

ULT-Freezer Performance Data Sheet



Capacity

Storage volume	740 L (26.1 ft ³)	
Number of compartments	3 / 5	
Number of inner doors	3 / 3	
Racks per shelf	6	
Racks per freezer	18 / 30	
Box capacity	50 mm (2 in) box	576 / 528
	75 mm (3 in) box	360 / 288
	100 mm (4 in) box	288 / 264
Sample capacity	50 mm (2 in) box	57,600 / 52,800
Temperature rating	-50 °C to -86 °C	

Compartment Dimensions

Compartment number	3-compartment model (H x W x D)	5-compartment model (H x W x D)
1 (Top)	452 x 865 x 597 mm	250 x 865 x 597 mm
2	452 x 865 x 597 mm	240 x 865 x 597 mm
3	452 x 865 x 597 mm	240 x 865 x 597 mm
4	n/a	240 x 865 x 597 mm
5 (Bottom)	n/a	350 x 865 x 597 mm

User Interface (VisioNize® touch interface)

Alarms	Adjustable high/low temperature, power fail, battery low, filter clean, fault
Password protection (freezer settings)	Yes
Remote alarm port	Standard
RS-485 interface	Standard
Ethernet	Standard
Lock	Electronic / manual
Temperature control	Microprocessor
Cabinet control probe	PT 100

Refrigeration System Specifications

Refrigeration system	2 stage cascade cooling system
Compressors	Commercially available, heavy duty compressors
Defrost method	Manual
Refrigerant charge	High stage: R290 Low stage: R170
Condensing method	Air-cooled
Expansion device	Capillary tubes
Evaporator type	Cold wall

Construction

Interior	Stainless steel grade 304 2B
Exterior	Powder-coated steel
Insulation	Vacuum insulation panels and polyurethane foam
Power switch	Secured
Inner doors	Insulated and sealed
Inner shelves	Stainless steel, heavy duty (150 kg load each)
Casters/level legs	Heavy duty (250 kg each)

Technical Specifications: CryoCube® F740hi – Air-Cooled (230 V)

Intended use	<ul style="list-style-type: none"> > Cold storage of standard laboratory materials > Indoor use only, between 15 and 32 °C > Altitude up to 2000 m > Non-corrosive, non-flammable, non-explosive environment
Environmental conditions	<ul style="list-style-type: none"> > Good air ventilation required > Maximum relative humidity 80 % for temperatures up to 31 °C > No mains/power supply voltage fluctuations
Electrical rating (1 phase)	230 V/50 Hz
Current rating	6.0 A
Agency listing	<ul style="list-style-type: none"> > WEEE > ROHS > REACH > UL > ACT/ My Green Lab > ENERGY STAR® partner > All components tested to CE specifications

