-86°C Inverter ULT Freezer

Dual cascade system • efficient heat exchange • low-pressure operation

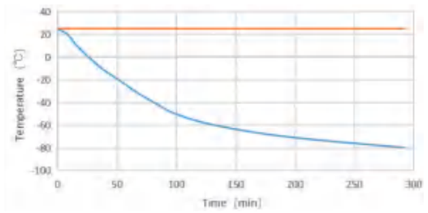
Widely used in scientific research institutions, disease control centers, universities, biotechnology companies, hospitals, blood banks, deep-sea fisheries, electronics manufacturers, and chemical industries

Ideal for long-term storage of red and white blood cells, skin, bone, bacteria, viruses, biological products, marine specimens, as well as for low-temperature testing of electronic components and special materials



DW-86W102/150

DW-86W150 cooling curve



Product Advantages

Integrated Safety System

- Comprehensive fault alarm system: High/low temperature alarm, power failure alarm, sensor fault alarm, dirty condenser alarm, low battery level alarm, high ambient temperature alarm, door-open alarm and other safety alerts
- Each alarm is displayed with a dedicated icon
- Door-open alarm events are recorded and stored over 15 years
- Multiple alarm notification modes: audible buzzer alarm, flashing icon indicators and remote alarm output
- Various protections: compressor start-delay protection, power failure interval safeguard, password access control and continued operation under failure mode
- Equipped with double-circuit fuse overcurrent protection for the power switch, along with a power indicator lamp to confirm power connection—ensuring safe and reliable operation

User-Friendly Design

- Intelligent microprocessor-controlled system with LCD touch screen
- Temperature control accuracy 0.1℃
- Displays temperature curve; exportable data
- Displays real-time running status for convenient visual check of equipment condition

Product Parameters

Model			DW-86W102	DW-86W150
Approved Regions			Asia-Pacific, Southeast Asia, Europe, CIS, Middle East, India, South America, Africa	
Technical Data	Cabinet Type		Chest	Chest
	Climate Class		SN	SN
	Cooling Type		Direct cooling	Direct cooling
	Defrost Mode		Manual	Manual
	Refrigerant		HFC	HFC
	Sound Level (dBA)		48	48
Performance	Temperature Range (°C)		-40~-86	-40~-86
Control	Controller		Microprocessor	Microprocessor
	Display		7-inch touch screen LCD	7-inch touch screen LCD
Electrical Data	Power Supply (V/Hz)		220/50-220/60-115/60	220/50-220/60-115/60
	Power (W)		558	700
	Electrical Current (A)		5	6
Dimensions	Capacity (L/Cu.Ft)		102/3.6	150/5.29
	Net/Gross Weight (approx)	(kg)	150/183	199/217
		(lbs)	330/403	438/478
	Interior Dimension (W×D×H)	(mm)	450×430×530	540×480×582
		(in)	17.7×16.9×20.9	21.3×18.9×22.9
	Exterior Dimension (W×D×H)	(mm)	1110×800×890	1250×850×970
		(in)	43.7×31.5×35	492×33.5×38.2
	Packing Dimension (W×D×H)	(mm)	1210×812×963	1360×865×1003
		(in)	47.6×32×37.9	53.5×34.1×39.5
	20GP/40GP/40HQ		10/23/23	10/21/21
Alarms	High/Low Temperature		Y	Y
	Hot Condenser		Y	Y
	Power Failure		Y	Y
	High/Low Voltage		N/A	N/A
	Sensor Error		Y	Y
	Low Battery		Y	Y
	High Ambient Temperature		Y	Y
	Door Ajar		Y	Y
	Filter Dirty Alarm		Y	Y
	Voltage Exceed Alarm		Y	Y
Accessories	Caster Wheels		Y	Y
	Foot		Y	Y
	Service Port/Quantity		Y/2	Y/2
	Shelves/ Inner Doors		3/4	3/4
	USB Interface		Y	Y
	Remote Alarm		Y	Y
	5V Power Supply Port		Optional	Optional
	Temperature Chart Recorder		Optional	Optional
	RS485 Port		Optional	Optional
Other	Certification		/	/

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Product Parameters

Model		DW-86W102	DW-86W150
Operational Performance	Temperature Setting Mode	Digital (setting accuracy 1°C)	Digital (setting accuracy 1°C)
	Temperature Sensor	PT100	PT100
	Power Consumption (kWh/24h)	8.3	9.3
Material & Build	Exterior Material	Color coated cold rolled steel	Color coated cold rolled steel
	Interior Material	Color coated steel plate	Color coated steel plate
	Insulation	CFC-free foam	CFC-free foam
	Outer Door	Single solid door	Single solid door
	Door Thickness (mm)	85	85
	Cabinet Thickness (mm)	130	130
	Inner Door	Single solid door	Single solid door
	External Door Sealing Structure	Double seal on external door seal strip	Double seal on external door seal strip
	Inside Door Sealing Structure	Single seal on the interior door seal strip	Single seal on the interior door seal strip
	Padlock Latch/Quantity	Y/1	Y/1
	Built-in Key Door Lock/Quantity	N	N
	Electroning Magnetic Lock	N	N
Product Accessories	Shelves Material	Stainless steel	Stainless steel
	Adjustable Shelves	N	N
	Shelves Dimension	N/A	N/A
	Static Feet	Y	Y
	Compressor Type	Hermetic reciprocating	Hermetic reciprocating
	Compressor Brand	SECOP	SECOP
	Compressor Quantity	2	2
	Refrigerant Model	R404A/R290/R508B	R404A/R290/R508B

Model		DW-86W102	DW-86W150
Product Accessories	Maximum Capacity (2 Inch Racks)	9	9
	Maximum Capacity (2 Inch Boxes)	72	81
	Maximum Capacity (Samples in 10×10 Cryo Boxes)	7200	8100
Function Parameters	Ambient Temperature Display	Y	Y
	Boot Delay Protection	Y	Y
	Boot Delay Design	Y	Y
	Password Protection	Y	Y
	Power Failure Interval Protection	Y	Y
	Compressor Start Delay Protection	Y	Y
Evaporator	Type	Copper tube	Copper tube
	Material	TP2M	TP2M
Condenser	Type (Forced Cooling)	Fin condenser	Fin condenser
	Material (Forced Cooling)	TP2M	TP2M
	External Fan	EBM	EBM
	Internal Temperature Uniformity (°C)	±4	±4
	Internal Temperature Accuracy (°C)	0.1	0.1
	Cooling Speed (Mins)	150	180
	Holdover time at 25°C ambient (From -80°C to -50°C)(mins)	130	150
	Backup battery / Battery life (hrs)	Y/48	Y/48
	Temperature recorder battery life (hrs)	36	36