

-86°C Ultra Low Temperature Freezer

Energy-saving Series

Hydrocarbon refrigeration, saving power by 50%



World Leading Energy-Efficient



Hydrocarbon Refrigeration System



Slim Cabinet Design



Reliable Sample Protection



Malfunction Alarms



Excellent Insulation Performance

Suitable for blood stations, hospitals, disease control and prevention centers, scientific research institutions, and all related medical and life science laboratories.



Product Features



Field Proven Reliability

- Unique insulated inner door design for four separate storage compartments to minimize frost build-up inside the chamber
- Specialized control system design for a well-balanced operation of cascade refrigeration system
- Positive field proven reliability record



Safety

- Malfunction alarms including high and low temperature, power failure, sensor error, clean-filter, and extremely high ambient
- Capable of producing two types of alarm outputs: audible buzzer and visible flashing light
- Multiple built-in system protection features including user-settable protection code for controls, user settable delay to start, voltage compensation system, and protection against extreme high voltages
- Door open feature standard and USB port for temperature data downloading standard on upright models
- Remote alarm contacts



Energy Saving

- 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
- Patented cabinet insulation system designed for optimal performance of cold storage temperature and minimal frost buildup
- Unique design of independent insulated inner door systems for independent access of storage space to provide the maximum protection of stored samples



Installation & Application

- Wide range operating voltage system from 185V to 260V designed to allow units installed in areas with poor voltage condition
- Suitable for 10°C to 32°C ambient temperature
- Input voltage and ambient temperature shown simultaneously for ease of monitoring environmental conditions
- Robust door latch designed for secure door closing
- Compact casters for ease of maneuvering



Key Design Features

- Microprocessor-controlled system designed for controllable range of -40°C to -86°C for cabinet space with 1°C increment
- Large LED display for cabinet temperature, set temperature, ambient temperature, and input voltage
- Settable high temperature and low temperature alarms
- Automatic clean-filter alarm and sensor error alert
- Adjustable storage shelf height
- Optional temperature recorder, storage racks and storage boxes



Low Sound Level

- Specialized refrigeration system design using whisper quiet fan and compressors
- Freezer chassis designed to absorb vibration and sound

Product Parts



4 Individual Removable Foam Inner Doors

- 4 individual inner doors can be opened independently to minimize frost buildup inside the chamber
- Unique door seal design for the minimum loss of cold temperature during a door opening
- Compatibility with existing racking system from competitors
- Stainless steel handle to ensure proper strength for door latching
- Some interior door handles have been upgraded to stainless steel for more comfortable door opening experience



Excellent Doors Seals

- Total of five gaskets to safeguard the freezer temperature, including four seals for the exterior door, one for each inner door



- Optimized slideway design, easier to open and close the door



Pressure Equalization Port

- Heated port with spring-assisted mechanism to prevent icing on the vent
- Allows re-accessing the freezer after initial door opening
- Adopts chromium plating, rust-proof