Dimensions

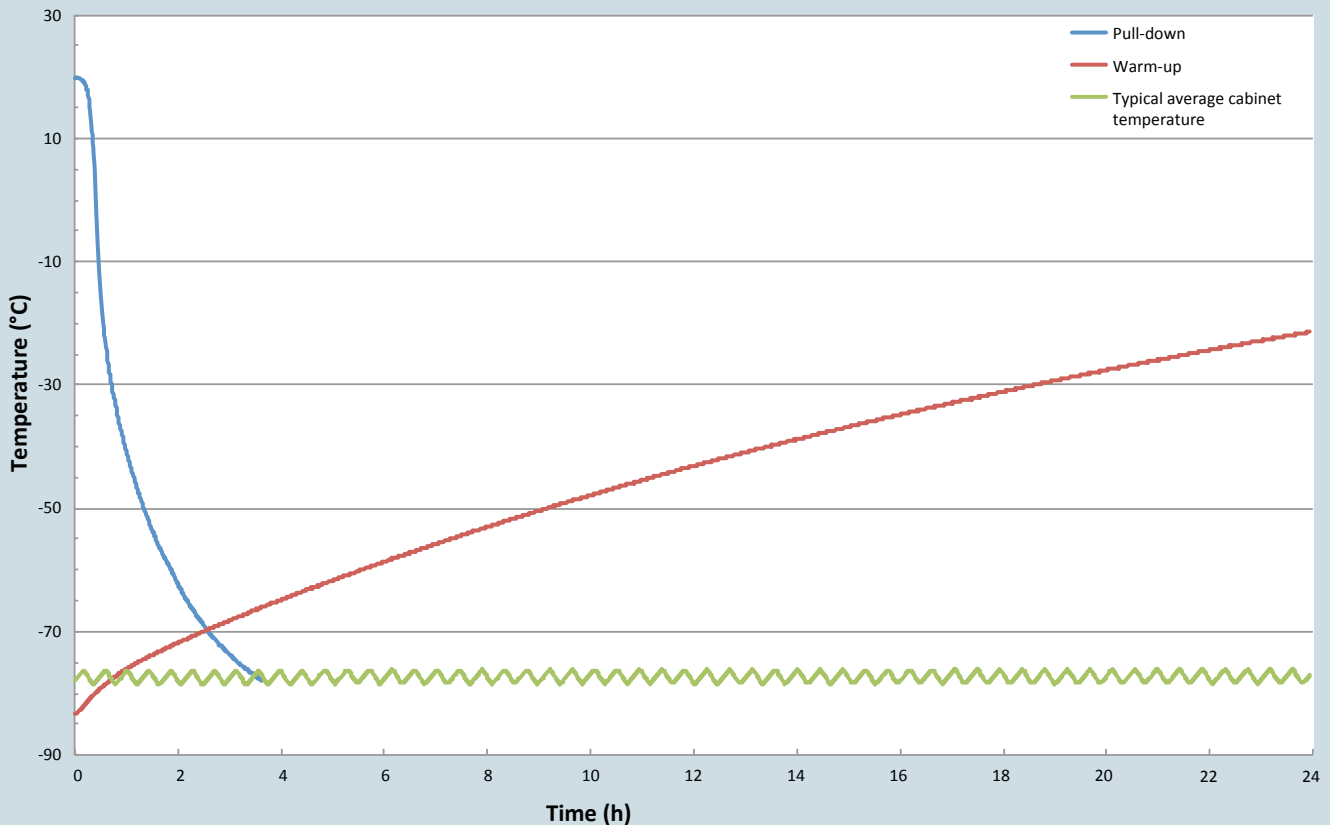
Internal dimensions (H x W x D)	1390 x 865 x 622 mm (54.7 x 34.1 x 24.5 in)
External dimensions (H x W x D)	1973 x 1110 x 980 mm (77.7 x 43.7 x 38.6 in)
External packaging dimensions (H x W x D)	2225 x 1200 x 1045 mm (87.6 x 47.2 x 41.1 in)
Net weight	315 kg (694 lbs) / 333 kg (734 lbs)
Shipping weight	364 kg (825 lbs) / 382 kg (842 lbs)

Typical Performance Characteristics at 20 °C +/- 1 (Ambient Temperature)

Pull down time (freezer empty, from ambient to -80 °C)	4 h 10 min			
Power consumption (freezer set to)	-85 °C 12.9 KWh/ day	-80 °C 10.5 KWh/ day	-70 °C 7.5 KWh/ day	
Cabinet uniformity ¹ (freezer set to -80 °C)	+4.9 °C/-0.0 °C			
Max. heat output (Freezer set to)	-85 °C 538 W (1836 BTU/ h)	-80 °C 438 W (1494 BTU/ h)	-70 °C 313 W (1068 BTU/ h)	
Warm up time (freezer 2/3 full, from -85 °C to 0 °C)	45 h			
Noise level (at -80 °C)	41.3 dB			
Door open recovery (freezer set to -80 °C)	120 s 41 min	60 s 27 min	30 s 25 min	15 s 18 min
Duty cycle (on/off)	13/12 min			
Electric/mains	6.0 A			

¹Average multiple probe temperature deviation

CryoCube F740hi 230 V/50 Hz Performance Graph



Technical specifications subject to change

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