

ULT-Freezer Performance Data Sheet



Capacity

Storage volume	101 L (3.6 ft ³)	
Number of compartments	2	
Adjustable shelves	Yes	
Number of inner doors	2 (insulated)	
Racks per shelf	3 (Max. 30 kg/ 66 lbs)	
Racks per freezer	6	
Box capacity per freezer	53 mm (2 in) box	66
	64 mm (2.5 in) box	48
	76 mm (3 in) box	36
	102 mm (4 in) box	24
	127 mm (5 in) box	24
DWP	-	
Sample capacity per freezer (53 mm (2 in) box)	6,000/ 6,600 (MAX)	

Compartment Dimensions

Compartment number	(H x W x D)
1 (Top)	320 x 480 x 330 mm (12.6 x 18.9 x 13 in)
2 (Bottom)	315 x 480 x 330 mm (12.4 x 18.9 x 13 in)

Construction

Interior	Stainless steel grade 304 2B
Exterior	Powder-coated steel
Insulation	Polyurethane foam + VIP
Wall thickness	80 mm
Power switch	Secured with key (front)
Battery switch	Secured with key (front)
Inner doors	Insulated and sealed
Access ports	2 (diameter 21.5 mm)
Vent port	Manual, left side
Casters/ level legs	Heavy duty

Technical Specifications*: CryoCube® F101h - 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 2,000 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
Temperature rating	-50 °C to -86 °C
Electrical rating (1 phase)	230 V/ 50 Hz
Current rating	10.0 A
Regulatory aspects	<ul style="list-style-type: none"> > WEEE > CE + UKCA conformant > RoHS > REACH

Dimensions

Internal dimensions (H x W x D)	640 x 480 x 330 mm (25.2 x 18.9 x 13 in)
External dimensions (H x W x D)	834 x 936 x 629 mm (32.8 x 36.9 x 24.8 in)
External packaging dimensions (H x W x D):	1,055 x 773 x 1,142 mm (41.5 x 10.4 x 45 in)
Net weight	123 kg (271 lbs)
Shipping weight	153 kg (337 lbs)
Air cargo	No

Typical Performance Characteristics*

Testing conditions	<ul style="list-style-type: none"> > External test house > 24 h run > 3 units tested in parallel > Ambient temperature: 20 °C (+/- 1 °C) 			
Pull down time (freezer empty, from ambient to -80 °C)	120 min			
Door open recovery (freezer set to -80 °C, recovery to -80 °C)	15 s 11 min	30 s 16 min	60 s 21 min	120 s 28 min
Power consumption (freezer set to)	-70 °C 3.2 KWh/ day	-80 °C 4.7 KWh/ day	-85 °C 5.8 KWh/ day	
Max. heat output (freezer set to)	-70 °C 133 W 454 BTU/ h	-80 °C 196 W 666 BTU/ h	-85 °C 240 W 815 BTU/ h	
Cabinet uniformity (freezer set to -80 °C)	+5.0 °C -0.8 °C			
Warm up time (freezer 2/3 full, from -85 °C to -50 °C) (freezer 2/3 full, from -85 °C to 0 °C)	4 h 22 h			
Duty cycle (on/off)	9 min/ 10 min			
Noise level (at -80 °C)	39.7 dBA			

Sustainability

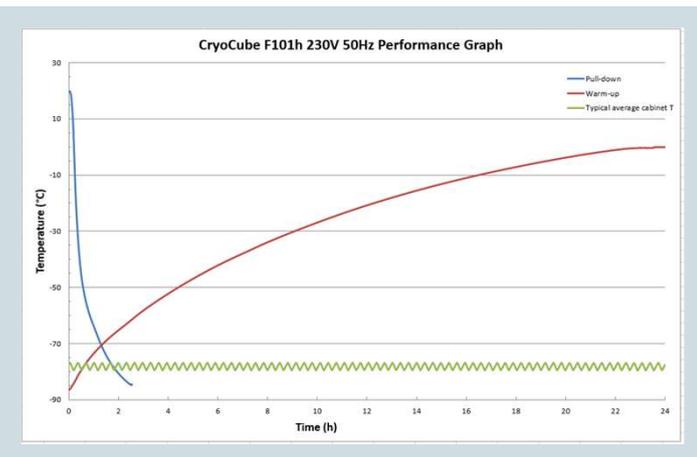
Assembly	By 100% renewable energy
Refrigerants	Hydrocarbons
Global warming potential (GWP) of refrigerant charge	0.6 kg CO ₂ e
Origin	UK
Resources	Data not available
Regional sourcing within 500 miles/ 750 km	Data not available
Water usage in assembly	Low-to-zero
Certification	-
Packaging	Cardboard (ca. 70% recycled content) PE dust foil + PE cushion element Wooden pallet

Refrigeration Specifics

Refrigeration system	2 stage cascade cooling system
Compressors	Commercially available, heavy duty compressors
Defrost method	Manual
Refrigerant charge	High Stage: R290/ Propane (78 g) Low Stage: R170/ Ethane (65 g)
Condensing method	Air-cooled
Expansion device	Capillary tubes
Evaporator type	Cold wall

User Interface

Alarms	Adjustable high/low temperature, power fail, battery low, filter clean, fault
Password protection	By code (freezer settings)
Remote alarm port	Standard (BMS)/ Potential free contact
RS-485 interface	Optional
Ethernet interface	No
VisioNize	Via box
Power switch	Secured by lockable plate
Lock	Handle keylock + padlock as option
Temperature control	Microprocessor
Cabinet control probe	PT 100 (centered)