OLSC-119-80-18



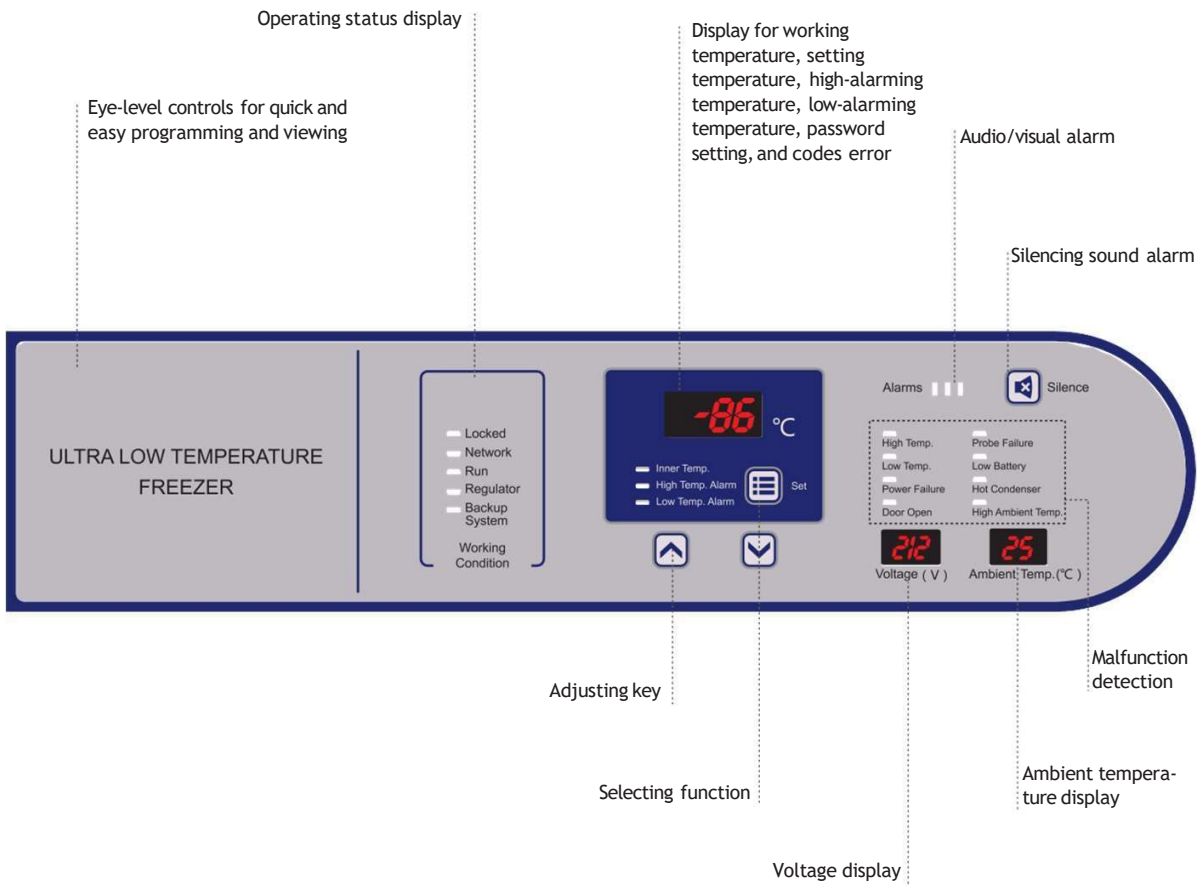
Circular-chart Recorder (Optional)

- Front-mounted
- For independent temperature monitoring

High Efficiency Refrigeration Components

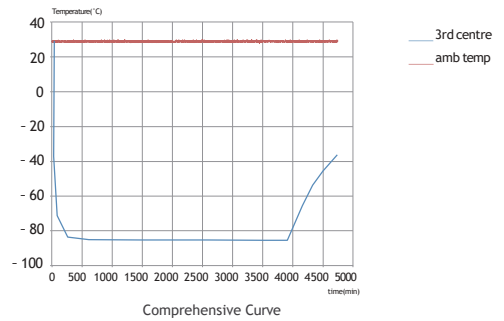
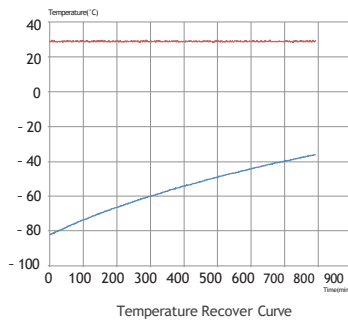
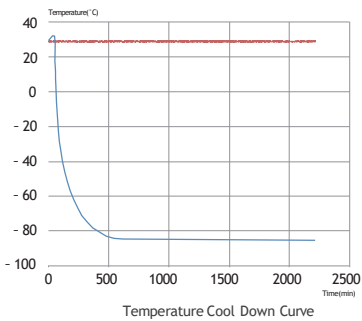


