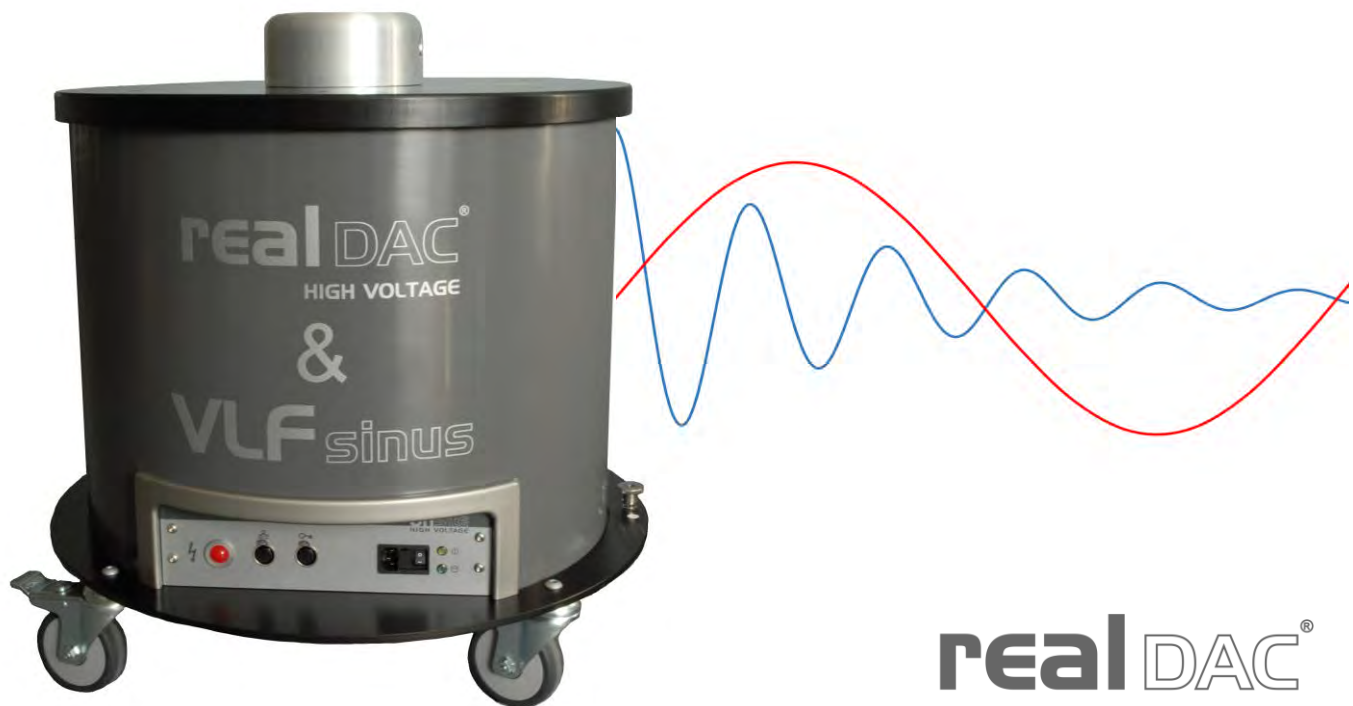


MM40

DAC & VLF sinus Test and Diagnosis System 40 kV



realDAC[®]
HIGH VOLTAGE

Efficient, integrated diagnostics, comprehensive results

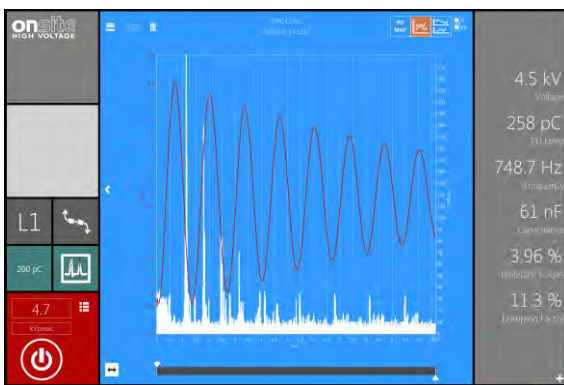
- ✓ Groundbreaking solution for both DAC and VLF sinus testing and diagnosis (patent pending)
- ✓ New development of on-site testing and diagnosis for distribution power cables
- ✓ High sensitive PD measurement and diagnosis with automatic real-time PD localisation
- ✓ Fully integrated dissipation factor measurement at VLF and at DAC voltages
- ✓ Easy WIFI based automatic PD range calibration: from 1 pC up to 150 000 pC
- ✓ Compact and lightweight
- ✓ Extended temperature range, industrial grade controller
- ✓ Built in Time Domain Reflectometer (TDR)

