Exterior	Color sprayed steel
Controller	Microprocessor
Rated Power	2550 W
Rated Current A	4.6 A
Power Supply	380V/50HZ

LTFRE23 ULTRA LOW TEMPERATURE FREEZERS

LED digital display and increment at 0.1°C

Permanently lubricated cooling fan for safety and longevity

Independent inner door to avoid more cooling leaking out, and provide more stable inside temperature performance

High density CFC-Free urethane foam insulation

Build-in lock with safety

Lockable caster design

Chemically stable, CFC -free, commercially available and environmentally safe refrigerant

Optimized refrigeration system designed to maximize cooling effect and temperature uniformity

Visible and Audible alarm

Corrosion proof cabinet interior design

Power failure protect: the device would be attack by the high current when all devices restart simultaneously, the start-delay function would protect device from the damage



SPECIFICATIONS

Model	LTFRE23-1	LTFRE23-2
Capacity	105 L	485 L
Temperature Range	-10°C to -40°C	
Ambient Temperature	10°C ~ +32°C	
Defrosting	Manual	
Cooling Type	Direct Cooling	
Insulation Material	PURF	
Refrigerant	HC-R290	
Internal Dimension	480x380x665 mm	1455x525x665 mm
Overall Dimension	680x580x935 mm	1655x755x915 mm
Package Size	740x680x970 mm	1750x875x1050 mm
Interior	Stainless steel	
Exterior	Color sprayed steel	
Controller	Microprocessor, Digital display	
Sensor	NTC	
Compressor Brand/QTY	CUBIGEL/1	
Condenser	Wire tube	
Noise Level	50 db	55 db
Alarm	High/low temperature, Power off, Sensor malfunction, Temperature controller malfunction	
Standard Accessories	Foot, Castor, Test hole 1/25 mm	Foot, Castor
Weight (Net/Gross)	62/70 kg	124 /138 kg
Rated Power	120 W	295 W
Power Consumption (Kwh/24hrs)	1.65	3.45
Rated Current A	1.05	2.45
Power Supply	220V, 50Hz	
Optional Accessories	-	Test hole 1/25 mm



LTFRE23-1



LTFRE23-2

LTFRE22 ULTRA LOW TEMPERATURE FREEZERS

LED digital display and increment at 0.1°C

Permanently lubricated cooling fan for safety and longevity

Independent inner door to avoid more cooling leaking out, and provide more stable inside temperature performance

High density CFC-Free urethane foam insulation

Build-in lock with safety

Lockable caster design

Chemically stable, CFC -free, commercially available and environmentally safe refrigerant

Optimized refrigeration system designed to maximize cooling effect and temperature uniformity

Visible and Audible alarm

Corrosion proof cabinet interior design

Power failure protect: the device would be attack by the high current when all devices restart simultaneously, the start-delay function would protect device from the damage



SPECIFICATIONS

Model	LTFRE22-2	LTFRE22-3	LTFRE22-4
Capacity	268 L	278 L	328 L
Temperature Range	-30°C to -40°C		
Ambient Temperature	10°C ~ +32°C		
Defrosting	Manual		
Cooling Type	Direct Cooling		
Insulation Material	PURF		
Refrigerant	R290		
Internal Dimension	508x455x1137 mm	480x415x1460 mm	508x455x1393 mm
Overall Dimension	673x676x1630 mm	659x600x1694 mm	685x670x1900 mm
Package Size	770x770x1804 mm	710x650x1800 mm	770x770x2040 mm
Drawers/Shelves	Shelves	Drawers	Shelves
Interior	Color sprayed steel		
Exterior	Color sprayed steel		
Controller	Microprocessor, Digital display		
Sensor	NTC		
Compressor Brand/QTY	CUBIGEL/1		
Condenser	Wire tube	Inside foaming	Wire tube
Noise Level	48 db	50 db	

