SCHLÖDER
PROFESSIONAL EMC EQUIPMENT

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 %:

The supply network of the DUT can be interrupted in any phase position for a defined time (0.1 ms - 9980 ms).

Voltage dips:

Dips to 40 %, 70 % or 80 % of the nominal voltage can be simulated at a defined phase angle and time. This test requires a 2nd voltage source, which is provided by a tapped transformer with sufficient power - *see Options VIS 740.*

Voltage fluctuations:

Fluctuation to an adjustable voltage (0 - 95 % of U1). The parameters for fall time, test time and rise time (0.1 to 70 seconds each) can be set individually. No further voltage injection is necessary.

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

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Technical data

VIS 1700		Interface	RS-232
EUT supply		Connections	BNC (voltage, current and trigger)
Nominal voltage AC	max. 280 V		
Nominal voltage DC	max. 360 V	Test sample connection	Schuko socket additional laboratory sockets
Nominal currents Voltage dips AC/DC	max. 16 A / 8 A		
Nominal currents Voltage fluctuation AC/DC	max. 16 A / 8 A *(with second power source!)*	Phase display	LED red LED green
		Operating temperature	0 - 40° C
Nominal currents Voltage fluctuation AC/DC	max. 16 A / 4 A *(with automatic ramp function!)*	Dimensions	19" housing (3 RU)
		Weight	13 kg
Phase angle	φ = 0 - 359°, step 1°	Supply voltage	100-240 V / 47-63 Hz / 80 VA
Duration t_1	0,1 ms - 9980 ms		
Period t_2	asynchronous: 5,0 ms - 9990 ms sync: 20 ms - 9980 ms		
Test time	0,1 sec - 9990 sec, single event and duration		

Technical data – Standard requirements
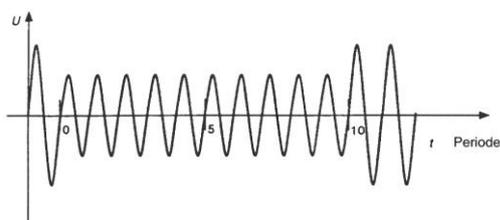
Fig. 1: Voltage dips, here 10 periods to 70%

Fig. 2: Voltage fluctuations

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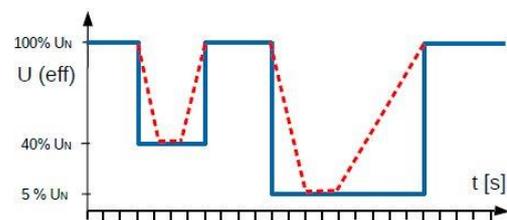
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Technical data: Functions
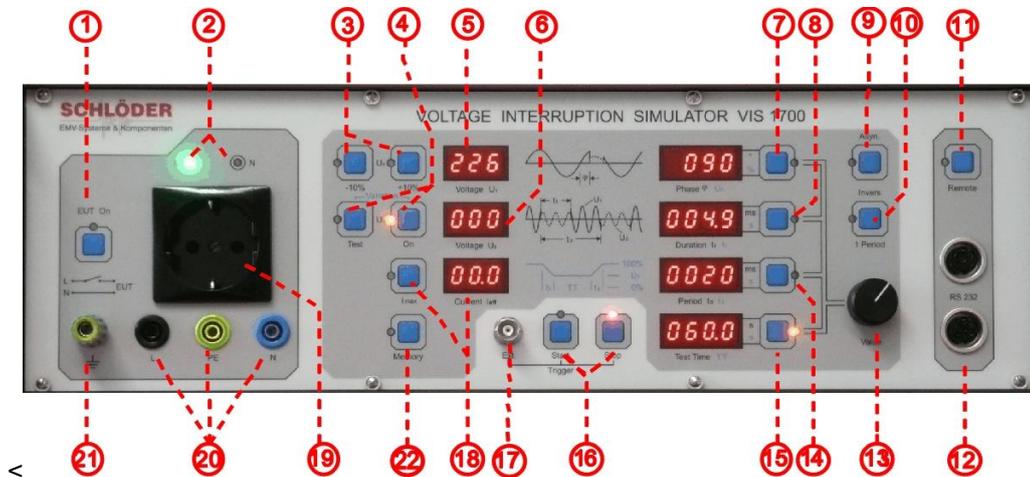
[1]	EUT on / off	[14]	Periode t_2 asynchron.: 5,0 ms - 9990 ms synchron.: 20 ms - 9980 ms
[2]	Phase indication: LED red, LED red	[15]	Test duration 0,1 sec - 9990 sec, single event and duration
[3]	Supply voltage $U_1 = U_N$ switchable to +10 % U_N and - 10 % U_N	[16]	Trigger: Start / Stop button
[4]	Def of the 2nd voltage U_2-test and U_2-On,	[17]	Trigger external: BNC - connection
[5]	Display supply voltage U_1	[18]	Inrush current imax / rated current measurement
[6]	Display changeable voltage U_2	[19]	Test sample connection: Schuko socket
[7]	Phase angle φ = 0 - 359°, 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.

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