

Ultra Low Temperature Deep Freezer

BioFreezing Technology



◦FAHRENHEIT. ◦CELSIUS. ◦DARSUN.

Specification

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 -40°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.

Features



Optimal Energy Efficient Performance

HC refrigerant, frequency conversion technology and optimized structural design combine to lower operating costs compared to previous generation by up to 50%.



Significantly Enhanced Performance

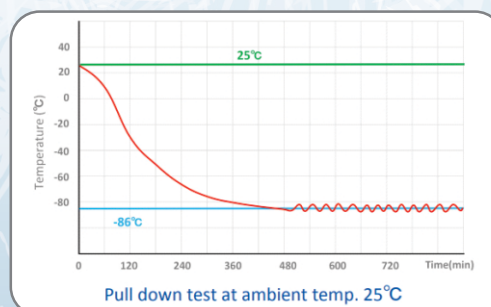
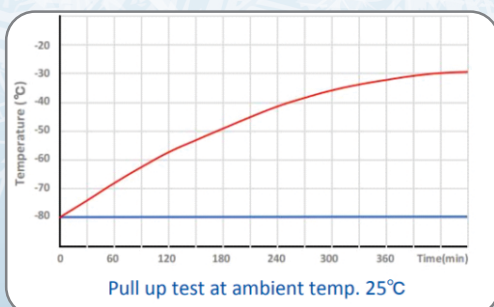
Darsun ULT series features lower energy consumption, a longer holdover time, faster temperature recovery time and re-entry time, as well as reduced noise.



Green and Environmental Friendly

Naturally occurring Hydrocarbon (HC) refrigerants and insulation materials with ultra-low global warming potential (GWP) levels exert an extremely minimal impact on the environment.

Super-stable Cooling System



Upright freezers with flexible loading options



Racks with drawers for upright freezers



The data logger can be fixed to deep-freezers magnetically and configured or read via a USB interface



Darsun deep-freezers are characterized by first-class craftsmanship and high flexibility



Application-oriented space utilization solutions provide increased variability and user-friendliness



Flexible combinations of drawers, inner compartments and special solutions for specific requirements



Accessories



Front sliding rack



Side sliding rack



Chest rack



Co2 / Ln2 Backup System



Ice Scraper



Cryo Gloves

Technical Specifications

| Basic | Model No | DS-86L-435T | DS-86L-565T | DS-86L-705T |
|------------------------|--|---|----------------|----------------|
| | Cabinet Type | | | Upright |
| Shelf | | 3 | 3 | 4 |
| Door | | 4 | 4 | 5 |
| Technical Parameter | 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 |
| | Power (W) | 1300 | 1450 | 1600 |
| | Noise Level(db) | 52 | | |
| Temperature | Ambient Temperature (C) | 10°C-45°C | | |
| | Temperature Range (C) | -40°C- -86°C | | |
| Controller | 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 O? | 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 |

