

Technical Data Sheet

Ultra-Low Temperature Freezer Upright Model -86°C



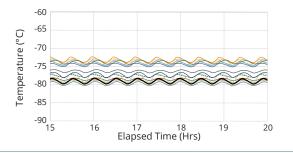
Model Number

i.Series® iUF126-GX

Application	, Rating, and Electrical Data	
Application	Storage of biological samples including blood and tissue	
Storage Volume/Capacity	26 cu ft (736 liters) / 528 standard 2" (51mm) boxes	
Temperature Range	-50°C to -86°C @ 22°C (72°F) Ambient	
Electrical Power	115V 60 Hz / 220-240V 50/60Hz	
Maximum Current	8.9A (115V), 4.7A (220-240V)	
Building Supply Rating	Grounded outlet on a dedicated circuit, meeting plug/cord ratings and electrical safety codes/req. 115V AC: 15 A (min) 220-240V AC: 10 A (min)	
Power Plug/Power Cord	NEMA 5-15 hospital-grade 115V 60Hz, 8-10 ft (2.4-3M). Inquire about other plug/core options	
Certification/Agency Listing	QPS (Certified to UL and CSA Standards) FDA Class II medical device	
Application Environment	Indoor use only. Non-residential.	
	Non-corrosive, non-flammable, non-explosive 15°C to 32°C (59°F to 90°F)	
Re	frigeration System	
Refrigeration System	Two Stage Cascade System	
Compressor/Number	1.0 HP hermetic, variable speed (VCC) / 2	
Condenser Type	Air-cooled fin and tube / 1	
Expansion Device	Cap tube - high and low stage	
Evaporator Type	Split, cold wall	
Defrost Method	Manual	
Refrigerant (Low/High Stage)	EU F-Gas and EPA SNAP compliant natural hydrocarbon refrigerants High Stage: R290 (propane) Low Stage: R170 (ethane) and R290 (propane)	
Environmental Effects	R170 GWP: 5.5 / ODP 0 R290 GWP: 3.3 / ODP 0	
	Controller	
Interface	i.C3®, eye-level, color touchscreen	
Power Switch	On/Off with circuit breakers	
Controller Type	Microprocessor with touchscreen input and display. Includes USB hub for data retrieval	
Security	Lockable door, PIN access control, password setpoints, padlock hasp	
Compressor Safeguard	High ambient temperature warning, compressor and condenser over-temperature alarms	
Control Sensor	RTD (stainless steel) (1 ea)	
Communication Ports	USB, Remote alarm contacts, RJ45 (Ethernet). API available for Ethernet connectivity development	
Warm/Cold Alarms	Fully adjustable	
Logs	Event log (inc alarms and door openings), temperature log, access log, download via USB	
Battery Backup	20 hour display and alarm bettery back-up for i.C3® touchscreen (12V, lead acid battery)	

Typical Performance Characteristics at 25° Ambient				
Energy Consumption (kWhr/day @-75°C)	11.65			
Heat Rejection / Emission BTU/hr (watts)	2,897 / 848			
Noise Emission / Sound (dB)	58			
Average Temperature Variance (Uniformity) (°C) -70°C to -80°C setpoint @ 25°C to 32°C ambient) Throughout operational/ambient range)	8 10			
15-sec Door Opening Recovery to -79°C (min)	33.96			
Peak Variation (Energy Star®) (°C)	16.24			
Pull Down Time (to -80°C (hrs)	12.88			
Warm Up Time (-80°C to -50°C) (min)	207			

iUF126-GX Uniformity (-80°C setpoint; 25°C ambient)







