



BIO MEMORY DUAL COOLING 568

-86°C Freezer



Dual Cooling & Dual Guard

Our dual cooling system ensures optimal safety of your samples. If one compressor fails, the second will automatically maintain operation, ensuring continuous, reliable performance.



Excellent Performance

Our freezers are optimized for daily use, with excellent temperature homogeneity, quick pull-down time, and quick recovery after each door opening.



Low power consumption

Our unit operates with excellent efficiency consuming only 7.9kWh/24h in accordance with Energy Star protocol.

Premium quality combined with excellent performance.

Our Bio Memory Dual cooling ULT freezers are our newest generation of equipment designed to deliver excellent performance. Combining exceptional temperature homogeneity, rapid pull-down, and swift recovery after every door opening, this advanced dual-cooling system ensures consistent reliability even under demanding conditions.

With the latest generation of insulation and efficient dual cooling technology, we offer the highest security for your samples all whilst delivering a remarkably low power consumption.

⚡ POWER CONSUMPTION [kw / 24hr] Energy Star Protocol

24 hr door closed	7.9
15 sec door opening	8.1
1 min door opening	8.4

📦 MODEL AVAILABLE

BMDC56880G	568 L
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🛡️ WARRANTY

Parts	2 years
Fan, compressors and condenser	5 years
VIP insulation	10 years

Technical Specifications

BIO GUARD -86°C FREEZERS	
MODEL	BMDC56880G
GENERAL SPECIFICATIONS	
Storage Capacity	50,000 cryotubes 2mL
Raw Volumes / compartments	568 liters / 4 compartments
Ext Dimension (W x D x H)	885 x 995 x 1980 mm
Int Dimension (W x D x H)	595 x 720 x 1310 mm
Ext Construction	Electrogalvanised steel with epoxy paint
Int Construction	Stainless steel inner tank
Net Weight	286 kg
Standard Construction	• 4 swivel casters • 2 levelling feet • Lockable door • 2 Cable ports, 25 mm diameter for external monitoring probes • 1 power cord, 1.7 m long
No. of Internal Shelves	3 shelves, max weight per shelf: 49 kg
Ambient temperature	From +18°C (65°F) to +32°C (89°F)
Insulation	6 faces, new generation of Vacuum Insulation Panel (VIP) and polyurethane foam (<0,005W/mK)
Noise level	54 dB
Environment	Non-corrosive, non-flammable, non-explosive
Warranty	2 years. 5 years : fan, compressors, condenser. 10 years : VIP insulation
CONTROL	
Display	10.1 inch Touch Screen, compatible with use of gloves
Software	Embedded software including: • Multi Visual system, empowering you to monitor temperature, and alarms in real-time. • Set parameters: users levels, temperature thresholds. • Alarms: High/Low temperature, opened door, power failure, Low battery, sensor failure, remote alarm, etc. • Accurate temperature settings for sample safety • Easy access to detailed data • Security : access control by password, IC card and fingerprint
Languages	English, Chinese, Traditional Chinese, Italian, Spanish
Remote Access	Remote access with RS485 port
Data	Temperature profiles, alarms, log files can be exported on USB stick (PDF)
Settings	Alarms • Date/Time • User profile login • Language • Network • Password protected settings • Temperature range
Communication	USB, Remote alarm contacts
REFRIGERATION SYSTEM	
Cooling Engine	Hermetic variable speed compressors, dual inverter cooling
Expansion Device	Capillary tube
Defrosting Method	Manual defrosting
Heat rejection	5652 BTU/hr
Natural Gas Refrigerant Load	Mix of refrigerant
ELECTRIC AND ELECTRONIC DATA	
Controller type	Microprocessor
Control sensor	Pt100 probe
List of alarms	Power failure alarm, High/Low temperature alarm (fully adjustable), Door opening alarm, sensor failure alarm, Communication failure alarm, high condensor temperature alarm, cooling system failure alarm
Type of alarm	Audible and visual alarms to realize functions listed above. Alarm signals can be sent out through remote alarm connection & RS485 communication interface
Energy consumption	7.9 kWh/day*
Remote alarm contact	Included. Can output one NC or NO signal
Power	1500 W
Types of power supply	Voltage 220-240V, 50/60 Hz, Current : 8,2A
Battery back-up	10 hrs display and alarm back up with rechargeable 12V battery
PERFORMANCES (AMBIENT TEMPERATURE +22 °C)	
Temperature range	From -40°C to -86°C, 1/10th degree display
Pull down ambient to -80°C (+/-5°C)	~ 3.5 hours
Homogeneity at -80°C	+/-3°C
OPTIONS & CONFORMITIES	
Options	CO2 / LN2 backup system (150 bar max electrical valve) Additional Pt 100 ohms 3 wires Smart cold monitor (remote temperature monitoring) COFRAC 9 points temperature mapping IQ / OQ documentation Chart recorder
Supplied with	User manual available on line Detachable washable filter Scraper
Certification / Conformities	EN61326-1 : 2013 – Safety requirements for electrical equipment - Part 1: General requirements 2014/35/UE – Low voltage directive – EN IEC 61326-1 : 2021 EMC directive
Shipping weight	342 kg
Shipping dimensions (W x D x H)	980 x 1145 x 2155 mm

*According to energy star calculation, with an ambient room temperature of 20°C (+/-0.5°C), door closed.