# Voltage Inverter Board

SMART, COMPACT HEAT CONTROL FOR OEM APPLIANCES

A reliable solution for precise fixed-output heat control in commercial kitchen appliances. Engineered for rugged environments, this inverter board simplifies power management for resistive heating elements—ideal for warming stations, hot-holding units, or any appliance requiring steady, user-adjustable heat.

Features

- **Duty-cycle AC control** of resistive heating elements for fixed, precise output

- **Onboard potentiometer** allows quick adjustments within a tamper-proof preconfigured range

- **Compact, flanged heat-sink design** mounts securely in appliance control compartments

- **Solid-state TRIAC switching** ensures long-life, maintenance-free operation

- **Simplified two-wire inline installation** between power source and heating element

- **Input range 208–240 VAC**, output controllable between ~150–195 VAC; supports up to 25 Amps

- **Spike protection built-in** (minimum 4 kV) to safeguard timers and controls
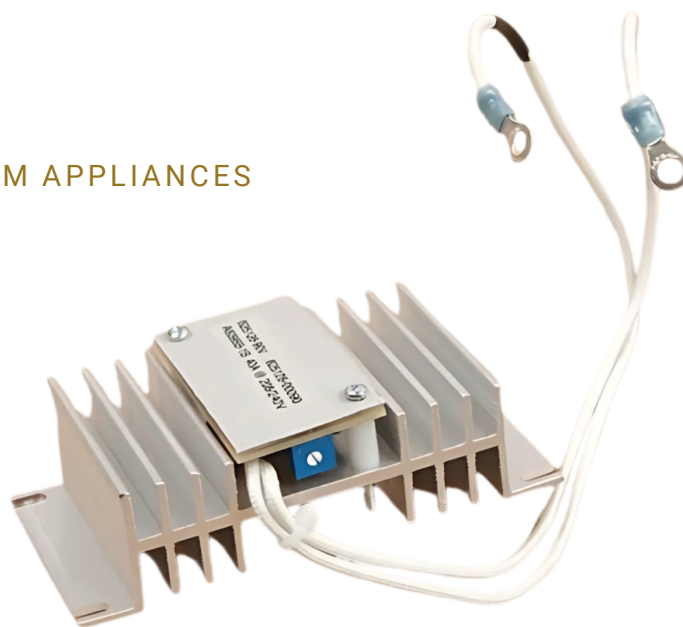
Benefits

Built Restaurant-Tough and Reliable

- Designed for high-heat, high-demand commercial kitchen environments with solid-state durability and consistent performance

Streamlined Assembly

- Pre-configured output simplifies calibration and reduces setup time on the line.

Fewer Points of Failure

- Solid-state design improves long-term reliability, reducing warranty claims and service calls.

Versatile Integration

- Flexible form factor and control compatibility make it easy to incorporate across multiple appliance platforms.

Thermal Efficiency

- Efficient power conversion minimizes excess heat, easing thermal design constraints in tight enclosures.

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Built to Solve Real World Challenges

Elevates Product Differentiation with Advanced Heat Control

Modern solid-state design enables precise, fixed-output heating that sets your appliances apart. OEMs can stand out in a competitive market by integrating a heat control solution that delivers consistent, reliable performance without bulky mechanical components. The sleek, compact design enhances product aesthetics and functionality—supporting next-gen appliance innovation.

Enhances End-User Satisfaction with Reliable, Consistent Heating

No temperature swings, no recalibration—just dependable performance that operators can trust. The Voltage Inverter Board ensures steady, user-adjustable heat ideal for hot-holding and warming applications.

Speeds Production with Drop-In Simplicity

Compact footprint, minimal wiring, and no external sensors mean faster assembly and easier integration. OEMs can cut down on build times and reduce labor costs. The board's plug-and-play design makes it easy to scale across multiple product lines with minimal re-engineering—boosting throughput and flexibility on the production floor.

Reduces Costs Through BOM Simplification

One integrated board replaces multiple components, streamlining the bill of materials, reducing procurement and inventory costs, and minimizing potential failure points. Enabling OEMs to build smarter, leaner, and more cost-effective appliances.

Supports Brand Trust with Long-Term Reliability

Solid-state construction stands up to the rigors of commercial kitchens. OEMs gain peace of mind knowing their products are backed by a robust, low-maintenance solution built to endure heat, grease, and vibration.

Optional Accessories & Compatible Products

- **Replacement potentiometer modules** for field calibration
- **Spike suppressors and line filters** for high-noise environments
- **Compatible Kitchen Brains timers, KMS controllers, and oven control platforms** for integrated IoT and touchscreen upgrades

Specifications

- Mounting: Flanged aluminum heat-sink packs securely in control cavity
- Max Ambient Temp: 70 °C (158 °F), 90% RH (non-condensing)
- Input Voltage: 208–240 VAC, 60 Hz
- Output Voltage: Programmable 150–195 VAC via potentiometer
- Maximum Load Current: 25 Amps (consult factory for higher needs)
- Switching: Solid-state TRIAC-based
- Transient Surge Protection: 4 kV minimum
- Certifications: UL-listed control board (Ref. 213-50778-XX)
- Shipping Weight: Approx. 5 oz
- Operating Life: Solid-state reliability

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