Alarm	High/low temperature, Power off, Sensor malfunction, Temperature controller malfunction	High/low temperature, Sensor malfunction, Temperature controller malfunction, Door ajar	High/low temperature, Power failure, Sensor malfunction, Temperature controller malfunction, Door ajar
Standard Accessories	Caster	Foot, Castor, Inner door-7drawers	Foot, Castor, Inner door, Remote alarm port
Optional Accessories	Test hole	USB data logging, Temperature recorder	Test hole, USB data logging, Temperature recorder
Weight (Net/Gross)	98.5/115 kg	110/120 kg	113/131 kg
Rated Power	300 W	185 W	300 W
Power Consumption (Kwh/24hrs)	4	1.5	4
Rated Current A	1.6 A	1.5 A	1.6 A
Power Supply	220 V, 50 Hz		

Model	LTFRE22-5	LTFRE22-6
Capacity	528 L	936 L
Temperature Range	-20°C to -40°C	-25°C to -40°C
Ambient Temperature	10°C ~ +32°C	
Defrosting	Manual	
Cooling Type	Direct Cooling	
Insulation Material	PURF	
Refrigerant	R290	Mixed-gas
Internal Dimension	(651x631.5x635)x2 mm	1000x700x1335 mm
Overall Dimension	900x818.5x1828 mm	1304x1000x2017 mm
Package Size	997x912x1982 mm	1350x1080x2150 mm
Drawers/Shelves	Shelves	
Interior	Color sprayed steel	Stainless steel
Exterior	Color sprayed steel	
Controller	Microprocessor, Digital display	
Sensor	NTC	PTC
Compressor Brand/QTY	SECOP/1	
Condenser	Copper tube	Copper tube and finned
Noise Level	55 db	50 db
Alarm	High/low temperature, Power failure, Sensor malfunction, Temperature controller malfunction	High/low temperature, Power failure, Sensor malfunction, Filter screen check, Temperature controller malfunction, Low battery, Condenser clean, High ambient temperature, Door ajar
Standard Accessories	Foot, Castor, Inner door-9 drawerx2, Test hole 2/25 mm, Remote alarm port	Castor, Inner door, Test hole 1/18 mm, Remote alarm port, USB port
Optional Accessories	USB data logging, Temperature recorder	
Weight (Net/Gross)	160/180 kg	310/330 kg
Rated Power	345 W	1000 W
Power Consumption (Kwh/24hrs)	6.7	14.5
Rated Current A	2.9 A	5.8 A
Power Supply	220 V, 50 Hz	



LTFRE22-2



LTFRE22-3



LTFRE22-4



LTFRE22-5



LTFRE22-6

LTFRE24 ULTRA LOW TEMPERATURE FREEZERS

LED digital display and increment at 0.1°C

Permanently lubricated cooling fan for safety and longevity

Independent inner door to avoid more cooling leaking out, and provide more stable inside temperature performance

High density CFC-Free urethane foam insulation

Chemically stable, CFC -free, commercially available and environmentally safe refrigerant

Corrosion proof cabinet interior design

Optimized refrigeration system designed to maximize cooling effect and temperature uniformity

Power failure protect: the device would be attack by the high current when all devices restart simultaneously, the start-delay function would protect device from the damage

Wide voltage tolerance design with applicable voltage range of 187-242V/AC

Audible buzzing and visual flashing light



SPECIFICATIONS

Model	LTFRE24-1	LTFRE24-2
Capacity	105 L	485 L
Temperature Range	-25°C to -60°C	
Ambient Temperature	10°C ~ +32°C	
Defrosting	Manual	
Cooling Type	Direct Cooling	
Insulation Material	PURF	
Refrigerant	CFC-Free	
Internal Dimension	480x380x665 mm	1455x525x665 mm
Overall Dimension	680x580x935 mm	1655x755x915 mm
Package Size	740x685x1040 mm	1750x900x1040 mm
Interior	Stainless steel	

Exterior	Color sprayed steel	
Controller	Microprocessor, Digital display	
Sensor	NTC	PTC
Compressor Brand/QTY	CUBIGEL/1	
Noise Level	53 db	55 db
Alarm	High/low temperature, Sensor malfunction, Thermostat failure	
Standard Accessories	Caster, Test hole 1/25 mm	
Optional Accessories	Temperature recorder	
Weight (Net/Gross)	62 / 70 kg	124 / 138.5 kg
Rated Power	280 W	450 W
Power Consumption (Kwh/24hrs)	4.2	8.05
Power Supply	220V, 50Hz	



