

BPA-Series Microwave Generators for 15 kW 2.45 GHz Magnetrons



GENERAL INFORMATION

The BPA15kW microwave generator is an air-cooled power supply for a 15 kW / 2.45 GHz magnetron. This power supply is designed based on modular interleaving technology to reduce input and output ripple as well as having the ability to protect the magnetron from over voltage and over current.

The BPA15kW autonomously manages the operating status of the magnetron and adjusts the filament voltage according to the input power of the magnetron and switches off the output when alarm events such as overcurrent or overvoltage of the magnetron occur. It is built into a self-ventilated 19" aluminum housing with the 10-U height.

FEATURES

- Air cooling
- Resonance isolated ZCS/ZVS high frequency topology
- Supports all 15 kW Magnetrons on the market
- High efficiency
- Modular design - the SMPS can continue operating at lower power even if one (or more) module/cell fails
- High accuracy output current control
- Low ripple anode current
- Protections: Over temperature/ Over current/ Overvoltage/ Over load/ Under voltage/ Under load/ Short circuit
- High reliability (designed based on MIL-HDBK-338B and MIL-HDBK-217 standards)
- Able to be connect in parallel with similar SMPS
- Low noise SMPS
- Ability to control by PLC, PC or Profinet

SPECIFICATION

Electrical and Technical Data

	BPA15kW380	BPA15kW400	BPA15kW480	BPA15kW600
Input voltage	380 VAC $\pm 10\%$	400 VAC $\pm 10\%$	480 VAC $\pm 10\%$	600 VAC $\pm 10\%$
Efficiency	up to 95 %	up to 96 %	up to 96 %	up to 97 %
Input frequency		47 Hz to 63 Hz		
Magnetron output power		1500 W to 15000 W		
Output voltage adaptivity		11 kV to 12 kV		
Anode current variation range		180 mA to 1800 mA		
Active operating temperature		-20 °C to +50 °C		
Working humidity	20 % to 90 % RH non-condensing			
Storage temperature, humidity	-30 °C to +70 °C, 10 % to 95 % RH non-condensing			
Withstand voltage		20 kV		
Size of Magnetron head (WxHxD)		584 mm x 275 mm x 394 mm		
Size of Power Supply (WxHxD)		744 mm x 445 mm x 483 mm		