

-86°C Ultra Low Temperature Freezer

Energy-saving Series

Hydrocarbon refrigeration, saving power by 50%



World Leading Energy-Efficient



Hydrocarbon Refrigeration System



Slim Cabinet Design



Reliable Sample Protection



Malfunction Alarms



Excellent Insulation Performance

Suitable for blood stations, hospitals, disease control and prevention centers, scientific research institutions, and all related medical and life science laboratories.

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Product Features



Field Proven Reliability

- Unique insulated inner door design for four separate storage compartments to minimize frost buildup inside the chamber
- Specialized control system design for a well-balanced operation of cascade refrigeration system
- Positive field proven reliability record



Safety

- Malfunction alarms including high and low temperature, power failure, sensor error, clean-filter, and extremely high ambient
- Capable of producing two types of alarm outputs: audible buzzer and visible flashing light
- Multiple built-in system protection features including user-settable protection code for controls, user settable delay to start, voltage compensation system, and protection against extreme high voltages
- Door open feature standard and USB port for temperature data downloading standard on upright models
- Remote alarm contacts



Energy Saving

- Unique door seal design for the minimum loss of cold temperature during a door opening
- High performance VIP insulation panels to minimize cabinet heat gain and to improve temperature stability
- Patented cabinet insulation system designed for optimal performance of cold storage temperature and minimal frost buildup
- Unique design of independent insulated inner door systems for independent access of storage space to provide the maximum protection of stored samples



Installation & Application

- Wide range operating voltage system from 185V to 260V designed to allow units installed in areas with poor voltage condition
- Suitable for 10°C to 32°C ambient temperature
- Input voltage and ambient temperature shown simultaneously for ease of monitoring environmental conditions
- Robust door latch designed for secure door closing
- Compact casters for ease of maneuvering



Key Design Features

- Microprocessor-controlled system designed for controllable range of -40°C to -86°C for cabinet space with 1°C increment
- Large LED display for cabinet temperature, set temperature, ambient temperature, and input voltage
- Settable high temperature and low temperature alarms
- Automatic clean-filter alarm and sensor error alert
- Adjustable storage shelf height
- Optional temperature recorder, storage racks and storage boxes



Low Sound Level

- Specialized refrigeration system design using whisper quiet fan and compressors
- Freezer chassis designed to absorb vibration and sound



Product Parts



4 Individual Removable Foam Inner Doors

- 4 individual inner doors can be opened independently to minimize frost buildup inside the chamber
- Unique door seal design for the minimum loss of cold temperature during a door opening
- Compatibility with existing racking system from competitors
- Stainless steel handle to ensure proper strength for door latching
- Some interior door handles have been upgraded to stainless steel for more comfortable door opening experience



Excellent Doors Seals

- Total of five gaskets to safeguard the freezer temperature, including four seals for the exterior door, one for each inner door



- Optimized slideway design, easier to open and close the door



Pressure Equalization Port

- Heated port with spring-assisted mechanism to prevent icing on the vent
- Allows re-accessing the freezer after initial door opening
- Adopts chromium plating, rust-proof



