



VLF Test System 60 HP - High Power

Test with $3 U_0$ for 36 kV cables specially suited for long cables and offshore installations

Benefits

- ▶ Very high test power without frequency reduction
- ▶ Covers cables up to 20 km @ maximum Voltage
- ▶ No polarisation effects as with DC
- ▶ Protocolling
- ▶ Breakdown detection
- ▶ Leakage current measurement



Description

Powerful 0.1 Hz VLF test system with energy recovery for testing of cables with Cosine Rectangular Wave voltage according to VDE, IEC and IEEE.

In accordance with most regulations, cables and joints must be tested after installation or repair. The Seba KMT VLF Test System 60 kV can be used to test cables with operating voltage levels up to 36 kV. The system consists of a control unit and a HV unit. The high test capacity of $6.5 \mu\text{F}$ permits the simultaneous testing of all three phases. Positive and negative DC testing of cables and connected switchgear can be carried by DC Mode.

The 0.1 Hz Cosine Rectangular Wave form voltage ensures that weak spots in the cable are brought to a break-down. The advantages of the VLF method with 0.1 Hz Cosine Rectangular Wave Voltage have been proved by extensive scientific research as well as practical field tests. The method is recommended in the harmonisation document IEC HD 620 and 621, the VDE as well as by the IEEE.

This VLF Test System 60 kV can be used both as a stand alone system and as integrated part of a test van system. The integrated safety system and breakdown recognition ensure maximum safety.

Furthermore the leakage current measurement enables qualitative assessment of the cable and the protocolling function permits the printing and storage of the test data for further reporting purposes.

Options

- ▶ Integrated Printer
- ▶ HV cable drums manual or motor driven
- ▶ LV connection cables
- ▶ De-humidifier VLF 60/80 kV*

(*for use in Off Shore and high humidity environment of essential importance!)

Technical Data

0.1 Hz VLF operation

Output voltage VLF, U_n	0 ... 60 kV _{rms}
Output current	0 ... 17 mA, resolution 10 μA
Testable cable capacitance @ 60 kV _{rms}	max. 6.5 μF (3 x U_0 for 36 kV cables)
Testable cable capacitance @ 38 kV _{rms}	10.3 μF (3 x U_0 for 22 kV cables)

DC operation

Output voltage DC-	U_n : 0 ... -60 kV
Output voltage DC+	U_n : 0 ... +60 kV
Leakage current measurement	integrated
Protocolling	integrated
Sheath fault pinpointing	0 ... 10 kV / Duty Cycle 1:3, 1:5, 1:9
Input voltage	115 V / 230 V $\pm 10\%$, 50/60 Hz, 1900 VA
Dimensions (W x H x D)	1350 x 1250 x 1100 (1500*) mm
Weight	380 kg
Degree of protection	IP 20
Operating temperature	-25 °C ... +55 °C
Storage temperature	-40 °C ... +70 °C

Testable capacities

