

7000 SERIES

BENCH TYPE HIGH VOLTAGE POWER SUPPLY

GENVOLT HIGH VOLTAGE POWER SUPPLIES



High Voltage PSU

- ✓ Electrospinning, Insulation Testing, Electrophoresis
- ✓ Models From 1kV to 40kV
- ✓ 30W,60W,100W Units
- ✓ Small Footprint
- ✓ Positive or Negative Polarity Available

[See 7000 Series on Website](#)

We recommend visiting our website for any updated model information

Specification Summary

The 7000 range of high voltage power supplies are used primarily as laboratory power supplies. The power supply is equipped with digital LED display, adjustable voltage range, highly stable output, and low ripple. The unit is available in positive or negative polarity.

and one or two output connectors depending on customer requirements. Both AC and DC input units are supplied with 40kV HV output cables. AC input unit is also supplied with IEC power connector and cable, and DC input unit is supplied with 24V 5-way XLR connector (female).

Input Specifications

AC Input Voltage Range	85VAC-265VAC ,47 to 63Hz.
DC Input Voltage Range	21.6VDC-26.4VDC
DC Input Current	1.6A for 30W at full power and minimum input voltage
Efficiency at Full Load	More than 75%

Technical Specifications

Voltage Line Regulation	Less than 0.3% for an input changing from maximum input to minimum input.
Voltage Ripple	Less than 0.1% (peak to peak) of maximum output voltage at maximum load & no load
Voltage Stability	Less than 0.05% for 8 hours per day after 30minutes warmup
Temperature Drift	Less than 200ppm/°C over the specified temperature.
Circuit Protection	Overvoltage, Overload, Arcing & Short Circuit DC reverse input polarity protected Internal Overtemperature Shutdown: 65°C, Latching

30W Output Specifications

	70130	70230	71030	72030	73030	73530	74030
Output Voltage Range*	0-1kV	0-2kV	0-10kV	0-20kV	0-30kV	0-35kV	0-40kV
Maximum Output Current	30mA	15mA	3.0mA	1.5mA	1.0mA	0.85mA	0.75mA
Output Power	0 - 30W						
Output Polarity	Positive or Negative with Respective to Ground						
Voltage Load Regulation	Less than 0.01% for a load changing from no load to full load						

60W Output Specifications

	70160	70260	71060	72060	73060	73560	74060
Output Voltage Range*	0-1kV	0-2kV	0-10kV	0-20kV	0-30kV	0-35kV	0-40kV
Maximum Output Current	60mA	30mA	6.0mA	3.0mA	2.0mA	1.7mA	1.5mA
Output Power	0 - 60W						
Output Polarity	Positive or Negative with Respective to Ground						
Voltage Load Regulation	Less than 0.01% for a load changing from no load to full load						

100W Output Specifications

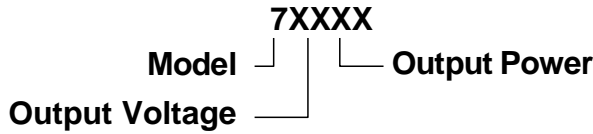
	701100	702100	710100	720100	730100	735100	740100
Output Voltage Range*	0-1kV	0-2kV	0-10kV	0-20kV	0-30kV	0-35kV	0-40kV
Maximum Output Current	100mA	50mA	10mA	5.0mA	3.3mA	2.85mA	2.5mA
Output Power	0 - 100W						
Output Polarity	Positive or Negative with Respective to Ground						
Voltage Load Regulation	Less than 0.01% for a load changing from no load to full load						

*For other output voltages do not hesitate to contact us. Please note that design improvements may lead to specification changes.

Reliability & Quality Control

Each power supply has been soak tested with full load at 40°C for no less than 24 hours.

Model Number Coding



Options

- Remote interlock option available
- Dual HV output sockets
- Dual meters
- Mounting bars
- Please specify when ordering. For further information please contact us.
- Parallel PSU capability that should be done by Genvolt

Safety

This power supply contains hazardous voltages and stored energy. Contact with the output may result in fatal injury. It should only be opened and maintained by trained personnel.

- 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 a counterclockwise direction.
- 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.

