

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

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 > 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 1099 x 980 mm (77.7 x 43.3 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)

*To allow for handles and hinges, add 80 mm to width.

User 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

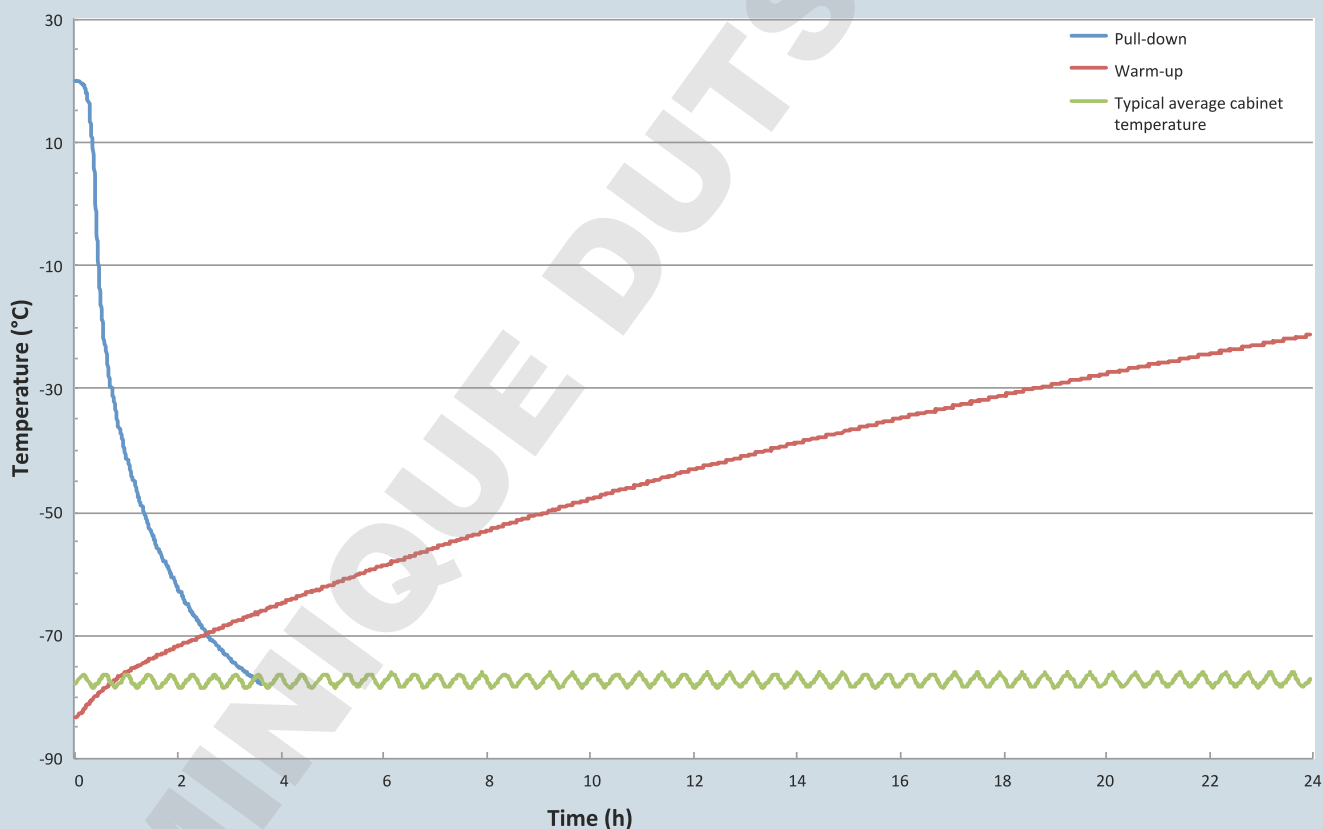
Interior	Stainless steel grade 304 2B
Exterior	Powder-coated steel
Insulation	Vacuum insulation panels and polyurethane foam
Power switch	Secured
Inner doors	Insulated and sealed
Casters/level legs	Heavy duty (250 kg each)

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 -80 °C/-70 °C)	10.5 kWh/day / 7.5 kWh/day			
Cabinet uniformity ¹ (freezer set to -80 °C)	+4.9 °C/-0.0 °C			
Max. heat output (freezer set to -80 °C/-70 °C)	438 W/ 313 W (1494 BTU/h / 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	60 s	30 s	15 s
	41 min	27 min	25 min	18 min
Duty cycle (on/off)	13/12 min			
Electric/mains	6.0 A			