LTFRE24-1



LTFRE24-2

LTFRE26 -10°C TO -86°C ULTRA LOW TEMPERATURE FREEZER CHEST

- Settable high temperature and low temperature alarms
- Automatic clean-filter alarm and sensor error alert
- Adjustable storage shelf height
- Unique insulated inner door design for four separate storage compartments to minimize frost buildup inside the chamber
- Specialized control system design for a well-balanced operation of cascade refrigeration system
- Audible and visible alarm
- Door open feature standard and USB port for temperature data downloading standard on upright models
- Remote alarm contacts
- Unique door seal design for the minimum loss of cold temperature during a door opening
- High performance VIP insulation panels to minimize cabinet heat gain and to improve temperature stability



SPECIFICATIONS

Model	LTFRE26-1	LTFRE26-2
Capacity	105 L	485 L
Temperature Range	-40°C to -86°C	
Ambient Temperature	10°C ~ +32°C	
Defrosting	Manual	

Cooling Type	Direct Cooling	
Insulation Material	PURF	
Refrigerant	Mixed-gas	
Internal Dimension	480x380x665 mm	1455.5x525.2x674 mm
Overall Dimension	680x580x935 mm	1695x840x962 mm
Package Size	770x705x1090 mm	1765x900x1060 mm
Interior	Stainless steel	
Exterior	Color sprayed steel	
Controller	Microprocessor, Digital display	
Sensor	PTC	
Compressor Brand/QTY	CUBIGEL/1	SECOP/1
Evaporator	Submerged coil evaporator	
Evaporator Material	Copper tube evaporator	
Condenser	Copper tube and finned	
Noise Level	50 db	54.5 db
Alarm	High/low temperature, Sensor malfunction, Thermostat failure	
Standard Accessories	Castor, Test hole 1/25 mm	
Optional Accessories	Chart recorder, Data logger, CO2 backup system, LN2 backup system	
Weight (Net/Gross)	42/45 kg	130/150 kg
Power Consumption (Kwh/24hrs)	3.8	11.5
Rated Current A	2.2	3.57
Power Supply	220V, 50Hz	



LTFRE26-1



LTFRE26-2

LTFRE27 -10°C TO -86°C ULTRA LOW TEMPERATURE FREEZER UPRIGHT

- Settable high temperature and low temperature alarms
- Automatic clean-filter alarm and sensor error alert
- Adjustable storage shelf height
- Unique insulated inner door design for four separate storage compartments to minimize frost buildup inside the chamber
- Specialized control system design for a well-balanced operation of cascade refrigeration system
- Audible and visible alarm
- Door open feature standard and USB port for temperature data downloading standard on upright models
- Remote alarm contacts
- Unique door seal design for the minimum loss of cold temperature during a door opening
- High performance VIP insulation panels to minimize cabinet heat gain and to improve temperature stability



SPECIFICATIONS

Model	LTFRE27-2	LTFRE27-3	LTFRE27-4	LTFRE27-5
Capacity	188 L	338 L	340 L	408 L
Temperature Range	-40°C to -86°C			
Ambient Temperature	10°C ~ +32°C			
Temperature Increment	1°C			
Defrosting	Manual			
Cooling Type	Direct Cooling			
Insulation Material	PURF			
Refrigerant	Mixed-gas	HC	Mixed-gas	
Internal Dimension	465x465x830 mm	488x607x1140 mm		606x575x1180 mm
Overall Dimension	830x810x1607.5 mm	854x1072x1907 mm	854x1006x1907 mm	872x1028x1945.5 mm
Package Size	915x928x1818 mm	935x1070x2128 mm		954x955x2094 mm
Drawers/Shelves	Stainless steel shelf/2	Stainless steel shelf/3		
Interior	Stainless steel			
Exterior	Color sprayed steel			
Controller	Microprocessor, Digital display			
Sensor	PTC			
Compressor Brand/QTY	CUBIGEL/1	SECOP/2	SECOP/1	
Evaporator	Submerged coil evaporator			
Evaporator Material	Copper tube evaporator			
Condenser	Copper tube and finned			
Noise Level	60 db	50 db	60 db	50 db
Alarm	High/low temperature, Sensor malfunction, Thermostat failure	High/low temperature, Power off, Sensor malfunction, Abnormal voltage, Filter screen check, Thermostat failure, Low battery, Condenser clean, High ambient temperature, Door ajar		
Standard Accessories	Castor, Inner doorx3, Test hole 1/25 mm	Castor, Inner doorx2, Test hole 2/25 mm, USB port	Castor, Inner doorx2, Test hole 1/25 mm, USB port	

