Dual X Series ULT Freezer

Midea Biomedical



MD-86L580BS

Dual Cooling&Dual Guard

Two independent systems ensure uninterrupted operation,even if one fails; Dual systems reduce individual load, extending overall lifespan

Super & Even Cooling

168Mins Rapid Cooling(25°C→-81°C)&±3 Uniformity.

FLEX-VOLT®(115-240~V)

Stable operation at 115-240~V, 50/60Hz.

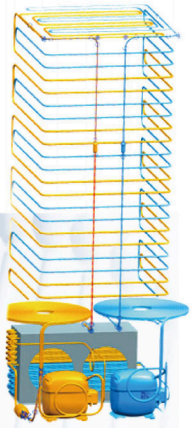
Energy-Saving & Low Noise

6.2KW/24h Power Consumption & 46dB Low Noise.

■ Voltage Flex Tech



■ Dual Cooling Technology



■ 10.1 inch LCD Touch Display



304 STAINLESS

304 SS VS PCM

220V 10A Plug

10A VS 15A

Ingenious Handle Design

Li-ion VS Lead-Acid

Maintenance-free

5-Layer Silicone Seal

Anti-Condensation

80% humidity

Midea Biomedical

Midea Biomedical, Hefei City, China
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Technical Data Sheet
High-Performance, Lab ULT Freezer
Model: MD-86L580BS,Dual X ULT Freezer

Application, Rating, & Electrical Data

Application	ULT freezer
Storage Volume (L/cuft)	580/20.48
Temperature Range	-40°C to -86°C
Default Set Point	-81°C
Power	115-240~V /50Hz/60Hz
Current	14A (at 115V) ,6.5A(at 240V)
Power Cord Length	1.7m
Certification	CE
Door type	Solid door
Application Environment	Non-corrosive, non-flammable, non-explosive
Ambient Operating Temperature	10°C~32°C

Refrigeration

Refrigeration System	Dual Inverter cooling
Compressor	Hermetic, variable speed
Condenser Type	Air cooling
Expansion Device	Capillary tube
Evaporator Type	Built-in
Defrost Method	Manual defrosting
Refrigerant	Mix refrigerant

Controller / Configuration Settings

Display screen	10.1"LCD Touch screen
Controller Type	Microprocessor
Security	Lockable door, password protected settings
Control Sensor	PT1000, stainless steel
Communication Ports	USB, Remote alarm contacts
Power Failure Alarm	Yes
High/Low Alarms	Yes, fully adjustable
Door Ajar Alarm	Yes
Download	Yes, via USB, PDF
Temperature Log	Yes, download via USB
Battery Back-up	Yes, 17 hr display and alarm back-up | Rechargeable 12V, li-ion battery

Performance Characteristics (normal operating conditions)

Uniformity | (℃)	±3
Recovery to -75°C after 1 min door opening | (min)	19
Temperature fluctuation | (℃)	≤2.2
Energy consumption | (kWh/day)	6.2
Noise emission | (dB)	46
Heat rejection | (BTU/hr)	1670
Pull-down time to -81°C | (min)	168
Backup Time(h)	17
Optional Accessories	Cryo Rack,Cryo Box,Cryovial,Chart Recorder, Cold Chain Monitor,LN2 Backup,CO2 Backup ,Printer

Typical Temperature Map

	test 1	test 2	test 3	test 4	test 5	test 6	test 7	test 8	test 9
Avg	-81.50	-81.60	-82.76	-82.28	-82.77	-82.42	-81.39	-81.98	-82.24
Max	-80.10	-80.40	-80.80	-80.00	-80.60	-80.30	-80.00	-80.80	-81.00
Min	-82.40	-83.40	-84.60	-84.20	-84.50	-84.20	-82.80	-83.20	-83.50

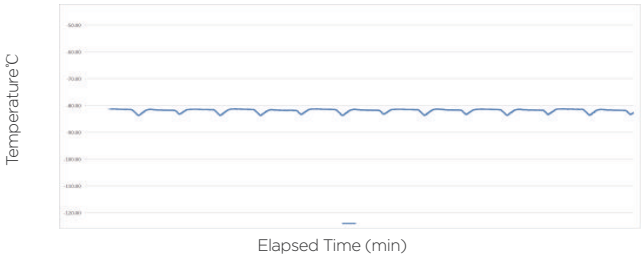
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Dimensions and Construction

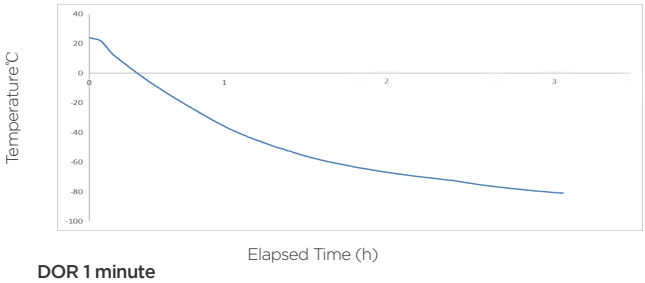
Interior (w*d*h)	595*720*1310 mm
Exterior (w*d*h)	885*995*1980 mm
Access Port	2 Access Port- for external monitoring probe(s) (25 mm diameter)
shelf	3 | 87 kg max capacity
Wheels	4 Swivel Casters + 2 Leveling Feet
Net Weight	288 kg
Gross Weight	331 kg

All performance data from 580L ULT freezer, 25 ambient, -81°C

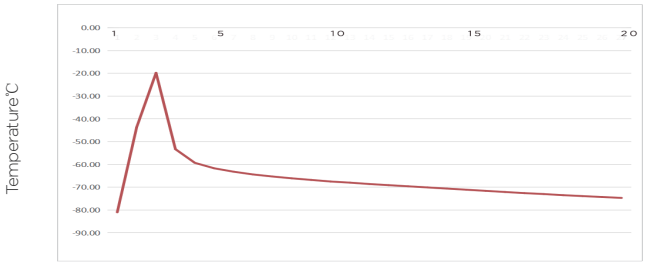
Uniformity



Cooling Speed



DOR 1 minute



Temperature Rise Profile

