



-86C° ULT Freezer

MBI420-80



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&ELECTRICALDATA

Electrical Power (V/HZ)	220V/60HZ	
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	ColdWall With Enhanced Heat Transfer Treatment	
Defrost Method	Manual	
Refrigerant Charge/Flammable	R290 in 1st Stage / R290+R170 Mix in 2nd Stage / Flammable	

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

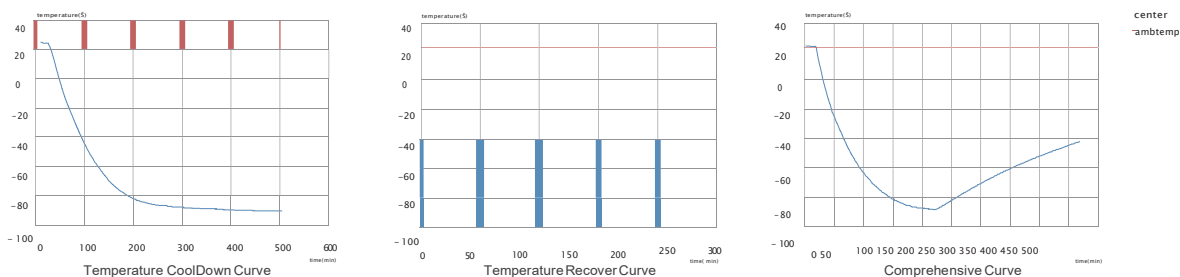
PERFORMANCE

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

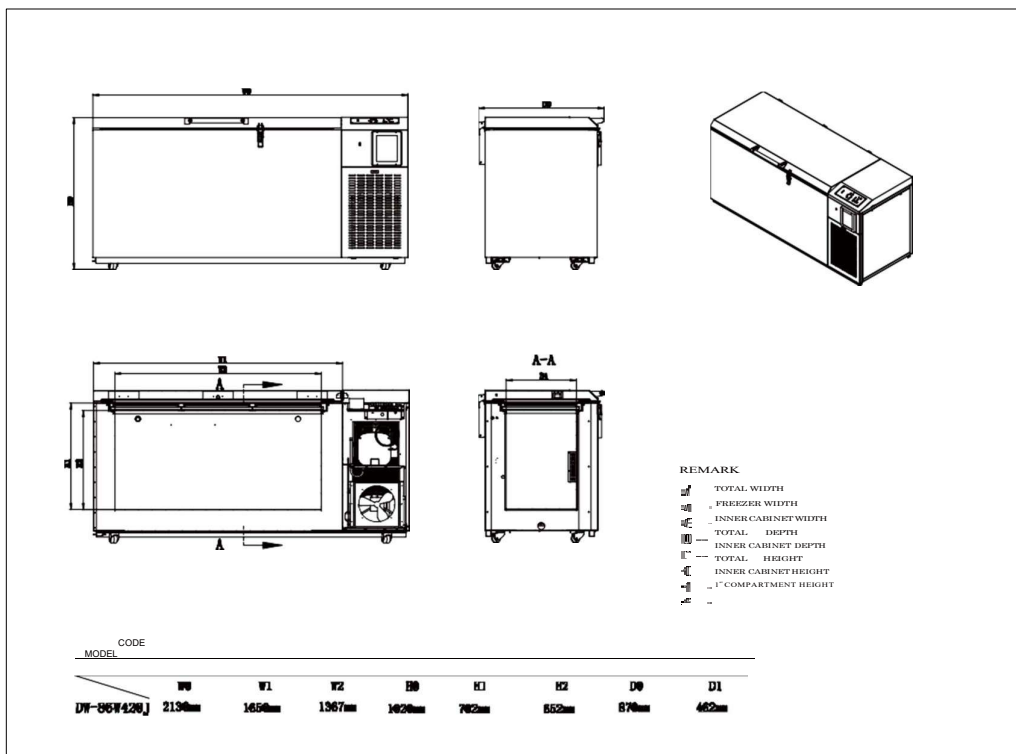
CERTIFICATE

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TYPICAL PERFORMANCE CHARACTERISTICS IN 25 °C AMBIENT

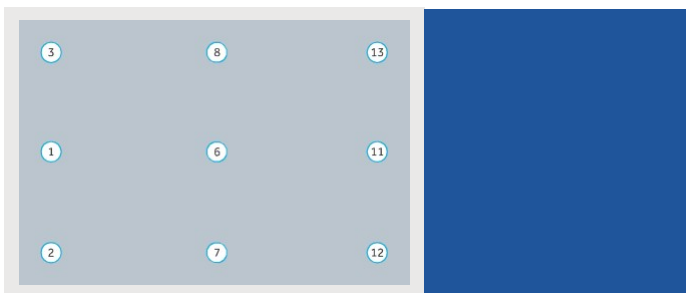


PRODUCT DIMENSION DRAWINGS

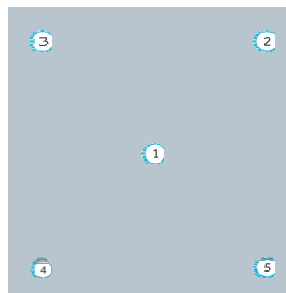


TYPICAL CABINET TEMPERATURE MAP

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	-79.2	-78	77.7	-79.2	-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