

VLF Test system

27 kV

**Portable test system
to generate 0.1 Hz VLF AC
and DC test voltages**



- **One box concept**
- **Internal discharge unit for maximum safety**
- **High capacity to test all three phases simultaneously**

sebaKMT

VLF Test System 27 kV

Description

Regulations demand that newly installed or repaired cables and joints must be tested for their breakdown strength.

SebaKMT's portable VLF Test System 27 kV tests cables according to local regulations for operating voltage levels up to 15 kV for new cables and 22 kV for aged cables at 5 μ F cable capacity.

By using the SebaKMT 0.1 Hz Cosine Square Wave Voltage method, weak spots in PE, XLPE and in paper cables are quickly brought to a controlled breakdown without causing additional damage or ageing to the cable insulation.

The VLF Test System 27 kV consists of a DC source, which charges the test object up to the required test voltage level, and the commutator unit (switched rectifier) which performs polarity changes at regular 5 second intervals.

The change-over from one polarity to the other one is performed with the support of the switched rectifier, an inductivity (choke) and a capacitor, which is build of the internal 0.3 μ F and the cable capacity itself. The L / C resonance circuit produces a cosine shaped voltage with slopes identical to a 50 Hz Sine wave.

Technical features

- Powerful, yet light – weighs less than 50 kg
- Standard breakdown recognition and shut-down
- VLF / DC leakage current measurement
- The patented change-over principle in combination of the recycling of energy stored in the cable capacity, results in comparison to other methods in a lower weight, less energy consumption and much higher test capacity.
- A high test capacity of 5 μ F permits testing of all three phases simultaneously.
- Method officially recommended by VDE Standards 0276-620 and 0276-621
- The advantages of the VLF method with 0.1 Hz Cosine Wave Voltage have been proven by extensive scientific re-search results as well as in practical experience.
- VLF is the most efficient method of testing PE and XLPE cables.
- Touch-proof connectors in combination with integrated discharge facilities meet highest safety standards.



Technical data

Output voltage source	12 mA
Display range leakage current measurement	0 ... 12 mA
Display resolution	10 μ A
Output voltage VLF	0 ... 27 kVeff
Voltage shape	Cosine Square Wave
Change over slope	approx. 5 ms analogue to 50 Hz mains
Frequency	0.1 Hz
Output voltage DC	0 ... 27 kV
Testable cable capacity	max. 5 μ F
Discharge unit	integrated, 10 μ F in 3 s
Power supply	230 V, 50 Hz, approx. 2.5 A 120 V, 60 Hz, approx. 5 A
Operating temperature	- 20...+ 40 °C
Weight	< 50 kg, portable
Dimensions W x H x D	520 x 600 x 300 mm

Scope of Delivery

VLF Test System 27 kV

Consisting of

- Connecting cable
- Earth cable 4 m
- HV-connection cable 4 m
- Bag for accessories
- Operation manual

ISO 9001:2000

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Product Range: Instruments and Systems for Fault Location in Power and Telecommunication Networks and for Leak Detection in Water Distribution Systems • Cable and Pipe Locators • Seminars • Service • Contracting
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Technical data subject to change without notice.

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