

Cable Test Set

KPG 54kV VLF

VLF: up to 57kV_{rms} for testing of 19/33kV cables according IEC 60502-2, DIN VDE 0276-620



- VLF Testing
- DC Testing
- Sheath Testing


kilovolt
PRUEFTECHNIK

Portable high-power VLF test set with 0.1 Hz - technology

The portable cable test set KPG 54kV VLF is used for testing of medium voltage cables in accordance to the standards IEC 60502-2, CENELEC HD 620 & 621, DIN VDE 0276-620 & 621.

The test is carried out with a low strain practice with VLF (very low frequency) test voltage of preferably 0.1Hz. VLF Test enables detection of damages of the insulation within shortest test time. The KPG 54kV VLF can test cables with extruded insulation (XLPE-, PE-, EPR-insulation) as well as cables with paper-oil insulation (PILC). Cable sheath testing with direct voltage is also possible.

KPG 54kV VLF	
Power supply	230 V ($\pm 10\%$), 10 A, 50/60 Hz
Output voltage	0...57 kV _{rms} VLF 0.1 Hz (0.05 Hz + 0.02 Hz optional) $\pm 0...62$ kV DC
Voltage waveshapes	VLF: similar sine-wave, symmetrical, with true R.M.S. measurement DC: direct voltage, negative and positive polarity
max. load (VLF)	4.4 μ F with 18 kV _{rms} , 0.1 Hz (app. 12.2 km) at a cable capacitance of 0.36 μ F/km 2.4 μ F with 36 kV _{rms} , 0.1 Hz (app. 9.6 km) at a cable capacitance of 0.25 μ F/km 0.9 μ F with 54 kV _{rms} , 0.1 Hz (app. 4.7 km) at a cable capacitance of 0.19 μ F/km 0.55 μ F with 57 kV _{rms} , 0.1 Hz (app. 2.9 km) at a cable capacitance of 0.19 μ F/km
Overcurrent trip (DC)	10 mA
Discharge	integrated automatic discharge device, max. 12500 J
Voltage measuring range	-70...0...70 kV, accuracy $\pm 1\%$
Current measuring ranges	$\pm 0...100$ μ A / 1 mA / 10 mA
Operating temperature	-20°C ... +45°C
Storage temperature	-25°C ... +70°C
Duty	Continuous operation
PC interface	USB flash drive
Construction	in two parts, Operation unit and High Voltage unit
Dimensions (W x H x D) & Weight	
Operation unit	37 x 34 x 20 cm 17 kg
HV unit	40 x 44 x 24 cm 49 kg

Characteristics:

- Extremely compact high-power VLF test device
- Easily portable from 1-2 person
- Simple operation
- Menu-assisted control with industrial grade OLED display
- Fully automatic test sequence
- Integrated timer 1-300 min with automatic tripping
- Integrated breakdown detection
- Integrated fault time detection
- Voltage measurement direct at HV output
- Protective ground circuit
- Zero start interlocking
- Protective circuit / indication in accord. with VDE 0104
- Leakage current measurement during VLF test

Scope of supply:

- Operation unit with protective bag and cable storage
- High Voltage unit
- HV-connecting cable (shielded), standard length 5m
- Connecting cable, HV unit to Operation unit, length 3m
- Ground cables
- User manual

Options:

- Data logging (USB) for VLF test sets
- Frequency extension: 0.05 + 0.02 Hz
- Customized test cables
- Transport case