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**INDUSTRY STANDARD OF THE
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**Apparent Charge Calibrator for Partial Discharge
Measurements
(English Translation)**

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Introduction

This procedure based on the national measurement specifications JJF1002-2010 "national verification procedures to write rules" prepared by.

This procedure uses a reference to the drafting of the national standard GB/T 7354-2003/IEC 60270:2000 "partial discharge Measuring "the relevant provisions.

This procedure was first formulated.

Partial discharge calibrator verification procedures

1 Scope

The order applies to partial discharge calibrator initial verification, use and subsequent verification check.

2 Overview

Partial Discharge Calibrator (hereinafter referred to as "the Calibrator") is a current pulse generator, a current pulse generator Calibration pulse generating means to provide duplicate charges, for calibrating partial discharge measurement system. Calibration is usually by the step voltage generator and capacitor division two parts. Step voltage generator through a capacitor in series with indexing Injects standard amount of electric charge to the partial discharge detection test circuit.

3 metering performance requirements

3.1 Calibrator Level (See Table 1) calibrator be classified according to performance measurement calibration output charge amount. Press the range allowed for school Aligner conduct classification.

Table 1 calibrator output charge amount requirements

Accuracy class maximum permissible error level $2 \pm 2\%$ (when measured value is greater than or equal 50pC time) $\pm 1\text{pC}$ (when the measured value is less than 50pC) Grade 5 $\pm 5\%$ (when measured value is greater than or equal 20pC time) $\pm 1\text{pC}$ (when the measured value is less than 20pC time) $\pm 10\%$ (when measured value is greater than or equal 20pC time) $\pm 2\text{pC}$ (when the measured value is less than 20pC time) 3.2 calibration output pulse Calibration of the output pulse is the voltage pulse calibrator external load resistor.

3.2.1 pulse waveform Calibration of the output pulse waveform distortion amount and time parameters (as defined in Appendix A) shall meet the provisions of Table 2.

Table 2 calibration of the output pulse waveform parameter index requirements

Wide at the bottom level of the amount of distortion th1 time interval T2 Level 2 100μs $\leq 20\%$ Level 5 100μs $\leq 30\%$ 10 100μs $\leq 30\%$

1.00 If the inspection indicated when the calibrator applied to the upper frequency f2 higher than 500kHz measurement system, the index should be less than $0.03/f2$.

This metric is only 2 for step voltage rectangular pulse sequence mode, the time interval between two consecutive T refers to the pulses of different polarity time. If the calibration is

indicated when censorship is applied to the lower frequency f_1 lower than 100kHz measurement system, the index should be greater than $1/f_1$.