



Next Generation Ion Beam Process Products



Auto Controller eH Autopilot



- Master controller – Patented
 - Controls operation and gas flow
 - Sequences startup
 - Gas, cathode & discharge
- Technology
 - Universal Input 100-260V, 50/60 Hz, 1 Φ
 - CE Compliant
 - Forced air cooling
- Functions
 - Open or closed gas loop control
 - 4 MFC power & control
 - Blend via master slave
 - Two 24V I/O for positive shut off
 - Data logging
- Control
 - Monitors & controls all parameters
 - Integrated control
 - 4 recipe storage
- Remote
 - RS 232 & isolated analog
 - Mark II remote I/O interface compatible
 - interlock
- Diagnostics
 - Command or fault responses
 - Audible alarms
- Size – rack mount
 - 19" (48.3cm) x 21" (53.3cm) deep
 - 1U (1.75", 4.44 cm)
 - 4.5 Kg (10 lbs)



Next Generation Ion Beam Process Products



Filament Controller FC1xxx



- Powers filament cathode – Patented
 - Electron emission for ionization & neutralization
- Technology
 - Switch mode - low stored energy
 - Universal Input 100-260V, 50/60 Hz, 1 Φ
 - Two configurations
 - CE Compliant
 - Forced air cooling
- Output
 - Cathode soft-start
 - 40V/25A, 1kW
 - Low frequency (< 100 Hz)
 - No need to impedance match the load of a high frequency switching output
- Control
 - Measures & regulates emission current
 - Establishes neutralization
 - Memorizes set point
 - Broken filament alarm
- Remote
 - RS 232 & isolated analog
 - interlock
- Protection
 - Current & Power Limits
- Diagnostics
 - Error or faults responses
- Size – rack mount
 - 19" (48.3cm) x 21" (53.3cm) deep
 - 1U (1.75", 4.44 cm)
 - 4.5 Kg (10 lbs)



Next Generation Ion Beam Process Products



Discharge Controller DC 30010



- Powers anode – Patented
 - Plasma power for ionization & acceleration
- Technology
 - Switch mode - low stored energy
 - Universal Input 100-260V, 50/60 Hz, 1 Φ
 - CE Compliant
 - Forced air cooling
- Output
 - 300V/10A, 2kW
 - Voltage and current regulation modes
 - Fast transient response ($< 250 \mu\text{s}$)
- Control
 - Measures & regulates discharge parameters
 - Memorizes set point
- Remote
 - RS 232 & isolated analog
 - interlock
- Protection
 - Current & Power Limits
 - Fast current limit ($< 30 \mu\text{s}$)
- Diagnostics
 - Error or faults responses
 - Audible alarms
- Size – rack mount
 - 19" (48.3cm) x 21" (53.3cm) deep
 - 1U (1.75", 4.44 cm)
 - 4.5 Kg (10 lbs)



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