- Two port holes for ease of temperature monitoring



Product Performance

TYPICAL PERFORMANCE CHARACTERISTICS AT 25 °C AMBIENT





Model		OLSC-119-80-16			OLSC-119-80-18			OLSC-119-80-20			OLSC-119-80-28		
Data Technical	Cabinet Type	Upright			Upright			Upright			Upright		
	Climate Class	N			N			N			N		
	Cooling Type	Direct Cooling			Direct Cooling			Direct Cooling			Direct Cooling		
	Defrost Mode	Manual			Manual			Manual			Manual		
	Refrigerant	HC			HC			HC			HC		
	Sound Level (dB(A))	50			49			50			50	51.5	
Performance	Cooling Performance (°C)	-86			-86			-86			-86		
	Temperature Range (°C)	-40--86			-40--86			-40--86			-40--86		
Control Data	Controller	Microprocessor			Microprocessor			Microprocessor			Microprocessor		
	Display	LED			LED			LED			LED		
Electrical	Power Supply (V/Hz)	220-240/50	120/60	208-230/60	220-240/50	220-240/50	120/60	208-230/60	120/60	208-230/60			
	Electrical Current(A)	7.5	12	9	11	10	18	10	10	10			
Dimensions	Capacity (L/Cu.Ft)	578/20.4			626/22.1			728/25.7			828/29.2		
	Net/Gross Weight (approx)	kg	300/330			301/323			345/385			380/410	
		lbs	661.4/727.5			664.0/712.0			760.6/848.8			837.7/903.9	
	Interior Dimension (W*D*H)	mm	620*716*1310			760*630*1310			766*716*1310			870*716*1310	
		in	24.4*28.2*51.6			29.9*24.8*51.6			30.2*28.2*51.6			34.3*28.2*51.6	
	Exterior Dimension (W*D*H)	mm	903*980*1960			1035*900*1980			1049*980*1980			1145*980*1980	
		in	35.6*38.6*77.2			40.7*35.4*78.0			41.3*38.6*78.0			45.1*38.6*78.0	
	Packing Dimension (W*D*H)	mm	970*1085*2130			1110*1005*2130			1120*1090*2130			1240*1080*2130	
in		38.2*42.7*83.9			43.7*39.6*83.9			44.1*42.9*83.9			48.8*42.5*83.9		
Functions	Container Load (20'/40'/40H)	12/24/24			12/24/24			10/22/22			5/11/11		
	High/Low Temperature	Y			Y			Y			Y		
	Hot Condenser	Y			Y			Y			Y		
	Power Failure	Y			Y			Y			Y		
	Sensor Error	Y			Y			Y			Y		
	Low Battery	Y			Y			Y			Y		
	High Ambient Temperature	Y			Y			Y			Y		
	Door Ajar	Y			Y			Y			Y		
	Caster	Y			Y			Y			Y		
	Foot	Y			Y			Y			Y		
Accessories	Porthole	Y/2			Y/2			Y/2			Y/2		
	Shelves/ Inner Doors	3/4			3/4			3/4			3/4		
	USB Interface	Y			Y			Y			Y		
	Remote Alarm	Y			Y			Y			Y		
	5V Power Supply Port	Y			Y			Y			Y		
	Temperature Chart Recorder	Optional			Optional			Optional			Optional		
	RS232/485 Port	Optional			Optional			Optional			Optional		
	CO2 Backup System	Optional			Optional			Optional			Optional		
	LN2 Backup System	Optional			Optional			Optional			Optional		
	Certification	CE	Y	/	/	Y	Y	/	/	Y	/		
UL		/	Y	Y	/	/	Y	Y	/	Y			
ENERGYSTAR		Y	Y	/	/	/	Y	/	/	Y			