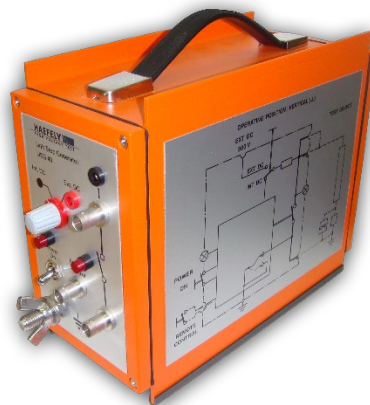


USG 40

Unit Step Generator

Datasheet



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General Description

The unit step generator type 40 emits recurrent rectangular pulses with rise times of a few nano seconds using a D.C. source between 60 and 300 V. Its main application is the Determination of the transfer characteristics of voltage dividers and shunts according to IEC 60060-3, 1973

It can also be used for:

- measurements of transient over- voltages in networks during switching operations or short-circuits
- determination of the voltage distribution across capacitors, resistors, etc. or measurement of their self-inductance.

Such voltage steps can be applied against the ground i.e. when measuring the transfer behavior of voltage dividers or between two isolated poles (over-voltages measurements, etc.)

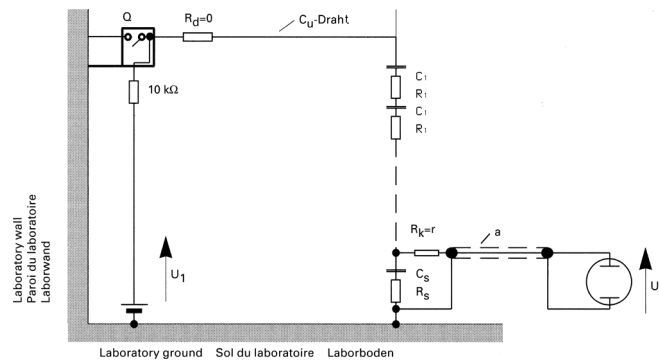
Applications

- Step response calibration for voltage dividers

The unit step generator is mounted in a portable metal housing and can owing to the remote control feature be located at any place in the test facility or fastened to the wall. It must always be used in a vertical position.

The generator mainly consists of a relay with mercury wetted contacts, an electronic control circuitry and a dry battery for the control voltage and the internal D.C. source. An oscillator with a switching repetition rate of approx. 50 Hz provides for recurrent operation.

The housing also accommodates the connectors for remote control, voltage in- and output, external D.C. source and grounding. If a voltage of at least 60 V is switched-on, a pilot lamp will light-up. The external D.C. source is not included in the supply. It should be rated for max. 300 V D.C.



Technical Data

Block 1

Max. switching voltage	Internal up to 90 V, $\pm 10\%$ external max. ± 300 V DC
Switching frequency	50 Hz, $\pm 10\%$
Rise time	< 5 ns
Connectors	BNC jacks

Environmental, Mechanical and Power Supply

Operating temperature	-5°C to + 55° C
Humidity	0 to 95%
Dimensions (W x D x H)	10x197x280 mm
Weight	3 kg
Power supply	9 dry batteries at 1.5 V , 100 mA

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