

-86°C Ultra Low Temperature Deep Freezer

DS-86L SERIES



Product Overview

Temperature Control System

- Controlled by micro-computer, LCD display touched screen; USB & RS485 data port for downloading the data.
- The inner temperature can be adjusted at the range of -35°C-86°C, the temperature regulation accuracy is 0.1°C.

Security Control System

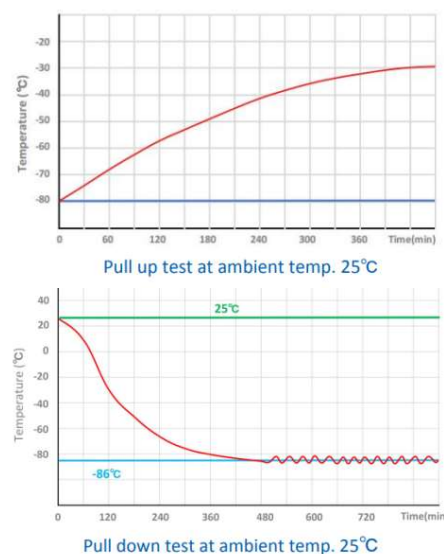
- Multi malfunction alarms: high temperature alarm, low temperature alarm, sensor malfunction alarm, condenser dirty alarm, low battery alarm, power failure alarm, over pressure alarm, over ambient temperature alarm, open the door alarm and so on for safe use;
 - Besides, you can check history alarming information and derive data. all the history data can be saved over 10 years;
 - Three alarming methods: buzzer alarming, independent loon alarming, and remote alarming;
 - Protection function: compressor power-on delay protection, time between power off; overpressure protection, password protection and normal operation protection under failure mode;
 - Password protection can prevent parameters from being changed randomly;
 - Display screen with running indication and communication status indication can show real-time operation of the freezer;
 - The power switch has two-way fuse over-current protection, together with the power-on indicator light ensure safety.
- #### Refrigeration System
- Optimized cascade refrigeration technology, special evaporation system and condensation system, strong refrigerating efficiency;
 - International famous brand compressor and EBM fan electromotor and oil separator, stable product performance, strong refrigerating efficiency;
 - Enhanced sealing design: double door seal;
 - Heating-free pressure-balanced valve (patent), easy to open the door, keep The cold at and avoid the freezer on fire.

Humanized Design

- Unique handle design: the door can be opened by both hands, individual press lock on the handle and 2 padlocks;
- Wide voltage design can help it work stably under 198-254V;
- Can show the temperature curve and history data, and have derive data function;
- Press-out type dust removal cover with locks, simple and convenient for maintenance;
- Thermometer holes design for temperature examination.



Super-stable Cooling System



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Basic	Model No	DS-86L-435T	DS-86L-565T	DS-86L-705T
Technical Parameter	Cabinet Type	Upright		
	Compartment	4/5		
	Door	2/4/5		
	Cooling Type	Direct Cooling		
	Ground Clearance (mm)	100/128		
	Temperature Performance	-86°C		
	Refrigerant	R290 / R170		
	Power Consumption(kWh/day)	7.5 kwh	7.5 kwh	10 kwh
Temperature	Power (W)	1300	1450	1600
	Noise Level(db)	52		
	Ambient Temperature (C)	10°C~45°C		
Controller	Temperature Range (C)	-35°C~ -86°C		
	Compressor	1hp x 2		
	Temperature Uniformity	±3°C		
	Temperature Controller	Microprocessor LCD display touched screen with 0.1°C/1°C increment		
Electronic parameter	Sensor Type	PT100/PT1000		
	Voltage / Frequency	220V/50Hz		
	Heat Output(W)	322	335	375
	Electricity (A)	7	7	7
Size	Capacity (L)	437	567	707
	Net/Gross Weight(Kg)	300/330	317/350	359/350
	Packing Size (W*D*H)mm	875x1144x2100	1005x1144x2100	1155x1144x2100
	Outer Size (W*D*H)mm	790x1070x1990	920x1070x1990	1070x1070x1990
Alarm & System	Inner Size (W*D*H)mm	460x720x1310	590x720x1310	740x720x1310
	High / Low Temperature	Y		
	Power Off	Y		
	Abnormal Voltage	Y		
	Sensor Malfunction	Y		
	Filter Check	Y		
	Temp. Controller Malfunction	Y		
	Battery Backup Malfunction	Y		
	Co2 Backup	Optional		
	Cryo racks/Cryo box	Optional		
	Ambient Temperature	Y		
	Door Ajar	Y		
Connectivity	Test Hole/Diameter	1/25mm		
	Foot	Y		
	USB Port	Y		
	Remote Alarm Contact	Y		
Utility & certificates	RS232/485 Port (4-20ma Output) Dry Contacts	Y		
	Castor	Y		
	Certification	ISO 9001, CE Certified, FDA, IEC 60601-1 & IEC 61010-1		

Model	Plan	Freezer Rack Model	Plan	Freezer Rack Quantity Unit		Cryogenic Box Quantity unit		Cryogenic vial Quantity Unit (2ml)	
				Spec	Quantity	Spec (Standard)	Quantity	9x9 grid	10x10 grid
DS-86L-435T	A	DS-56-CQ-437	Side Type	5x5	12	2 inch	300	24300	30000
	B	DS-55-CT-437	Drawer Type	5x5	12		300	24300	30000
DS-86L-565T	A	DS-56-CQ-567	Side Type	5x5	16	2 inch	400	32400	40000
	B	DS-56-CT-567	Drawer Type	5x5	16		400	32400	40000
DS-86L-705T	A	DS-56-CQ-707	Side Type	5x5	20	2 inch	500	40500	50000
	B	DS-56-CT-707	Drawer Type	5x5	20		500	40500	50000