Low Ripple Switch Mode Power Supply

FM - PS2kW Magnetron / 2.45 GHz

General Information

FM - Low Ripple Switch Mode Power Supply for 2kW Magnetrons @ 2.45 GHz is a series of power switch supplies. These power supplies contain all the necessary circuitry to drive a remote magnetron with regulated power, ranging from 10% to 100% of the rated power output. They contain circuitry for a fixed delay for magnetron warm up and continuous filament cut back operation. The control circuitry also provides status indicators, remote power regulation and the necessary connectors for wiring an external interlock circuit to meet microwave specific security demands.

The PS2KW power supply is able to power of all market usual magnetron types with a nominal power of 2kW @ 2.45 GHz.

Key Features / Technical Details

- 19“ rack mounted
- Low Ripple Current ≤ 2% , ideally for plasma applications and other most applications
- Stable filament control prolong the magnetron life
- Microcontroller based monitoring and controlling of all important Magnetron Operating Parameters like High Voltage and Current
- Sophisticated Design allows the generator always working at the ideal operating point (high efficency and longer magnetron lifespan)
- Low electromagnetic interference, improved fail-safe design against electromagnetic interference‘s
- Protective features to guard the magnetron and itself against failures
- Improved protective design to guard the person who accidentally touched the High Voltage
- Advanced alarm handling, all alarms can be displayed in a plain text Fieldbus-Interface
- Two different control options to suit most application requirements (e.g. PLC control or fieldbus control capabilities)

Fricke und Mallah Microwave Technology GmbH
Werner-Nordmeyer-Str. 25 | 31226 Peine | Germany
Tel.: +49 (0) 5171 54 57-0 | Fax: +49 (0) 5171 54 57-26
info@microwaveheating.net | www.microwaveheating.net

Low Ripple Switch Mode Power Supply

FM - PS2kW Magnetron / 2.45 GHz

Specififation

Electrical and Technical Data

Input	
Line Input	3 x 400 V_{AC}
Line Frequency	50 / 60 Hz
Input Power	3.4 kVA @ 400 V_{AC}
Maximum intake current	5.5A @ 360 V_{AC}
Output	
Outpot Power Magnetron	2000 W
Output Current	725 mA
Filament	Adjustable for all type of Magnetrons
Control / Monitoring	
Power Adjustment Signal Range	0-10 V_{DC}
Interface	Profinet or analog PLC

Cooling

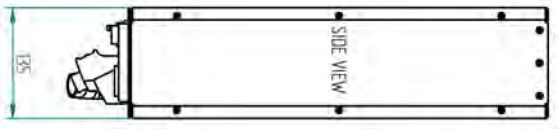
Air Cooling	
Intake Airflow (without filter)	Appx. 45 m³/h
Intake Airflow (with FM filter)	Appx. 22 m³/h
Water Cooling	
Waterflow	≥0,5 l/min
Water Pressure	8 bar max.
Water temperature	+18°C to +22°C
Water quality	clear water

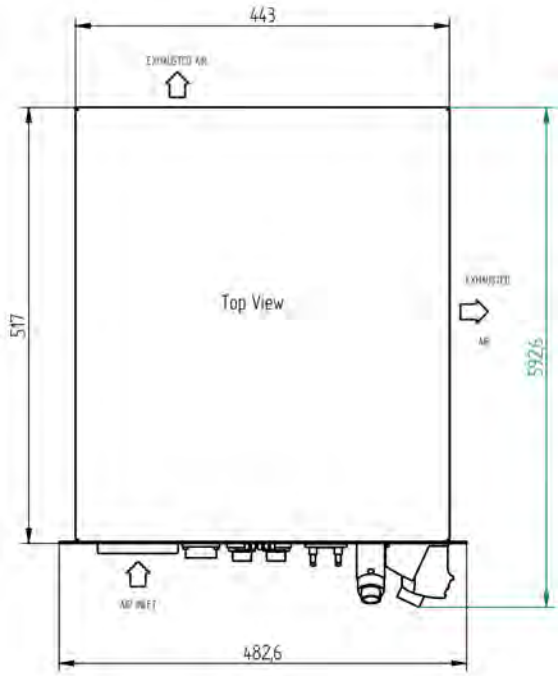
Mechanical Data

Front Panel Dimensions	19“ x 3HE (482.6 x 135 mm)
Rack Total Width	443 mm
Rack Total Height	135 mm
Depth with Connectors applied	592.6 mm
Total Weight	Appx. 18 kg

Ambient Conditions

Use	Indoor use only
Operation mode	Continous operation
Ambient Temperature	+5°C to +40°C operating
Relative Humidity	80% @ 30°C to 50% @ 40°C
Efficiency	>91%





Fricke und Mallah Microwave Technology GmbH
Werner-Nordmeyer-Str. 25 | 31226 Peine | Germany
Tel.: +49 (0) 5171 54 57-0 | Fax: +49 (0) 5171 54 57-26
info@microwaveheating.net | www.microwaveheating.net