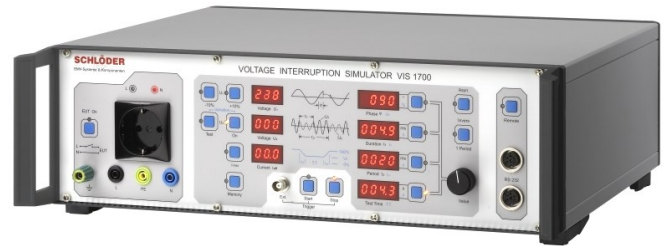


VIS 1700

Voltage interruption simulator

IEC / EN 61000-4-11 (AC),
IEC / EN 61000-4-29 (DC)

- Automatic AC + DC ramp function (voltage fluctuations, 2. voltage source not necessary)
- Inrush current measurement at any phase position 0° - 360



4 operating modes possible:

short time interruption,
voltage dip/fluctuation,
inrush current measurement

Overview

The VIS 1700 simulator can simulate the voltage dips and fluctuations occurring on the supply networks (AC and DC). Different operating modes are possible:

Short time interruptions 100 %:

Interruption of the supply voltage from the EUT from 100 % to 0 %. The supply network of the EUT can be interrupted in any phase position for a defined time (0.1 ms - 9980 ms). Rise and fall time: 1 - 5 μ s.

Voltage dips with external step transformer:

Reduction of the supply voltage from the EUT from 100 % to X %. Dips to 40 %, 70 % or 80 % of the nominal voltage can be simulated at a certain phase angle and a time x. This test requires a 2nd voltage source, which a step transformer with sufficient power fulfills - see option - accessory VIS 740. Rise and fall time: 1 - 5 μ s

Voltage fluctuations with automatic ramp function (variation function):

Internal reduction of the supply voltage with adjustable ramps and adjustable test time. Fluctuation to an adjustable voltage (0 - 95 % of U₁). The parameters for fall time, test time and recovery time (0.1 to 70 sec. each) can be set individually. For this purpose, it is not necessary to feed in a further voltage.

Inrush current measurement:

The inrush current can be measured at any phase position (0 - 360°) for each test object up to a maximum of 16 A rated current (AC).

Key Facts

- For monitoring, three BNC sockets for the parameters voltage, current and trigger are provided at the rear of the device
- A step transformer is required for voltage dips (see Options: VIS 740)
- Clearly arranged display



VIS 1700

Voltage interruption simulator

Technical data

VIS 1700

EUT supply

Rated voltage and currents

Short time interruption

| | |
|----|-------------------|
| AC | max. 280 V / 16 A |
| DC | max. 360 V / 8 A |

Voltage dips

(with external step transformer)

| | |
|----|-------------------|
| AC | max. 280 V / 16 A |
| DC | max. 360 V / 8 A |

Voltage fluctuation

(with automatic ramp function!)

| | |
|----|-------------------|
| AC | max. 280 V / 16 A |
| DC | max. 360 V / 4 A |

| | |
|-------------|---|
| Phase angle | $\phi = 0 - 359^\circ$, step 1° |
|-------------|---|

| | |
|-------------|------------------|
| Duration t1 | 0,1 ms - 9980 ms |
|-------------|------------------|

| | |
|-----------|---|
| Period t2 | asynchronous: 5,0 ms - 9990 ms sync: 20 ms - 9980 ms |
|-----------|---|

| | |
|-----------|---|
| Test time | 0,1 sec - 9990 sec, single event and duration |
|-----------|---|

| | |
|------------------------|--|
| Interface | RS-232 |
| Connections | BNC (voltage, current and trigger) |
| Test sample connection | Schuko socket additional laboratory sockets |
| Phase display | LED red LED green |
| Operating temperature | 0 - 40° C |
| Dimensions | 19" housing (3 RU) |
| Weight | 13 kg |
| Supply voltage | 100 - 240 V / 47-63 Hz / 80 VA |

