

This Integrated Power Source for triode electron gun (Liniac) consists of a High Voltage Gun Injection Supply and three additional supplies, Cathode Heater Supply, Grid Supply and a Pulsed Supply, all floating on high voltage. The HV supply consists of a switch mode DC supply followed by a high voltage transformer and IGBT switch.

### Features:

- Flat Pulse Output (Rectangular)
- 500nSecs Rise Time
- Adjustable Pulse Width & Frequency
- Over Voltage & Short Circuit Protected



### TECHNICAL SPECIFICATIONS

PARAMETER	SPECIFICATION
Maximum Current	3A peak
Pulse Height	Variable from -4kV to -40kV peak(max)
Pulse Shape	Rectangular
Pulse Width (measured at the flat top)	Adjustable from 4 $\mu$ S to 12 $\mu$ S
Rise Time	0.5 $\mu$ S
Flat Top Variation (peak to peak)	Flatness within 1% with initial overshoot less than 5% of the set value
Pulse Repetition Frequency (RPF)	Variable from 1 to 250 pps
Maximum Reverse Voltage	Less than 500V
Maximum Peak Power	120kW
Load	Electron Gun (Liniac)
Remote Interface Analog	0-10V analog interface for pulse height measuring and setting.
Remote Interface Digital	RS232/RS485 digital interface
<b>CATHODE HEATER POWER SUPPLY</b>	
Output Voltage	10V AC max
Output Current	10A AC max
Output Reference	Floating at -40kV (output of the gun injection power supply)
Control	RS232/RS485 interface
<b>DC POWER SUPPLY</b>	
Output Voltage	0 to -1Kv DC
Output Current	20mA
Output Reference	Floating at -40kV (output of the gun injection power supply)
Control	RS232/RS485 interface

1kV PULSED SECTION	
Output Voltage (Pulsed)	1 V to 1kV DC
Output Current	500mA max
Pulse Shape	Rectangular in synchronization with high voltage gun injection supply
Pulse Width (measured at the flat top)	Adjustable from 4 $\mu$ S to 12 $\mu$ S
Rise Time	0.5 $\mu$ S
Flat Top Variation (peak to peak)	Flatness within 1% with initial overshoot less than 5% of the set value.
Pulse Repetition Frequency (PRF)	Variable from 1 to 250 pps in synchronization with high voltage gun injection supply
Remote Interface Digital	RS232/RS485