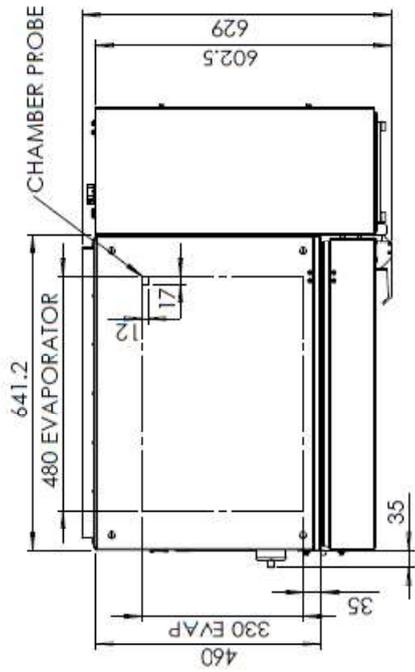


*Technical specifications subject to change

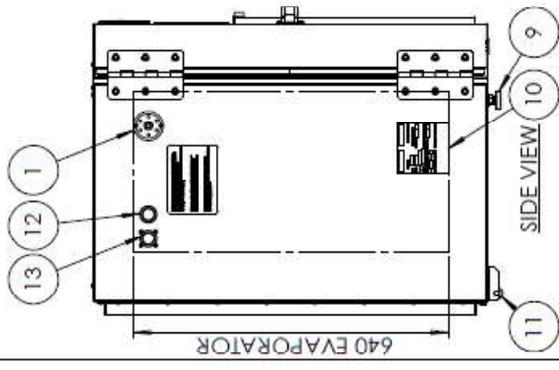
Your local distributor: www.eppendorf.com/contact
Eppendorf SE · 22331 Hamburg · Germany
E-mail: eppendorf@eppendorf.com

www.eppendorf.com

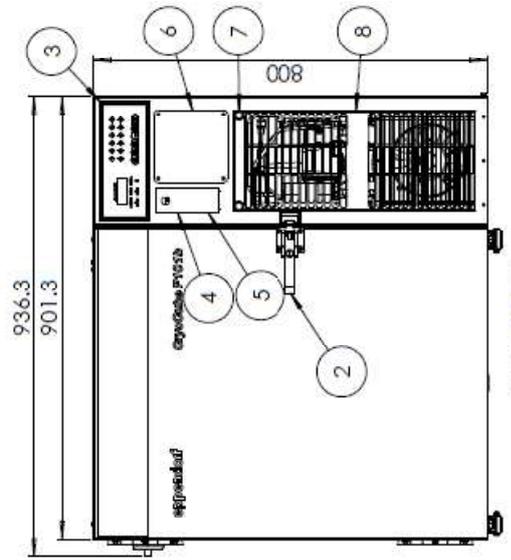
ITEM NO	DESCRIPTION
1	HEATED VENT PORT
2	LOCKABLE HANDLE
3	CONTROL PANEL / DISPLAY
4	BATTERY SWITCH (ALARM) BEHIND LOCKABLE COVER
5	ON/OFF CIRCUIT BREAKER BEHIND LOCKABLE COVER
6	CHART RECORDER (OPTIONAL)
7	QUARTER TURN FASTENERS
8	AIR FILTER GRILLE
9	ADJUSTABLE FEET
10	SPECIFICATIONS NAME PLATE
11	REAR ROLLERS
12	PROBE PORT
13	CARBON DIOXIDE OR NITROGEN PORT



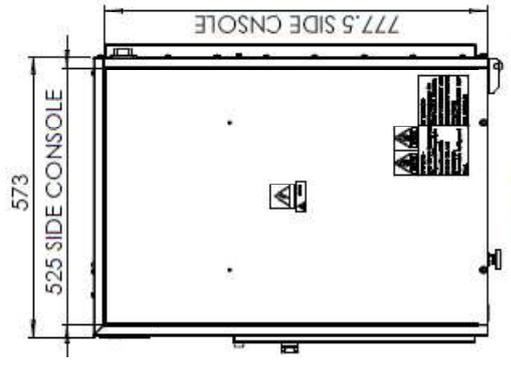
TOP VIEW



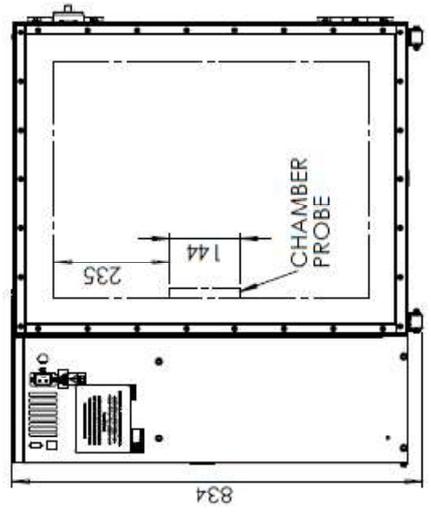
SIDE VIEW



FRONT VIEW



SIDE VIEW SERVICE CONSOLE



REAR VIEW

RIGHT VIEW

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN MILLIMETERS. DIMENSIONS FOR CLEARANCE AND MOUNTING ARE IN INCHES. DIMENSIONS FOR POSITION ARE IN MILLIMETERS.	NAME	DATE	MATERIAL	REVISION			
	DMW	2007/22	See Part Materials	DEBUR AND BREAK SHARP EDGES			
DO NOT SCALE DRAWING		SCALE: 1:1		TITLE		F101H Freezer Unit Assy 230V	
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