



GENVOLT SIRIUS 3



High Voltage
Rack Mounted
Laboratory Power Supply



Genvolt

HIGH VOLTAGE POWER SUPPLIES

INTRODUCTION



The Sirius range of high voltage power supplies are suitable for a wide range of laboratory applications.

The Sirius 3 has the output current and voltage displayed on two digital meters mounted on the front panel. Output control is achieved using two multi-turn potentiometers and an HV on / off switch, also mounted on the front panel.

The unit is available in a standard 19 inch housing.

Default control is via local controls on the front of the power supply, however, the power supply can also operate in remote mode via RS232 or RS485.

The monitoring system uses intelligent PC based software based on VB visual interface. The entire monitoring system can realise operational control of the Sirius Range of power supplies. Please contact us to discuss your requirements.

Features

Continuous DC operation or capacitor charging application.

Output near 0-60kV adjustable from near 0 to 100%.

Constant current output.

Charging in constant current mode and switch to constant current mode till fully charged.

Unique double isolated system, strong anti-interference ability.

Forced air cooling, rugged design.



Input Specifications	
AC Input Voltage	220VAC +/- 10%
Output Specifications	
Output Voltage	Near 0kV - 60kV
Output Polarity	Positive or Negative
Output Power	1800W
Stability	Less than 0.5%
Line Regulation	Less than 0.5%
Load Regulation	Less than 0.5%
Working Environmental	
Ambient Temperature	-10°C to 40°C
Relative Humidity	Less than 90% non-condensing
Height	4000m

PROTECTION

Short circuit protection:

When short circuit occurs, inverter works at constant current mode, and the output voltage becomes 0.

Spark protection:

When the HV sparks over to the ground, protection circuit activates, and the output voltage becomes 0.

Overcurrent protection:

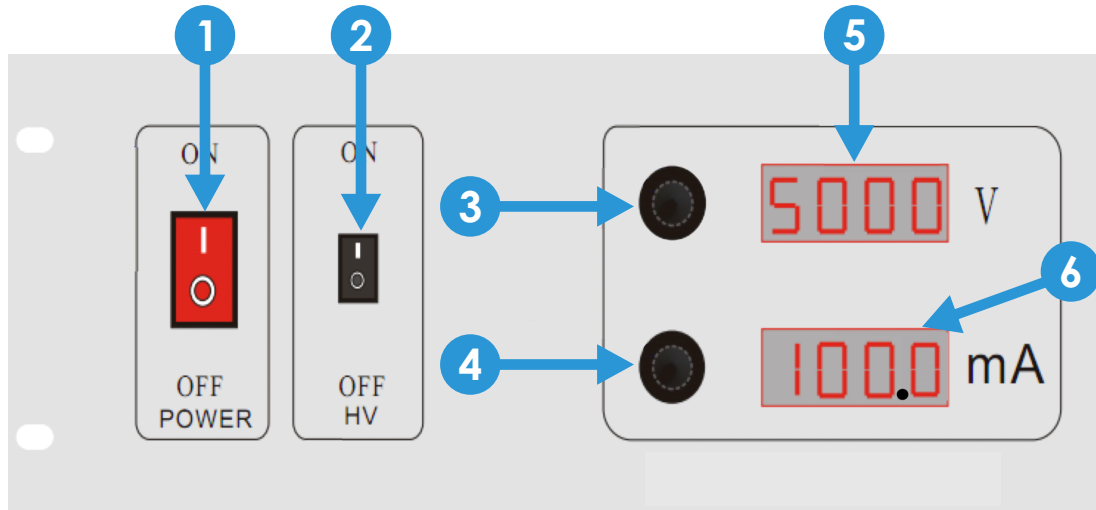
When the load current exceeds rated current, the power supply runs at protection mode, and the output voltage reduces.



Genvolt

HIGH VOLTAGE POWER SUPPLIES

FRONT CONTROLS



1. Power main switch



This switch controls the input of the entire power supply. Please ensure equipment is turned off during maintenance.

2. High voltage switch



This switch controls the high voltage function.

3. High voltage setting control



Controls output voltage when in local control mode. Turn the potentiometer clockwise to increase.

4. Current setting control



In local control mode enables user to control the output current, without adjusting the output voltage, this knob is best set the maximum output by turning the potentiometer fully clockwise.

5. High voltage output display



Shows the high voltage output value (kV).

