

Combined Refrigerator & Freezer



MCD-40L506



Precise Temp. Control

Microcomputer Temperature Control System, temperature accuracy 0.1°C.



Security System

Multi-alarm system with lockable door



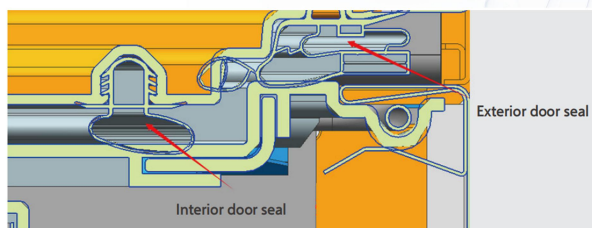
Eco-Cool Refrigerant

R290 R600a (natural hydrocarbon, low-GWP) refrigerant ensures zero ozone depletion and lower climate impact.

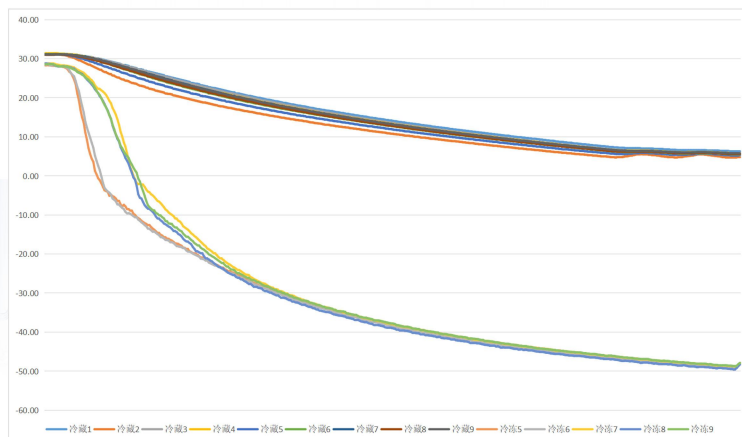
Dual independent cooling system



Three-dimensional seal

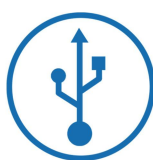


Cooling Speed(Ambient 25°C)



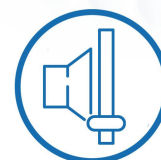
Safety Lock

Lockable door with key



USB Interface

RS-485(Optional)



Low Noise

50dB(A) at 220-240~V/50Hz
58dB(A) at 115~V/60Hz
48dB(A) at 220-240~V/60Hz



Multiple Alarms

Audible and visual alarms, remote alerts, high/low temperature warnings, door closure detection, power failure alerts, ambient temperature alarm, record fault alarm, record is not start alarm, low battery alarm and sensor fault monitoring.



Backup Battery

Maintains alarms for 16 hours during power failure



Wheels

4 Swivel Casters + 2 Leveling Feet

Application, Rating, & Electrical Data

Application	Combined refrigerator and freezer
Storage Volume (L/Cu.Ft)	Fridge:247/8.72 Freezer:259/9.15
Temperature Range	Fridge:2 C -8 C Freezer:-10 C ~-40 C
Default Set Point	Fridge:5 C Freezer:-40 C
Power	115~V/60Hz 220-240~V/50Hz 220-240~V/60Hz
Current	4A 3A 2A
Power Cord Length	1.7m
Certification	CE/UL/FDA list
Door type	Solid door
Application Environment	Non-corrosive, non-flammable, non-explosive
Ambient Operating Temperature	10°C-32°C

Refrigeration

Refrigeration System	Fridge:Forced air cooling Freezer:Direct cooling
Compressor	Hermetic, fixed frequency
Condenser Type	Built in+Microprocessor
Expansion Device	Capillary tube
Evaporator Type	Fridge: built in Freezer: shelf evaporator
Defrost Method	Fridge: auto Freezer: manual defrost
Refrigerant	Fridge: R600a Freezer: R290

Controller / Configuration Settings

Display screen	LED
Controller Type	Microprocessor
Security	Lockable door, password protected settings
Control Sensor	NTC
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, 16 hr display and alarm back-up Rechargeable 12V, lead acid

Performance Characteristics (normal operating conditions)

