



# BIO MEMORY DUAL COOLING 838

## -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 14.3 kWh/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

14.3

#### MODEL AVAILABLE

BMDC70880G

718 L

#### WARRANTY

Parts

2 years

Fan, compressors and condenser

5 years

VIP insulation

10 years

# Technical Specifications

Bio Memory Dual Cooling -86°C Freezer		
<b>MODEL</b>	<b>BMDC83880G</b>	
<b>GENERAL SPECIFICATIONS</b>		
Storage Capacity	838 Liters / 60,000 2 ml Cryo tubes	
Compartments	4	
Ext Dimension (W x D x H)	1175 x 995 x 1980 mm	
Int Dimension (W x D x H)	885 x 720 x 1310 mm	
Ext Construction	Electrogalvanised steel with epoxy paint	
Int Construction	Stainless steel inner tank	
Net Weight	332 kg	
Standard Construction	4 swivel casters	
	2 levelling feet	
	Lockable door	
	2 Cable ports, 25 mm diameter for external monitoring probes	
No. of Internal Shelves	3 shelves, max capacity : 87 kg	
Ambient temperature	From +10°C to +32°C	
Insulation	6 faces, new generation of Vacuum Insulation Panel (VIP) and polyurethane foam (<0,005W/m/K)	
Noise level	51 dB	
Environment	Non-corrosive, non-flammable, non-explosive	
Warranty	2 years. 5 years : fan, compressors, condenser. 10 years : VIP insulation	
<b>CONTROL</b>		
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: user 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, 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	
<b>REFRIGERATION SYSTEM</b>		
Cooling Engine	Hermetic variable speed compressors, dual inverter cooling	
Expansion Device	Capillary tube	
Defrosting Method	Manual defrosting	
Heat rejection	3314 BTU/hr	
Natural Gas Refrigerant Load	Mix of refrigerant	
<b>ELECTRIC AND ELECTRONIC DATA</b>		
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	14.3 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 : 9.5A	
Battery back-up	10 hrs display and alarm back up with rechargeable 12V battery	
<b>PERFORMANCES (AMBIENT TEMPERATURE +22 °C)</b>		
Temperature range	From -40°C to -86°C, 1/10th degree display	
Pull down from ambient to -80°C (+/-5°C)	210 min	
Homogeneity at -80°C	+/-5°C	
<b>OPTIONS &amp; CONFORMITIES</b>		
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	
Supplied with	Chart recorder	
	User manual available online	
Certification / Conformities	Detachable washable filter Scraper	
	<b>EN61326-1: 2013</b> –Safety requirements for electrical equipment - Part 1: General requirements <b>2014/35/UE</b> – Low voltage directive – <b>EN IEC 61326-1</b> : 2021 EMC directive	
Shipping weight	401 kg	
Shipping dimensions (W x D x H)	1270 x 1145 x 2155 mm	

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