



POWER SUPPLY UNIT – PSU704



PSU704 Specifications

Model PSU704 is designed to convert 230V/50Hz to a high voltage regulated supply for electrostatic precipitators. There are two outputs, one for the ioniser and one for the collector. The PSU704 can monitor fault conditions, enable communication (See auxiliary outputs) and is short circuit protected.

High voltage adjustment

- Model PSU704 is supplied with a pre set voltage which is adjustable +/- 6% using the rotary potentiometer.
- The standard collector voltage is 50% of the ioniser voltage. Other ratios are available to order. Single outputs are also available.
- The power supply output voltage is positive as standard, negative voltages may be specified.

Relay output

The output relay is rated at 250V, 500mA with the following fault conditions

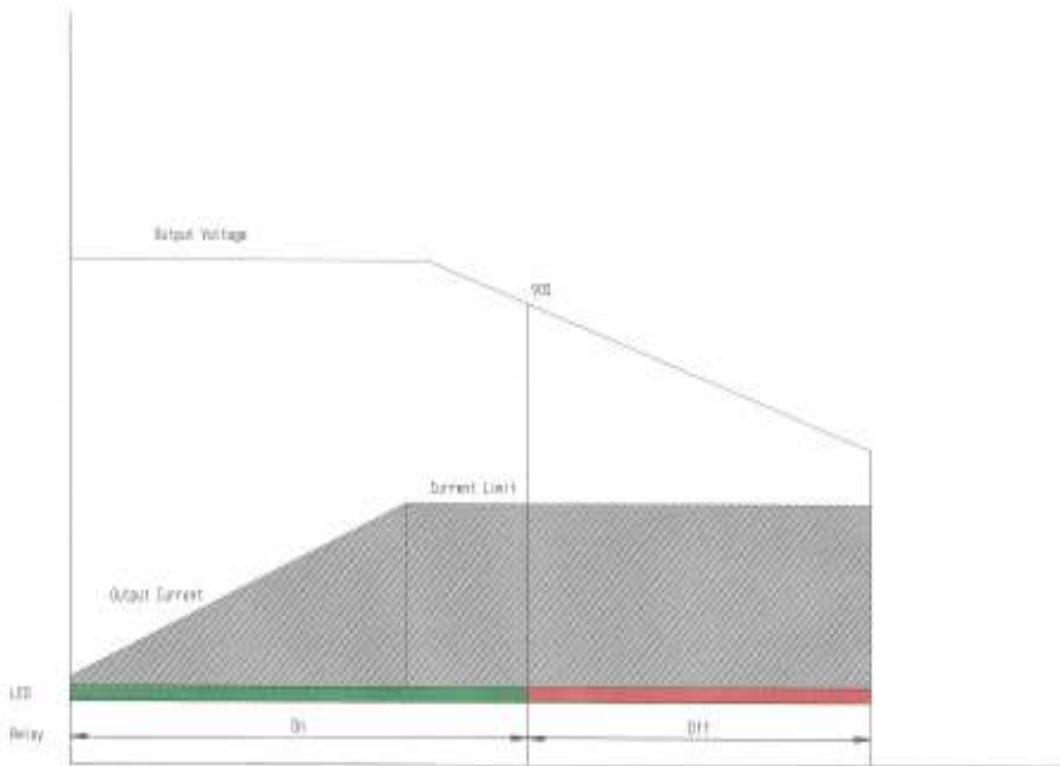
- Relay on-no fault
- Relay off- 90% or less of output voltage (see Graph 1)

There are 2 LEDs on the power supply which will indicate green (normal operation), and red (fault condition). See Graph 1

Standard specification

- Input Voltage 200 – 250Vac (100 – 130Vac optional)
- Output Voltages
 - 7KV single output
 - 8/4KV dual output
 - 9/4.5KV dual output
 - 12/6KV dual output
 - Other voltages available on request
- Output Current 5mA max
- Max temperature 45°C