Optional Accessories	Data logger, CO2 backup system, LN2 backup system, Temperature recorder, Storage racks and storage box			
Weight (Net/Gross)	207 / 222 kg	286 / 306 kg	268 / 288 kg	268 / 293 kg
Rated Power	610 W	870 W	668 W	735 W
Power Consumption (Kwh/24hrs)	8.2	12.8	11.2	11
Rated Current A	3.3	6.75	3.5	4.5
Power Supply	220V, 50Hz			

Model	LTFRE27-6	LTFRE27-7	LTFRE27-8	LTFRE27-9
Capacity	408 L		588 L	
Temperature Range	-40°C to -86°C			
Ambient Temperature	10°C ~ +32°C			
Temperature Increment	1°C			
Defrosting	Manual			
Cooling Type	Direct Cooling			
Insulation Material	PURF			
Refrigerant	HC	Mixed-gas		HC
Internal Dimension	606x575x1180 mm		606x738x1310 mm	
Overall Dimension	891x992x1945.5 mm		872x1192x1994.5 mm	891x1155x1994.5 mm
Package Size	954x955x2094 mm		970x1138x2185 mm	
Drawers/Shelves	Stainless steel shelf/3			
Interior	Stainless steel			
Exterior	Color sprayed steel			
Controller	Microprocessor, Digital display			
Sensor	PTC			
Compressor Brand/QTY	SECOP/2			
Evaporator	Submerged coil evaporator			
Evaporator Material	Copper tube evaporator			
Condenser	Copper tube and finned			
Noise Level	55 db	53 db		55 db
Alarm	High/low temperature, Power off, Sensor malfunction, Abnormal voltage, Filter screen check, Thermostat failure, Low battery, Condensor clean, High ambient temperature, Door ajar			
Standard Accessories	Caster, Inner doorx2, Test hole 1/25 mm, USB port			
Optional Accessories	Data logger, CO2 backup system, LN2 backup system, Temperature recorder, Storage racks and storage box			
Weight (Net/Gross)	292 / 317 kg	285 / 310 kg	303 / 332 kg	335 / 363.5 kg
Rated Power	845 W	725 W	1400 W	815 W
Power Consumption (Kwh/24hrs)	11.6	14.5	12.5	12
Rated Current A	7	5.7	8.5	7
Power Supply	220V, 50Hz			

Model	LTFRE27-10	LTFRE27-12	LTFRE27-13	LTFRE27-14
Capacity	588 L	728 L	838 L	
Temperature Range	-40°C to -86°C			
Ambient Temperature	10°C ~ +32°C			
Temperature Increment	1°C			
Defrosting	Manual			
Cooling Type	Direct Cooling			

Insulation Material	PURF			
Refrigerant	Mixed-gas	HC	Mixed-gas	HC
Internal Dimension	606x738x1310 mm	963x558x1350 mm	894x718x1310 mm	
Overall Dimension	891x1155x1994.5 mm	1248x975x1994.5 mm	1160x1172x1994.5 mm	1179x1135x1994.5 mm
Package Size	970x1138x2185 mm	1320x970x2185 mm	1212x1098x2185 mm	
Drawers/Shelves	Stainless steel shelf/3			
Interior	Stainless steel			
Exterior	Color sprayed steel			
Controller	Microprocessor, Digital display			
Sensor	PTC			
Compressor Brand/QTY	SECOP/2			
Evaporator	Submerged coil evaporator			
Evaporator Material	Copper tube evaporator			
Condenser	Copper tube and finned			
Noise Level	50 db	53 db	55 db	
Alarm	High/low temperature, Power off, Sensor malfunction, Abnormal voltage, Filter screen check, Thermostat failure, Low battery, Condensor clean, High ambient temperature, Door ajar			
Standard Accessories	Castor, Inner doorx2, Test hole 1/25 mm, USB port			
Optional Accessories	Data logger, CO2 backup system, LN2 backup system, Temperature recorder, Storage racks and storage box			
Weight (Net/Gross)	303 / 332 kg	320 / 350 kg	391 / 424 kg	397 / 430 kg
Rated Power	1400 W	935 W	840 W	890 W
Power Consumption (Kwh/24hrs)	16.5	15.4	14.5	15
Rated Current A	8.5	7	6.5	7
Power Supply	220V, 50Hz			

