

Low Ripple Switch Mode Power Supply

FM - PS 5kW Magnetron / 915 MHz



General Information



FM - Low Ripple Switch Mode Power Supply for 5 kW Magnetrons @ 915 MHz is a series of aircooled power switch supplies. This model is able to power all 5 kW @ 915 MHz magnetrons on the market. Its output power can be regulated continuously between 600 - 6000 W by controlling through the PLC interface or fieldbus interface. The mains supply is available for 400, 440 and 575 V and working perfectly with FM-PS 5kW Magnetrons Microwave Head.

It can also power other manufacturers' microwave heads, when electrically compatible. Additionally this model has many innovative protective features that enable the machine to work independently and always in a safe operating state.

Key Features / Technical Details

- 19" rack mounted
- Low Ripple Current $\leq 2\%$, ideally for plasma applications and other most applications
- CE- and CSA- Approval
- Stable filament control prolongs 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 efficiency 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)

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Specification

Electrical Data

Input

Line Input	3 Phase 400 V _{AC} 3 Phase 440 V _{AC} 3 Phase 575 V _{AC}
Line Frequency	50 Hz / 60 Hz
Input Power	8.3kVA @ 400V _{AC}
Maximum intake current	12.5A @ 380V _{AC}

Output

Magnetron Output Power	5000 W
Output Current	850 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	Appx. 300 m ³ /h
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Mechanical Data

Front Panel Dimensions	19" x 7HE (482 x 311 mm)
Rack Total Width	482 mm
Rack Total Height	311 mm
Depth with Connectors applied	660 mm
Total Weight	Appx. 40 kg

Ambient Conditions

Use	Indoor use only
Operation mode	Continuous operation
Ambient Temperature	Max. 40° C operating
Relative Humidity	80% @ 30°C to 50% @ 40°C
Efficiency	≥90%

