

Cable Test Sets

KPG 20kV VLF
KPG 36kV VLF



VLF 0.1 Hz

Specification

(Subject to change without further notice!)

Portable VLF cable test sets with 0.1 Hz - technology

The portable cable test sets KPG 20kV VLF and KPG 36kV VLF are used for testing of medium voltage cables with extruded insulation (XLPE-, PE-, EPR-insulation) and nominal voltage up to 6.3/11kV (KPG 20kV VLF) or 12/20kV (KPG 36kV VLF) in accordance to DIN VDE 0276/620 (CENELEC HD 620 S1).

Test is carried out with a low strain practice with very low frequency voltage of 0.1Hz and test voltage level of $3 \times U_0$ r.m.s. Test enables detection of damages of insulation within shortest test time. The devices are also able to test medium voltage cables with impregnated paper insulation. Cable sheath test with direct voltage is possible as well.

	KPG 20kV VLF	KPG 36kV VLF
Power supply	230 V, 5 A, 50/60 Hz	230 V, 10 A, 50/60 Hz
Output voltage	5...20 kV _{r.m.s.} , 0.1 Hz VLF (0.05 Hz opt.) ± 0...30 kV DC	5...36 kV _{r.m.s.} , 0.1 Hz VLF (0.05 Hz opt.) ± 0...52 kV DC
Voltage waveshapes	VLF similar sine-wave (true R.M.S. measurement), Direct voltage	
max. load (VLF)	3.7 µF at 19 kV _{r.m.s.} , 0.1 Hz (app. 10 km XLPE-cable 11kV/150mm ²) 6.7 µF at 19 kV _{r.m.s.} , 0.05 Hz (app. 18 km XLPE-cable 11kV/150mm ²)	3.7 µF at 19 kV _{r.m.s.} , 0.1 Hz 6.7 µF at 19 kV _{r.m.s.} , 0.05 Hz 2.0 µF at 36 kV _{r.m.s.} , 0.1 Hz (app. 8 km XLPE-cable 20kV/150mm ²) 3.6 µF at 36 kV _{r.m.s.} , 0.05 Hz (app. 15 km XLPE-cable 20kV/150mm ²)
Overcurrent trip (DC)	10 mA	
Discharge	integrated automatic discharge device 6250 J (up to 14 µF at 30kV) 6250J (up to 5 µF at 50kV)	
Voltage measuring range	-30 ... 0 ... 30 kV	-55 ... 0 ... 55 kV
Current measuring ranges	± 0 ... 100 µA / 1 mA / 10 mA	
Operating temperature	-20 ... +40°C	
Construction	in two parts, Operation unit and High Voltage unit	
Weight	Operation unit HV unit	17 kg 38 kg
		17 kg 48 kg
Dimensions (W x H x D)	Operation unit HV unit	37 x 34 x 20 cm 40 x 41 x 24 cm
		37 x 34 x 20 cm 40 x 44 x 24 cm

Characteristics:

- Compact portable VLF test devices
- Easily portable from 1-2 person
- Simple operation
- Menu-assisted control
- Fully automatic test sequence
- Integrated timer with automatic tripping
- Integrated breakdown detection
- Integrated fault time detection
- Voltage measurement direct at HV output
- Protective ground circuit
- 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 Operator unit, length 3m
- Ground cables
- User manual

Options:

- Datalogging (USB) for VLF test sets
- Frequency extension: 0.05 Hz
- Transport case

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