Uniformity (°C)	Fridge:±1.5 C Freezer:≤3 C
Temperature fluctuation (°C)	Fridge:≤2 C
Energy consumption (kWh/day)	2.4
Noise emission dB(A)	58 50 48
Pull-down time to -40°C (min)	180

Typical Temperature Map

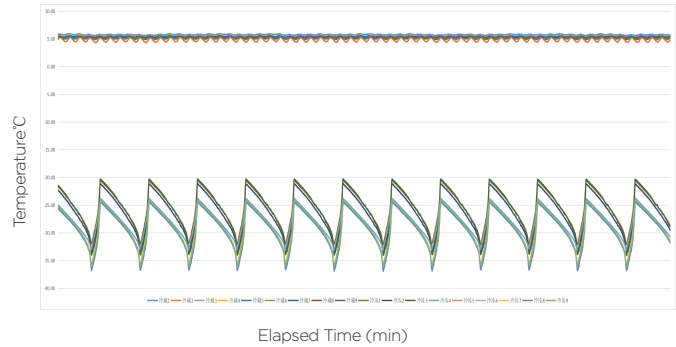
Ref	test 1	test 2	test 3	test 4	test 5	test 6	test 7	test 8	test 9
Avg	5.75	4.83	5.24	5.48	5.15	5.25	5.37	5.33	5.41
Max	5.90	5.30	5.40	5.70	5.40	5.40	5.50	5.50	5.60
Min	5.60	4.30	5.10	5.30	4.90	5.10	5.20	5.10	5.20

Dimensions and Construction

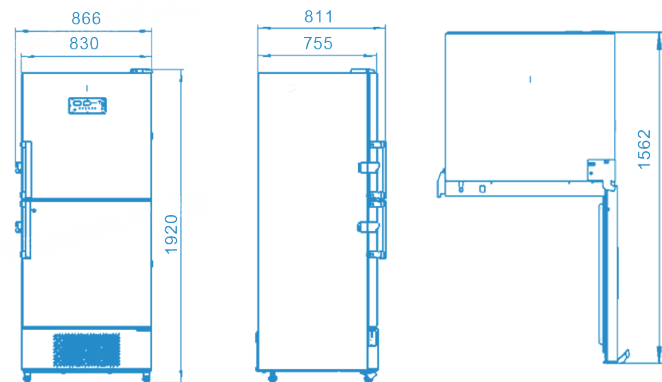
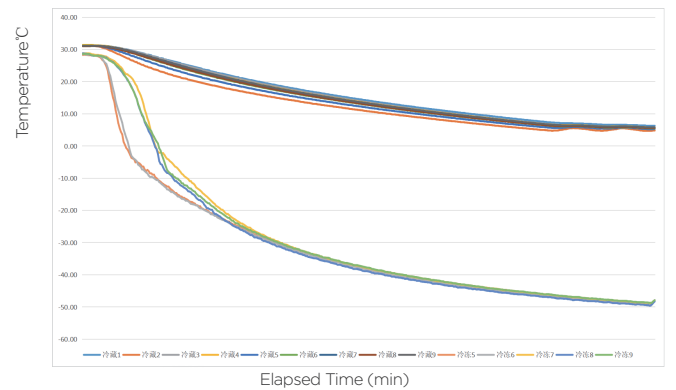
Interior (w*d*h)	Fridge:680*596*630 Freezer:680*620*650 mm
Exterior (w*d*h)	866*811*1920 mm
Access Port	2 Access Port- for external monitoring probe(s) (25 mm diameter)
shelf	Fridge:3 Freezer:6 drawers 18 kg max capacity
Wheels	4 Swivel Casters + 2 Leveling Feet
Net Weight	140 kg
Gross Weight	163 kg

All performance data from 506L combined refrigerator and freezer

Uniformity



Cooling Speed



Fre	test 1	test 2	test 3	test 4	test 5	test 6	test 7	test 8	test 9
Avg	-25.49	-26.38	-25.87	-27.97	-29.06	-28.93	-28.81	-29.25	-28.86
Max	-20.500	-21.10	-20.30	-23.80	-24.20	-24.00	-24.20	-24.40	-24.10
Min	-32.10	-33.60	-34.10	-33.10	-36.40	-36.70	-35.70	-36.90	-36.00