¹Average multiple probe temperature deviation

F740hi 230 V/50 Hz Performance Graph



Technical specifications subject to change

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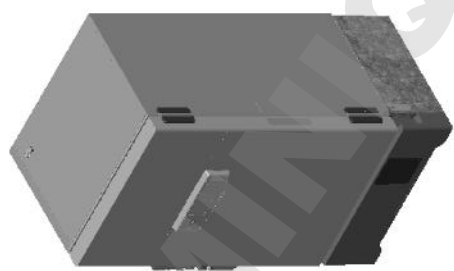
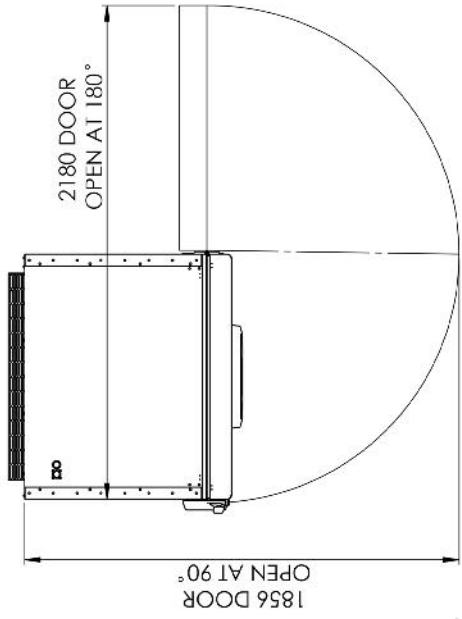
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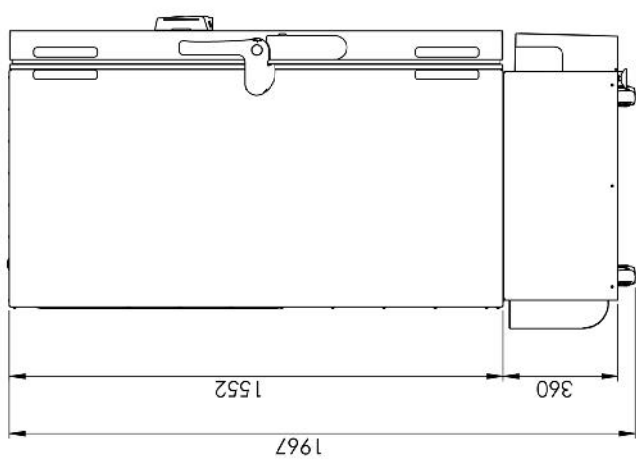
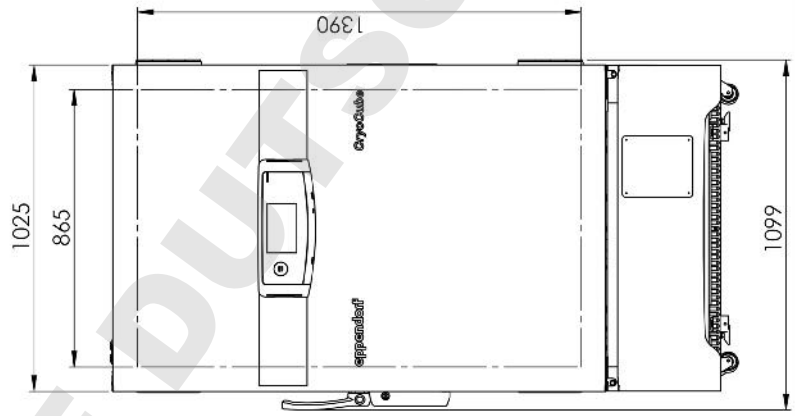
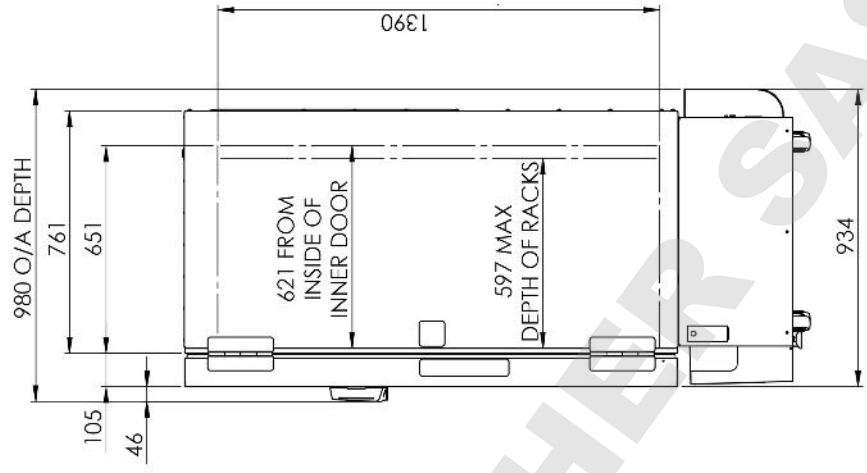
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ISOMETRIC VIEW
SCALE 1:25



DRAWN	K.H	Scale	1:15	EPENDORF CRYOTECH LTD	MATERIAL	Title	cont
Checked	SPC	ALL DIMENSIONS IN MILLIMETRES			FINISH	F740hi OUTLINE	SHEET 2 OF 2
				TOLLERANCES -		Drawing No	D1037
				GEN - +/ -1			
				HOLE CTRS -			
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