Model	LTFRE27-15
Capacity	838 L
Temperature Range	-40°C to -86°C
Ambient Temperature	10°C ~ +32°C
Temperature Increment	1°C
Defrosting	Manual
Cooling Type	Direct Cooling
Insulation Material	PURF
Refrigerant	Mixed-gas
Internal Dimension	894x718x1310 mm
Overall Dimension	1179x1135x1994.5 mm
Package Size	1212x1098x2185 mm
Drawers/Shelves	Stainless steel shelf/3
Interior	Stainless steel
Exterior	Color sprayed steel
Controller	Microprocessor, Digital display
Sensor	PTC
Compressor Brand/QTY	SECOP/2
Evaporator	Submerged coil evaporator
Evaporator Material	Copper tube evaporator
Condenser	Copper tube and finned

Noise Level	-
Alarm	High/low temperature, Power off, Sensor malfunction, Abnormal voltage, Filter screen check, Thermostat failure, Low battery, Condensor clean, High ambient temperature, Door ajar
Standard Accessories	Castor, Inner doorx2, Test hole 1/25 mm, USB port
Optional Accessories	Data logger, CO2 backup system, LN2 backup system, Temperature recorder, Storage racks and storage box
Weight (Net/Gross)	391 / 424 kg
Rated Power	840 W
Power Consumption (Kwh/24hrs)	14.25
Rated Current A	6.5
Power Supply	220V, 50Hz



LTFRE27-2



LTFRE27-3



LTFRE27-4



LTFRE27-5



LTFRE27-6



LTFRE27-7



LTFRE27-8



LTFRE27-9



LTFRE27-10



LTFRE27-12



LTFRE27-13



LTFRE27-14



LTFRE27-15

LTFRE27-16 -40°C TO -86°C ULTRA LOW TEMPERATURE FREEZER UPRIGHT

Self-cascade system with mixed-refrigerant



SPECIFICATIONS

Model	LTFRE27-16
Capacity	728 L
Temperature Range	-40°C to -86°C
2ml Sample Loading	50400pcs
Alarm	High&low temp, power failure, control error, door open, abnormal voltage, low battery, condensor clean, high ambient temperature
Alarm port	USB+Remote alarm port
External Dimension	1229×1012×1994.5 mm
Optional Parts	110V transformer; Datalogger; Cold storage rack, box; LN2/CO2 backup system

LTFRE27-17 -40°C TO -86°C ULTRA LOW TEMPERATURE FREEZER UPRIGHT

Cascade system, HC green refrigerant R290 & R170, Energy saving), Touch Screen, VIP



SPECIFICATIONS

Model	LTFRE27-17
Capacity	728 L
Temperature Range	-40°C to -86°C

2ml Sample Loading	50400pcs
Alarm	High&low temp, power failure, control error, door open,abnormal voltage, low battery, condensor clean, high ambient temperature
Alarm port	USB+Remote alarm port
External Dimension	1229×1012×1994.5 mm
Optional Parts	110V transformer; Datalogger; Cold storage rack, box; LN2/CO2 backup system

LTFRE22-7 -10°C TO -40°C ULTRA LOW TEMPERATURE FREEZER UPRIGHT

Double Door, Drawer x 12, USB port



SPECIFICATIONS

Model	LTFRE22-7
Capacity	358 L
Temperature Range	-20 to -40°C
Alarm	High&low temp, power failure, control error, door open, high ambient temperature
External Dimension	720×830×1870 mm
Power	187~242V, 50/60Hz
Optional Parts	110V transformer; Datalogger

LTFRE22-8 -10°C TO -40°C ULTRA LOW TEMPERATURE FREEZER CHEST



SPECIFICATIONS

Model	LTFRE22-8
Capacity	305 L
Temperature Range	-20 to -40°C
Alarm	High&low temp, control error, power failure
External Dimension	1218x840x940 mm
Power	187~242V, 50/60Hz
Optional Parts	110V transformer; Datalogger



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