

TDAcompact

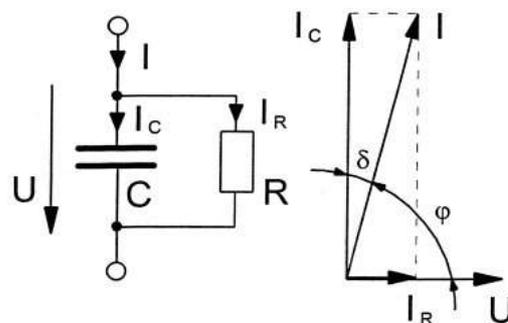


The TDAcompact is a portable capacitance and $\tan\delta$ analyzer. The focus of the instrument's application is on the analysis of the epoxy-mica insulation of rotating machines. Besides this, the unit is applicable for oil-paper insulation systems and especially for mass-impregnated cables.

Analyzing the dissipation factor ($\tan\delta$) is a traditional method to assess the condition of an insulation system. With the analysis of the dissipation factor, emphasis is more put on the overall health of the insulation system, whereas with partial discharge analysis, the focus is on individual defects producing discharge activity. Therefore, the application of $\tan\delta$ measurements concentrates on insulation systems, which are relatively stable against partial discharge.

Most prominently, the health of an epoxy-mica insulation of a rotating machine can be assessed using a $\tan\delta$ analyzer. Especially, the presence of humidity within the winding, the surface contamination of field grading elements, or the polarization losses of improperly cured resin, can be detected. Thus, the $\tan\delta$ analysis is still a good complement to the partial discharge testing.

Portable and accurate $\tan\delta$ analysis



Dissipation factor

Principle of Operation

The TDAcompact simultaneously samples the AC current drawn by the device under test and the current drawn by a reference capacitor. Subsequently, the two current traces are evaluated and the capacitance, the $\tan\delta$, and the level of the high voltage are calculated. The unit continuously displays and refreshes these results.

