

BAUR high voltage testing and diagnostic device viola, viola TD

The viola mobile testing and diagnostic device is used

- for cable sheath testing and other tests of medium-voltage cables and electrical equipment,
- for cable diagnostics: integrated tan delta measurement and/or partial discharge measurement in combination with BAUR's partial discharge diagnostic system 'PD Portable'

Available in two versions: viola (testing, cable sheath testing) and viola TD (viola + tan delta diagnostics)



VLF testing and integrated tan delta measurement

- Efficient high performance
- Easy test set-up
- Fully automatic test and diagnostic sequence
- Easily transportable
- Maximum safety

Features

- Testing electrical equipment and medium-voltage cables (PE, VPE and paper insulated mass-impregnated cables) up to 35 kV nominal voltage
- Max. test voltage 42.5 kV_{rms}
- Cable testing according to:
DIN VDE 0276-620/621 (CENELEC HD 620/621),
IEEE P 400.2-2004, IEEE 400-2001
- VLF truesinus® test technology enables load-independent, reproducible sinusoidal high voltage
- Cable sheath testing according to IEC 60502/IEC 60229
- Insulation testing on electrical equipment according to IEEE 433
- Tan delta diagnostics of electrical equipment and medium-voltage cables up to 35 kV (viola TD)
- Precise tan delta measurement with an accuracy of 1×10^{-4} (viola TD)
- Quick, easy measurement setup: no auxiliary equipment required
- Fully automatic, individually programmable diagnostic sequences
- Fast, simple evaluation of measurement results
- Easy, intuitive operation
- Integrated measurement data storage
- Data transfer via USB interface
- Management of test and measurement data with PC software
- Integrated cable compartment with connecting cable
- Automatic discharging device
- Expandable to a partial discharge diagnostic system in combination with BAUR PD Portable
- Built for demanding conditions in the field

Technical data

General information

Input voltage	100 to 260 V, 50/60 Hz	Conforms to CE	EN 61010-01; EN 50191; EN 55011; EN 61000-4
Max. power consumption	1400 VA	Data interface	USB 2.0
Degree of protection	IP 44	Ambient temperature	-10 to +50 °C
Weight (two-part)	19 kg / 57 kg	Storage temperature	-20 to +60 °C
Dimensions (W x H x D)	excluding cable compartment	Languages	German, English, Dutch, French, Spanish, Italian, Portuguese, Czech, Polish, Russian, Chinese (CN), Chinese (TW)
High voltage unit*	505 x 503 x 405 mm		
Control unit*	505 x 433 x 405 mm		
Overall	505 x 854 x 405 mm		
* including positioning pin			

Output voltage

Frequency range	0.01 to 0.1 Hz
VLF truesinus®	1 to 42.5 kV _{rms} (60 kV _{peak})
VLF rectangular wave voltage	1 to 60 kV
DC voltage	±1 to 60 kV
Resolution	0.1 kV
Accuracy	1%
Load range	10 nF to 10 µF

Output current

Measuring range	0 to 70 mA
Resolution	1 µA
Accuracy	1%
Max. load	1 µF at 0.1 Hz, 42.5 kV _{rms} / 60 kV _{peak} (≈ 4 km)*
	3 µF at 0.03 Hz, 42.5 kV _{rms} / 60 kV _{peak} (≈ 12 km)*
	10 µF at 0.01 Hz, 40 kV _{rms} / 57 kV _{peak} (≈ 41 km)*
	*max. cable length with a cable capacitance of 0.24 µF/km

tan delta loss factor measurement (viola TD)

VLF truesinus®	1 to 42.5 kV _{rms}	Measuring range	1x10 ⁻⁴ to 21000x10 ⁻³
Load range	10 nF to 10 µF	tan delta measuring frequency	0.1 Hz
Accuracy	1x10 ⁻⁴	Detection of leakage currents	With VSE box (optional)
Resolution	1x10 ⁻⁵		

Included with viola delivery

- HV testing device
with 10 m HV connection cable (connected)
- Ground and discharge rod
- Earth cable
- Jumper plug for external emergency stop unit
- Mains connection cable, user manual

Options

- PD Portable partial discharge location system
- External emergency stop unit with signal lamps
(25 m or 50 m)

Included with viola TD delivery

- High voltage testing and diagnostics unit
with 10 m HV connection cable (connected)
- Ground and discharge rod
- Earth cable
- Jumper plug for external emergency stop unit
- Tan delta measurement: BAUR tan delta kit with PC software
- Mains connection cable, user manual

Options

- VSE box including connection cable
- PD Portable partial discharge location system
- External emergency stop unit with signal lamps
(25 m or 50 m)