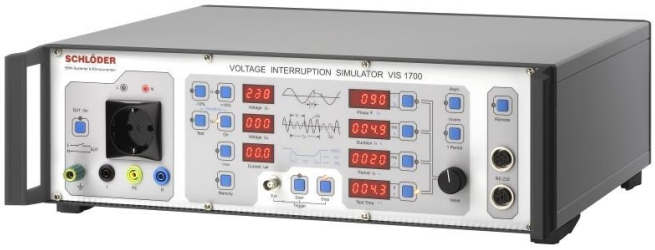
VIS 1700

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	
EUT supply	
Nominal voltage AC	max. 280 V
Nominal voltage DC	max. 360 V
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!)*
Nominal currents Voltage fluctuation AC/DC	max. 16 A / 4 A *(with automatic ramp function!)*
Phase angle	φ = 0 - 359°, step 1°
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

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

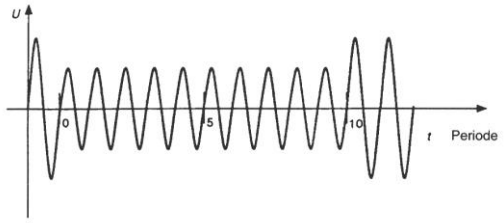

Fig. 1: Voltage dips, here 10 periods to 70%

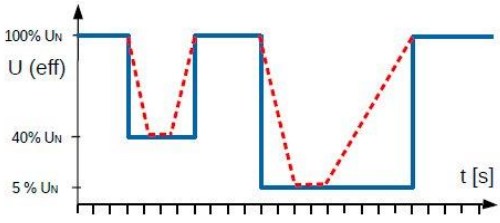

Fig. 2: Voltage fluctuations

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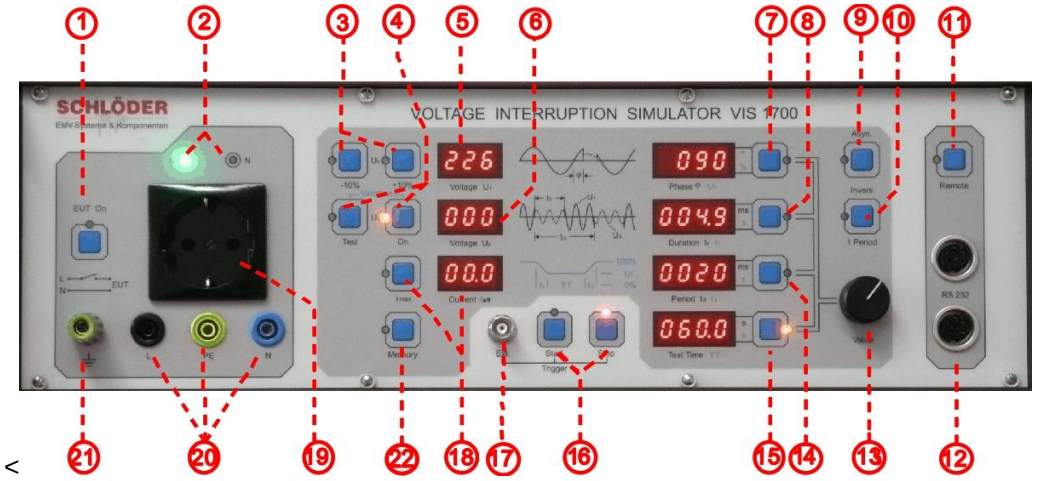
Technical data: Functions



[1]	EUT on / off
[2]	Phase indication: LED red, LED red
[3]	Supply voltage $U_1 = U_N$ switchable to +10 % U_N and - 10 % U_N
[4]	Def of the 2nd voltage U_2-test and U_2-On,
[5]	Display supply voltage U_1
[6]	Display changeable voltage U_2
[7]	Phase angle φ = 0 - 359°, step 1°
[8]	Duration t_1 0,1 ms - 9980 ms
[9]	Interruptions / voltage variations synchronous and asynchronous
[10]	Inversion of a period
[11]	Activation RS 232
[12]	RS 232 interface
[13]	Setting of phase angle [7], duration [8], period [14] and test time [15] with digital potentiometer

[14]	Periode t_2 asynchron.: 5,0 ms - 9990 ms synchron.: 20 ms - 9980 ms
[15]	Test duration 0,1 sec - 9990 sec, single event and duration
[16]	Trigger: Start / Stop button
[17]	Trigger external: BNC - connection
[18]	Inrush current imax / rated current measurement
[19]	Test sample connection: Schuko socket
[20]	Additional laboratory sockets
[21]	Earth connection: at front and rear
[22]	Memory button
Measurement technology : back side	
BNC connectors for voltage, current and trigger	
Supply "U_1": rear side	
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. 032008