

60kV 1mA X-Ray Generator



- ✓ Material Analysis
- ✓ 60kV and 100kV Models
- ✓ Security Checking
- ✓ Non-Destructive Testing (NDT)
- ✓ Computed Tomography (CT)

Specification Summary

Perseus range is a series of high voltage power supplies which are designed for non-destructive testing (NDT). It is highly stable and accurate, and can also be used in material analysis, security checking, etc.

It can either be controlled locally or by remote, and therefore the output voltage, output current and maximum filament current can be adjusted at either the front panel or remote control.

Input Specifications

AC Input Voltage Range 180V to 264V

Power Factor 0.92

Output Specifications

Output Voltage 0-60kV Negative

Output Current 0-1mA

Output Voltage Stability Within 0.1% of set value after warm-up

Ripple Less than 0.05% rms

Filament Voltage 0-5V DC

Filament Current 0-2A DC

Parameter Settings

Voltage Setting 0-10V = 0-60kV

Current Setting 0-10V = 0-1mA

Maximum Filament Current Setting 0-10V = 0-2A (This is set to prevent the filament from failing when over-current)

Output Feedback

Output Voltage Feedback 0-60kV

Output Current Feedback 0-1mA

Filament Current Feedback 0-2A

Control Interface

- Output voltage, output current and the maximum filament current setup by the 10 turn potentiometers on the front panel.
- Output voltage feedback, output current feedback and the filament current feedback are displayed on the 4 digital screens on the front panel.
- Default and working status are indicated by LED lights.
- Remote control mode is achieved by connecting a 25 pin connector on the rear panel.
- Details of 25 way D type female connector

1	A GND	Analogue Ground
2	FIL MAX SER	Filament standby, remote setting, 10V=2A
3	HV DEM SER	High voltage setting, 10V=60kV
4	BIAS FBK	Bias voltage feedback (Not applicable)
5	mA FBK	Output current feedback, 10V=1mA
6	SERVICE SW	Remote switch, ground=remote control, float=remote control
7	INTERLOCK	Interlock, TTL low = interlock open circuit
8	CONST HV	Constant voltage mode, TTL low = working in constant voltage mode
9	HV ERR	High voltage error indicator, TTL low = output less than set voltage
10	SPARK	Spark indicator, TTL low = spark
11	INV C/L ERR	Inverter over-current, TTL low = inverter over current

12	HV ON SER	Switch on high voltage by remote control, 5V = ON, 0V = OFF
13	D GND	Digital ground
14	BIAS DEM SER	Set bias voltage by remote control (Not applicable)
15	mA DEM SER	Set output current 10V = 1mA
16	N.C.	NOT CONNECTED
17	FIL FBK	Filament current feedback 10V = 2A
18	HV FBK	High voltage feedback, 10V = 60kV
19	EMERGENCY	Emergency stop indicator, TTL low = device being stopped (Not applicable)
20	FIL ERR	Filament error indicator, TTL low = filament current has not reached set value
21	BIAS ERR	Bias voltage error indicator, TTL low = bias voltage has not reached the set value (Not applicable)
22	OVER TEMP	Temperature is too high, TTL low = oil temperature over 70°C
23	PFC ERR	PFC error indication, TTL low = PFC output undervoltage or overvoltage
24	CONST mA	Constant current mode, TTL low = output current is 1mA
25	+24V	Providing 24V DC, current < 100mA

Environmental Requirements

Temperature	0 to 50°C
Humidity	Less than 90% non condensing

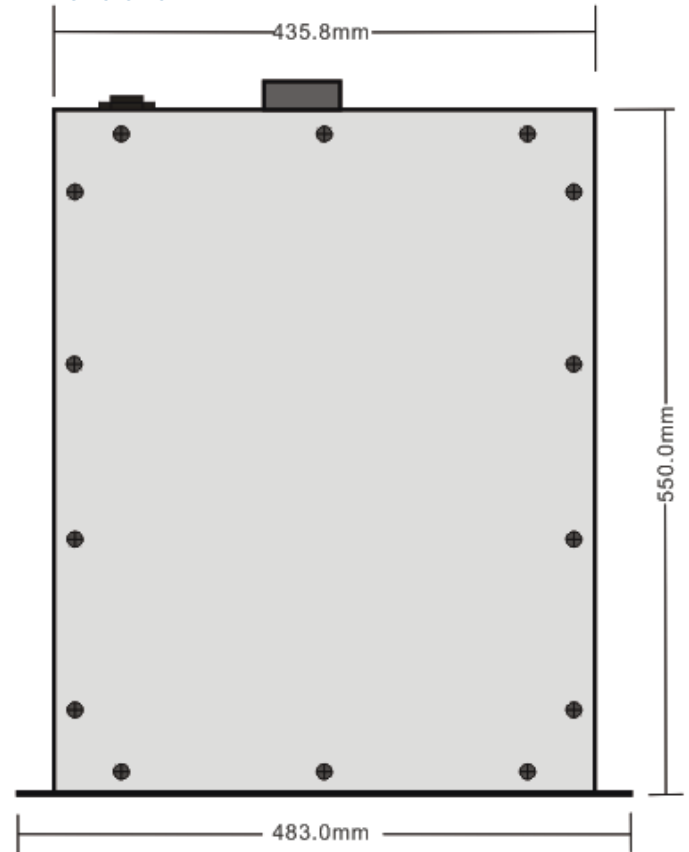
Mechanical Specifications

Weight	32Kg
Dimensions	Width 483mm, Height 178mm, Depth 600mm
Power Input Connector	Standard IEC socket
HV Output Connector	Claymount Ca1 (03) 100kV high voltage socket
Control Interface Connector	25 pin female D connector

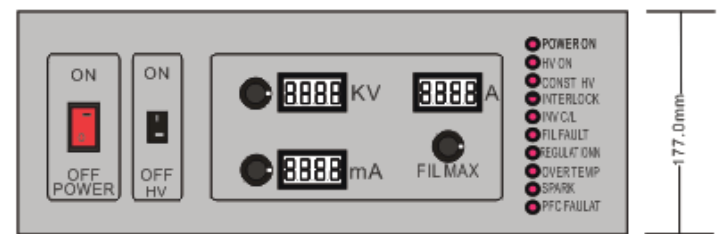
Safety

- This power supply contains hazardous voltages and stored energy. Contact with the output may result in fatal injury. It should only be used and maintained by trained personnel.
- The area where the power supply is to be used should be kept clean and dry.
- Keep a safe distance from the output connector and any items connected to it.
- Ensure that a secure connection is made between the Earth side of the load and the Green and Yellow Earth lead.

Dimensions



Top View



Front View

For requirements other than those specified, please do not hesitate to contact the factory.

Design improvements may lead to specification changes.

Worldwide Locations



UK Office:

Genvolt, New Road, Bridgnorth, Shropshire, WV16 6NN, United Kingdom

Tel: +44 (0) 1746 862 555

Email: info@genvolt.co.uk Website: www.genvolt.com

India Office:

Genvolt India Private Limited

806, Suratwala Mark Plazzo, Hinjewadi Village, Hinjewadi, Pune, Maharashtra - 411057, India

Email: supportindia@genvolt.co.uk Website: www.genvolt.in

Research and Development:

Genvolt Ltd

New road, Bridgnorth, Shropshire, WV16 6NN

Boher High Voltage Power Supplies Ltd (Genvolt China)

No. 79 Yandangshan Road, Suyu District, Suqian City, Jiangsu, China