



# -86 °C ULT Freezer



## GENERAL

Storage Capacity(L/Cu.Ft)			578/20.4
Temperature Range(°C)			-40 ~ -86
Noise (dB(A))			50
Net/Gross Weight (kg)			300/330
Exterior Dimensions(W*D*H)	in		903*980*1960
	mm		36*38.6*77.2
Interior Dimensions (W*D*H)	mm		620*716*1310
	in		24.4*28.2*51.6

## ENVIRONMENTAL & ELECTRICAL DATA

Electrical Power (V/Hz)	115V/60HZ or 220V/60HZ	
Power Consumption (kW-hr/day)	8.5	
Electrical Current (A)	9	
Building Supply Rating (A)	16	
Power Lead Length (m)	2.5	
Heat Rejection (BTU/day)	29003 (stable operation)	
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
Evaporator Type	Cold Wall With Enhanced Heat Transfer Treatment
Defrost Method	Manual
Refrigerant Charge/Flammable	R290 in 1st Stage / R170 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	RemoteAlarmPort,RS232/RS485(Optional)
Adjustable High/Low Temp Alarms	Adjustable

### CONSTRUCTION

Insulation	VIP+LBA Foaming Agent
Exterior Door Seal	Four Seal On the Outside Door Seal Strip
Interior Door Seal	One Seal On the Interior Door Seal Strip
Shelves/Capacity/Dims/Material	3 stainless steel adjustable shelves with dimensionmm 604*677 mm(W*D), maxcapacity per shelf:80 kg,176.4 lbs
Casters	All-direction caster with fixing stand
Exterior Material	Color Coating Steel Plate
Interior Material	Color Coating Steel Plate
Door Thickness	90mm
Cabinet Thickness	90mm
Inner Door	Four Solid Door
Condenser Type	Finned and Forced-Air Cooled
Fan Brand	EBM
Back Up Battery For Alarm Functions	Support high/low temperature, power failure, ajar, sensor failure, high ambient temperature, hot condenser and low battery alarms

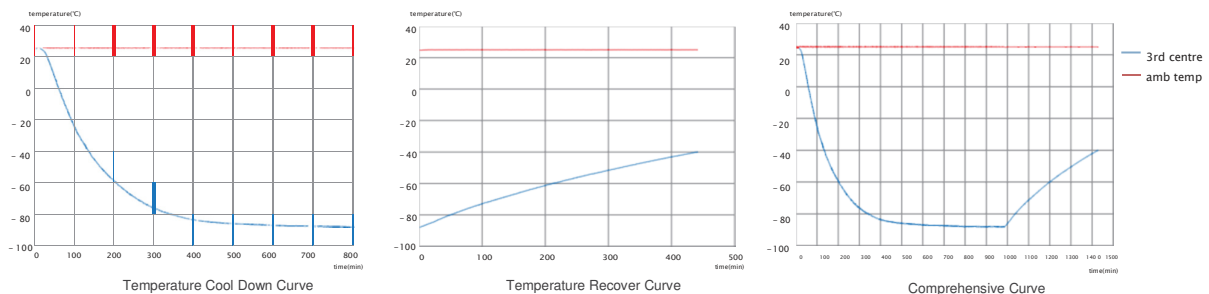
### PERFORMANCE

Temperature Uniformity(°C)	+3/-3.4
Temperature Accuracy(°C)	1
Cool Down Time (25°C ambient to -80°C) mins	350
Warm Up Time (25°C ambient -80°C to -50°C) mins	260
1 Min Door Open Recovery Time (ambient 25°C running temp -75°C)mins	40

