

# ULT-Freezer Performance Data Sheet



## Capacity

Storage volume	740 L (26.1 ft <sup>3</sup> )	
Number of compartments	3 / 5	
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® F740h – Air-Cooled (230 V)

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

## Dimensions

Internal dimensions (H x W x D)	1390 x 865 x 621 mm (54.7 x 34.1 x 22.6 in)
External dimensions* (H x W x D)	1973 x 1099 x 915 mm (77.7 x 43.3 x 36.0 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	308 kg (679 lbs) / 317 kg (699 lbs)
Shipping weight	357 kg (787 lbs) / 366 kg (807 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
Lock	Specific / 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

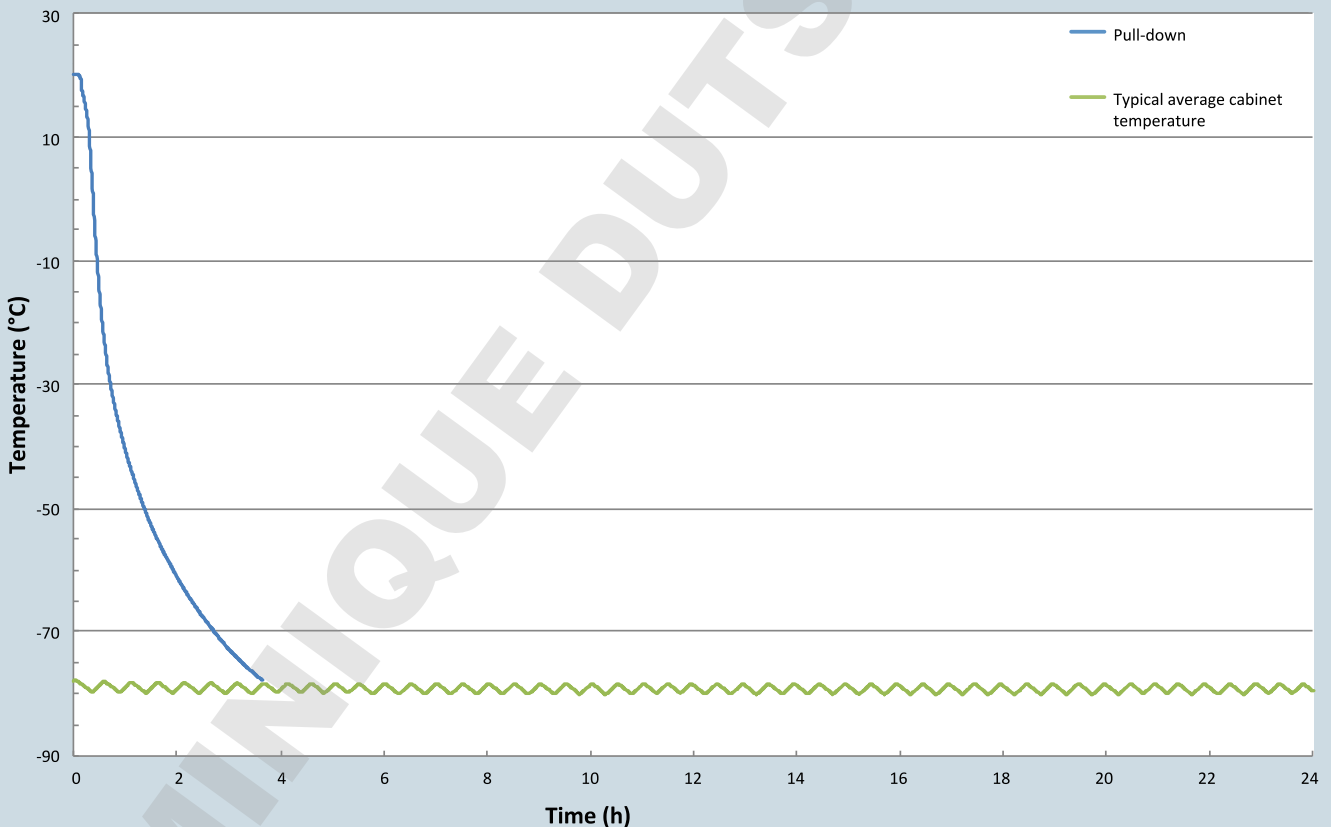
Interior	Stainless steel grade 304 2B
Exterior	Powder-coated steel
Insulation	Vacuum insulation panels (body) and polyurethane foam
Power switch	Secured
Inner doors	Insulated and sealed
Casters/level legs	Heavy duty (250 kg each)

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

Pull down time (freezer empty, from ambient to -80 °C)	4 h 10 m			
Power consumption (freezer set to)	-85 °C 14.3 KWh/ day	-80 °C 11.8 KWh/ day	-70 °C 8.1 KWh/ day	
Cabinet uniformity <sup>1</sup> (freezer set to -80 °C)	+4.3 °C/-0.9 °C			
Max. heat output (Freezer set to)	-85 °C 596 W (2034 BTU/ h)	-80 °C 492 W (1679 BTU/ h)	-70 °C 338 W (1154 BTU/ h)	
Warm up time (freezer 2/3 full, from -85 °C to 0 °C)	42 h			
Noise level (at -80 °C)	47.8 dB			
Door open recovery (freezer set to -80 °C)	120 s 56 min	60 s 39 min	30 s 26 min	15 s 20 min
Duty cycle (on/off)	19/10 min			

