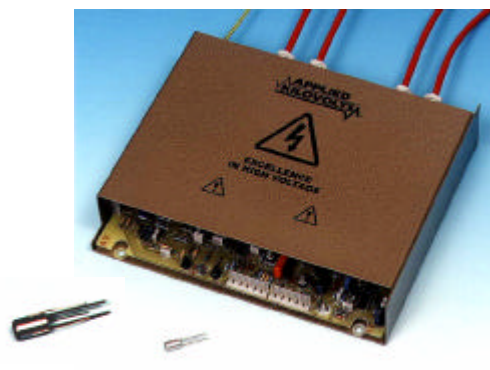


ION GUN POWER SUPPLIES TYPE IG005, IG010 & IG020

These power supplies are intended to power ion guns at voltages up to +20 kV. They include an isolated heater supply joined to the anode together with a separately controllable focus supply. They are based on the standard HP series (data sheet refers) with the frequency of the additional heater supply synchronised to the two high voltage oscillators. All outputs are controllable by 0 to +10V signals & monitor signals are provided for anode voltage, focus voltage, heater current & anode current. They can be supplied with additional voltage outputs tapped off the main anode supply (to order).



IG20 shown with Heatwave Ion source

Electrical Specification

UNIT TYPE	ANODE VOLTAGE	FOCUS VOLTAGE	HEATER (common to anode)
IG005PAA300	+25V to +5 kV at 100 uA	+25V to +5 kV at 100 uA	0.8 to 2.5 Amps at 8V
IG010PAA300	+50V to +10 kV AT 100 uA	+50V to +10 kV AT 100 uA	0.8 to 2.5 Amps at 8V
IG020PAA300	+100V to +20 kV at 100 uA	+100V to +20 kV at 100 uA	0.8 to 2.5 Amps at 8V

Input voltages:	24V d.c. $\pm 1V$ at 1.8 amp maximum.	
Output voltages:	Anode, focus & heater (heater voltage floats on anode potential).	
Ripple:	Anode & focus 0.1% peak to peak, heater 1V peak to peak max.	
Control (all outputs):	0 to +10 volt gives 0 to maximum, $\pm 5\%$.	
Load regulation:	Better than 1% for a 10% change in resistance.	
Line regulation:	Better than 1% for 1V change in input voltage.	
Output accuracy:	Better than $\pm 5\%$ of full scale (all outputs).	
Inhibit:	Heater +24V or O/C - Inhibit. <+1.5V - Heater on. Anode & +24V or O/C - Inhibit. Focus <+1.5V - Outputs slow rise to maximum.	
Monitors:	Anode voltage	0 to +5V represents 0 to max. kV.
	Focus voltage	0 to +5V represents 0 to max. kV.
	Anode current	0 to +5V represents 0 to 100 uA (beam current).
	Heater current:	0 to +5V represents 0 to 2.5A.
Accuracy of readbacks:	Better than $\pm 5\%$.	
Temperature co-efficient:	<300 ppm/ $^{\circ}C$ (Anode & focus), 1% per $^{\circ}C$ (Heater).	
Operating temperature:	0 $^{\circ}C$ to +45 $^{\circ}C$.	

Mechanical Specification

Size:	215 mm x 200 mm x 47 mm.
Outputs:	By flying lead, length 1 metre, labelled Focus, Anode/Heater -ve, Heater +ve
Input Connector:	12 pin Molex.

Please contact the factory for special versions of this power supply.