

## Model GHV251-N25 -25 kV DC Power Supply



### Features

- Fully protected against short circuit and overload
- 2nd HV divider can be used for remote load monitoring
- Footprint: 18.75" L x 8" W x 5" H
- Light weight: 14 lbs

### Applications

- Dielectric testing
- Electrophoresis
- Mass Spectroscopy
- Electron Microscopes
- General purpose lab supply

*0 to -25 kV, 10 mA adjustable power supply module*

The GHV251 family of 25kV, 250 watt high voltage supplies feature simple analog interface with low ripple and noise, fast response, tight regulation and extremely low arc discharge currents.

They utilize solid insulation of the fixed polarity HV stages (specify positive or negative at time of order). They can be used as general purpose HV power supplies for OEM, lab or testing purposes as well as for integrating into systems needing reliable high voltage.

# Model GHV251-N25

## -25 kV DC Power Supply

### Specifications

Description	Limit
Output Voltage	-25 kVdc
Output Current	10 mAdc
Voltage Program	10.0 V program = Full Scale Output $\pm 1\%$
Voltage Monitor	Full Scale Output = 10.0 V monitor $\pm 1\%$
Current Monitor	10.0 mA = 10.0 Vdc monitor $\pm 1\%$
Over Voltage set point	110% of max. output
Short Circuit Current limit	110% of max. current
Line Regulation	Better than $\pm 1\%$ ( $\pm 250$ V) of Max. Output for Line variation, 108 Vac to 132 Vac
Load Regulation	Better than $\pm 2\%$ ( $\pm 500$ V) of Max. Output for no load to full load
HV Output Ripple	Total Ripple is better than $\pm 1\%$ (500 Vpp)
Input Voltage	120 Vac $\pm 10\%$ , single phase
Input Current	5 A max.
Protection	Arc, Over voltage, Short circuit current limit, Over temperature
Interface Connector	25 pin D, male (pin)
AC Input Connector	IEC 60320 with On/Off switch
Output Connector	AMP 83-85P-RFX
Panel Instrumentation	LED indicators for "AC", "HV ON", "FAULT"
Safety Approvals	TUV
Operating Temp	0°C to 50°C
Cooling	Forced Air
Storage Temp	-20°C to 60°C
Operating Humidity	10% to 90% R.H. Non-condensing

### Interface Connections, Male, 25 PIN D Type

PIN	Designation	Description
1, 6	+15 V Return	Return of external 15 Vdc to drive all opto-isolator requirements
2	+15 Vdc	External +15 Vdc to drive all opto-isolator requirements
3	HV Enable	Cathode of opto-isolator LED, in series with 2.26 k resistor. When it is grounded to +15 V Return, it turns on opto-isolator and enables High Voltage
4	HV ON Sense	Collector of NPN transistor in opto-isolator, in series with 20 ohm resistor. When HV is enabled, transistor turns on and shorts to +15 V return
5	Overtemp	Collector of NPN transistor in opto-isolator, in series with 20 ohm resistor. When there is a temperature fault, transistor turns on and shorts to +15 V return
7	N/C	No connection
8	Fault	Collector of NPN transistor in opto-isolator, in series with 20 ohm resistor. When there is a fault (temperature fault, overvoltage fault, output-low fault or arc counter full), transistor turns on and shorts to +15 V return
9	kV Program	0 to +10 Vdc programs voltage output from 0 to -25 kV
10	kV Program Ret	Common of internal $\pm 15$ Vdc
11	kV Program Sense	0 to +10 Vdc represents kV Program received by power supply
12, 14, 16	Analog Return	Same as pin 10
13	kV Monitor	0 to +10 Vdc represents output voltage from 0 to -25 kV
15	mA Monitor	0 to +10 Vdc represents output current from 0 to 10 mA
17	External V Sense	When optional external voltage sense is used, 0 to +10 Vdc on this pin represents output voltage from 0 to -25 kV
18-24	N/C	No Connection
25	Shield	Connects to mounting hardware of connector

### Ordering Information

		Part Number
25kV	Negative:	1102384-3N
25kV	Positive:	1102384-3P

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