DW-86L728J



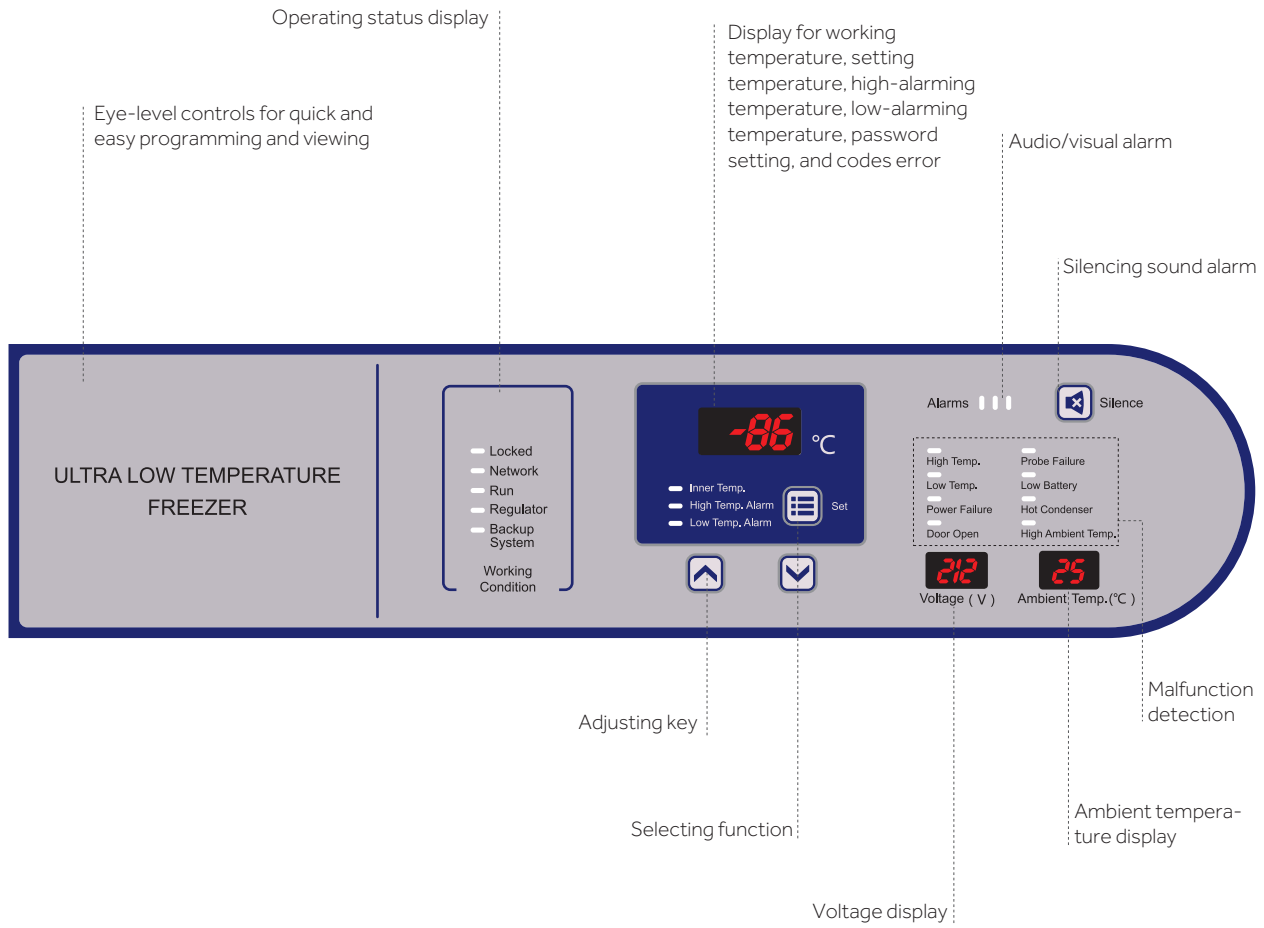
Circular-chart Recorder (Optional)

