

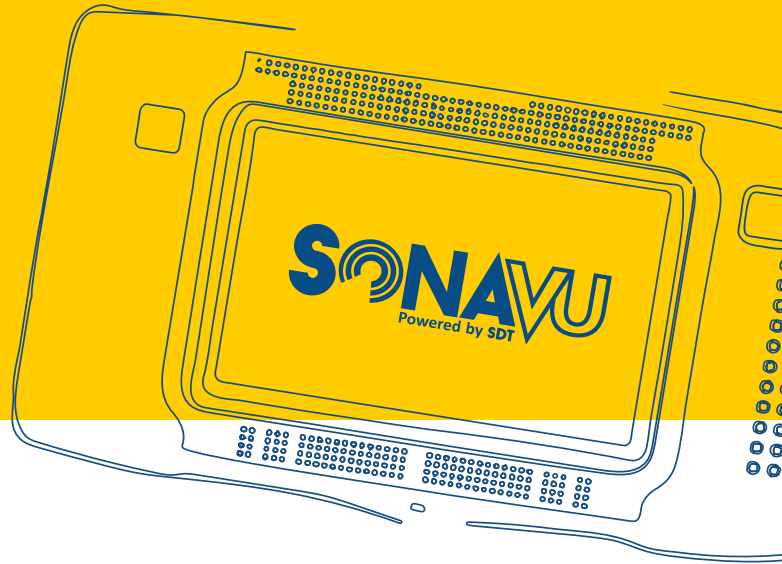
PRPD Phase Resolved Partial Discharge

What is PRPD?

PRPD Is an algorithm for partial discharge analysis. It is widely used method in the filed of electrical analysis

How Do We Identify PRPD ?

Airborne ultrasonic signals (frequency range 25 - 40 khz) present a pattern of PD reflecting 360 degrees of an AC cycle



Analyzing PRPD

1

Measure of ultrasonic signals

2

Split data into 50 or 60 Hz cycles

3

Perform signal processing

4

Accumulate data by a set # of cycles

5

Analyze the PRPD pattern

Types of PRPD & Patterns



Corona Partial Discharge

Electrical discharge caused by the ionization of fluid such as air surrounding a conductor carrying a high voltage

Present at high 90°



Surface Partial Discharge

Electrical discharge caused by the ionization of fluid such as air surrounding a conductor carrying a high voltage

Present at high 90° and 270°



Floating Partial Discharge

A.K.A. "floating electrode" - This type of internal discharge occurs within cavities of electrical insulation and increases as the material wears

Present at high 90° (floating) and lower 270°