

GQ-160A Modified Atmosphere Refrigerator



Function

GQ-160A Modified Atmosphere Refrigerator, with microelectronics technology, is for making preservation experiment on fruits, vegetables, flowers and plants in modified atmosphere conditions, and keeps them fresh by controlling concentration of O₂, N₂, CO₂, and C₂H₄ and the temperature and humidity in the boxes. It is widely used in industries of microorganisms, environmental, food, research institute and so on.



Features

- Scroll compressor refrigeration system.
- PID algorithm with the solid state relays control the heating tube and no rigid mechanical contacts, long service life, average temperature of heating, the temperature is constant.
- Mass flow controller, the resolution of 1ml/min.
- High frequency atomization humidifier for humidification, large humidification range, long time humidification without getting fever.



Technical Specification

Items	Technical Parameters
Test range	O ₂ : 0%~50%; CO ₂ : 0%~20%; C ₂ H ₄ : 0~200ppm N ₂ : 0%~100%
Resolution ratio	O ₂ : 0.01%; CO ₂ : 0.01%, C ₂ H ₄ : 0.1ppm
Gas flow control	O ₂ : 0~100ml/min, CO ₂ : 0~100ml/min; N ₂ : 0~100ml/min
Temperature control range	-5°C~50°C
Temperature deviation	±2°C
Temperature accuracy	±0.1%
Humidity range	normal ~ 95%RH
Humidity deviation	±3%RH
Humidification power	2000W
Lighting power	10W
Capacity	160L
Material	color steel
Power supply	AC 220V, 50Hz
Weight	270kg
Environment temperature	0 ~ 40°C
Refrigeration Power	2000W
Size	inner: 48cm × 38cm x 73cm; outer: 61cm × 62.5cm x 160cm
Gas purity	≥99.9%



Testing Principle

In a closed system, with a variety of adjusting methods to obtain gas component constituents different from that of normal atmospheric gas, microbial life activities resulting in product deterioration are inhibited. The key of atmosphere preservation technology is to adjust the gas concentration. In addition to the concentration and component constituents of the gas, two core controlling conditions: temperature and relative humidity should also be considered. Not only pay attention to their individual impact, but also emphasize on the combined effects of the various conditions of the environment overall. The Modified Atmosphere Refrigerator can simulate above conditions to find out the optimal preservation conditions of different products correspondingly.