

Seltis

Specialist In Medical Lab Freezers



The Ultra Low temperature freezer is used for rapid freezing and long term storage. The equipment is also applied to the laboratory materials for researches such as DNA, RNA, biological cells, organic tissues, blood samples, antibodies etc.

PRODUCT FEATURES

STRUCTURE

- Anti-corrosion 304 grade Stainless Steel Interior with epoxy powder Coated cold rolled 1.2mm thick steel exterior.
- Stainless Steel Compartments with adjustable SS Shelves and polystyrene insulated washable and removable SS inner doors.
- Use of Polyurethane Foam with 80mm Vacuum Insulation panel.
- Triple Sealed Silicon gasket to minimize Cold air loss and assure stable temperature.
- System takes less than 4 hrs to achieve -86°C temperature with empty freezer.
- Washable and removable Front panel Condenser air filter.
- Heavy duty Swivel locking Castors and two front to back adjustable leveling feet.
- System provides power management and fluctuation correction through Voltage regulator / booster.
- Ergonomic door design with door Key lock and pad lock system with optional RFID and fingerprint access for additional sample security.
- Easy to open integrated outer door latch and handle allows one handed opening and closing.
- Rim Heating on the door panel to avoid frosting.
- Warm up time of empty freezer from -86°C to -40°C is 4-6hrs.
- Warm up time of sample loaded freezer from -86°C to 0°C is more than 45hrs
- Air Cooled Condenser and aero dynamic axial fan motor.
- Decompression valve / auto heated pressure equalization port for easy door opening instantly
- Automatic defrost system.
- System provides all door opening and closing duration status record.
- Temperature recovery in less than 15 minutes after door opening for one minute.



CONTROL & SAFETY SYSTEM

- Microprocessor Eye Level LED touch screen control shows temperature graph & various operating parameters like cabinet temperature, set temperature, voltage & ambient temperature on the control panel with on board data recording and USB port for data transfer upto 10-15 years
- All error/faults displays on control board through self diagnostic system including filter and battery change.
- Battery back for temperature display and alarm for more than 72 hrs incase of power failure.
- Audio & Visual alarm incase of power failure, high and low temperature, filter clean, hot condenser, door ajar, Low battery, Sensor error, System failure, abnormal voltage etc.
- Programmable high & Low temperature alarm with on/off power switch and lockable on/off alarm.
- Six PIN Password protections for sample security, power, temperature and alarm settings.
- Automatic restart and restoration of alarm and set points to user programmed level after power interruption.

REFRIGERATION SYSTEM

- High performance and energy saving mode using two stage CFC, HFC & HCFC Free environment friendly non flammable cascade refrigeration system with hermetically dual compressors.
- High & Low Cut facility for Compressors.
- Large thermal box insulated brazed plate heat exchanger ensuring optimal heat removal and system stability when operating in extreme conditions.
- Down feed Cold wall evaporator design provides superior refrigerant flow and maximizes cooling power and ensures maximum cold transfer into the freezer and heat removal from the chamber.
- Evaporator design enhances refrigerant flow increasing the overall efficiency, temperature uniformity and recovery performance.
- Time delay and temperature delay mode of operation for second stage compressors.
- Inverter technology compressor for low power consumption.

-86°C Ultra Low Temperature Deep Freezer

Basic	Model	ST-86V411	ST-86V525	ST-86V585	ST-86V651	ST-86V725	ST-86V840	ST-86V950
	Cabinet Type	Upright						
	Compartment	4/5						
	Door	2/4/5						
	Cooling Type	Direct Cooling						
	Ground Clearance (mm)	100/128						
	Temperature Performance	-86°C (±2°C)						
	Refrigerant	R290 / R170						
	Power Consumption(kWh/day)	7.5 kwh	7.5 kwh	7.5 kwh	9.5 kwh	9.5 kwh	9.5 kwh	11 kwh
	Noise Level(db)	48						
	Ambient Temperature (C)	10°C~45°C						
	Temperature Range (C)	-50°C~ -86°C						
	Compressor	1hp x 2						
	Temperature Uniformity	±2°C						
	Temperature Controller	Microprocessor 7" LED / LCD Touch Screen with 0.1°C/1°C increment						
	Sensor Type	PT100/PT1000						
	Voltage / Frequency	220V/50Hz						
	Heat Output(W)	320	330	330	360	370	380	390
	Electricity (A)	7	7	7	7	7	7	7
	Capacity (L)	411	525	585	651	725	840	950
	Net/Gross Weight(Kg)	270/295	290/315	310/325	325/350	345/370	390/405	410/425
	Outer Size (WxDxH)mm	785x995x1945	840x995x1945	880x995x1955	940x995x1955	995x1000x1955	1100x1030x1955	1160x1040x1995
	Inner Size (WxDxH)mm	470x695x1260	600x695x1260	670x695x1260	745x695x1260	830x695x1260	960x695x1260	1000x695x1295
	High / Low Temperature	√						
	Power	√						
	Abnormal Voltage	√						
	Sensor Malfunction	√						
	Filter Check	√						
	Temp. Controller Malfunction	√						
	Battery Backup Malfunction	√						
	Ambient Temperature	√						
	Door Ajar	√						
	Test Hole/Diameter	3/25mm						
	Foot	√						
	USB Port	√						
	Remote Alarm Contact	√						
	RS232/485 Port (4-20ma Output) Dry Contacts	√						
	Castor	√						
	Certification	ISO 9001, CE Certified, FDA, UL, IEC 60601-1 & IEC 61010-1, ROHS						

(Design and Dimensions are subject to change without notice for further improvement)

Accessory



Upright rack



Sliding rack



Chest rack



Poly Carbonate Box (2")



Co2 / Ln2 Backup System



U-System
(remote alarm, wireless control system)



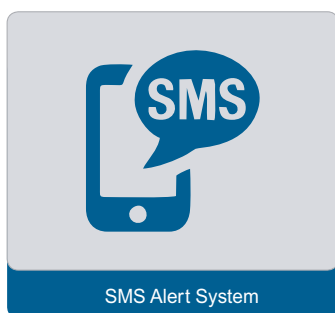
Frost remover



Cryogenic gloves(Cryo gloves)



Circular 7 days chart recorder



SMS Alert System

SLIDING STORAGE RACKS AND BOXES INFORMATION

Model	Compartments	Total Racks	Racks Type	Total Boxes	Total 2ml Vials
ST-86 V411	4	16	(5x4) (4x4)	288	28800
ST-86 V525	4	16	(5x5) (5x4)	360	36000
ST-86 V585	4	16	(5x5)	400	40000
ST-86 V651	4	20	(5x5) (5x4)	450	45000
ST-86 V725	4	20	(5x5)	500	50000
ST-86 V840	4	24	(5x5)	600	60000
ST-86 V950	4	28	(5x5)	700	70000

Mfr SELECT REFRIGERATION

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