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Distribution Transformer PD Measuring Kit

This Partial Discharge Measuring Kit, for distribution transformers, provides you with the easiest way to measure Partial Discharge in your single phase distribution transformers that are used on line up to 35kV (up to 25KV phase-to-neutral).

Partial Discharge Measurement

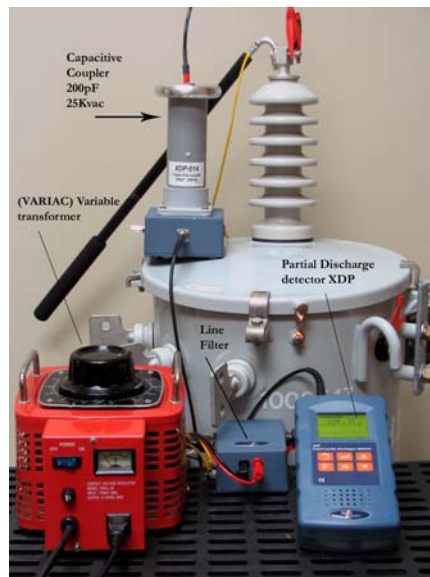
Partial Discharge diagnosis has been established as the most convincing technique for the evaluation of the insulation quality of MV/HV apparatus. Design, manufacturing or handling problems can be quickly identified using Partial Discharge testing and then improve design, increase network reliability and reduce operation cost by installing reliable components.

The XDP

The XDP is our Partial Discharge Expert System and is the heart of the Distribution Transformer Partial Discharge Measuring Kit. The XDP is the most compact and portable Partial Discharge measurement system. The use of the XDP with a HF Capacitive Coupler allows you to measure the Partial Discharge activity in your distribution transformers. The equipment set up and connexions can be completed in minutes.

The equipment

Other than the XDP Partial Discharge Expert System and the HF Capacitive Coupler, the kit includes a Variable Transformer, a noise suppressor to filter the low voltage AC input and a Calibrator. The Calibrator is used to inject a reference signal, in the complete test circuit, to calibrate the test set up in picoCoulomb. Calibration shall be made with each new test object, unless tests are made on a series of identical objects.



The easiest way to perform partial discharge measurement

We are using an innovative technique without the need to use a high voltage source. It eliminates the usual complexity and high cost of similar test set. We apply low voltage at the distribution transformer output (secondary side). It generates the required high voltage for partial discharge measurement at the distribution transformer input (primary side). Using a variable transformer allows you to identify the partial discharge inception voltage and the level of this partial discharge activity.

Easy, quick and portable

Our Distribution Transformer Partial Discharge Measuring Kit is very easy to set up and install. It takes minutes to interconnect the components together and then to the distribution transformer to be tested. The HF Capacitive Coupler is small enough to be installed on the top of the distribution transformer. The complete kit can be easily moved to another location or stored when not used.

Level of partial discharge in your distribution transformers

The calibration of the complete test circuit is made to determine the dB relative value, on the XDP, for a specific reference in picoCoulomb (determine by the calibrator). We use this value in the Cross Reference table.

It is easy to built the reference table using the XDP dB value that you obtain using the calibrator. The logarithmic way the dB rating is calculated means that every -6 dB equals 50% less.

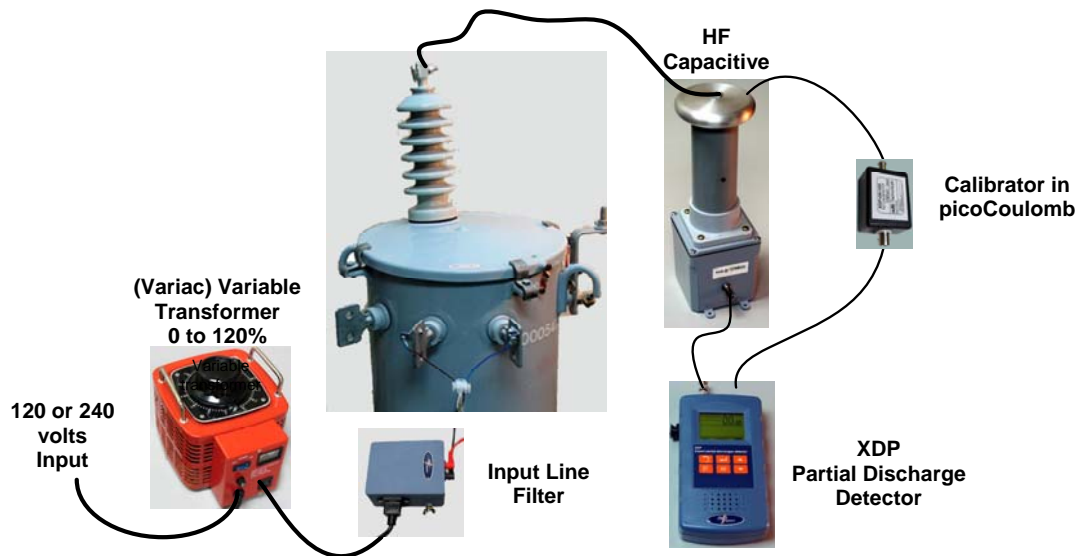
Example of Cross Reference table

picoCoulomb value	XDP reading
Calibration – 1000 pC Calibrator	36 dB
500 pC	30 dB
250 pC	24 dB
125 pC	18 dB
62.5 pC	12 dB

Then the XDP reading gives you the exact partial discharge magnitude

Specifications

Voltage range: 5 kV to 25 kV
PD detection sensitivity: 15 pC
Frequency : 50 or 60 Hz



Optional equipment: XDP-SOFT

- Transfer of the recorded signals from the XDP to a database with date and hour
- Graphic display of the selected partial discharge recording
- And more