CONIMED

TYPE DLA 16
DIELECTRIC LOSS ANALYZER FOR ROTATING MACHINERY

The following measurements can be performed with one instrument:

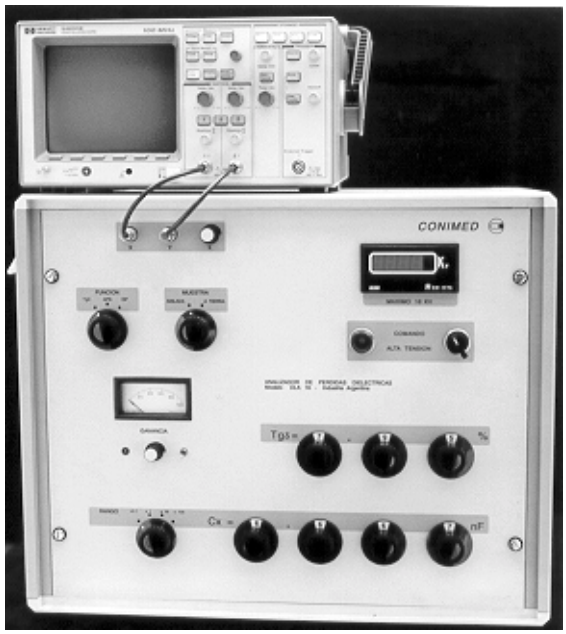
- Capacity and loss factor (tgδ)
- Partial discharges
- Integrated charge and energy of partial discharges acc. to ASTM D3382

Advantages:

- Direct reading without calculations of capacity and loss angle
- Standard capacity range up to 1 μF easy expandable up to 5 μF
- High accuracy Kilovoltmeter included
- Test voltage up to 16 kV (50 or 60 Hz) independent of sample capacity.
- Grounded machines or earth isolated samples can be tested by turning a switch
- Partial discharge calibrator and coupling capacitor included. Readings in pC.
- The bridge is still stable and easy to balance under high level of partial discharges

Applications:

- Complete diagnostic of insulation of high voltage stators
- Reception tests of new rotating machinery
- Research on isolating materials
- Quality control on coils and bars for motors and generators
- C and tgδ of power transformers, bushings, CT's and VT's.



The Dielectric Loss Analyzer Model DLA16 is a highly integrated instrument that performs most measurements of interest to characterize the insulation of a high voltage stator.

Its versatility permits to perform tests from relatively small motors of 2,3 kV up to big turbo or hydrogenerators of hundreds of KVA and high nominal voltage.

The DLA16 can be used for preventive maintenance of rotating machinery in service as well as a quality control or type tests on new ones. Tests on coils and bars can be performed following usual standards for measuring of loss angle.

There is no need of change of measuring units when testing grounded or ungrounded machines. The main circuit is a transformer bridge with a very long term reliability. The balance of the bridge is yet stable when high level of partial discharges are present.

In **DLA mode, partial discharges are integrated** within the bridge, so integrated charge and energy / cycle can be measured with loop method as described in ASTM D3382.

In PD mode, **partial discharges** can be measured as **apparent charge**. The bandpass detector filter is designed in concordance to the PD frequency characteristics of windings of rotating machinery.

Portable high voltage transformer and compensation reactors are available for field testing of rotating machinery, power transformers, bushings, etc.

SPECIFICATIONS DLA 16:

Voltage range
0 - 16 kV

Capacity
Ranges: 1 nF - 10 nF - 100 nF - 1 μF; (5 μF with external standard capacitor)
Resolution: 0.01 % of range
Accuracy: ± 0.2 % of range

Loss Angle (tg δ)
Range: 10 %
Resolution: 0.01 %
Accuracy: ± 0.05 %

Integrated charge
Sensitivity: 0.2 - 2 - 20 - 200 nC/mV

Coupling capacitor
Capacity: 10 nF
Voltage: 16 kV max.

PD Calibrator according to IEC 270
1,000 pC - 10,000 pC

Accessories:

High Voltage Source including:

- HV Transformer
- Control Unit
- HV Shunt reactors for compensation of capacitive current

Technical literature and bibliography available upon request

Please contact factory for further details and offers:

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