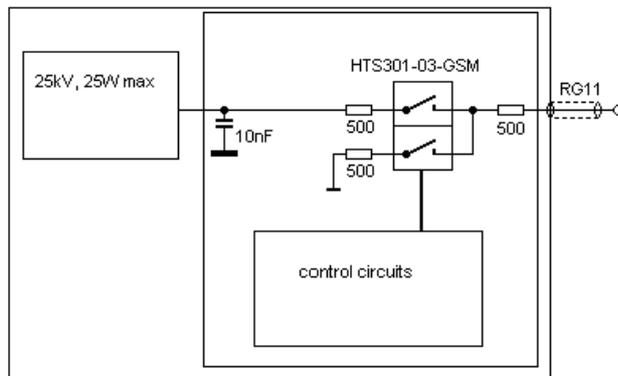


Pulse Generator RUP3-25a

Technical Specification



Principal scheme for RUP3-25a

Current and Voltage

- output impedance about 1...1.2 kOhm
- internal output capacity (mostly from cable) around 150 pF.
- Short circuit current at maximum voltage may be as high as 25A, the useful pulse current should stay below 1A.
- Internal storage capacity 10 nF.
- output voltage adjustable in the range 0... +25 kV for static loads, in case of pulse currents subtract drop on internal 1kOhm resistor
- maximum output power 25 W.
- The pulse generator is designed such that it is short circuit proof and can absorb all generated power internally.

Wave Form and Frequency

- square wave with variable pulse width and variable frequency
- rise time (10%-90%) and fall times (90%-10%) are approximately equal and depend on the capacity of the load. For a 150pF load, it may be in the order of 0.3 μ s.
- pulse width 0.2 μ s - infinite.
- Duty cycle can be chosen nearly arbitrarily (0-100%), as long as other limitations (average current) are not violated.
- maximum frequency at maximum voltage for 150pF load is at least 100Hz, for lower voltages higher. The theoretical switching frequency limit of the employed switch module is 2 kHz.
- Control of voltage by 10-turn potentiometer on the front.
- Pulse control is done by external TTL signal at the control input at the front.

Mechanical, included items

- 19" insert housing, 6 HE, 483*267mm, 600mm deep
- output cable 1 m of RG11
- grid supply 230V, 50VA max.
- display for voltage
- monitor output 1:1000 for output voltage.
- monitor output 1V/1A for output current.
- documentation including circuit diagrams

Safety

- external interlock
- short circuit currents are limited to 25A, stored energy is limited to around 3 Joule.
- The pulse generator is compatible to regulations about electromagnetic compatibility (EMV).

To be provided by customer

- Digital Oscilloscope and TTL signal generator for external triggering.

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All given data and parameters are preliminary and by best knowledge. Changes may be reserved.

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