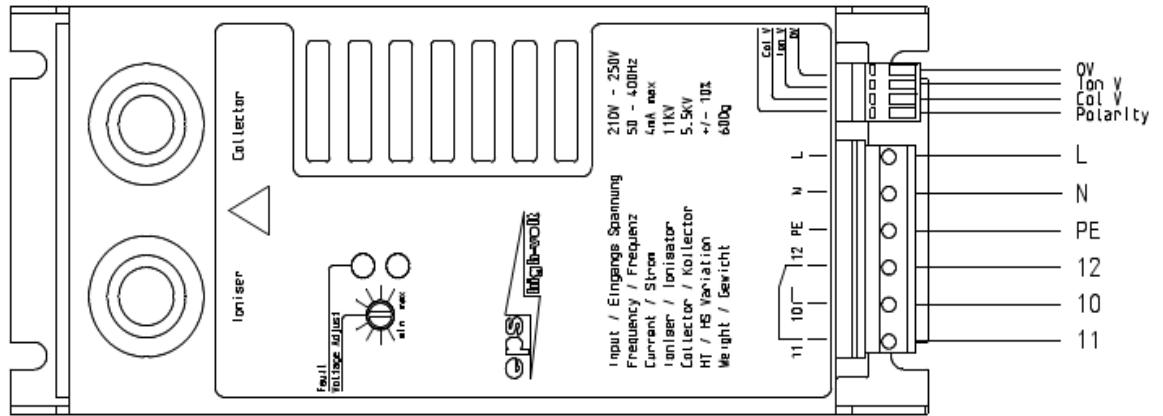
PSU704 GRAPH



Graph 1

The relay will also switch off if the output exceeds 2% of the preset voltage to indicate possible power supply failure.

PSU704 Electrical connection

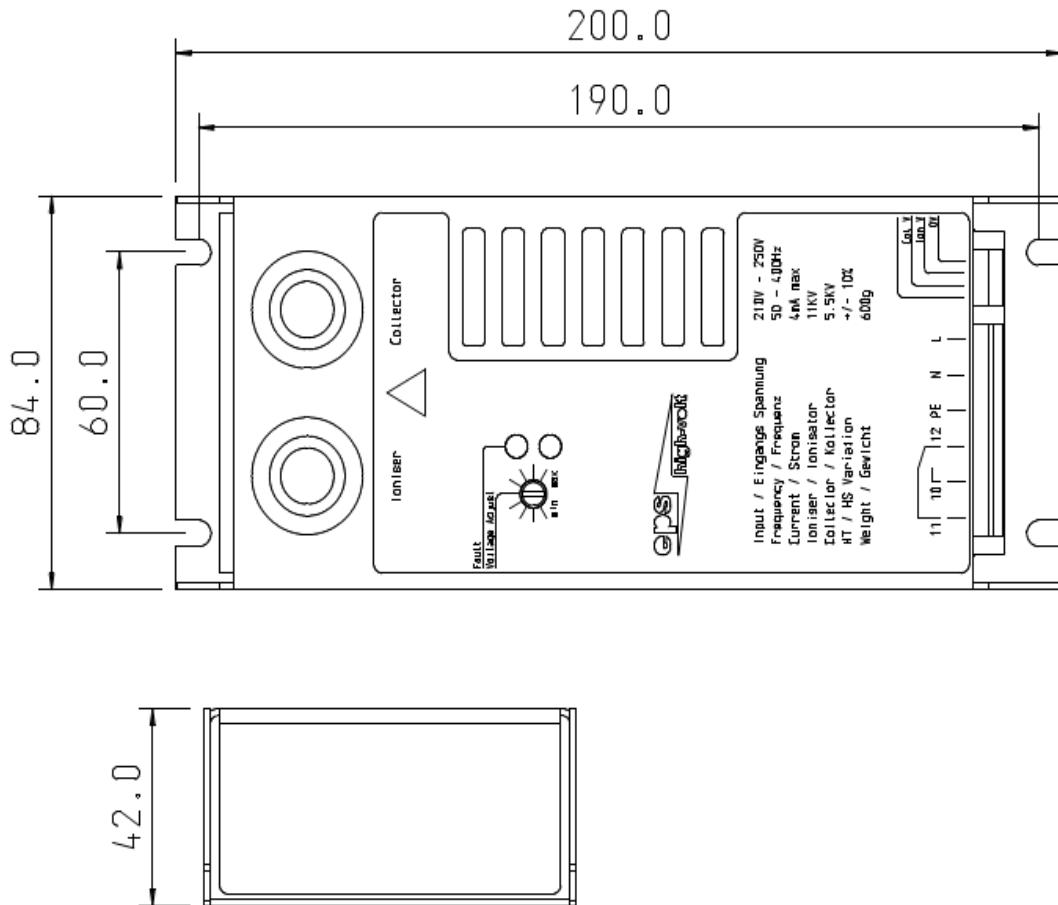


Auxiliary outputs

There is a four way connector with analogue outputs for monitoring the high voltage outputs.

- 0V- Connected to protective earth
- Ioniser- 1V/KV
- Collector- 1V/KV
- Polarity- Indicates HT output polarity
 - 0V- Negative output
 - 5V- Positive output
- Collector and ioniser monitoring voltages are positive regardless of the high voltage outputs i.e. 10KV = 10V, negative 10KV = 10V.
- The monitoring outputs are short circuit proof and must be connected to a high impedance measuring device for correct readings.

PSU704 Dimensions



Warning

- The output voltage should only be changed by qualified personnel as it can have a significant effect on filtration performance.
- Incorrect or poor HT connections may damage the power supply