




# VLF Sinus 54 kV

## VLF sine wave test system for medium-voltage cables

### Benefits

- ▶ High test capacity of up to 5  $\mu\text{F}$
- ▶ Continuous duty cycle
- ▶ Single-button operation 
- ▶ Integrated safety system
- ▶ Suitable for diagnosing 45 kV rated cables

### Description

The VLF Sinus 54 kV is the ideal system for all users who want or have to perform a test with a genuine 0.1 Hz sine wave voltage. The VLF testing system can be integrated perfectly in a fault location system or used in combination with an OWTS and the optional tan delta test attachment as part of a diagnostic test van.

The VLF Sinus 54 kV always fulfils the highest demands regarding quality and stability of the test voltage for both 0.1 Hz sine wave voltages and when testing with square wave and DC voltages. Moreover, the integrated "break-down recognition", which will disconnect the test voltage and earth the test object if a load current is too high, ensures gentle and safe operation.

Depending on the integration of the system, the system is operated intuitively via the integrated operator guidance, a notebook or via the Centrix control panel.

Using a USB stick, logs can be conveniently created in.csv format, enabling further data processing, and are also saved in Easyprot format (software supplied) for clear and structured reports.

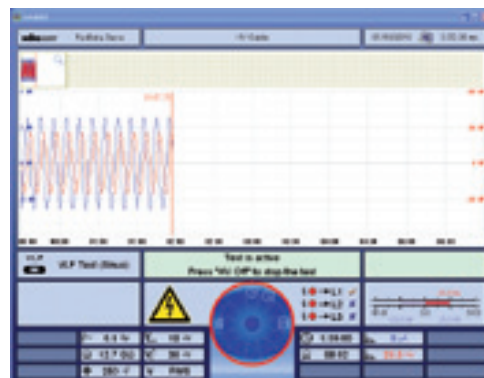
Used together with the optionally available step voltage probe ESG80-2, sheath faults can be precisely pinpointed using the step voltage method. Moreover, the VLF Sinus 54 kV can be upgraded to an accurate testing and diagnostic system with the optionally available tan delta test attachment. (For further technical details please see the corresponding leaflet or ask your local representative.)

### Features

- ▶ AC testing acc. to CENELEC and IEEE
- ▶ Testing without system-related interruptions
- ▶ Capable of testing 35 kV rated cables and diagnosing 45 kV rated cables acc. to IEEE
- ▶ Sheath test / Sheath fault location
- ▶ Programmable test sequences for easy use
- ▶ Maximum user safety thanks to the integrated safety system
- ▶ Breakdown detection and load recognition (R, C)
- ▶ Can load short cables with a load <10 nF
- ▶ Quick and convenient logging and updating via USB port
- ▶ Ideal as component in diagnostic test van

### Options

- ▶ Notebook with Centrix operating software
- ▶ tan delta test attachment
- ▶ ESG 80-2



### Technical data

#### Output voltage

VLF sine wave	0 ... 38 kV <sub>eff</sub>
DC voltage	$\pm 0 \dots 54 \text{ kV}$
Square wave voltage	0 ... 54 kV
Accuracy	$\pm 1\%$
Resolution	0.1 kV

#### Output current

Measuring range	0 ... 35 mA
Accuracy	$\pm 1\%$
Resolution	10 $\mu\text{A}$

#### Frequency range

0.01 Hz ... 0.1 Hz  
autom. frequency adjustment

#### Output

1  $\mu\text{F}$  @ 0.1 Hz at 38 kV<sub>rms</sub>  
5  $\mu\text{F}$  @ 0.01 Hz at 38 kV<sub>rms</sub>

#### Output acc. to cable rating voltage at 0.1 Hz

	Testing		Diagnosis
	2 U <sub>0</sub>	3 U <sub>0</sub>	1.5 U <sub>0</sub>
6.35/11 kV	2.9 $\mu\text{F}$ (13 kV)	2.1 $\mu\text{F}$ (19 kV)	4.7 $\mu\text{F}$ (10 kV)
12.7/22 kV	1.5 $\mu\text{F}$ (25 kV)	1.05 $\mu\text{F}$ (38 kV)	2.1 $\mu\text{F}$ (19 kV)
19/33 kV	1.05 $\mu\text{F}$ (38 kV)	–	1.4 $\mu\text{F}$ (29 kV)
20/35 kV	1.05 $\mu\text{F}$ (38 kV)	–	1.3 $\mu\text{F}$ (30 kV)
32/45 kV	–	–	1.0 $\mu\text{F}$ (38 kV)

#### Input voltage

100V ... 260 V, 50/60 Hz, 1200 VA

#### Sheath testing

0 ... 5 kV, 0 ... 10 kV DC

#### Sheath fault pinpointing

0 ... 5 kV, 0 ... 10 kV DC  
Pulse ratio 1:3 and 1:4

#### Safety

F- $\Omega$  Earthing monitoring, autom. discharges the test object

#### Dimensions (W x H x D)

1000 x 600 x 500 mm

#### Weight

110 kg

#### Protection class

IP 20

#### Operating temperature

-25 °C ... +55 °C

#### Storage temperature

-25 °C ... +70 °C