



-86 °C ULT Freezer ULT-420



GENERAL

Storage Capacity(L/Cu.Ft)		420/14.8
Temperature Range(°C)		-40 ~ -86
Noise (dB(A))		49
Net/Gross Weight (kg)		310/357
Exterior Dimensions(W*D*H)	mm	2130*870*1020
	in	83.9*34.3*40.2
Interior Dimensions (W*D*H)	mm	1367*462*652
	in	53.8*18.2*25.7

ENVIRONMENTAL & ELECTRICAL DATA

Electrical Power (V/HZ)	220 ~ 240/50	208 ~ 230/60
Power (W)	1000	1000
Power Consumption (kW-hr/day)		12.5
Electrical Current (A)	7.5	7.5
Building Supply Rating (A)		16
Power Lead Length (m)		2.5
Heat Rejection (BTU/day)		42652
Ambient Temperature		10 °C ~ 32 °C

REFRIGERATION CONFIGURATION

Refrigeration System Type	Direct cooling
Compressor Type/Brand/Number	Hermetic Reciprocating Type/SECOP/2
Compressor Capacity(W)	950 1100
Evaporator Type	Cold Wall With Enhanced Heat Transfer Treatment
Defrost Method	Manual
Refrigerant Charge/Flammable	R290 in 1st Stage / R290+R170 Mix in 2nd Stage / Flammable

Specifications

ULT-420

CONTROLLER/ELECTRICAL SYSTEM FEATURES

Controller Level	Top
Power Switch	On-Off with Circuit Breaker
Controller Type	Microprocessor Control, Bright LED Display, USB Data Export
Setpoint Security	Yes
Controller Sensor	PT100
Remote Alarm Terminals	Remote Alarm Port, RS232/RS485 (Optional)
Adjustable High/Low Temp Alarms	Adjustable
Auto Voltage Safeguard	/

CONSTRUCTION

Insulation	CFC Free Foaming Agent
Exterior Door Seal	One Seal On the Outside Door Seal Strip
Interior Door Seal	N
Shelves/Capacity/Dims/Material	/
Casters	All-direction caster with fixing stand
Exterior Material	Color Coating Steel Plate
Interior Material	Stainless Steel
Door Thickness	80mm
Cabinet Thickness	140mm
Inner Door	Three Solid Door
Condenser Type	Enhanced Micro-Channel and Forced-Air Cooled
Fan Brand	EBM
Back Up Battery For Alarm Functions	Support high/low temperature, power failure, door open, sensor failure, high ambient temperature, hot condenser and low battery alarms

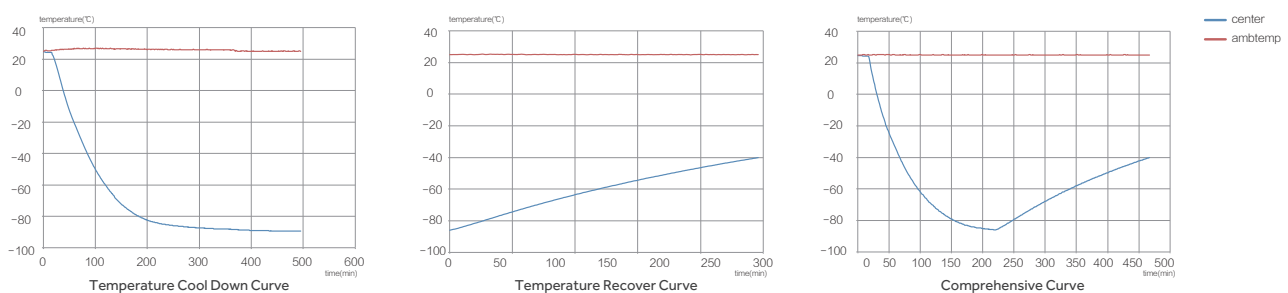
PERFORMANCE

Temperature Uniformity(°C)	6
Temperature Accuracy(°C)	1
Cool Down Time (25 °C ambient to -80 °C) mins	240
Warm Up Time (25 °C ambient -80 °C to -50 °C) mins	150
1 Min Door Open Recovery Time (ambient 25 °C running temp -75 °C)mins	30

