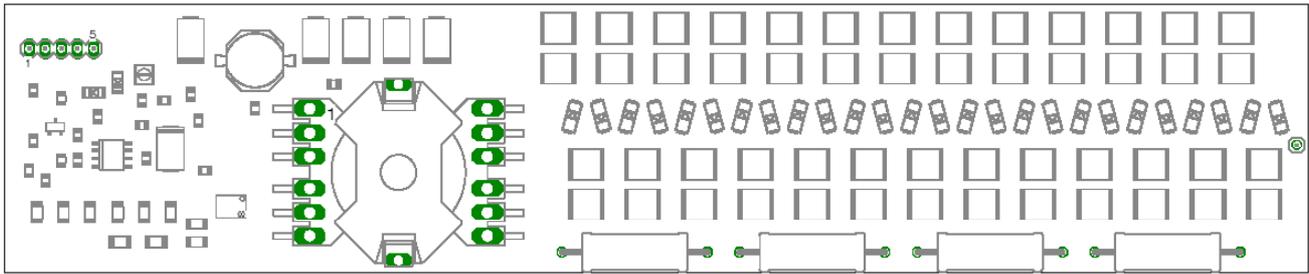


HV30kV SMD

Ultra light weight OEM high voltage power supply



The board HV30kVSMD was developed as power supply for ion propulsion in model aircrafts and is optimized for lowest possible weight.

Voltage and Current

- Supply typical by Ni-Cd or Li battery, 24V 2A nominal. Acceptable supply voltage range 13 - 35 V.
- maximum output voltage 30 kV
- The output voltage can be adjusted with a trimmer on the board in the range 9 - 30kV.
- maximum output current 2 mA.
- maximum short circuit output current 5 mA
- maximum average output power 45W, depending on input voltage.
- The power supply works with an internal frequency of 30 – 115 kHz depending on load.
- The power supply is short circuit proof, however continuous operation with a spark gap as load should definitely be avoided.

Environmental

Environmental temperature range 0-35 °C
Humidity 0-80%, the power supply is designed for operation in dry rooms.
Protection class III, IP00.

Mechanical, included items, connections

- high voltage output
- Plug for supply voltage 13 - 35V and inhibit input, current at inhibit input <5mA:

| | |
|--------------------|-------------------------|
| operation enabled | input open or +5V |
| operation disabled | input shorted to ground |

- Adjustment trimmer for output voltage

Size 223*44mm, weight around 87g

Safety, EMC

The high voltage output and the high voltage part of the board are not protected against touching it! The user has to integrate it in such a way in his system that it cannot be touched during operation. The power of this supply may not be serious, but its still slightly above what standards consider it to be safe.

To achieve lowest possible weight, there is no shielding around the power supply board. It cannot be excluded that some of the internal used frequencies of 30 - 115 kHz or its harmonics are radiated. Its a matter of the user to monitor eventual disturbances, limit or live with them.

18.05.16 Dr. Jörg Brutscher