

Intivac T H I N F I L M

MARK+ SERIES - ION SOURCE CONTROLLERS

Advanced power delivery and control systems for End Hall Ion Sources



- High-efficiency switch mode power supplies
- Simple single-button operation
- Intuitive touchscreen interface
- Integrated multi-channel gas flow control
- Event and status logging for improved diagnostics
- Troubleshooting tools to reduce downtime
- Advanced control system for improved plasma stability

TECHNICAL SPECIFICATIONS

Anode Supply

Voltage Range	0–300 VDC 0–200 VDC, Mark III+
Current Range	0–1 ADC, Mark I+ 0–5 ADC, Mark II+ 0–10 ADC, Mark II+ HO 0–15 ADC, Mark III+ Adjustable current target Adjustable voltage target Over-voltage protection Thermal protection Automatic current regulation

Filament Cathode Supply

Voltage	50 VRMS
Current Range	Vac / 0–25 ARMS Adjustable current target Adjustable current limit Thermal protection

Hollow Cathode Supply

Emission	60 VDC, 0–12.5 A, Mark II+ HO
Keeper	60 VDC, 0–17.5 A, Mark III+ 50 VDC, 500–1500 mA Adjustable current target Adjustable current limit Thermal protection

Interface (Manual or Remote)

Remote	RS232 Interface 7 Digital in, 8 Digital out Analog I/O MFC port to control up to 4 MFCs and PSO valves
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Physical / Utility Specifications

Cooling	Forced air
Dimensions (H × W × D)	7" × 19.25" × 21.75" Additional 4.25" required for connector clearance
Mounting	19" rack mountable
Weight	45 lbs
Input Power	200–230 VAC, 50/60 Hz, single phase 16 A max on Mark I+ 20 A max on Mark II+ 24 A max on Mark II+ HO or III+

Mark + Series Ion Source Controllers

The Intlvac Mark+ Series Ion Source Controllers feature advanced switching power technology engineered to deliver stable, efficient, and reliable power to End Hall ion sources. Designed for demanding process environments, the Mark+ Series combines precise control, operator-friendly functionality, and integrated gas flow management in a compact rack-mount platform.

Mark+ Series Power Supplies are available



MARK I+ CONTROLLER

Ideal for use with Intlvac Mark I+ Ion Sources, with capacity up to 300 W of discharge power.



MARK II+ CONTROLLER

Ideal for use with Intlvac Mark II+ and Mark II+ Water-Cooled Ion Sources, with capacity up to 1500 W of discharge



MARK II+ HO CONTROLLER MARK III+ CONTROLLER

Designed for Intlvac hollow cathode applications, providing enhanced performance for higher power process requirements with capacity up to 3000 W of discharge power.