

Technical Data Sheet

Ultra-Low Temperature Freezer Upright Model -86°C



Model Number

i.Series® iUF126-GX

Applicatio	n, Rating, and Electrical Data	Typical Performance Characteristics at	25° Ambient
Application	Storage of biological samples including blood and tissue		
Storage Volume/Capacity	26 cu ft (736 liters) / 528 standard 2" (51mm) boxes	Energy Consumption (kWhr/day @-75°C)	11.65
Temperature Range	-50°C to -86°C @ 22°C (72°F) Ambient	Heat Rejection / Emission BTU/hr (watts) 2,897 / 848	2,897 / 848
Electrical Power	115V 60 Hz / 220-240V 50/60Hz		
Maximum Current	8.9A (115V), 4.7A (220-240V)	Noise Emission / Sound (dB)	58
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)	Average Temperature Variance (Uniformity) (°C) -70°C to -80°C setpoint @ 25°C to 32°C ambient) Throughout operational/ambient range)	8 10
Power Plug/Power Cord	NEMA 5-15 hospital-grade 115V 60Hz, 8-10 ft (2.4-3M). Inquire about other plug/core options	15-sec Door Opening Recovery to -79°C (min)	33.96
Certification/Agency Listing	QPS (Certified to UL and CSA Standards) FDA Class II medical device	Peak Variation (Energy Star®) (°C)	16.24
Application Environment	Indoor use only. Non-residential.	Pull Down Time (to -80°C (hrs)	12.88
	Non-corrosive, non-flammable, non-explosive 15°C to 32°C (59°F to 90°F)	Warm Up Time (-80°C to -50°C) (min)	207
Refrigeration System		iUF126-GX Uniformity (-80°C setpoint; 25°C ambient)	
Refrigeration System	Two Stage Cascade System		
Compressor/Number	1.0 HP hermetic, variable speed (VCC) / 2	-60 -65 -70 -70 -75 -80 -80 -80 -80	
Condenser Type	Air-cooled fin and tube / 1		
Expansion Device	Cap tube - high and low stage		
Evaporator Type	Split, cold wall		
Defrost Method	Manual	å -80 -80 E	
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)	2 -85 -90 15 16 17 18 19 20 Elapsed Time (Hrs)	19 20
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	↔ Helmer	ner
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)		



Technical Data Sheet

Ultra-Low Temperature Freezer Upright Model -86°C

Model Number

i.Series® iUF126-GX

14 15 15 1		
Vacuum Insulated Panels	Chart Recorder Racks Boxes Dividers	
1, solid with vacuum relief port	Chart Paper Blood storage canisters/racks LN2 and CO2 backup systems Vial storage boxes/racks	
2, external	Remote alarms Tube and microplate racks	
Hot gas loop	Screen protectors USB flash drive	
5	Cryo gloves	
Swivel, locking / leveling legs	Temperature validation Extended warranty	
Dimensions	Regulatory	
34.3 x 54 x 25.3 (872 x 1373 x 643)		
40.2 x 78.2 x 35.1 (1020 x 1986 x 892)		
43.8 x 78.2 x 37.8 (1113 x 1986 x 960)		
4 adj stainless steel, 33.8 x 21.8 (859 x 554) 160 lb (73kg) max cap.	-Energy 17	
661 lb (300 kg) 764 lb (347 kg)	ENERGY STAR	
Allow 8 (20311111) 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	Roffs COMPLIANT Soli Soli Soli Soli Soli Soli Soli Soli	
10.1" 258mm 9.5" 241mm 9.5" 241mm 11.5" 292mm 11.9" 304mm	40.2" W (1020mm) 35.1" D (892mm)	
	2, external Hot gas loop 5 Swivel, locking / leveling legs Dimensions 34.3 x 54 x 25.3 (872 x 1373 x 643) 40.2 x 78.2 x 35.1 (1020 x 1986 x 892) 43.8 x 78.2 x 37.8 (1113 x 1986 x 960) 4 adj stainless steel, 33.8 x 21.8 (859 x 554) 160 lb (73kg) max cap. 661 lb (300 kg) 764 lb (347 kg) 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" 241mm 11.5" 292mm 11.9" 304mm	

© 2024 Helmer Inc. All rights reserved. All trademarks are the property of Helmer Scientific. Specifications are subject to change. Not all products available in all countries. Please consult your local representative. 380948/B 0324