6. Current Output display



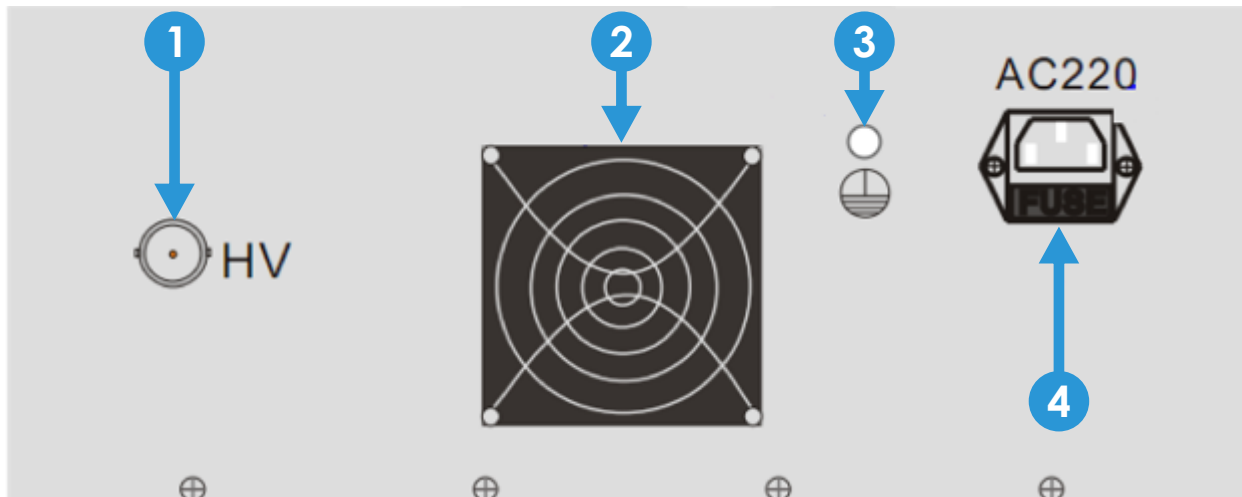
Current output value (mA).



Genvolt

HIGH VOLTAGE POWER SUPPLIES

REAR CONTROLS



1. HV Output



Install HV plug and rotate anticlockwise to lock. (The HV output connector may vary depending on the actual product).

2. Cooling Fan



The fan blows air towards the inside of the power supply. Keep the airflow path clear when installing. Do not block the inlet with any obstacles.

3. M6 for earth bonding



In addition to the ground and the load, this terminal must also be connected to the earth.

4. Power Input



Standard 220V AC mains power.

OPTIONAL CONTROLS

Both RS232 and RS485 control attachments are available.

