

## -86°C ULT Freezer DW-86L728ST

**VDW**   
Crucial Temperature Solutions



### GENERAL

Storage Capacity(L/Cu.Ft)		728/25.7
Temperature Range(°C)		-40 ~ -86
Noise (dB(A))		50
Net/Gross Weight (kg)		350/385
Exterior Dimension (W×D×H)	mm	1046*998*1980
	in	41.2*39.3*78.0
Interior Dimension (W×D×H)	mm	766*716*1310
	in	30.2*28.2*51.6

### ENVIRONMENTAL & ELECTRICAL DATA

Electrical Power (V/Hz)		208 ~ 230/50
Power(W)		1400
Power Consumption(kW-hr/day)		12
Electrical Current (A)		10
Building Supply Rating (A)		16
Power Lead Length (m)		2.5
Heat Rejection (BTU/day)		40944
Ambient Temperature(°C)		10 - 32

### REFRIGERATION CONFIGURATION

Refrigeration System Type		HC
Compressor Type/Brand/Number		Hermetic Reciprocating Type/SECOP/2
Compressor Capacity (W)		1300+1300
Evaporator Type		Copper Tube Evaporator
Defrost Method		Manual
Refrigerant Charge/Flammable		R600a+R1150+R14 Mix in 1st Stage / the same in 2nd Stage/Flammable

### CONTROLLER/ELECTRICAL SYSTEM FEATURES

Controller Level	Top
Power Switch	16A
Controller Type	Microprocessor,touch screen
Setpoint Security	Yes
Controller Sensor	PT100
Remote Alarm Terminals	Remote Alarm Port, RS485
Adjustable High/Low Temp Alarms	Y
Auto Voltage Safeguard	Y

### CONSTRUCTION

Insulation	VIP+CFC Free 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 dimension 752*650 mm(W*D), max capacity per shelf:100kg, 220.6 lbs
Casters	Y/4
Exterior Material	Color Coating Steel Plate
Interior Material	Color Coating Steel Plate
Door Thickness (mm)	90 (VIP+CFC Free Foaming Agent)
Cabinet Thickness (mm)	90 (VIP+CFC Free Foaming Agent)
Inner Door	Four Solid Door
Condenser Type	Microchannel
Fan Brand	SUNON
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

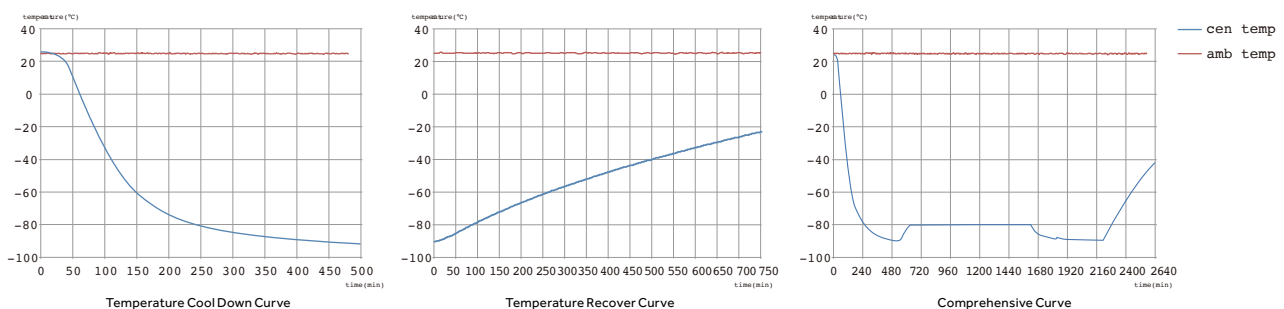
### PERFORMANCE

Temperature Uniformity(°C)	±5
Temperature Accuracy(°C)	0.1
Cool Down Time (25°C ambient to -80°C) mins	250
Warm Up Time (25°C ambient -80°C to -50°C) mins	310
1 Min Door Open Recovery Time (ambient 25°C running temp -80°C)mins	30

