

MV30

DAC Test and Diagnosis System 30 kV



realDAC[®]
HIGH VOLTAGE

Efficient, integrated diagnostics, comprehensive results

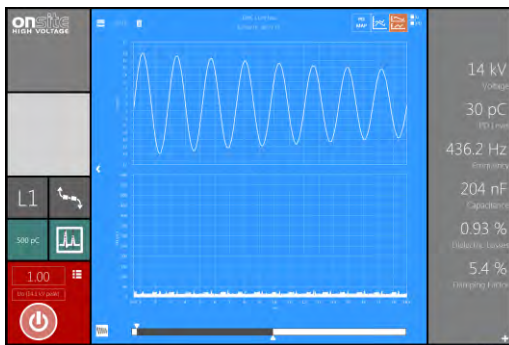
- ✓ Powerful PD monitored DAC withstand testing with application of IEEE, IEC, CENELEC and Cigré recommendations
- ✓ High sensitive PD measurement and diagnosis with automatic real-time PD localisation
- ✓ Fully integrated dissipation factor measurement at DAC voltages
- ✓ Easy WIFI based automatic PD range calibration: from 1 pC up to 150 000 pC
- ✓ Compact and lightweight, one unit solution
- ✓ Extended temperature range, industrial grade controller
- ✓ All in one onsite testing and diagnosis of power cables up to 20 kV

The inventor of **realDAC**[®]

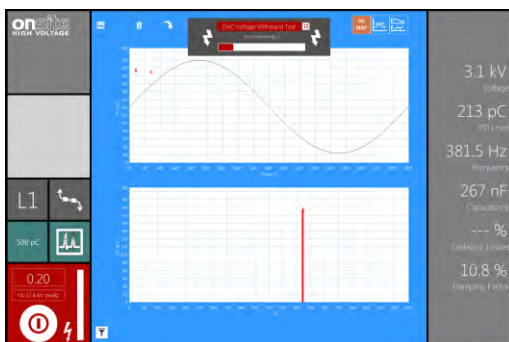
Technical Data MV30

Max. output voltage	0.9 ... 30 kV _{peak} , 21.2 kV _{rms} Precision +/- 1 % Resolution 0.1 kV
Coil inductance	app. 0.8 Henry
Frequency range damped AC	20 Hz ... 800 Hz
DAC Test object capacitance range	up to 10 µF at 30 kV
HV energizing current	13.3 mA, (26 mA for high power option)
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 range	1 x 10 ⁻³ ... 10 x 10 ⁻²
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, 550 VA
Operation temperature	- 25 °C ... + 65 °C non condensing
Net weight	approx. 64 kg
Dimension	Ø 610 x H 580 mm

improvements to specifications are subject to change without notice



Damped AC (DAC) testing mode screen, Voltage and PD



Damped AC (DAC) testing mode screen, localisation and PD occurrence

Applications

- Capable of performing all necessary on-site tests and measurements on all types of power cables up to 20 kV
- 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
- PD monitored voltage withstand testing and non-destructive diagnostic testing
- Comprehensive PD measurement capabilities according to IEC 60270, IEC 60885-3, IEEE 400.3

Features

- Modular compact DAC system
- PD monitored withstand test by applying DAC voltage excitations up to 30 kV_{peak}
- Measurement of PD level, PD inception and PD extinction voltage
- Phase resolved PD analysis
- Multiple PD spot localisation in cable insulation and accessories
- Extended diagnosis with tip-up Tan δ values at DAC voltages
- Online "Live" PD Mapping
- Simple test and diagnosis for short and long cables
- New wireless controlled calibrator, simple, fast calibration
- Calibration by cable length or propagation velocity
- New graphical user interface, user can select the preferred data view
- Extendable with dual side measurement systems (DS Series)
- Optional PD Extender can be placed up to 50 metres away from the system