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# **-86 °C Ultra Low Temperature Upright Freezer LUF-D21 and LUF-D22**

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### **-86 °C Ultra Low Temperature Upright Freezer LUF-D21**

-86 °C Ultra Low Temperature Upright Freezer LUF-D21 is an upright type freezer comes with 218 L capacity and offers temperature range -40 to -86°C and -86°C cooling performance. Features with microprocessor controlled system with interior digital temperature display to show various parameters simultaneously. Designed with direct cooling system and manual defrost mode, equipped with eco-friendly refrigerant Mixture gas, Built-in high-precision microcomputer temperature control system and platinum resistor temperature sensors. It offers high or low temperature alarm, Door open alarm and Keyboard lock, password protection function to prevent arbitrary adjustment of operating parameters.

### **-86 °C Ultra Low Temperature Upright Freezer LUF-D22**

-86 °C Ultra Low Temperature Upright Freezer LUF-D22 is an upright type freezer comes with 398 L capacity and offers temperature range -40 to -86°C and -86°C cooling performance. Features with microprocessor controlled system with interior touch screen temperature display to show various parameters simultaneously. Designed with direct cooling system and manual defrost mode, equipped with eco-friendly refrigerant Mixture gas, Built-in high-precision microcomputer temperature control system and platinum resistor temperature sensors. It offers high or low temperature alarm, Door open alarm and Keyboard lock, password protection function to prevent arbitrary adjustment of operating parameters.

#### **Features :**

- ❑ Designed with high-precision microcomputer temperature control system and platinum resistor temperature sensors ensure more precise temperature control
- ❑ Temperature ranges from -40 to -86°C
- ❑ EBM fan are powerful, energy-saving and highly efficient
- ❑ Six sides of the cabinet are made from high-performance vacuum insulation material, improving thermal insulation performance to a large extent
- ❑ The rotating handle facilitates door opening

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- ❑ The rotating handle facilitates door opening
- ❑ Universal wheels easy for movement and fixation
- ❑ Two-layer heat insulating foamed door with airbag-typed outer seal and the insulation
- ❑ Forced air circulation system
- ❑ Highly effective condenser and expansive evaporator to provide quick freezing
- ❑ Upright type, Exterior and inside body all made from stainless steel
- ❑ Design with safety door lock, ensure sample storage is more secure
- ❑ The perfect audible & visual alarm system high/low temperature, sensor failure, door open, and power failure etc

### Application :

Upright Freezers is used in scientific research, cryogenic test on special materials, blood plasma cryopreservation, low temperature resistance test on biological materials, vaccines, biological products and military products, etc. and Suitable for use in research institutions, the electronic industry, the chemical industry, hospitals, the health & disease prevention system, laboratories in colleges & universities, military enterprises, etc.

### Specifications:

Model	LUF- D21	LUF- D22
Cabinet type	Upright	Upright
Capacity	218 L	398 L
Temperature range	-40 to -86°C	-40 to -86°C
Ambient temperature	16 to 32°C	16 to 32°C
Cooling performance	-86°C	-86°C
Refrigerant	Mixture gas	Mixture gas
Defrost Mode	Manual	Manual
Cooling method	Direct cooling	Direct cooling
Controller	Microprocessor	Microprocessor

## -86 °C Ultra Low Temperature Upright Freezer LUF-D21 and LUF-D22

Display	Digital display	Touch screen
Climate class	N	N
Insulation thickness	155 mm	130 mm
Compressor	1 pcs	1 pcs
Alarm system	High and low temperature, high ambient temperature	High and low temperature, high ambient temperature
External material	Steel plates with spraying	High quality steel plates with spraying
Inner material	Galvanized steel sheet	Galvanized steel sheet
Shelves	1 (stainless steel)	3 (stainless steel)
Door lock with key	Yes	Yes
External Lock	Yes	Yes
Access Port	1pcs	2 pcs. $\Phi$ 25 mm
Casters	4	4 +(2 leveling feet)
Data Logging / Interval/ Recording Time	Printer/Record every 20 minute / 7 days	USB/Record every 1 minute / 365 days
Electrical	Power failure, Low battery	Power failure, Low battery
System	Sensor error, System failure, Condenser cooling failure, Door ajar	Sensor error, Main board communication error, Built-in data logger USB failure Condenser cooling failure, Door ajar, Samples out of date, System failure
Backup Battery	Yes	Yes
Rated power	1200 W	950 W
Input power	1300 W	980 W
Rated current	5.96 A	5 A
Power consumption	8.63 KWh/24h	11 KWh/24h

**Optional Accessories:**

**LUF- D21**

<b>Accessories no.</b>	<b>Name</b>
1	Chart recorder
2	CO2 backup system

**Optional Accessories:**

**LUF- D22**

<b>Accessories no.</b>	<b>Name</b>
1	Chart recorder
2	CO2 backup system
3	Printer
4	Remote alarm contact