Technical Data Sheet

Ultra-Low Temperature Freezer Upright Model -86°C

Model Number

i.Series® iUF126-GX

Door / Seal 1, solid with vacuum relief port Leveling legs Blood storage can Vial storage boxes Vial storage boxes Vial storage boxes		Construction	Options / Accessories	
JODIT 75all 1, Suld Will VacUuff Hele Joit UX and CO2 backup systems Vial storage boxes Access Ports 2, external Screen protectors Tube and micropia Perimeter Heater Hot gas loop USB flash drive Crop gloves Tube and micropia Campartments / Inner Doors 5 Swivel, locking Extended warranty Regulatory Regulatory Network (w h x d) in [mm 34.3 x 54.2 S.3 (872 x 1373 x 643) Exterior (w x h x d) in [mm 40.2 x 78.2 x 35.1 (1020 x 1986 x 892) Exterior (w x h x d) in [mm Ad.8 x 78.2 x 37.8 (1113 x 1986 x 960) In [mh 160 lb (73kg max cap. 4 ad jatinless steel, 33.8 x 21.8 (859 x 554) Iob (lo (la (la gm max cap. Net Weight / Shipping Weight 661 lb (300 kg) 764 lb (347 kg) ENERGY STAR Clearance Requirements Allow 4' (102mm) behind unit Allow 4' (02mm) above unit Side clearance may be needed: Allow 5' between clabinet walls of adjacent freezers for unobstructed door swing Competiant 9.5* 241mm 15* 241mm 258mm 95.4 43.8 ('1113mm) 9.5* 241mm 15* 241mm 222mm 43.8* 40.2*' W (1020mm) 9.5* 241mm 15* 241mm 222mm 43.8* <t< td=""><td>ulation</td><td>Vacuum Insulated Panels</td><td></td><td>Racks Boxes Dividers</td></t<>	ulation	Vacuum Insulated Panels		Racks Boxes Dividers
Access Ports 2, external Remote alarms Tube and micropial Perimeter Heater Hot gas loop USB flash drive Cyo gloves Compartments / Inner Doors 5 Sweel, locking Extended warranty Dimensions Regulatory Addataset, hinge Addataset, hinge Extended warranty Exterior (w x h x d) in [mm 43.8 x 54 x 25.3 (872 x 1373 x 643) Regulatory Exterior (w x h x d) in [mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Regulatory In [mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Regulatory Shelves / Capacity (w x d) 4 adj stainless steel, 33.8 x 21.8 (859 x 554) Roll of Citag (800 k access - Allow 4" (102mm) behind unt Allow 8" (203mm) above unt Side clearance may be needed: - Allow 5" between left cabinet wall and facility wall for key lock access - Allow 7" between cabinet walls of adjacent freezers for unobstructed door swing Specific Competition 40.2" W (1020mm) 9.5" 241mm 257mm 43.8" (1113mm) 40.2" W (1020mm) 9.5" 241mm 252mm 40.2" W (1020mm) 10.1" 252mm 15.5" 241mm 15.5" 221mm 252mm 11.9" 11.9" 11.9" 10.1" 10.1"	or / Seal	1, solid with vacuum relief port	Leveling legs Blood storage canisters/racks	
Perimter Heater Heater Hot gas loop USB flash drive Compartments / Inner Doors 5 Casters Swivel, locking Eternology Ogives Temperature validation Extended warranty Extended warranty Extended warranty Extended warranty (w x h x d) in 1 mm 40.2 x 78.2 x 13.7 x 64.3) Exterior (w x h x d) in 1 mm 40.2 x 78.2 x 35.1 (10.20 x 1986 x 892) Exterior (w x h x d) in 1 mm 40.2 x 78.2 x 35.1 (10.20 x 1986 x 892) Exterior (w x h x d) in 1 mm 40.2 x 78.2 x 35.8 (1113 x 1986 x 960) n1 mm 1 dol b (73kg) max cap. Shelves / Capacity (w x d) 4 adj stainless steel, 33.8 x 21.8 (859 x 554) 160 b (73kg) max cap. Shelves / Capacity (w x d) 160 b (73kg) max cap. Shelves / Capacity (w x d) Allow 4" (102 mm) behind unit Allow 4" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit Side clearance may be needed: - Allow 5" (203 mm) above unit - Allow 5" (203 mm) above unit	cess Ports	2, external	Remote alarms	Tube and microplate racks
Casters Swivel, locking Dimensions Regulatory Exterior (w x h x d) in mm 34.3 x 54 x 25.3 (872 x 1373 x 643) Exterior (w x h x d) in mm 40.2 x 78.2 x 35.1 (1020 x 1986 x 892) Exterior (w x h x d) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) n.1. handle, casters, hinge 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) n.1. handle, casters, hinge 651.10 (200 kg) 764.1b (347 kg) Shelves / Capacity (w x d) 4 adj stainless steel, 33.8 x 21.8 (859 x 554) 10 lb (73kg) max cap. File (203mm) above unit Side clearance may be needed: Allow 4" (203mm) above unit Side clearance may be needed: Allow 5" between left clainert wall and facility wall for key lock access Allow 5" between left clainert walls of adjacent Freezers for unobstructed door swing 0.1" 75." 241 mm 9.5" 241 mm 9.5" 241 mm 9.5" 241 mm 11.5" 11.9" 11.9"	rimeter Heater	Hot gas loop		
Casters Swivel, locking Extended warranty Dimensions Regulatory Interior (w x h x d) in mm 34.3 x 54 x 25.3 (872 x 1373 x 643) Exterior (w x h x d) in mm 40.2 x 78.2 x 35.1 (1020 x 1986 x 892) Exterior (w x h x d) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Interior (w x h x d) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Interior (w x h x d) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Interior (w x h x d) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Interior (w x h x d) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Interior (w x h x d) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Interior (w x h x d) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Interior (w x h x d) in mm Interior (w x h x d) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Interior (w x h x d) in mm Interior (w x h x	mpartments / Inner Doors	5		