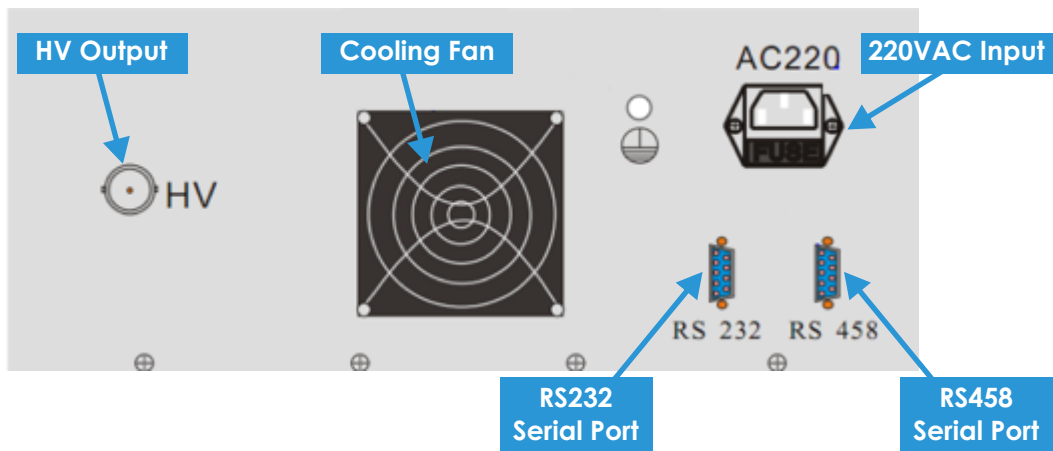


Genvolt

HIGH VOLTAGE POWER SUPPLIES

OPTIONS 

Optional RS232 RS485 Serial Ports





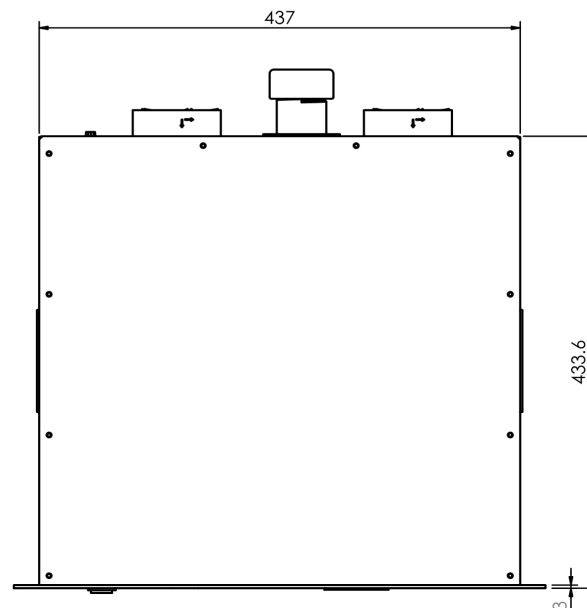
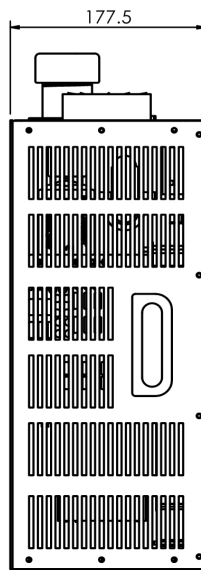
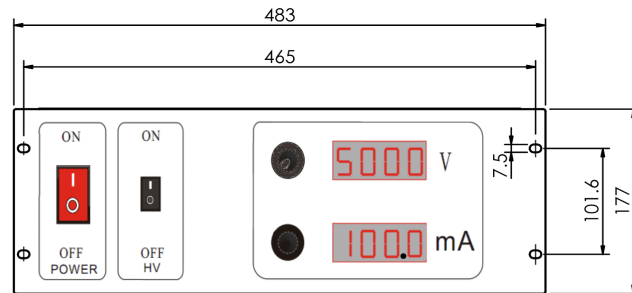
Genvolt

HIGH VOLTAGE POWER SUPPLIES

DIMENSIONS

Overall Dimensions and Safety

Height = 177mm
Width = 483mm
Length = 433.6mm
Weight = approx. 10kg
Rack Height = 4U
Rack Depth = 600mm



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. Please check the following before switching the power supply on:

- The area where the power supply is to be used should be kept clean and dry.
- Before switching the power supply on please confirm that the 10-turn potentiometer is turned fully in counter-clockwise.
- 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.
- Please do not hesitate to contact us at info@Genvolt.co.uk



Genvolt

HIGH VOLTAGE POWER SUPPLIES

SUMMARY INFO

SIRIUS 3 SUMMARY INFORMATION

Input Voltage	220V
Starting Mode	Self-excited Switching Power Supply
Power Supply System	Terminal Power Distribution Equipment
Modulation System	PFM
Output Voltage	60kV
Output Polarity	Positive or Negative
Working Mode	Constant Voltage / Constant Current
Output Display	LED
Specification	IGBT & HF Transformer
Output Type	Single
Output Power	1.6kW
Connection Mode	Series Switching Power Supply
Voltage Regulating Mode	Frequency Modulation
Energy Transmission	One-Way Transmission
Output Current	30mA
Circuit Mode	AC/DC High Frequency Conversion
Output Setting	10-Turn Potentiometer
Protection	Short, Oh, Overload, Load Discharging
Application	High Voltage



Genvolt

HIGH VOLTAGE POWER SUPPLIES

WARRANTIES 

SIRIUS 3 STORAGE INFORMATION

Storage

Pay attention to the following points during temporary and long term storage.

1. Store the power supply in our packing box.
2. Long-term storage would lead to electrolytic capacitor degradation, it should be powered up yearly, at least 5 hours power-on time, input voltage should be increased to rated value by voltage regulator.

SIRIUS 3 WARRANTY INFORMATION

Warranty

1. The warranty of this product is 12 months, free repair within warranty period except for man-made damages or irresistible force.

The following cases during under warranty are not included in free warranty scope:

- a. Incorrect operation & maintenance of the power source that causes a fault.
- b. Natural loss of consumable material (shell, connector, etc.)
- c. Manual damage caused by modification or dismantling.
- d. Damage caused by external equipment(s) or third party products or plug-in units.
- e. Force majeure factors such as fire, flood or abnormal grid inputs.
- f. Unilateral amendment or modification of the Genvolt logo or plug-in units.
- g. Fault caused by abnormal usage of power source.
- h. Other non-product related quality causes.

2. Reasonable maintenance & repair costs may be charged after warranty period.



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

Factories:

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