

VLF Sine Wave 34 kV

Medium voltage diagnostic test set



- High test capacity of 5 μF
- Suitable for outdoor use (IP 54)
- Single-button operation
- Integrated safety system
- Reporting
- Continuous duty cycle

DESCRIPTION

The VLF sine wave 34 kV is a compact, robust and portable VLF sine wave test system for medium voltage cables.

The design, optimized for rapid transportation and quick setup, and the continuous duty cycle are two attributes that qualify the system as an ideal tool for routine cable testing.

For both 0.1 Hz sine wave voltage tests and rectangular or DC voltage tests, the VLF sine wave 34 kV fills the highest demands on the test voltage quality and stability. Moreover, the integrated "breakdown detection" shuts down the test voltage in the event of an excessive charge current and guarantees limited damage to the cable.

Consistent single-button operation combined with a sophisticated operating concept allows a fast and targeted use of the system.

DESCRIPTION

The integrated USB port enables seamless reporting. In addition to a log file in Easyprot format (software included in delivery), the unit also stores structured data in CSV format for application-independent processing.

The VLF sine wave 34 kV is a multi-purpose device: it can be used for cable testing, sheath testing, and in combination with the step voltage probe ESG NT, also for sheath fault pinpointing.

The system can also be used as a voltage source for the optional tan delta measurement attachment and can be easily expanded to a universal testing and diagnostic system.

For further technical details, please refer to the corresponding leaflet or ask your local representative.

FEATURES AND BENEFITS

- Testing without operational interruptions
- AC testing in compliance with DIN VDE, EN, IEEE
- Compact, rugged, lightweight and IP 54 for transportation
- Integrated trolley
- Maximum user safety through automatic discharge of the test object and earth loop ground monitoring
- Breakdown detection and load recognition (R, C)
- Quick & easy logging, and updates via USB port
- In combination with the optional tan delta test attachment, suitable for diagnosing up to 25 kV rated cables (according to IEEE 400.2)
- Sheath testing and sheath fault pinpointing Quick, easy logging and updates via USB port

SPECIFICATIONS

Output voltage

VLF sine wave	0 ... 24 kV _{RMS} / 0 ... 34 kV _{peak}
DC voltage	± 0 ... 34 kV
VLF rectangular voltage	0 ... 34 kV
Precision	± 1%
Resolution	0.1 kV

Output current

Measuring range	0 ... 14 mA
Precision	± 1%
Resolution	1 µA
Frequency range	0.01 Hz ... 0.1 Hz automatic frequency adjustment

Output	0.6 µF @ 0.1 Hz at 24 kV _{RMS} 5 µF @ 0.01 Hz at 21 kV _{RMS}
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Output to cable rating voltage at 0.1Hz	Testing	Diagnosis
	3 U _o	1.5 U _o
6/10 kV	0.85 µF (18 kV)	1.65 µF (9 kV)
6,35/11 kV	0.75 µF (19 kV)	1.55 µF (10 kV)
12/20 kV	0.5 µF (34 kV)*	0.85 µF (18 kV)
12,7/22 kV	0.5 µF (34 kV)*	0.75 µF (19 kV)

*Square wave operation

Input voltage	100V ... 260 V, 50/60 Hz, 400 VA
Sheath testing	0 ... 5 kV, 0 ... 10 kV DC
Sheath fault pinpointing	0 ... 5 kV, 0 ... 10 kV DC, Pulse rate 1:3 und 1:4
Safety	Earth loop ground monitoring, automatic discharging of the test object
Dimensions (w x h x d)	520 x 450 x 300 mm
Weight	25 kg
Protection class	IP 20 / IP 54 (operation/transportation)
Operating temperature	-20 °C ... +55 °C
Storage temperature	-25 °C ... +70 °C

Scope of delivery

- HV connection cable 5 m
- Mains cable/grounding cable
- Accessory bag
- USB stick for logging
- Operating manual

Options

- ESG NT
- Tan delta test attachment