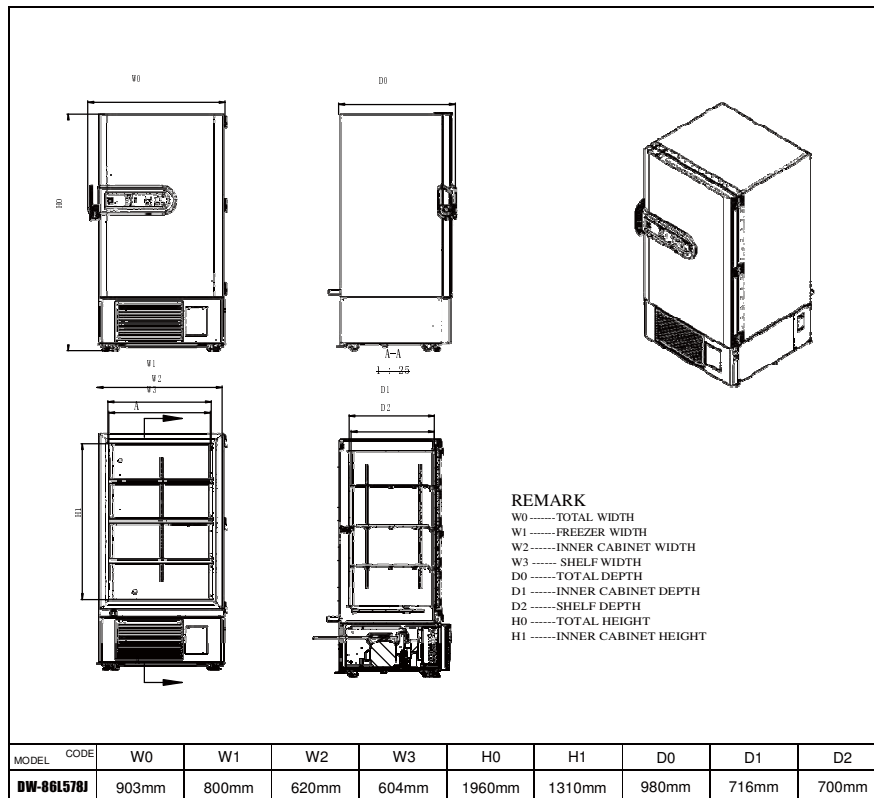
### CERTIFICATE

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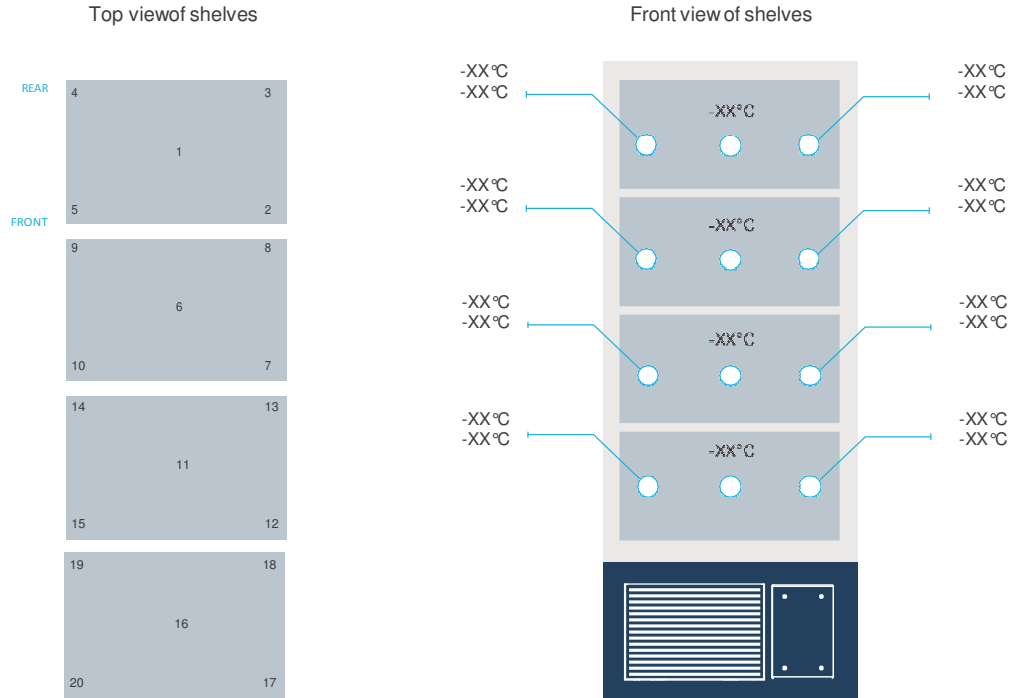
### TYPICAL PERFORMANCE CHARACTERISTICS IN 25 °C AMBIENT



PRODUCT DIMENSION DRAWINGS



## TYPICAL CABINET TEMPERATURE MAP



°C	1	2	3	4	5	6	7	8	9	10
Max.	-78.8	-78.3	-78.8	-78.4	-78.7	-80.4	-80.0	-80.6	-80.0	-80.6
Min.	-82.2	-81.6	-81.9	-81.1	-81.8	-83.2	-82.7	-83.4	-82.6	-82.9
Avg.	-80.5	-80.0	-80.4	-79.8	-80.3	-81.8	-81.4	-82.0	-81.3	-81.8

°C	11	12	13	14	15	16	17	18	19	20
Max.	-79.6	-79.0	-79.6	-79.5	-79.3	-77.6	-77.0	-77.5	-77.4	-77.4
Min.	-81.8	-80.9	-81.9	-81.6	-81.1	-78.7	-78.1	-78.5	-78.5	-78.4
Avg.	-80.7	-80.0	-80.8	-80.6	-80.2	-78.2	-77.6	-78.0	-78.0	-77.9

\*Typical freezer data based on internal testing.