

Fisherbrand Isotemp -50°C to -86°C Ultra-Low Temperature Freezers

Fisherbrand™ Isotemp™ Ultra-Low-Temperature Freezers combine reliability and performance with cost-effective operation and innovative features. They are built using an advanced technology platform, refrigeration, microprocessor controls, and high-quality construction.

- **Maximum temperature recovery:** Reduced/low peak temperature variation¹ and fast open-door recovery
- **More comfortable lab environment:** Low noise levels (like your refrigerator at home²)
- **Operational efficiency:** Lower energy consumption and HVAC costs
- **Environmentally friendly:** Water-blown foam insulation; compliant with EPA SNAP and EU F-Gas regulations

Isotemp freezers offer the convenience you need for your ultra-low temperature storage:

- Single-handed door operation
- Five inner compartments (with doors)
- Large temperature display with touch control
- Centralized settings and controls with battery backup
- Alarms, security passcode, and padlock-compatible doors
- Easy access to the filter/grill assembly (cleaning and maintenance)

Additional features:

- Standard RS-485, 4-20mA analog outputs and dry contacts included
- Battery backup for control panel (power interruptions)
- Four capacities; three voltages
- No setup required



1. Typical freezer data based on internal testing with freezer setpoint at -80°C and ambient temperature at 20°C . Performance data varies across freezer size and electrical specifications.

2. All data based on internal data unless otherwise noted. Data on file.

Bold, easy-to-read temperature display shows real-time cabinet temperature

Audible and visual alarms (System, Door, Temperature Visual Alarm Icons)

Health Shield Indicator gives a quick visual indication of freezer status

Alarm Snooze Button to silence audible alarms



Optional factory-installed CO2 or LN2 backup system provides additional sample protection in the event of a power or mechanical failure

Setpoint Security allows you to set a 3-digit numeric code required for any settings changes

Settings Menu Button to access alarm and system settings (Warm Alarm, Cold Alarm, Offset, Setpoint Security, and Backup System), if installed

Capacitive touchscreen buttons to easily adjust and save freezer settings

1" access port (top) for use of independent probes

High-Density Water-Blown polyurethane foam with Vacuum Insulation Panel (VIP)

Painted galvalneel interior

Sturdy, stainless-steel shelving

1" access port (bottom) for use of independent probes

2" locking casters for easy roll installation and smooth mobility

Four-point, heated gaskets help to eliminate frost buildup while providing tight cabinet temperatures

Heavy gauge, high-strength steel with a corrosion-resistant coating for long-life durability

Heated vacuum relief port permits quick reentry after door openings

Single-hand operation with ergonomic, padlock-compatible door handle featuring an integrated keylock

Five insulated inner doors reduce cold air loss and improve temperature recovery after door opening

Easy-to-remove washable filter provides protection against dust on the condenser, increasing refrigeration performance



Factory Installed Options:

- CO² backup system
- LN² backup system
- Chart recorder (ink or inkless)

You're Looking For	You'll Find
Temperature stability	Better temperature recovery after door opening; maintains temperatures even with high-heat loads
Flexible and precise temperature settings	Microprocessor with Touch Control
Less downtime and sample risk	Alarms with setpoint temperature controls; recessed power switch (to help avoid accidental shutoff)
Prompt alerts about operational problems	Onboard diagnostics: error codes direct you to probable causes
Storage for high-load and non-standard samples (microplate hotels)	Reinforced stainless-steel shelves
Protection during power interruptions	Integrated LN ² or CO ² backup systems (optional)
More comfortable lab environment	Low noise levels, heat emissions
Economical operation	Lower power consumption, less HVAC support needed
Longer equipment life	Green, hydrocarbon systems improve operating conditions increasing product life
Reduce ice buildup	Heated gaskets