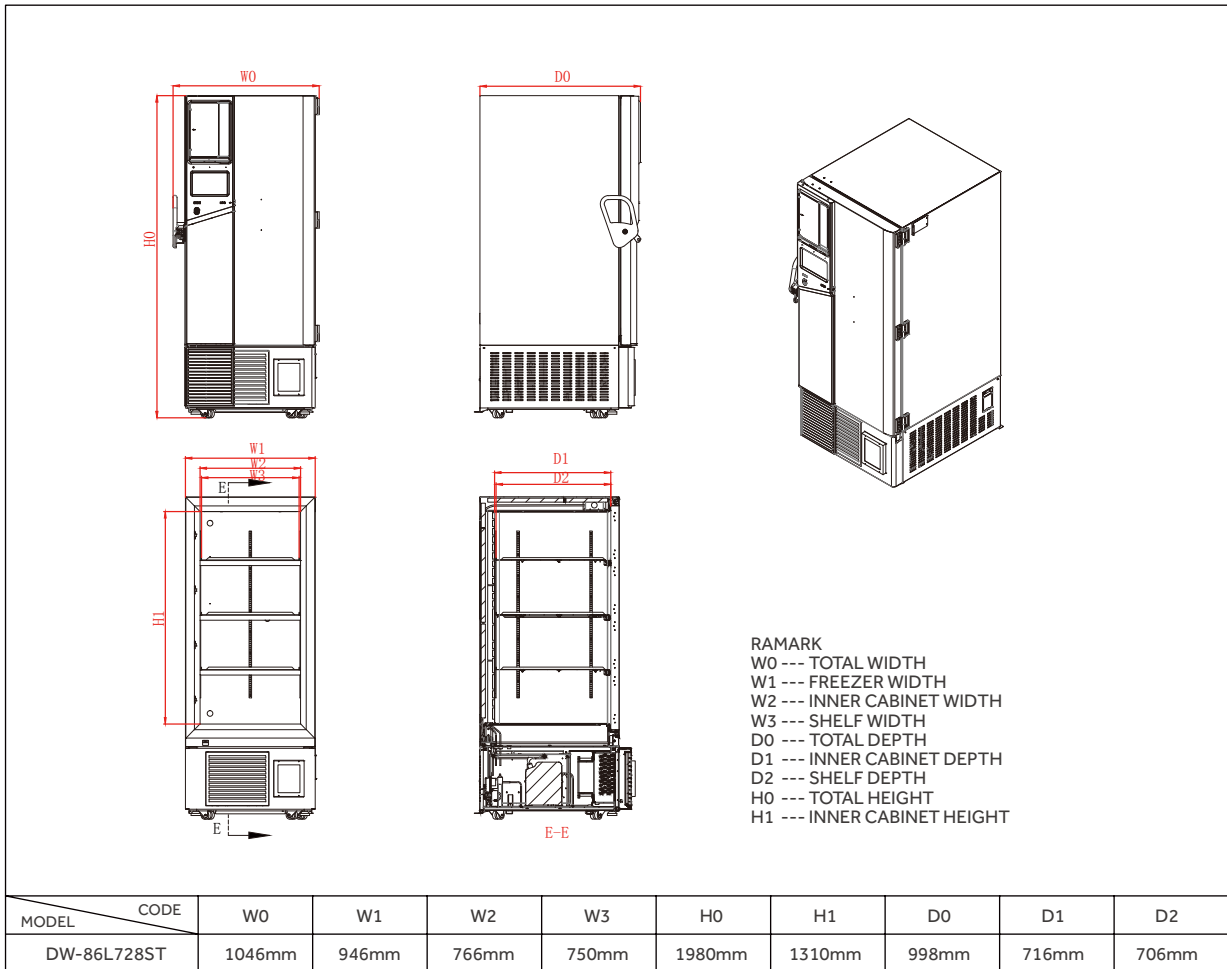
### CERTIFICATE

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### TYPICAL PERFORMANCE CHARACTERISTICS IN 25°C AMBIENT

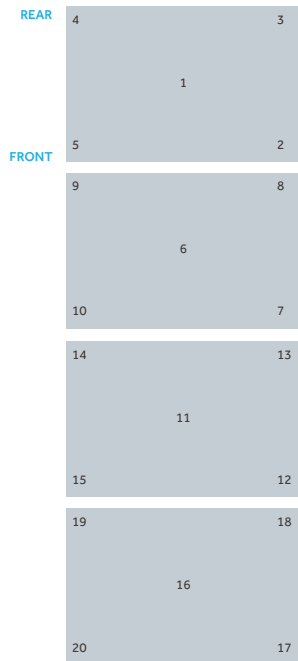


PRODUCT DIMENSION DRAWINGS

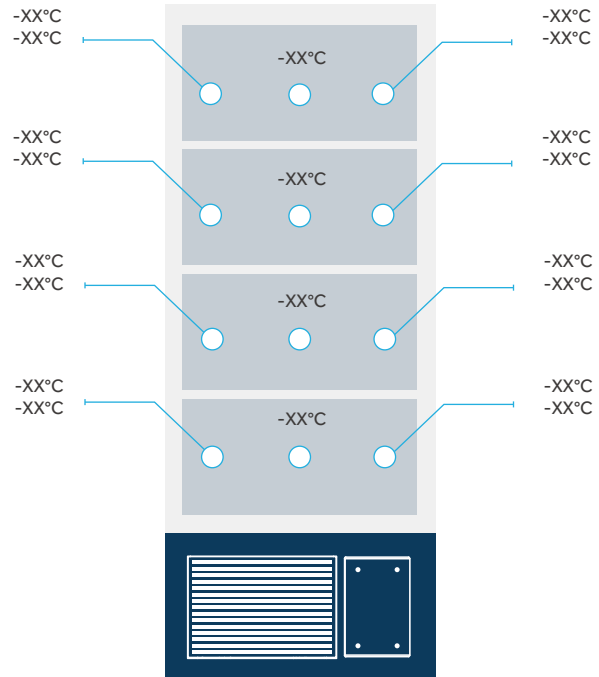


### TYPICAL CABINET TEMPERATURE MAP

Top view of shelves



Front view of shelves



°C	1	2	3	4	5	6	7	8	9	10
Max.	-78.3	-78.1	-78.3	-77.7	-78.8	-80.6	-79.2	-80.2	-79.5	-80.5
Min.	-80.5	-80.2	-80.3	-80.4	-80.7	-82.0	-80.6	-82.2	-81.3	-82.2
Avg.	-79.7	-79.4	-79.4	-79.5	-79.9	-81.3	-79.9	-81.2	-80.4	-81.3

°C	11	12	13	14	15	16	17	18	19	20
Max.	-79.3	-79.4	-79.3	-79.8	-79.1	-78.1	-77.0	-77.7	-77.7	-77.6
Min.	-80.3	-80.2	-80.4	-81.3	-80.4	-79.8	-78.0	-79.1	-79.4	-79.7
Avg.	-79.7	-79.8	-79.8	-80.5	-79.4	-78.8	-77.5	-78.2	-78.4	-78.5