PC57.160

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Type of Project: Modify Existing Approved PAR
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Status: Modification to a Previously Approved PAR
Root PAR: PC57.160 **Approved on:** 06-Mar-2013

1.1 Project Number: PC57.160
1.2 Type of Document: Guide
1.3 Life Cycle: Full Use

2.1 Title: Guide for the Electrical Measurement of Partial Discharges in High Voltage Bushings and Instrument Transformers

3.1 Working Group: Dielectric Tests - PD Measurement WG-160 (PE/TR/PE/TR/Dielectric-WGC57.160)
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None

3.2 Sponsoring Society and Committee: IEEE Power and Energy Society/Transformers (PE/TR)
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4.1 Type of Ballot: Individual
4.2 Expected Date of submission of draft to the IEEE-SA for Initial Sponsor Ballot: 12/2017
4.3 Projected Completion Date for Submittal to RevCom
Note: Usual minimum time between initial sponsor ballot and submission to Revcom is 6 months.: 02/2019

5.1 Approximate number of people expected to be actively involved in the development of this project: 20
5.2 Scope: This guide describes the test procedure for the electrical measurement of partial discharges (PDs) occurring in Bushings and Instruments Transformers during AC and DC dielectric tests. General principles of PD measurements, including the narrowband method, are covered in IEC 60270 "High-voltage test techniques - Partial discharge measurements".

Changes in scope: This guide describes the test procedure for the electrical measurement of partial discharges (PDs) occurring in Bushings and Instruments Transformers during AC and DC dielectric tests. General principles of PD measurements, including the narrowband method, are covered in IEC 60270 "High-voltage test techniques - Partial discharge measurements".

5.3 Is the completion of this standard dependent upon the completion of another standard: No
5.4 Purpose: Measurement of partial discharges in bushings and instrument transformers following an applied potential test should preferably be made on the basis of measurement of the apparent charge. Relevant measuring systems are classified as wideband or narrowband systems. Both principles are recognized and widely used. Without giving preference to one or the other, this document describes the measurement circuits related to the wideband method.

5.5 Need for the Project: At this time, there are no IEEE standards specifically covering the topic of measuring partial discharges on high voltage bushings, potential transformers (PTs) and current transformers (CTs). Only general procedures for measurement of partial discharges are covered.

Measurements of PD on power transformers are covered in detail in IEEE C57.113-2010 Recommended Practice for Partial Discharge

Measurement in Liquid-Filled Power Transformers and Shunt Reactors.

5.6 Stakeholders for the Standard: Manufacturers and users of high voltage bushings, PTs and CTs.

Intellectual Property
6.1.a. Is the Sponsor aware of any copyright permissions needed for this project?: No
6.1.b. Is the Sponsor aware of possible registration activity related to this project?: No

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7.1 Are there other standards or projects with a similar scope?: No
7.2 Joint Development
Is it the intent to develop this document jointly with another organization?: No

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8.1 Additional Explanatory Notes: 5.5: IEEE C57.113-2010 Recommended Practice for Partial Discharge Measurement in Liquid-Filled Power Transformers and Shunt Reactors

5.2: IEC 60270 "High-voltage test techniques - Partial discharge measurements".
We added DC testing to the scope.