Plasma & Reactive Gas Solutions

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# CM 130

## POWER SUPPLY FOR 300 W MAGNETRON @ 2.45 GHz

The CM 130 magnetron power supply is a compact, air-cooled, switch-mode power supply with an integrated filament transformer designed to drive a 300 W magnetron. The CM 130 is able to power and control magnetron type TO300 with a maximum power of 300 W @ 2.45 GHz.

The CM 130 may be configured to operate within two different power output ranges, from 0 to 300 W or, for improved precision at very low power, 0 to 90 W. The output power can be adjusted during operation from near zero up to 90 W or 300 W, depending on the range configuration, using an external, linear 0 – 10 V analog signal.

The CM 130 incorporates a power factor correction (PFC) stage that provides a usable input line voltage range from 140 VAC to 250 VAC and also stabilizes the filament control. The compact and innovative design of the CM 130 makes it a highly competitive alternative to traditional, transformer based, power supplies.

The CM 130 is designed to power MKS, Alter® TXA10 microwave magnetron heads, however it may be used to power electrically compatible microwave magnetron heads from other manufacturers. In addition, it autonomously manages the working status of the magnetron, providing power to drive the correct pre-heating of the filament and to automatically shut off the output power in the event of an alarm condition, such as over current or over voltage of the magnetron.

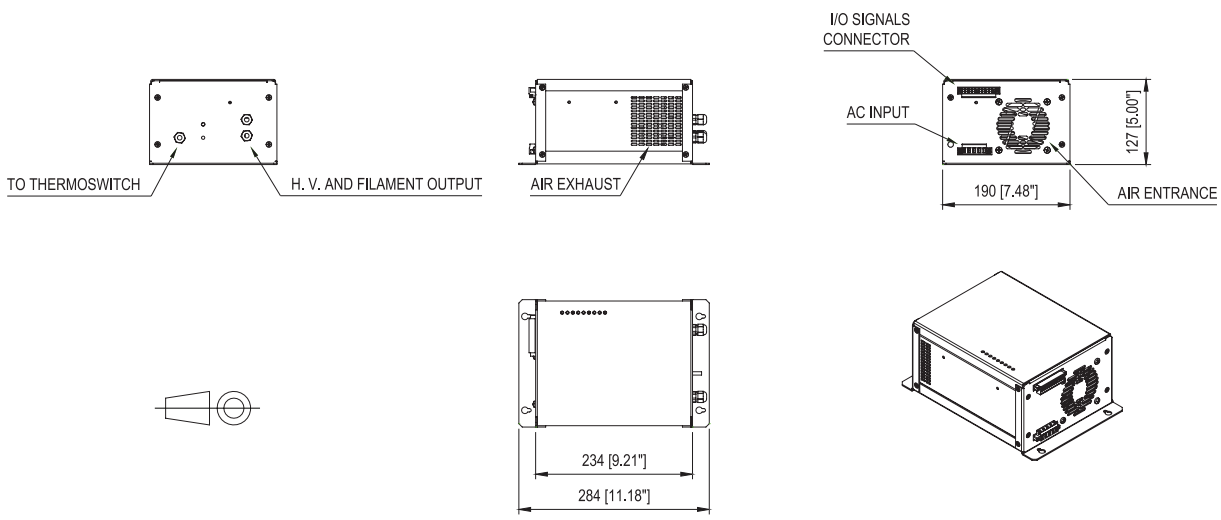
The CM 130 is enclosed in a lightweight and compact aluminum housing designed to be easily mounted inside an electrical enclosure. Industry standard electrical terminal blocks with separate terminals for all electrical functions provide simple and easy set up. The high voltage (HV) output, carrying the anodic current and the filament current, is available via two preassembled HV wires. As the unit includes the filament transformer, it should be assembled as close as possible to the magnetron, within the length of output wires.

## Features & Benefits

- Compact and lightweight form factor makes it ideal for applications where space is limited.
- The CM 130 is a highly competitive alternative to larger and heavier traditional L-C power supplies.
- High efficiency power supply design requiring only air cooling simplifies installation and reduces cost.
- Low output ripple makes it suitable for laboratory and professional oven equipment.
- System designed for easy assembly inside an electrical enclosure, with access to the terminal block on the bottom of the unit and output HV wires on the top.

# Specifications and Ordering Information

| | |
|---|---|
| **Output Power** | 540 W max |
| **Line Input** | from 140 to 250 VAC |
| **Line Frequency** | 50/60 Hz |
| **Efficiency** | 92% |
| **Output Current** | 180 mA max (corresponding to approx. 300 Wrf) or 60 mA max (corresponding to 90 Wrf) |
| **Alarm Management** | In the event of an alarm condition, the alarm contact opens, the output power is switched off and the alarm contact is latched. A reset procedure is required to turn the unit back on. |
| **Dimensions** | |
| Width | 190 mm (7.5 in.) |
| Height, total (mm) | 127 mm (5.0 in.) |
| Length, total (mm) | 284 mm (11.2 in.) |
| **Weight** | 3.7 kg/ 8.1 lbs. |
| **Cooling Type** | Forced air, 80 $m^3/h$ |
| **Working Ambient Temperature (max)** | 40° C/ 104° F |
| **Compliance** | CE |
| **Preferred Microwave Magnetron Head** | TXA10 (Open frame head, waveguide size WR340), Other manufacturer's electrically compatible heads |




## Dimensional Drawing —

*Note: Unless otherwise specified, dimensions are nominal values in millimeters (inches referenced).*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