

## Communications & Power Industries Coaxial Magnetron



A magnetron is a high power microwave oscillator in which the potential energy of an electron cloud near the cathode is converted into RF energy in a series of cavity resonators. The VMX3045 magnetron delivers high peak and average RF power for use in medical or industrial applications.

The VMX3045 is a small and light weight magnetron that can be easily installed in numerous platforms. The small form factor is ideally suited for mobile applications or in systems where space is at a premium.

The VMX3045 will mount directly into new or existing sockets and can be operated under various pulse and input conditions to accommodate a wide range of operating requirements.

### FEATURES:

- 9.3 GHz
- Tunable +/- 30 MHz
- 400 kW peak output power
- 400 W average output power
- Long life >2000 hours

### BENEFITS:

- High power
- Small size
- Ideally suited for mobile use

### APPLICATIONS:

- Industrial linear accelerator

# CPI X-Band 400 kW Coaxial Pulsed Magnetron: VMX3045

## Electrical Specifications

|                          |                                 |
|--------------------------|---------------------------------|
| Frequency                | 9.3 GHz $\pm$ 30MHz             |
| Peak Power Output        | 400 kW                          |
| Average Power Output     | 400 W                           |
| Pulse Voltage            | 27 – 2.95 kV                    |
| Peak Anode Current       | 28 A                            |
| Average Anode Current    | 28 mA                           |
| Pulse Width              | 3.5 $\mu$ S, $\pm$ 0.25 $\mu$ S |
| Duty Cycle               | 0.001                           |
| Maximum Filament Voltage | 15 V                            |
| Maximum Filament Current | 3.6 A                           |
| Minimum Warm-Up Time     | 150 S                           |
| Maximum Load VSWR        | 1.1:1                           |

## Mechanical and Environmental Specifications

|                   |                                       |
|-------------------|---------------------------------------|
| Cooling           | Forced air                            |
| Flow Rate         | 40 cfm                                |
| Body Temperature  | -55°C to +140°C                       |
| Mounting Position | Any                                   |
| Support           | Mounting Flange                       |
| Coupling          | WR112 mates with UG-51/U choke flange |
| Tuning            | 10 turns, $\sim$ 3 MHz per turn       |
| Weight            | 11 lbs. (4.99 kg)                     |

With a history of producing high quality products, we can help your with magnetron.

**Contact us at [BMDMarketing@cpii.com](mailto:BMDMarketing@cpii.com) or call us at +1 978-922-6000.**

