



# TwinCool ULT Freezer

## Scope of Application

The TwinCool ULT freezer can be used for the storage and protection of valuable samples which require strict and continuous storage conditions, designed to operate even in the event of a compressor failure. Suitable for viruses, pathogens, blood cells and other biological sample cold storage applications found within hospitals, disease control, research institutions and biomedical engineering. Also used to store special materials and other products within electronics and chemicals industries.

## Friendly Design

- ◎ Safe and secure
- ◎ Cloud data storage available
- ◎ Low noise design, reducing the noise down to 53dB
- ◎ Optimized insulation

## Qingdao Haier Biomedical Co.,Ltd.

No.280 Feng Yuan Road, High-tech Zone,  
Qingdao, 266109, P.R. China  
Tel: +86-0532-88935593  
Website: [www.haiermedical.com](http://www.haiermedical.com)



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### **A** Dual independent refrigeration systems for maximum sample safety

The dual refrigeration systems run independently and alternately, both reaching  $-80^{\circ}\text{C}$ , such that if one system fails the other will maintain temperature to ensure sample storage safety.

### **B** High speed refrigeration system for faster pull down and temperature recovery after door opening

Utilizing auto-cascade hydrocarbon (HC) refrigeration technology to deliver fast temperature pull down. From an ambient of  $25^{\circ}\text{C}$  it takes just 180 minutes to reach  $-80^{\circ}\text{C}$ . It provides a quick temperature recovery after door opening, with the internal temperatures returning to  $-75^{\circ}\text{C}$  within 1 minute, guaranteeing the safety of samples.

### **C** World-leading energy saving refrigeration technology

The HC refrigeration technology coupled with superinsulation, increases the insulation efficiency by 30%, and the cabinet is designed to reduce heat loss ensuring an energy efficient freezer. The 578L model has a power consumption of 11 kWh/day and is certified by The National Quality Certification Center for Energy Saving and Environmental Protection.



**DW-86L578ST**

## Advanced Hardware System



### Smart Full-size Touch Screen

10-inch touch screen with state-of-the-art user interface design, coupled with a sample management system which provides an optimal user experience.

## Optional IoT Software System



### Simplified Sample Management Experience

Optional barcode scanner for simple, effortless and precise identification. Input and retrieve your samples with higher precision and efficiency.



### Wireless Monitoring Connectivity

Check the real-time operating status via mobile phones or portable tablet, simple and reliable.

## Friendly Design



### Safe and secure

Equipped with key lock, padlock and electromagnetic lock as standard, with optional fingerprint lock, providing multiple safeguards for sample safety.



### Cloud data storage available

Store hundreds of millions of scientific research and sample information in the cloud server.



### Low noise design, reducing the noise down to 53dB

Special noise-reduction design plus super silent compressor technology and energy-saving fan, considerably lowers noise level.



### Optimized insulation

Double foaming for both inner and outer doors and five-layer sealing design and optimized super-thick VIP thermal insulation technology, extends temperature holdover time during power failure and increases insulation efficiency by 30%.

## Specifications



	Model	DW-86L578ST		DW-86L578SAT		DW-86L728ST		DW-86L728SAT		
Technical Data	Cabinet Type	Upright		Upright		Upright		Upright		
	Climate Class	N		N		N		N		
	Cooling Type	Direct cooling		Direct cooling		Direct cooling		Direct cooling		
	Defrost Mode	Manual		Manual		Manual		Manual		
	Refrigerant	HC		HC		HC		HC		
	Sound Level (dB(A))	53	52	53	50	53	53			
Performance	Cooling Performance (°C)	-86		-86		-86		-86		
	Temperature Range (°C)	-40~-86		-40~-86		-40~-86		-40~-86		
Control	Controller	Microprocessor		Microprocessor		Microprocessor		Microprocessor		
	Display	Touch Screen LCD		Touch Screen LCD		Touch Screen LCD		Touch Screen LCD		
Electrical Data	Power Supply (V/Hz)	208~230/50	120/60	208~230/60	208~230/50	120/60	208~230/60			
	Power (W)	1400		1800		1400		1800		
	Electrical Current (A)	10	14	10	10	14	10			
Construction	Capacity (L/Cu.Ft)	578/20.4		578/20.4		728/25.7		728/25.7		
	Net/Gross Weight (approx)	kg	325/355		325/355		350/385		350/385	
		lbs	716.5/782.6		716.5/782.6		771.6/848.8		771.6/848.8	
	Interior Dimension (W*D*H)	mm	620*716*1310		620*716*1310		766*716*1310		766*716*1310	
		in	24.4*28.2*51.6		24.4*28.2*51.6		30.2*28.2*51.6		30.2*28.2*51.6	
	Exterior Dimension (W*D*H)	mm	895*998*1980		895*998*1980		1046*998*1980		1046*998*1980	
		in	35.4*39.3*78.0		35.4*39.3*78.0		41.2*39.3*78.0		41.2*39.3*78.0	
Packing Dimension (W*D*H)	mm	950*1055*2150		950*1055*2150		1100*1105*2150		1100*1105*2150		
	in	37.4*41.5*84.6		37.4*41.5*84.6		43.3*43.5*84.6		43.3*43.5*84.6		
Loading Quantities	Container Load (20'/40'/40'H)	12/24/24		12/24/24		10/20/20		10/20/20		
Alarms	High/Low Temperature	Y		Y		Y		Y		
	Hot Condenser	Y		Y		Y		Y		
	Power Failure	Y		Y		Y		Y		
	High/Low Voltage	Y		Y		Y		Y		
	Sensor Error	Y		Y		Y		Y		
	Low Battery	Y		Y		Y		Y		
	High Ambient Temperature	Y		Y		Y		Y		
	Door Ajar	Y		Y		Y		Y		
Accessories	Caster	Y		Y		Y		Y		
	Foot	Y		Y		Y		Y		
	Porthole	Y/2		Y/2		Y/2		Y/2		
	Shelves/Inner Doors	3/4		3/4		3/4		3/4		
	USB Interface	Y		Y		Y		Y		
	Remote Alarm (Dry contacts)	Y		Y		Y		Y		
	5V Power Supply Port	Y		Y		Y		Y		
	Temperature Recorder	Optional		Optional		Optional		Optional		
	RS485 Port	Y		Y		Y		Y		
	CO <sub>2</sub> Backup System	Optional		Optional		Optional		Optional		
	LN <sub>2</sub> Backup System	Optional		Optional		Optional		Optional		
Certifications	CE	Y	/	/	Y	/	/			
	UL	/	Y	Y	/	Y	Y			
	ENERGY STAR	/	Y	Y	/	Y	Y			

Product appearance and specifications are subject to change without notice