Environmental Details

Operating Temperature	-10°C to 40°C
Storage Temperature	-20°C to 60°C
Humidity	0 to 90% non-condensing

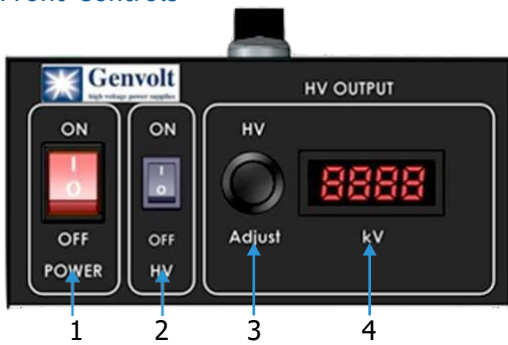
Mechanical Details

Weight	AC Input: 3.92kg (8.64lbs) DC Input: 2.8kg (8.28lbs)
Dimensions	Width 220mm, Height 120mm, Depth 275mm (excluding connectors)
Power Input Connector	AC Input: Standard IEC Connector DC Input: 24V 5 way XLR Connector (male)
HV Output Connector	Genvolt 30kV HV Connector

Other Applications

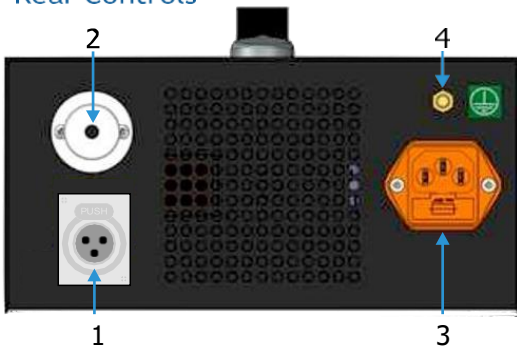
- Focused Ion Beam
- Gas Chromatography
- Image Intensifiers
- Microchannel Plates
- Spectroscopy

Front Controls



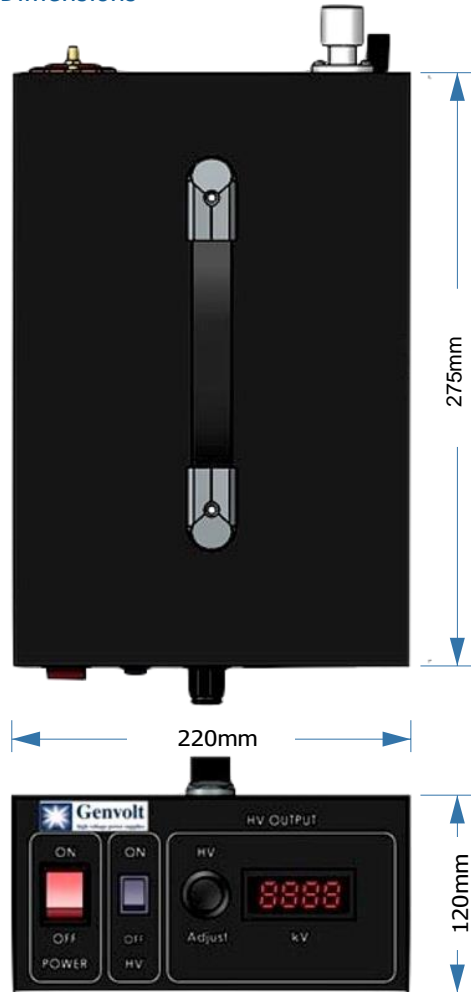
1. Power main switch. This switch controls the input of the entire power supply. Please ensure equipment is turned off during maintenance.
2. High voltage switch. This switch controls the high voltage function.
3. High voltage adjusts. 10-turn potentiometer for adjusting output voltage.
4. kV. Digital display for output voltage.

Rear Controls



1. Remote HV enabled.
2. High voltage output connector.
3. Input connector: available in both DC 5-way connector or AC standard IEC connector with mating cable.
4. M6 for earth bonding.

Dimensions



Remote Interlock & Switch



The remote enabled connection is by means of a 3 pole TiniQ connector: with mating half supplied.

- Pin 1 = Enable
- Pin 2 = Ground
- Pin 3 = Not Used

Short Pin 1 to Pin 2 to enable the HV output.

The remote enable must be a voltage-free contact.

Important Notice

Only trained personnel should install and service this unit.

Mains voltages are present within the electronics enclosure and extreme care should be taken when servicing.

- 1) Do not operate the equipment uncovered.
- 2) Switch off and allow time for capacitors to discharge at the high voltage output before servicing.

Note: This equipment must be earthed for safe operation.

Operation

Check the following items before operation:

1. The power supply is clean and dry.
2. No unnecessary object is near the high voltage output connector or high voltage load.
3. Turn the voltage potentiometer fully anticlockwise. This will adjust the high voltage output to zero when the power supply is switched on.
4. When connecting a load ensure that the output current returns through the ground bolt or the 6mm terminal on the rear panel.
5. One switch on the front panel switches on the mains input; a second switch enables the high voltage.

Set the HV switch on. Adjust both the mA and the HV potentiometers until the desired output voltage is reached. The reading on the front panel meter shows the high voltage output measured via a resistor divider network.

Worldwide Location



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