

I-Beam Power Supplies

Integrating all RF, DC, and RFN power and control into a single 19-inch rack mount unit, the I-Beam 700 series Power Supply was a revolution when it was first released in 2009. The oldest unit, the I-Beam 701, has a long history and is still used in systems where a separate RF generator is required. The I-Beam 703, which has its own RF generator, has become the standard in the field for performance, quality, and backward compatibility. We have designed these power providing workhorses as drop-in replacements for aging Ion Tech RF2000-series supplies. The I-Beam series has rugged output capabilities while using the same communications protocols and connectors, and can therefore keep older systems running.

The I-Beam 703 is also capable of meeting the newest system requirements, offering a standard 600mA configuration, an 800mA option when paired with a Plasma Process Group ion source, and even a 1000mA version that uses a separate RF Generator.

The I-Beam 702 offers stand-alone RF Neutralization for any system using an ion source. This option allows the elimination of the filament or hollow-cathode based neutralizers, making the incredibly low-maintenance, high-performance capabilities of the RFN available.

All four supplies are equipped with front panel keypads for direct user control with large, easy-to-read LED displays. Three modes allow convenient control access, with "Manual" providing full RF power control, "Local" allowing direct beam current control, and "Remote" locking the front panel to prevent accidental changes during process. Communication using RS-232 allows full computer control, while the power supply can alternatively trigger with remote switches.



SPECIFICATIONS

Power Outputs <i>Six individual supplies to run an RF ion beam source with an RF Neutralizer</i>	Beam Supply	1500VDC, 600mA – 1500mA	I-Beam 701, 703, 704
	Accelerator Supply	1000VDC, 50mA	I-Beam 701, 703, 704
	RF Discharge	500W maximum, built-in RF Generator	I-Beam 703
	RF Generator for RFN	100W	I-Beam 701, 702, 703, 704
	Keeper for RFN	60V, 300mA	I-Beam 701, 702, 703, 704
	RFN Emission	120V, up to 2000mA	I-Beam 701, 702, 703, 704
	Output Connections	Source	4-pin industry standard: 97-3102A-18-4S Mil Spec
Neutralizer		5-pin industry standard: 97-3102A-14S-5S Mil Spec	
Interface	Communications	RS-232, DB-9 female	
	Interlock / Remote Switch	DB-9 female	
	Matching Network	DB-9 female	
Power Input	208 VAC, 50/60 Hz, 16A, single-phase		
Cooling	Forced air		
Chassis	Mounting	19" rack mount, 4U height	
	Size (w x h x d)	19" x 7" x 20" (483mm x 178mm x 508mm)	
	Weight	51 lbs (23.1kg)	
Certification	I-Beam 701	RF Source Supply / Separate RF Generator	CE Certified, RoHS Compliant
	I-Beam 702	RFN Stand-Alone Supply	CE Certified, RoHS Compliant
	I-Beam 703	RF Source / RFN Supply	CE Certified, RoHS Compliant

OPTIONS & ACCESSORIES

Power Supply	IBEAM-701	RF source power supply for separate RF generator	
	IBEAM-702	RFN Stand-alone power supply	
	IBEAM-703	RF source power supply with built-in RF generator	
RF Matching	505914A	Source RF	Includes Matching Network & Controller
Cable Kits	505752A	I-Beam 703 Cable Kit with beam, RFN and RF cables	
	507128A	I-Beam 701/703 Cable Kit for use with 1kW RF Generator	
Adapter Box	IBOX-104	Adapts connections to an Ion-Tech style configuration	