

## M 5477 Series Thermoelectric Heating-Cooling Systems



The M 5477 Series Thermoelectric Heating/Cooling Systems provide precise and reliable temperature control for diverse chamber applications. Leveraging the inherent advantages of thermoelectric technology—rapid thermal response and dual heating/cooling functionality in a single device—the M5477 Series delivers efficient, refrigerant-free thermal management, making it an environmentally responsible choice.

### Applications


- Moisture-Sensitive Materials - Ideal for handling hygroscopic materials.
- Controlled Atmosphere Experiments - Suitable for temperature-sensitive chemical reactions.
- Electronics Manufacturing/Testing - Perfect for semiconductor and component testing.
- Pharmaceutical Applications - Ensures stability and integrity of APIs and other temperature-sensitive compounds.
- Biological/Medical Research - Maintains cell viability and experimental integrity of biological samples.


### Key Features

- Precise Temperature Control - Thermoelectric systems offer highly accurate temperature control.
- Reliability and Longevity - With no moving parts, thermoelectric systems are highly reliable.
- Single System - A thermoelectric device can be used for both heating and cooling.
- Rapid Response - Thermoelectric systems can switch from heating to cooling quickly.
- Integrated thermal protection - A built-in lockout system prevents simultaneous heating and cooling operation and thermal protection.

D02099 Rev A

Questions? Here's how to contact our experts

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**M 5477 Series  
Thermoelectric Heating-Cooling  
Systems**

**Thermoelectric Unit**

- Material: Aluminum Body, Stainless Steel Cover, dual IP55 fans
- Dimensions: 5.7" L x 7.08" W (400mm x 180mm)
- Net Weight: 11.5 lbs. (5.2kg)
- DC powered 24V
- No CFC refrigerants
- Forced-air Cooling: Integrated fan for efficient heat dissipation
- Advanced heat sink design
- Maintenance-free

**Power supply NEMA 1 Enclosure**

- Material: Steel, Silver powder paint finish
- Dimensions: 16.25" L x 3.06"H x 6.19" W (413mm x 78mm x 157mm)
- Net Weight: 9.25 lbs. (4.2kg)
- AC/DC converter 24V 648W
- Built-in active PFC function
- Built-in Thermal channel control module
- NEMA 5-15P Power cord
- Power entry receptacle on/off rocker switch
- Power entry receptacle module with fuse protection

**Connections**

- Quick Lock Circular waterproof aviation plug connectors
- 10A Power entry module

**Thermoelectric Heating-Cooling System**

- Thermoelectric System – M 5477-250
- Temperature Max. 60 degrees Celsius (4.0 cubic feet or 113 liters)
- Temperature Min. 5 degrees Celsius (4.0 cubic feet or 113 liters)
- Total net Weight 21.3 lbs. (9.7kg)

**System Power**

- Voltage 100-240 VAC 4.5A NOM @ 120VAC

**Notes:**

Chamber performance of 5°C to 60°C is valid at ambient conditions.

Ambient conditions consist of 22°C ±3°C.

Higher or lower temperatures may be reached by adjusting ambient conditions.

