



Plasma &

Reactive Gas Solutions

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MPS Series

INDUSTRIAL SWITCH-MODE MICROWAVE POWER SUPPLY SYSTEMS FOR 915 MHZ MAGNETRONS

MKS, Alter® MPS Series industrial microwave power supplies are modular, compact, air-cooled and water-cooled, switch-mode, variable power supplies designed to drive 915 MHz magnetrons from 15 to 75 kW. MPS systems include a controller unit (AC570) and one or more multiple power units based on MKS, Alter Products SM Series power supplies.

All MPS Series industrial microwave power supplies offer low ripple (<5%) continuous power control with alarm management via a remote control panel and system status indicator, all enclosed in a stainless steel cabinet.

Features & Benefits

- Various power available - smart power supplies integration
- Compact system, reliable and cost efficient
- Continuous power control and alarm management

Specifications and Ordering Information

Controller (AC570)

AC Power Input	3 x 400 V 50/60 Hz or 3 x 480 V 50/60 Hz
Filament Output Stability	Within 1% for input fluctuations
Management of Alarm Situations	Magnetron Overtemperature Low Air Pressure from Head Low Water Flow in Magnetron Head Open Interlock Supply of Electromagnet Incorrect Filament Resistance Out of Range Alarm Coming from SMxxxx Inverter Min and Max Ref/Fwd Power
Communication	MBUS Interface with Profibus or Modbus/TCP port
Dimensions	19" Standard Rack, 3U Rack Depth: 440 mm without handles
Weight	16 kg

Power Unit (SM18xx)

Main Supply	3 x 400 V 50/60 Hz or 3 x 480 V 50/60 Hz
Voltage Limit	±10% Minimum
Transient Overvoltage	Overvoltage Cat. II According IEC 664
Intake Current	@ 400 V: 40 A rms @ 480 V: 34 A rms
Water flow rate for the unit	2L/min (water not condensing 12°C - 35°C)
Dimensions	19" Standard Rack, 7U Rack depth : 440 mm without handles
Weight	55 kg

MPS - Environmental Conditions

Use	Indoor Use Only
Altitude	Tested Up to 2,000 m (~6,000 ft)
Temperature	5°C to 40°C (41-104°F)
Relative Humidity	80% for Temperature up to 31°C (88°F) Decreasing Linearly to 50% RH at 40°C (104°F)

MPS - Physical

Housing Cabinet Depth	800 mm (Minimum)
Total Weight	
MPS24	71 kg
MPS48	126 kg
MPS72	181 kg
MPS96	236 kg

Cooling Requirements - Air Flow Intake & Water Cooling

MPS 24	Air Intake: Approx 700 m ³ /h water: 2L/min
MPS 48	Air Intake: Approx 1500 m ³ /h water: 4L/min
MPS 72	Air Intake: Approx 2200 m ³ /h water: 6L/min
MPS 96	Air Intake: Approx 2800 m ³ /h water: 8L/min

Ordering Information

Please contact your local MKS sales office for price and availability information.



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