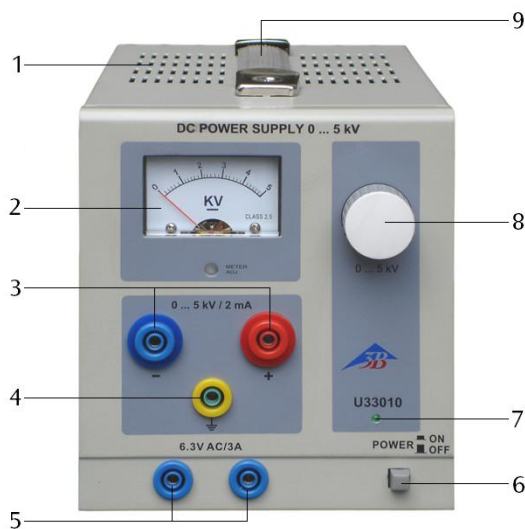


## High Voltage Power Supply 5 kV U33010

### Instruction sheet

02/08 ALF



- 1 Ventilation slots
- 2 Voltage display
- 3 High voltage output
- 4 Earthing socket
- 5 Heater voltage output
- 6 Mains on/off switch
- 7 Power on display (LED)
- 8 High voltage regulator
- 9 Carrying handle

### 1. Safety instructions

The 5 kV high voltage power supply conforms to all safety regulations for electrical measuring, control, monitoring and laboratory equipment, as specified under DIN EN 61010, Section 1, and the equipment has been designed to meet protection class I. It is intended for operation in a dry environment, suitable for the operation of electrical equipment and systems.

Safe operation of the equipment is guaranteed, provided it is used correctly. However, there is no guarantee of safety if the equipment is used in an improper or careless manner.

If it may be assumed for any reason that non-hazardous operation will not be possible (e.g. visible damage), the equipment should be switched off immediately and secured against any unintended use.

In schools and other educational institutions, the operation of the power supply unit must be supervised by qualified personnel.

- Before using the power supply unit for the first time, confirm that the specifications printed on the rear side of the housing are compatible with the local mains voltage.

- Before using the power supply unit for the first time, check the housing and the mains lead for any damage. In the event of any malfunction/operational defect or visible damage, switch off the unit immediately and secure it against unintended use.
- The instrument may only be connected to the mains via a socket that has an earth connection.
- Before making any connections, check the experiment leads for damaged insulation and exposed wires.
- Replace a faulty fuse only with one matching the specifications stated at the rear of the housing.
- Disconnect the equipment from the mains before replacing a fuse.
- Never short the fuse or the fuse holder.
- Never cover the air vents in the housing. This is necessary in order to ensure sufficient circulation of air required for cooling the internal components of the equipment.
- The equipment may only be opened/repared by qualified and trained personnel.

## 2. Description

The 5 kV high voltage power supply is a universally usable non-earthed high voltage source for operating electron tubes.

It provides a continuously variable stabilized high voltage with passive current limitation, in a housing that is safe to handle. It also incorporates a transformer, insulated against high voltage, to supply the cathode heater voltage for an electron tube. A temperature-controlled fan protects the equipment from overheating.

The U33010-115 high voltage power supply is for operation with a mains voltage of 115 V ( $\pm 10\%$ ), and the U33010-230 unit is for operation with a mains voltage of 230 V ( $\pm 10\%$ ).

## 3. Technical data

Mains voltage:	see rear of housing
High voltage output:	0 - 5000 V DC, max. 2 mA
Heater voltage output:	6.3 V AC, max. 3 A, high voltage resistant up to 6 kV
Overload protection:	Primary fuse: see rear of housing Secondary protection: current-limiting resistors
Terminals:	4 mm safety sockets
High-voltage display:	analogue
Dimensions:	235x130x155 mm <sup>3</sup> approx.
Weight:	3.5 kg approx.

## 4. Operation

### 4.1 General information

- Before switching on the power supply, set the high voltage regulator to zero (turn fully to the left).
- Connect the power supply to the experimental setup.
- Do not switch the power supply on until the experiment has been fully assembled.
- Changes to the experimental setup must only be made with the power supply switched off.
- Set the high voltage regulator to give the required voltage.
- Before switching off the power supply, set the high voltage regulator to zero again (turn fully to the left).

### 4.2 Changing the fuse

- Turn off the power switch and unplug the mains plug.
- Unscrew the fuse holder on the rear side of the housing with a screwdriver.
- Replace the fuse and reinsert the holder in its socket.