CERTIFICATE

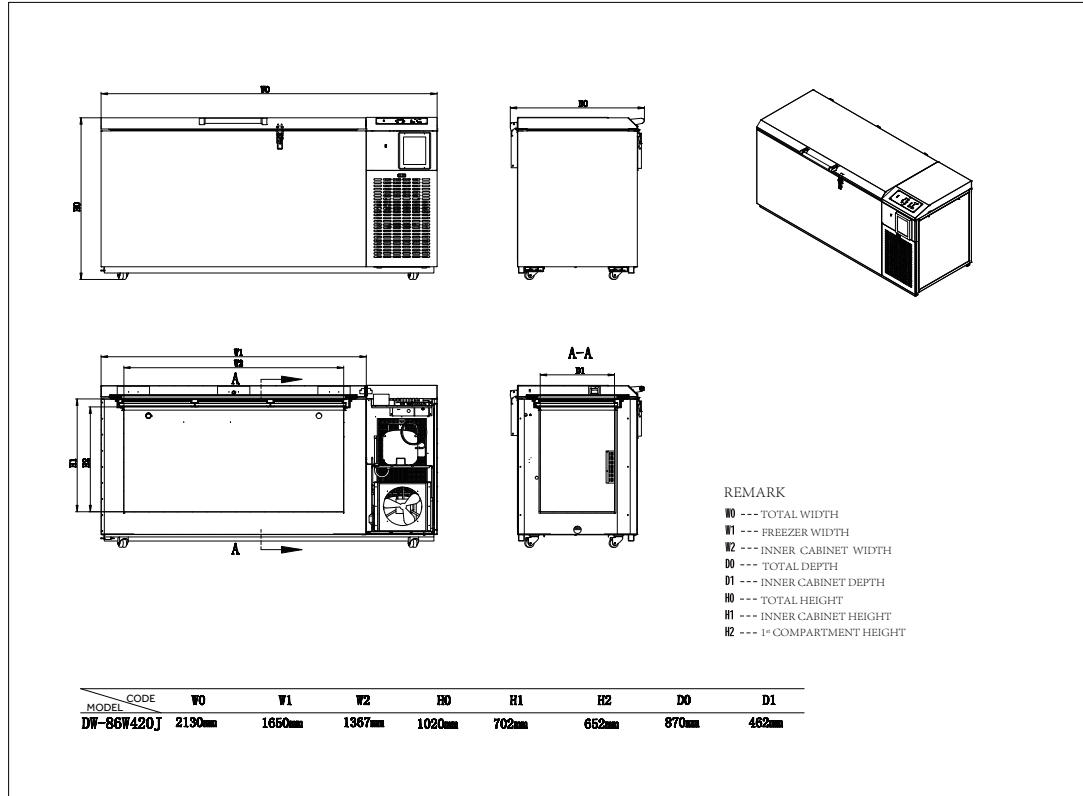
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TYPICAL PERFORMANCE CHARACTERISTICS IN 25 °C AMBIENT



Specifications
ULT-420

PRODUCT DIMENSION DRAWINGS

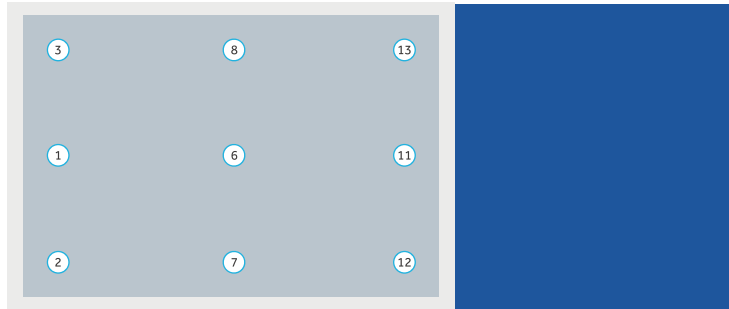


Specifications

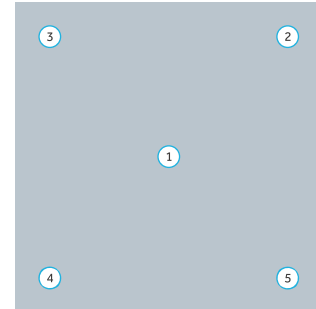
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TYPICAL CABINET TEMPERATURE MAP

Top view of shelves



Left view of shelves



°C	1	2	3	4	5	6	7	8	9	10
Max.	-79.3	-77.1	-76.9	-79.3	-79.6	-79.3	-77.5	-77.1	-79.1	-79.1
Min.	-80.4	-80.1	-80.3	-80.7	-80.7	-80.2	-78.5	-78.2	-80	-80.2
Avg.	-79.9	-78.6	-78.6	-80	-80.2	-79.8	-78	-77.7	-79.6	-79.7

°C	11	12	13	14	15
Max.	-79.4	-76.9	-76.9	-79.3	-79.5
Min.	-80.3	-80.8	-80.4	-81	-80.5
Avg.	-79.9	-78.9	-78.7	-80.2	-80