Isotemp IUE Models	Capacity		Electrical	Amps/Breaker (Plug)	Max. Shelf Weight lb. (kg)	Exterior Dimensions H x W* x D in (cm)	Shipping Weight lb. (kg)
	General Purpose	cu. ft. (Liters)					
IUE30086FA	14.9 (422)	300	115V/60Hz	12.6/20 (NEMA 5-20)	125 (57)	78.0 x 27.1 x 38.6 (198.1 x 68.9 x 98.1)	712 (323)
IUE30086FD			208-230V/60Hz	5.6/15 (NEMA 6-15)			
IUE30086FV			230V/50Hz	5.9/10 (European)			
IUE40086FA	19.4 (549)	400	115V/60Hz	13.0/20 (NEMA 5-20)	165 (75)	78.0 x 32.5 x 38.6 (198.1 x 82.5 x 98.1)	687 (312)
IUE40086FD			208-230V/60Hz	5.9/15 (NEMA 6-15)			
IUE40086FV			230V/50Hz	5.3/10 (European)			
IUE50086FA	24.1 (682)	500	115V/60Hz	12.5/20 (NEMA 5-20)	205 (93)	78.0 x 38.1 x 38.6* (198.1 x 96.8 x 98.1)	734 (333)
IUE50086FD			208-230V/60Hz	5.0/15 (NEMA 6-15)			
IUE50086FV			230V/50Hz	5.9/10 (European)			
IUE60086FA	28.8 (816)	600	115V/60Hz	12.7/20 (NEMA 5-20)	245 (111)	78.0 x 43.7 x 38.6* (198.1 x 111.1 x 98.1)	734 (333)
IUE60086FD			208-230V/60Hz	6.2/15 (NEMA 6-15)			
IUE60086FV			230V/50Hz	6.1/10 (European)			

*For IUE50086 and IUE60086, doorway width clearance is 34.5 in. (87.6cm)

Description	Installation	Catalog Numbers			
		IUE30086	IUE40086	IUE50086	IUE60086
LN2 Backup System • Maintains temperature down to -80oC • Systems for IUE300 are stand-alone	Factory	N/A	LN4567	LN4567	LN4567
	Field	FLN300A* FLN300D* FLN300V* FLN300W*	FLN456LEA* FLN456LED* FLN456LEV*	FLN456LEA* FLN456LED* FLN456LEV*	FLN456LEA* FLN456LED* FLN456LEV*
CO2 Backup System • Maintains temperature down to -67 C • Systems for IUE300 models are stand alone	Factory	N/A	CO4567	CO4567	CO4567
	Field	FCO300A* FCO300D* FCO300V* FCO300W*	FCO456LEA* FCO456LED* FCO456LEV*	FCO456LEA* FCO456LED* FCO456LEV*	FCO456LEA* FCO456LED* FCO456LEV*
Chart Recorder (Inkless) • Diameter: 6 in. (15.2cm) • Seven day • Inkless • Range -100°C to +38°C (+2oC resolution)	Factory	N/A	N/A	CRP4567	CRP4567
	Field	N/A	N/A	FCR500LE	FCR600LE
Chart Recorder (Ink) • Diameter: 6 in. (15.2cm) • Seven day • Ink • Range: -115° to +50°C, +5°C resolution • Recorders for IUE300 and IUE400 models are stand alone	Factory	N/A	N/A	N/A	N/A
	Field	6383-6A* 6393-6D* 6383-6V* 6383-6W* 6383-D*	6383-6A* 6393-6D* 6383-6V* 6383-6W* 6383-D*	FCRP500LE	FCRP600LE
NEMA L5-20P Twist Lock Plug for 115V/60Hz	Factory	US125V20ATL	US125V20ATL	US125V20ATL	US125V20ATL
	Field	TL125V20A	TL125V20A	TL125V20A	TL125V20A
NEMA L6-15P Twist Lock Plug for 208-230V/60Hz	Factory	US230V15ATL	US230V15ATL	US230V15ATL	US230V15ATL
	Field	TL230V15A	TL230V15A	TL230V15A	TL230V15A
NEMA L6-20P Twist Lock Plug for 208-230V/60Hz	Factory	US230V20ATL	US230V20ATL	US230V20ATL	US230V20ATL
	Field	TL230V20A	TL230V20A	TL230V20A	TL230V20A

*A = 115V/60Hz (NEMA 5-20 plug), D = 208-230V/60Hz (NEMA 6-15 plug), V = 230V/50Hz (EU plug), W = 230V/50Hz (British plug)

General Purpose Models:

The general purpose -86°C freezers described here are high-performance units for professional use. These products are intended for use as cold storage in research use and as a general purpose laboratory freezer, storing samples or inventory at operating temperatures between -50°C and -80°C. They are not considered to be medical devices and have therefore not been registered with a medical device regulatory body (e.g., FDA); that is, they have not been evaluated for the storage of samples for diagnostic use or for samples to be re-introduced to the body. These units are not intended for use in classified hazardous locations, nor to be used for the storage of flammable inventory.

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