Interior (w x h x d) in mm 34.3 x 54 x 25.3 (872 x 1373 x 643) Exterior (w x h x d) in mm 40.2 x 78.2 x 35.1 (1020 x 1986 x 892) Exterior (w x h x d) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Shelves / Capacity (w x d) 4 adj stainless steel, 33.8 x 21.8 (859 x 554) in mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Shelves / Capacity (w x d) 4 adj stainless steel, 33.8 x 21.8 (859 x 554) in mm 661 lb (300 kg) 764 lb (347 kg) Clearance Requirements Allow 4" (102mm) behind unit Allow 4" (102mm) behind unit Side clearance may be needed: - Allow 5" between left cabinet walls of adjacent Freezers for unobstructed door swing Treezers for unobstructed door swing 40.2" W (1020mm) 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 11.9" 11.9"	sters	Swivel, locking		
Exterior (w x h x d) in 1 mm 40.2 x 78.2 x 35.1 (1020 x 1986 x 892) Exterior (w x h x d) in 1 mm 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) Shelves / Capacity (w x d) 6 di stainless steel, 33.8 x 21.8 (859 x 554) 160 lb (73kg) max cap. Net Weight / Shipping Weight 661 lb (300 kg) 764 lb (347 kg) Clearance Requirements Allow 4" (102mm) behind unit Allow 5" between left cabinet walls of adjacent rezers for unobstructed door swing 10.1" 258mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 11.9" 10.1" 292mm		Dimensions	R	Regulatory
Exterior (w x h x d) in [mm] Incl. handle, casters, hinge Shelves / Capacity (w x d) in [mm] Net Weight / Shipping Weight 661 lb (300 kg) [764 lb (347 kg) Clearance Requirements Allow 4" (102mm) behind unit Allow 5" between left cabinet wall and facility wall for key lock access - Allow 7" between cabinet walls of adjacent freezers for unobstructed door swing 10.1" 258mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 11.9"	erior (w x h x d) in mm	34.3 x 54 x 25.3 (872 x 1373 x 643)		
Ind. handle, casters, hinge 4 adj stainless steel, 33.8 x 21.8 (859 x 554) Shekes / Capacity (w x d) 4 adj stainless steel, 33.8 x 21.8 (859 x 554) In 1 mm 160 lb (73kg) max cap. Net Weight / Shipping Weight 661 lb (300 kg) 764 lb (347 kg) Clearance Requirements Allow 4" (102mm) behind unit Allow 8" (203mm) above unit Side clearance may be needed: - Allow 7" between cabinet walls of adjacent freezers for unobstructed door swing 10.1" 25" 241 mm 9.5" 241 mm 9.5" 241 mm 9.5" 241 mm 9.5" 11.5" 292 mm 11.9" 11.9"	erior (w x h x d) in mm	40.2 x 78.2 x 35.1 (1020 x 1986 x 892)	-	
in mm 160 ib (73kg) max cap. Net Weight / Shipping Weight 661 ib (300 kg) 764 ib (347 kg) Clearance Requirements Allow 4" (102mm) behind unit Allow 5" between left cabinet wall and facility wall for key lock access - Allow 7" between cabinet walls of adjacent freezers for unobstructed door swing 10.1" 258mm 9.5" 241mm 9.5" 241mm 11.5" 292mm 11.9" 10.1"		43.8 x 78.2 x 37.8 (1113 x 1986 x 960)		
Clearance Requirements Allow 4" (102mm) behind unit Allow 8" (203mm) above unit Side clearance may be needed: - Allow 5" between left cabinet wall and facility wall for key lock access - Allow 7" between cabinet walls of adjacent freezers for unobstructed door swing 10.1" 258mm 9.5" 241mm 9.5" 2			-energy 3	
Clearance Requirements Allow 4" (102mm) behind unit Allow 8" (203mm) above unit Side clearance may be needed: - Allow 5" between left cabinet walls of adjacent freezers for unobstructed door swing - Allow 7" between cabinet walls of adjacent freezers for unobstructed door swing - 43.8" (1113mm) - 40.2" W (1020mm) -	t Weight / Shipping Weight	661 lb (300 kg) 764 lb (347 kg)	ENERGY STAR	
10.1" 258mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 9.5"		Allow 8" (203mm) above unit Side clearance may be needed: - Allow 5" between left cabinet wall and facility wall for key lock access - Allow 7" between cabinet walls of adjacent	2707	Quality Management for Medical Devices
Product Life Cycle - Designed for 10 year service life Reli.Warranty (US/Canada) - 5 years compressor, 2 years parts and labor Warranty Outside US/Canada - Consult your local representative	oduct Life Cycle - Designed for 1 i.Warranty (US/Canada) - 5 year	258mm 9.5" 241mm 9.5" 241mm 9.5" 241mm 11.5" 292mm 11.9" 304mm 10 year service life rs compressor, 2 years parts and labor		37.8" (960mm)
Freezer performance in nominal and individual units may vary	ezer performance in nominal a	and individual units may vary		
Freezer performance may differ due to product size, amount, and operating conditions	eeer periormance in nonnindi a			