- Front-mounted
- For independent temperature monitoring

High Efficiency Refrigeration Components

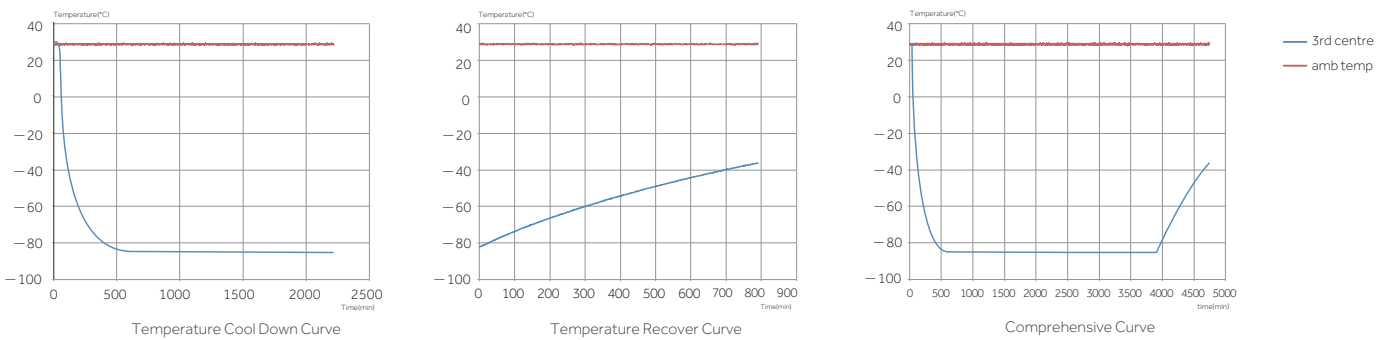


Two port holes for ease of temperature monitoring



Product Performance

TYPICAL PERFORMANCE CHARACTERISTICS AT 25°C AMBIENT





Model		DW-86L578J		DW-86L578JA		DW-86L628E		DW-86L728J		DW-86L728JA		DW-86L828J		DW-86L828JA					
Data Technical	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))	50				49				50				50		51.5			
Performance	Cooling Performance (°C)	-86				-86				-86				-86					
	Temperature Range (°C)	-40--86				-40--86				-40--86				-40--86					
Control Data	Controller	Microprocessor				Microprocessor				Microprocessor				Microprocessor					
	Display	LED				LED				LED				LED					
Electrical	Power Supply (V/Hz)	220-240/50		120/60		208-230/60		220-240/50		220-240/50		120/60		208-230/60		120/60		208-230/60	
	Electrical Current(A)	7.5		12		9		11		10		18		10		10		10	
Dimensions	Capacity (L/Cu.Ft)	578/20.4				626/22.1				728/25.7				828/29.2					
	Net/Gross Weight (approx)	kg	300/330				301/323				345/385				380/410				
		lbs	661.4/727.5				664.0/712.0				760.6/848.8				837.7/903.9				
	Interior Dimension (W*D*H)	mm	620*716*1310				760*630*1310				766*716*1310				870*716*1310				
		in	24.4*28.2*51.6				29.9*24.8*51.6				30.2*28.2*51.6				34.3*28.2*51.6				
	Exterior Dimension (W*D*H)	mm	903*980*1960				1035*900*1980				1049*980*1980				1145*980*1980				
		in	35.6*38.6*77.2				40.7*35.4*78.0				41.3*38.6*78.0				45.1*38.6*78.0				
Packing Dimension (W*D*H)	mm	970*1085*2130				1110*1005*2130				1120*1090*2130				1240*1080*2130					
	in	38.2*42.7*83.9				43.7*39.6*83.9				44.1*42.9*83.9				48.8*42.5*83.9					
Container Load (20'/40'/40'H)	12/24/24				12/24/24				10/22/22				5/11/11						
Functions	High/Low Temperature	Y				Y				Y				Y					
	Hot Condenser	Y				Y				Y				Y					
	Power Failure	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	Y				Y				Y				Y					
	5V Power Supply Port	Y				Y				Y				Y					
	Temperature Chart Recorder	Optional				Optional				Optional				Optional					
	RS232/485 Port	Optional				Optional				Optional				Optional					
	CO ₂ Backup System	Optional				Optional				Optional				Optional					
	LN ₂ Backup System	Optional				Optional				Optional				Optional					
Certification	CE	Y	/	/	Y	Y	/	/	Y	Y	/	/	Y	/					
	UL	/	Y	Y	/	/	Y	Y	/	Y	Y	/	Y						
	ENERGYSTAR	Y	Y	/	/	/	Y	/	/	Y	/	/	Y						



Model		DW-86L100J		DW-86W100J		DW-86W420J		DW-86W420JA		
Data Technical	Cabinet Type	Upright		Chest		Chest				
	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))	46.8		49		50				
Performance	Cooling Performance (°C)	-86		-86		-86				
	Temperature Range (°C)	-40~-86		-40~-86		-40~-86				
Control Data	Controller	Microprocessor		Microprocessor		Microprocessor				
	Display	LED		LED		LED				
Electrical	Power Supply (V/Hz)	220-240/50	120/60	220-240/50		220-240/50		208-230/60		
	Electrical Current(A)	3	6.5	4		7.5				
Dimensions	Capacity (L/Cu.Ft)	100/3.5		100/3.5		420/14.8				
	Net/Gross Weight (approx)	kg	108/132		138/160		310/357			
		lbs	238/291		304.2/352.7		683.4/787.0			
	Interior Dimension (W*D*H)	mm	330*481*630		470*450*480		1367*462*652			
		in	13*19*25		18.5*17.7*18.9		53.8*18.2*25.7			
	Exterior Dimension (W*D*H)	mm	770*660*810		769*825*1120		2130*870*1020			
		in	30*26*32		30.3*32.5*44.1		83.9*34.3*40.2			
Packing Dimension (W*D*H)	mm	865*755*1020		860*880*1310		2230*930*1180				
	in	34.1*29.7*40.2		33.9*34.6*51.6		87.8*36.6*46.5				
	Container Load (20'/40'/40'H)	32/64/64		14/28/56		12/26/26				
Functions	High/Low Temperature	Y		Y		Y				
	Hot Condenser	Y		Y		Y				
	Power Failure	Y		Y		Y				
	Sensor Error	Y		Y		Y				
	Low Battery	Y		Y		Y				
	High Ambient Temperature	Y		Y		Y				
	Door Ajar	Y		Y		Y				
Accessories	Caster	Y		Y		Y				
	Foot	Y		Y		Y				
	Porthole	Y/1		Y/1		Y/1				
	Shelves/ Inner Doors	1/2		-/1		-/3				
	USB Interface	Y		Y		Y				
	Remote Alarm	Y		Y		Y				
	5V Power Supply Port	Y		N/A		N/A				
	Temperature Chart Recorder	/		Optional		Optional				
	RS232/485 Port	NA/Y		Optional		Optional				
	CO ₂ Backup System	Optional		Optional		Optional				
	LN ₂ Backup System	Optional		Optional		Optional				
Certification	CE	Y	/	Y	Y	Y	/	/	/	
	UL	/	Y	/	/	/	/	Y	Y	
	ENERGYSTAR	/	/	/	/	/	/	/	/	

· Product appearance and specifications are subject to change without notice.
· DW-86L338J/490J/578/628/959 stainless steel interior optional.