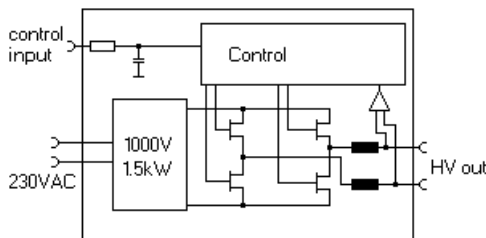


Specification HV1000x2f

The pulse generator HV1000x2f is a small scale current regulated class D amplifier for all kind of loads. An input control voltage of +/-10V corresponds to an output current of +/-2A. It is inherently protected against overloading.

The device consists of a 1000V DC power supply and a full bridge for the output.

Technical data



principal scheme of HV1000f

Voltage and current

- Voltage +/-1000V max.
- current +/-2 A max.
- maximum average output power 1.5kW

Output

- The output impedance is defined by a 50 mH inductor.
- peak voltage 1000V nominal, however with very high impedance loads overshoot up to 2kV can occur.
- As a this device is a current source, it is inherently short circuit proof.
- The outputs are potential-free.

Frequency and control

- The generator accepts arbitrary input signals in the range +/-10V.
- The bandwidth (-3dB) is around 2kHz, internal switching frequency is in the order of 50 kHz and current ripple is in the order of 0.05-0.1A.
- Voltage ripple depends on the load. It may be low for capacitive and low impedance loads and very high for inductive and high impedance loads.
- rise and fall times are determined by load and output inductor. For short circuit, rise time from 0 to 1A is 50µs; fall time is the same.

mechanical, included items, controls

- 19" rack 6 HE (483 *267 mm), 500 mm deep
- Analog display for voltage and average current of power supply.
- Pushbuttons for HV on and HV off.
- BNC voltage monitor output 1:100
- BNC current monitor output 1 V/A
- output two 4mm laboratory plugs.
- Manual with circuit diagrams.

environmental conditions

- environmental temperature 5-35°C
- humidity 0-80%, the pulse generator is intended for the use in dry rooms.
- protection class I, IP20
- supply voltage 220V-240V~, 8A max.

safety

- external interlock
- the pulse generator is protected by an output inductor and the current regulating logic from damage by arcs or short circuits.
- Output voltage and currents are dangerous. The output and anything connected to it must not be touched in operation.
- The pulse generator is conformal to regulations about electromagnetic compatibility (EMC).

not included, but strongly recommended

- simple digital oscilloscope
- arbitrary function generator

general

warranty: 12 month

company address

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