<sup>1</sup>Average multiple probe temperature deviation

### CryoCube F740h 230 V/50 Hz Performance Graph



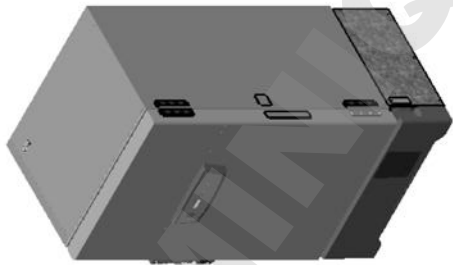
Technical specifications subject to change

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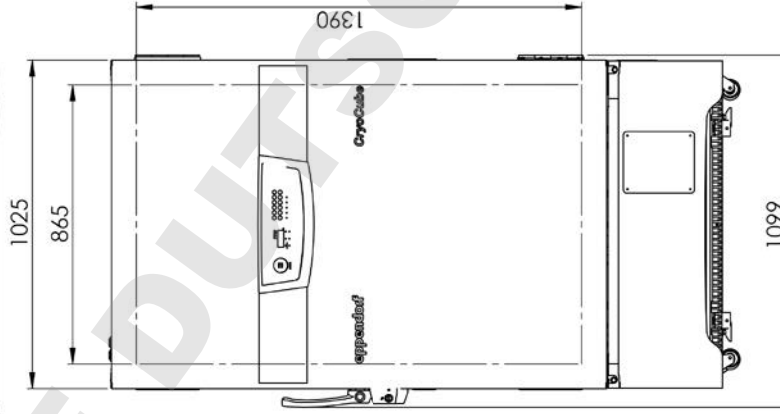
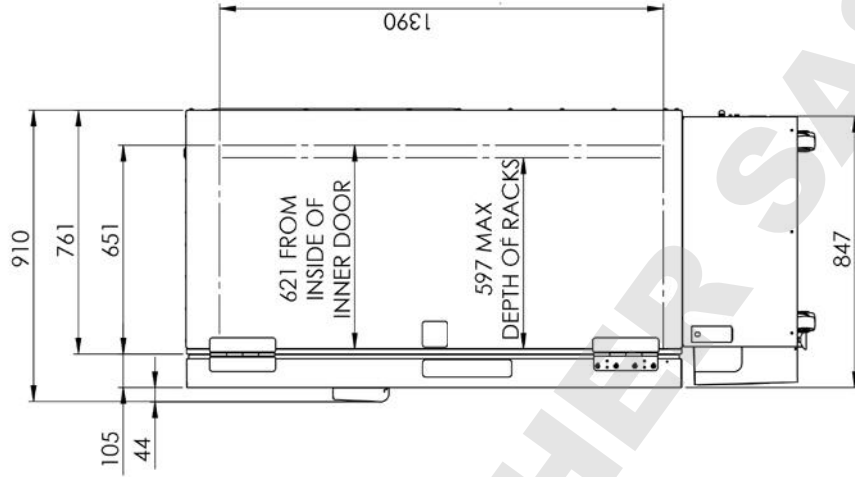
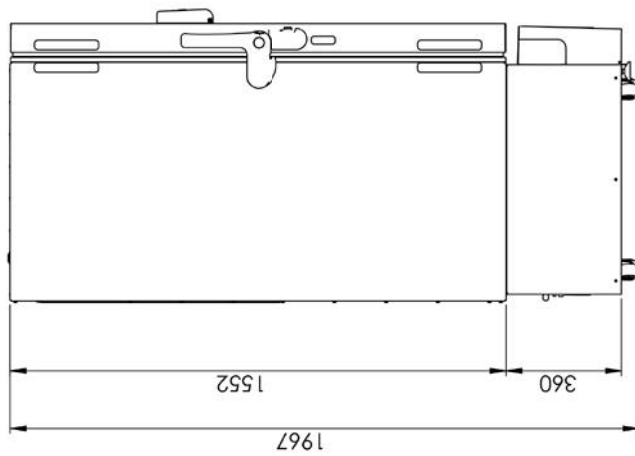
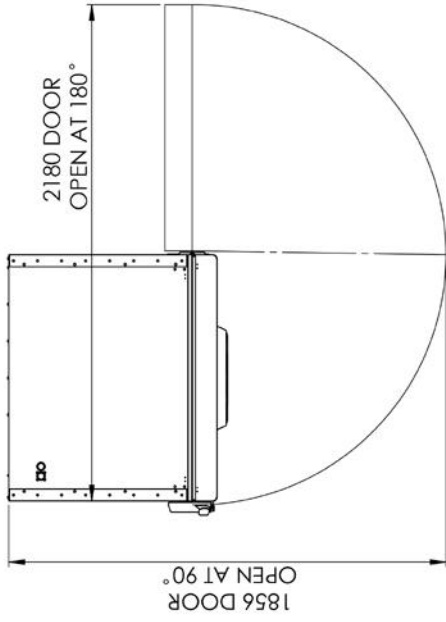
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ISOMETRIC VIEW  
SCALE 1:25



DRAWN	K.H	Scale	1:15	EPPENDORF CRYOTECH LTD		MATERIAL	Title		F740h OUTLINE	cont
Checked	SPC	ALL DIMENSIONS IN MILLIMETRES		TOLLERANCES	-	FINISH	Drawing No		D1037	SHEET 1 OF 2
				GEN	-					
				HOLE	+/-1					
				CTR	-					
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