

BPA-Series Microwave Generators for 15 kW 2.45 GHz Magnetrons

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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 or PC, or Profinet

SPECIFICATION

Electrical and Technical Data

	BPA15kW380	BPA15kW400	BPA15kW480	BPA15kW600
Input voltage (Three phase)	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 15000w	
Output voltage adaptivity			11kV-12kV	
Magnetron output power			180 to 1800 mA	
Active operating temperature			-20 to 50 °C	
Working humidity			20 ~ 90% RH non-condensing	
Storage temperature, humidity			-30 ~ +70, 10 ~ 95% RH non-condensing	
Withstand voltage			20 kV	
Size of Magnetron head (WxHxD)			584 x 275 x 394 mm	
Size of Power Supply (WxHxD)			744 x 445 x 483 mm	