

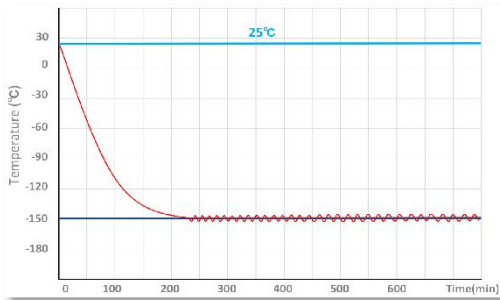


220V  
9,000 Samples



**-150°C Cryo-freezer** provides a safe, convenient and economical alternative long term storage solution for customers. Cryopreservation refers to the storage of a living organism, cell or tissue at ultra-low temperatures such that it can be restored to the same viable state as before it was frozen. Storage for an indefinite amount of time requires samples to be maintained below the glass transition temperature of aqueous solutions, approximately -130°C, the temperature at which frozen water no longer sublimates and recrystallizes.

## World-leading refrigeration technology



Pull down times @ ambient 25°C, no load



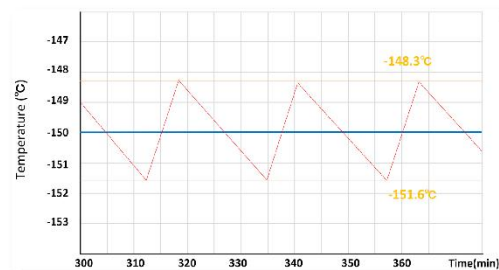
## Super-cooling Technology

Unique refrigeration technology, super fast cooling to -150°C in only 231 minutes (@ambient 25°C 220V/50Hz).



## Super-stable Fluctuation

Precise temperature control provides stable temperature fluctuation between -148.3°C and -151.6°C in the chamber.



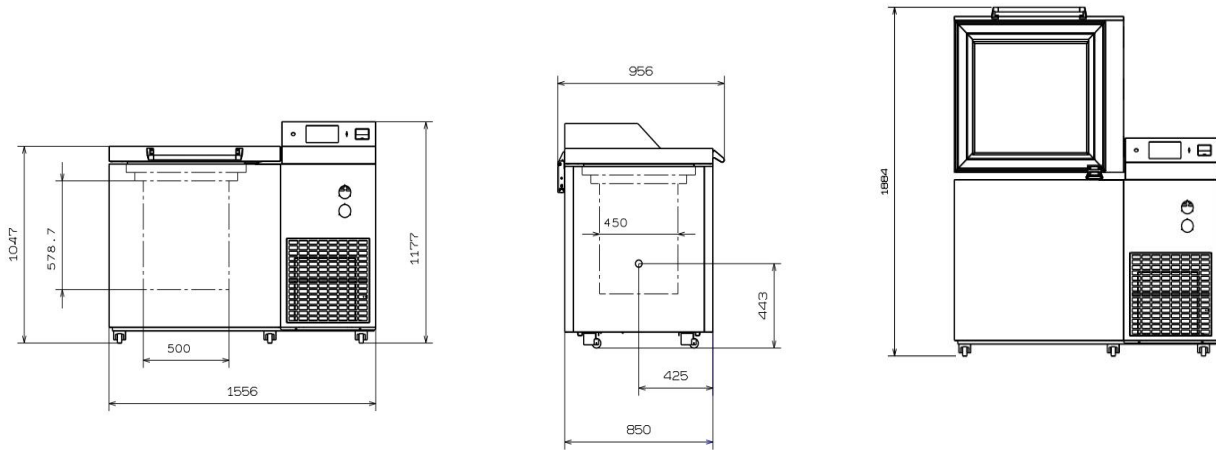
Chamber temperature fluctuation @ ambient 25°C, no load



## Excellent Insulations & Sealings

CFC-free high density foaming insulation with 200mm thickness and additional 40mm inner lid minimize the cold loss effectively and lock the cold air inside.

# DIMENSIONS



# PRODUCT STRUCTURE

- Aluminium handle**
- Multi-layer gaskets for lid sealings**
- Additional inner lid for better sealings**
- Quick release and easy clean condenser filter**
- Power switch**
- USB interface for exporting data and graphs**
- 7" Color LCD touch screen**  
Real-time display for alarms, temperature, errors and internal pressure
- Emergency shut-off button**  
Providing maximum safety in an emergency
- Mechanical pressure gauges**  
Providing a more reliable monitoring system

- Remote alarm conector**
- Electrical safety phase failure protector, earth leakage protector, overload protector**
- 6 heavy duty castors with brake and leveling adjustment**
- Heavy duty floating hinges**
- High precision PT100 sensor**

## FEATURES



### Color LCD touch screen

Real time display and temperature graphs



### 7 types of alarms

Audible and visual alarms



### Ultimate electrical safety

Ensuring safer operation for users



### Reliable monitoring system

Real-time monitoring for protecting your samples



### Saving the earth

Efficient cooling system with CFC-free refrigerant but without flammable components



## SPECIFICATIONS

Basic		Refrigeration System		Alarms	
Cooling type	Direct Cooling	Refrigerant	R4001(mxed gas)	High/low temperature	Y
Defrost	Manual	Temp. controller	Microprocessor	Power failure	N/A
Temperature range	-40℃~-150℃	System	Auto-cascade	Abnormal voltage	Y
Ambient temperature	10~30℃	Sensor	PT100	Sensor error	Y
Display	LCD touch screen	Compressor brand/QTY	TECUMSEH/1	Door ajar	N/A
Access port QTY/Dia.	1/25mm	Capacity(L/cu.ft)	128/4.5	Filter screen check	Y
USB Interface	Yes/1	Insulation	PURF	Thermostat failure	Y
Remote alarm Access	RS232/485	Internal material	Foamed SUS304	Low battery	N/A
Outside material	Color sprayed steel	Racks	18	Condenser clean	Y
Inside material	SUS304	Boxes (2 Inches)	90	High ambient temperature	Y
Castor	Universal	Samples(2ml)	9000	Power failure backup (alarm)	72h

Electrical Data		Dimensions		Accessories	
Voltage frequency(V/Hz)	220V/50Hz	Package size(W*D*H)(mm)	1637*970*1383	Racks&box	Optional
Power(W)	2550W	Exterior size(W*D*H)(mm)	1560*957*1178	Data logger	Optional
Current(A)	14.2A	Interior size(W*D*H)(mm)	500*450*578	CO2 back up system	N/A
Power consumption	38kWh/24h	Shipping CBM	2.42	LN2 back up system	Optional
Noise(db)	50	N.W/G.W(kg)	303/332	Gloves	Optional