Technical data – Standard requirements

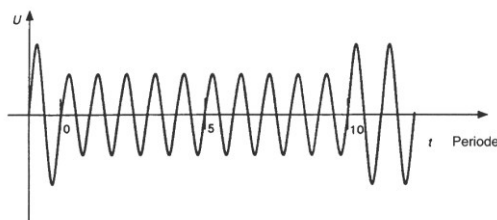


Fig. 1: Voltage dips, here 10 periods to 70%

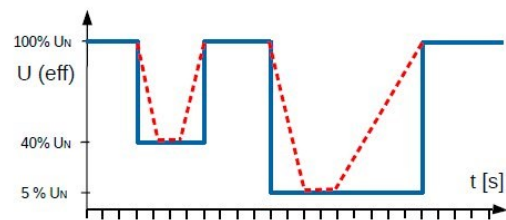


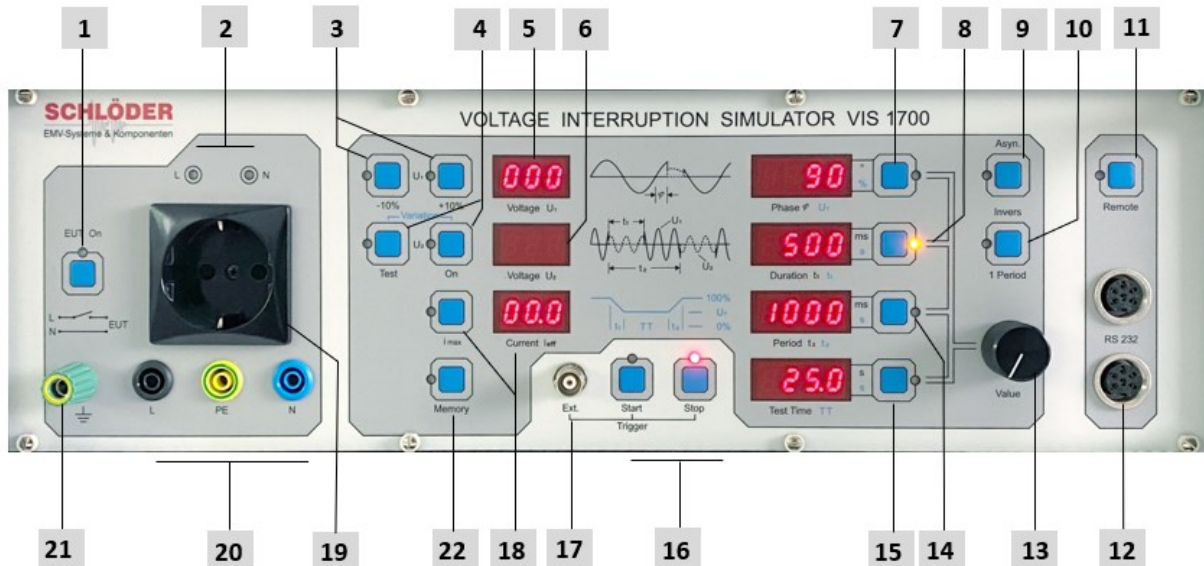
Fig. 2: Voltage fluctuations



VIS 1700

Voltage interruption simulator

Technical data: Functions



| | | | |
|------|---|------|---|
| [1] | EUT on / off | [14] | Periode t_2 asynchron.: 5,0 ms - 9990 ms synchron.: 20 ms - 9980 ms |
| [2] | Phase indication: LED red, LED red | [15] | Test duration 0,1 sec - 9990 sec, single event and duration |
| [3] | Supply voltage $U_1 = U_N$ switchable to +10 % U_N and - 10 % U_N | [16] | Trigger: Start / Stop button |
| [4] | Def. of the 2nd voltage U_2 -test and U_2 -On and activation of the ramp function | [17] | Trigger external: BNC - connection |
| [5] | Display supply voltage U_1 | [18] | Inrush current i_{max} / rated current measurement |
| [6] | Display changeable voltage U_2 | [19] | Test sample connection: Schuko socket |
| [7] | Phase angle $\varphi = 0 - 359^\circ$, step 1° | [20] | Additional laboratory sockets |
| [8] | Duration t_1 0,1 ms - 9980 ms | [21] | Earth connection: at front and rear |
| [9] | Interruptions / voltage variations synchronous and asynchronous | [22] | Memory button |
| [10] | Inversion of a period | | Measurement technology : back side |
| [11] | Activation RS 232 | | BNC connectors for voltage, current and trigger |
| [12] | RS 232 interface | | Supply " U_1 ": rear side |
| [13] | Setting of phase angle [7], duration [8], period [14] and test time [15] with digital potentiometer | | Supply " U_2 ": rear side (e.g. step transformer) |

Options

| | |
|---------|---|
| VIS 740 | Step transformer 16 A for voltage fluctuation |
| VIS 760 | Diode in a housing, for DC mode with high impedance |

All information regarding appearance and technical data correspond to the current state of development at the time of release of this data sheet. We reserve the right to make technical changes. 172203

