



Multiple alarms



Hydrocarbon refrigerant  
and foam material LBA



High performance in  
temperature uniformity



Intelligent frequency  
conversion technology

# TwinCool Frequency Conversion ULT

The Twincool Frequency conversion range of freezers utilize two key innovations to delivery outstanding sample security and energy efficiency – dual cooling and adaptive refrigeration technologies.



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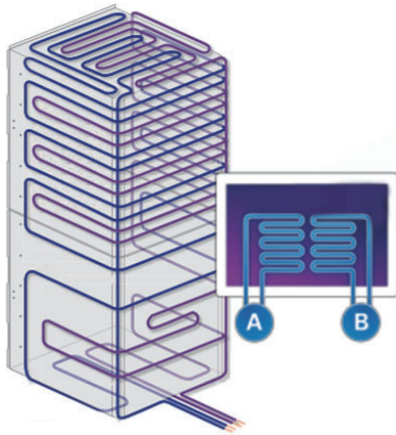


Haier Biomedical  
International



Haier Biomedical  
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**Product Advantages**



**Dual refrigeration system, double safety and optimal reliability**

Double independent hydrocarbon refrigeration system design, each system can maintain  $-80^{\circ}\text{C}$  ensuring the safety of stored samples



**World-leading Energy Saving Refrigeration Technology**

Intelligent frequency conversion technology and HC refrigeration system delivers a 50% reduction in energy usage when compared to traditional HFC refrigeration systems



**Environmental Protection**

Environmentally friendly hydrocarbon refrigerant and foam material LBA



**Optional IoT System**

The optional IoT monitors the operating status of the equipment in real time. Equipped with multiple alarm functions and a self-diagnostics system to identify and warns users to ensure sample safety

**Ergonomic Design**



**Adjustable Sample Loading Tray (Optional)**

The adjustable height sample load tray provides users with a convenient place to hold samples while opening and accessing storage compartments



**Intelligent Control**

10.1-inch high-performance touch screen, sensitive touch operation. Users can check the real-time operating status via IoT



**Large Loading Capacity**

Maximum Capacity: 600 boxes (2 inch boxes with 10\*10 configuration) 60,000 samples can be stored



**Low Noise Design**

Optimised systems and noise-reducing cabinet design lower noise out to 42dB for a quieter working experience

**Product Parts**



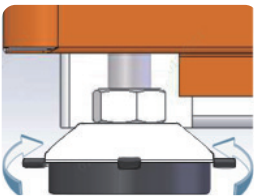
**Ergonomic design**

Document holder for easy storage of documents



**High quality door opening experience**

The ergonomic chamfer design of the handle ensures smooth operation and maximum durability



**Adjustable feet**

For easy positioning and levelling



**Magnetic filter screen**

Filter screen is easy to clean



**DW-86L828BPST**

**Microcomputer control**

Microcontroller with 10.1 inch LCD touch screen displays temperature and other important data. Temperature display precision is 0.1°C

**Multiple alarms**

Including high/ low temperature alarm, sensor error alarm, hot condensor alarm, power failure alarm, low battery alarm, door ajar alarm, high ambient temperature alarm, etc



**Multiple safety lock**

Standard mechanical lock, optional electromagnetic lock  
Optional fingerprint lock and NFC for optimal security and access



**Networking function**

Equipped with RS485 interface to connect multiple freezers

**Specifications**

	Model	DW-86L828BPST	DW-86L728BPST	DW-86L578BPST	
Technical Data	Cabinet Type	Upright	Upright	Upright	
	Climate Class	N	N	N	
	Cooling Type	Direct cooling	Direct cooling	Direct cooling	
	Defrost Mode	Manual	Manual	Manual	
	Refrigerant	HC	HC	HC	
	Sound Level (dB(A))	42	42	42	
Performance	Cooling Performance (°C)	-86	-86	-86	
	Temperature Range (°C)	-40~-86	-40~-86	-40~-86	
Control	Controller	Microprocessor	Microprocessor	Microprocessor	
	Display	LCD	LCD	LCD	
Electrical Data	Power Supply (V/Hz)	100-230/50/60Hz	100-230/50/60Hz	100-230/50/60Hz	
	Power (W)	720	710	710	
	Max Power Draw (W)	1400	1100	1100	
	Electrical Current (A)	13	10.4	10.4	
	Power Consumption (kWh/24h) (set -80°C at 25°C ambient)	10.4	8.4	7.0	
Dimensions	Capacity (L/Cu.Ft)	828/29.2	728/25.7	578/20.4	
	Net/Gross Weight	kg	380/410	350/385	325/355
		lbs	837.7/914.9	771.6/848.8	716.5/782.6
	Interior Dimension (W*D*H)	mm	870*716*1310	766*716*1310	620*716*1310
		in	34.3*28.2*51.6	30.2*28.2*51.6	24.4*28.2*51.6
	Exterior Dimension (W*D*H)	mm	1145*998*1980	1046*998*1980	895*998*1980
		in	45.1*39.3*78.0	41.2*39.3*78.0	35.2*39.3*78.0
	Packing Dimension (W*D*H)	mm	1190*1045*2150	1100*1105*2150	950*1055*2150
		in	46.9*41.1*84.6	43.3*43.5*84.6	37.4*41.5*84.6
	Cabinet Width (without handle and hinge)	mm	1050	946	800
Container Load (20'/40'/40'H)		8/20/20	10/20/20	12/24/24	
Functions	High/Low Temperature	Y	Y	Y	
	Hot Condenser	Y	Y	Y	
	Power Failure	Y	Y	Y	
	High/Low Voltage	Y	Y	Y	
	Sensor Error	Y	Y	Y	
	Low Battery	Y	Y	Y	
	High Ambient Temperature	Y	Y	Y	
	Door Ajar	Y	Y	Y	
	Start-up Delay	Y	Y	Y	
Accessories	Caster	Y	Y	Y	
	Foot	Y	Y	Y	
	Porthole	Y/2	Y/2	Y/2	
	Shelves/ Inner Doors	3/4	3/4	3/4	
	USB Interface	Y	Y	Y	
	Remote Alarm	Y	Y	Y	
	5V Power Supply Port	Y	Y	Y	
	Temperature Chart Recorder	Optional	Optional	Optional	
	RS232/485 Port	NA/Standard	NA/Standard	NA/Standard	
	CO <sub>2</sub> Backup System	Optional	Optional	Optional	
	LN <sub>2</sub> Backup System	Optional	Optional	Optional	
Other	Certification	CE/UL/Energy Star	CE/UL/Energy Star	CE/UL/Energy Star	