




# ALAN



## Report Portable ULT Freezer



# Specification

Model	DW-4525	DW-6025	DW-8625
Parameters			
Storage Volume	25L		
Electric Power	100V AC to 240V AC; 50Hz,60Hz; 12V DC to 24V DC		
Maximum Power(Current)	100W (0.5A@220V, 4.6A@24V)		
Cooling Engine	Free Piston Stirling Cooler		
Refrigerant	Helium (He)		
Heat Transport System	Gravity driven thermosiphon		
Temperature Range	18°C to -45°C	18°C to -60°C	18°C to -86°C
Environmental Conditions	Non-corrosive, Non-flammable, Non-explosive, Altitude up to 2000m (Temperature 5°C to 35°C, maximum relative humidity 80%)		
Performance Data	Ambient temperature is 25°C; Empty Cabinet		
	Take 1.5 hours from 25°C to -45°C	Take 2.5 hours from 25°C to -60°C	Take 3.5 hours from 25°C to -80°C
Temperature control capability	Target temperature $\pm 1^\circ\text{C}$	Target temperature $\pm 1^\circ\text{C}$	Target temperature $\pm 2^\circ\text{C}$
Steady State Energy	Ambient temperature is 25°C		
	30W	40W	75W
Insulation	High performance vacuum insulated panels, polyurethane foam		
Noise	<50dB	<55dB	<55dB
Control Sensor	One RTD(PT100 Class B), precision $\pm 0.3$		
Security	Lockable lid		
Warm and cold alarms	Setpoint $\pm 10^\circ\text{C}$		
Defrost Method	Manual		
Certification	CE/EMC、CE/LVD、CQC		
Interior(LxWxD)	300×250×300mm		
Exterior(LxWxD)	616×392×455mm		
Net Weight, Empty	17.5kg		
Shipping(LxWxD)	710×480×530mm		
Shipping Weight	21kg		

# Specification

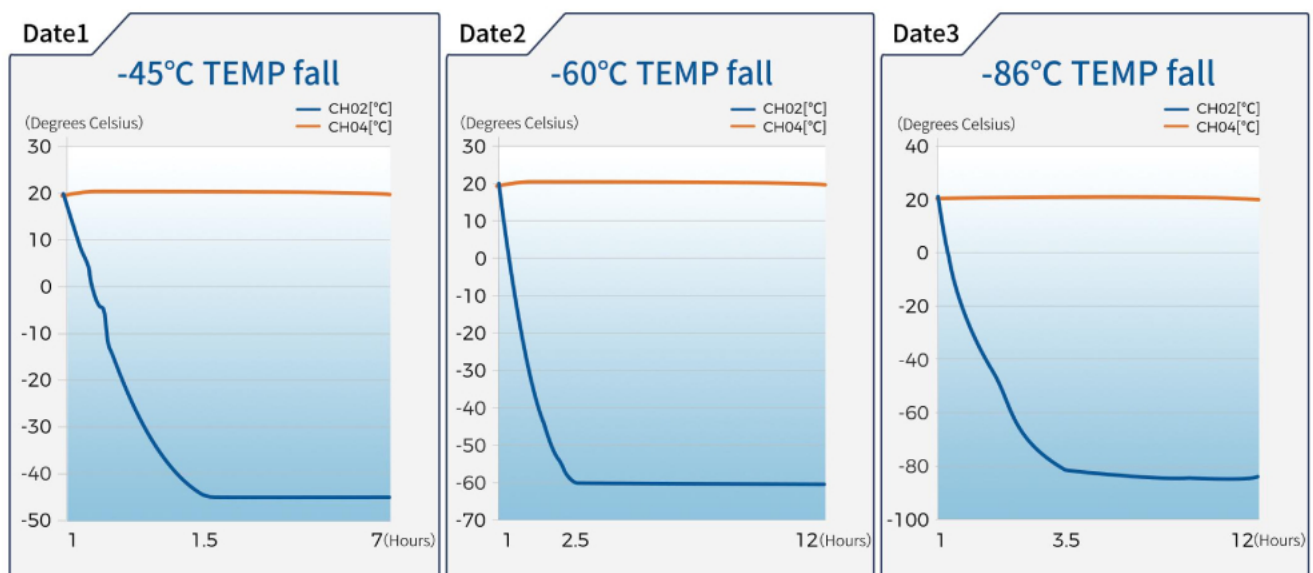
Model	DW-0225	DW-8602
Parameters		
Storage Volume	25L	2L
Electric Power	100V AC to 240V AC; 50Hz,60Hz; 12V DC to 24V DC	
Maximum Power(Current)	100W (0.5A@220V, 4.6A@24V)	
Cooling Engine	Free Piston Stirling Cooler	
Refrigerant	Helium (He)	
Heat Transport System	Gravity Driven Thermosiphon	Direct Cooling
Temperature Range	2°C to 8°C	18°C to -120°C
Environmental Conditions	Non-corrosive, Non-flammable, Non-explosive, Altitude up to 2000m (Temperature 5°C to 35°C, maximum relative humidity 80%)	
Performance Data	Ambient temperature is 25°C; Empty Cabinet	
	Take 0.5 hour from 25°C to 2 °C	Take 2 hours from 25°C to -120°C
Temperature control capability	Target temperature $\pm 1^{\circ}\text{C}$	
Steady State Energy	Ambient temperature is 25°C	
	15W	70W
Insulation	High performance polyurethane foam	
Noise	<50dB	<55dB
Control Sensor	One RTD(PT100 Class B), precision $\pm 0.3$	
Security	Lockable lid	
Warm and cold alarms	Setpoint $\pm 10^{\circ}\text{C}$	
Defrost Method	Manual	
Certification	CE/EMC、CE/LVD、CQC	
Interior(LxWxD)	300×250×300mm	160×160×80mm
Exterior(LxWxD)	616×392×455mm	245×246×450mm
Net Weight, Empty	17.5kg	11kg
Shipping(LxWxD)	710×480×530mm	390×400×550mm
Shipping Weight	21kg	16kg