The inventor of **realDAC**[®]

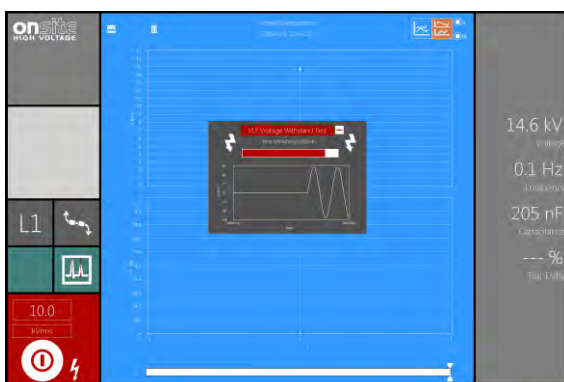
Technical Data MM40

Max. output voltage, DAC / VLF	1 ... 40 kV _{peak} , 28.3 kV _{rms} Precision: +/- 1 % Resolution: 0.1 kV
Coil inductance	app. 0.75 Henry
Frequency range damped AC	10 Hz ... 800 Hz
DAC Test object capacitance range	6 µF at 40 kV _{peak} , max. 10 µF
VLF Test object capacitance range	0.6 µF / 40 kV _{peak} at 0.1 Hz 6.0 µF / 40 kV _{peak} at 0.01 Hz
HV energizing current, max.	15 mA
PD measuring range	1 pC ... 150 nC
PD measuring bandwidth	Acc. to IEC 60270
PD localisation bandwidth	150 kHz ... 50 MHz, wide range automatic bandwidth adaptation for short and long cables
PD measuring accuracy	1 pC
PD localisation accuracy	1.0 m down to 0.1 m
TDR joint localisation in calibration mode	Integrated
Dissipation factor estimation DAC	Range: 0.1 ... 10 %, 1 x 10 ⁻³ ... 10 x 10 ⁻² Resolution: 0.01 %, 1 x 10 ⁻⁴
Tangens Delta (δ) VLF	Range: 0.01 ... 10%, 1 x 10 ⁻⁴ ... 10 x 10 ⁻² Resolution: 0.001 %, 1 x 10 ⁻⁵
System software	User selectable graphical interface, online "live" PD Mapping, integrated measurement Database
Analysis software	DAC Explorer software, comprehensive viewing, processing, analysing and reporting of measurement data
Power supply	Singe phase AC 110 ... 240 V, 48 ... 63 Hz, 750 VA
Net weight	approx. 72 kg (system)
Dimension	Ø 610 x H 650 mm

improvements to specifications are subject to change without notice



Damped AC (DAC) testing mode



Very Low Frequency (VLF) testing mode

Applications

- Capable of performing all necessary on-site tests and measurements on all types of power cables
- After-laying testing of newly installed or repaired cable systems
- Testing in line with IEC 60502, IEEE 400 and CENELEC HD 620
- Routine testing and diagnostics for assessment of service-aged cables
- Simple withstand testing, monitored voltage withstand testing and non-destructive diagnostic testing
- Comprehensive PD measurement capabilities according to IEC 60270, IEC 60885-3, IEEE 400.3 and IEC 62478

Features

- Single, compact, multi-mode (DAC and VLF sinus) system
- DAC voltage withstand test by applying DAC voltage excitations up to 40 kV_{peak}
- VLF sinus withstand test by applying continuous VLF voltages up to 40 kV_{peak}
- Simple VLF sinus voltage withstand test
- PD monitored voltage DAC withstand test
- PD level measurement, PD inception and PD extinction voltage
- Phase resolved PD analysis
- Multiple PD localisation in cable insulation and accessories
- Extended diagnosis by tip-up Tan δ values at DAC and VLF voltages
- Flexible arrangement on site if accessibility is limited and space is tight
- Extendable with double side measurement Systems (DS Series)
- Optional PD Extender can be placed up to 50 metres away from the system