## Introduction

Report portable ultra low temperature freezer uses military grade Stirling Cooling Technology. It's a small portable ULT cold storage. This kind of product focused on laboratory ultra-low temperature storage and transportation, Industrial extreme environment simulation test, Pharmaceutical cold chain transportation, Storage and transportation of biological samples, Cold chain science of life, Clinical medicine, Outdoor camping and Household ULT storage.

### Product advantages:

1. Easy use and operation
2. Small size and light weight
3. Wide temperature range(+15°C to -86°C)
4. Easy use and operation
5. Constant temperature inside(fluctuations within  $\pm 1^\circ\text{C}$ )
6. Access to a variety of power supplies
7. Precise temperature control(TEMP fluctuations within  $\pm 1^\circ\text{C}$ )
8. Utilizes 100% natural refrigerants to support sustainable environmentally-friendly operations



# Stirling Cooling Technology Introduction



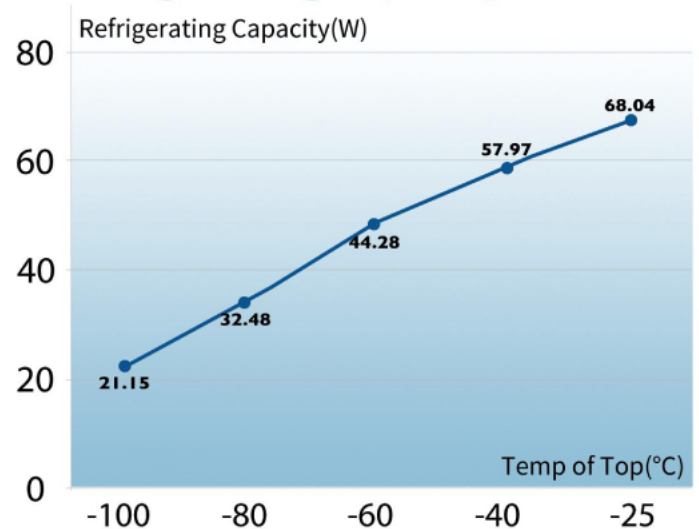
Free Piston Stirling Cooler is a highly efficient cryogenic cooler. It utilizes the Joule-Thomson effect to cool down a single point on the back of the CMOS. This makes them a form of Joule-Thomson type coolers. And now this kind of technology is being widely used in aerospace, satellite sounding, precision equipment cooling and other military areas.

## Stirling Cooler advantage:

- 1.Reduction of structure
- 2.Adjustable refrigerating capacity
- 3.NO angle limit operation
- 4.Long life and maintenance-free
- 5.High efficiency and low energy consumption
- 6.Powerful instant freezing ability  
(top TEMP fall to  $-130^{\circ}\text{C}$  within 3min)

Ambient Temperature	$-20^{\circ}\text{C}$ to $+42^{\circ}\text{C}$
Rated Power Input	80W
Rated Cooling Capacity	30W@ $-80^{\circ}\text{C}$
Max Cooling Capacity	35W@ $-80^{\circ}\text{C}$
Lowest Refrigeration Temperature	$-145^{\circ}\text{C}$
Weight	3.5KG
Precise Temp Control	$\pm 0.1^{\circ}\text{C}$
Installation Direction	Free

## Refrigerating capacity chart



# ALAN

## Company introduction

Alan Ultra Cool Technology Co, is an innovative, technology-driven enterprise specializing in the design, research, development, production, and manufacturing of Free Piston Stirling Coolers and Portable Ultra Low Temperature (ULT) Freezers.

Our mission is to bring Stirling cooling technology into the commercial market. Backed by a professional team with 15 years of experience in Stirling technology, we have successfully mass-produced the Free Piston Stirling Cooler (80W) and Portable Ultra Low Temperature

## Factory scene



## Certification



## CONTACT US

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