KES

# Testing Method for Destruction Voltage of Insulating Oil

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## Contents


1. Scope of application

2. Significance of test

3. Summary of test

4. Device

5. Voltage measuring method

6. Preparation of electrode and vessel

7. Test condition

8. Operation

9. Calculation

Additional Rule


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## 1. Scope of application

This standard shall regulate destruction voltage performance test of electrical insulating oil (This is called insulating oil below).

## 2. Significance of test

Destruction voltage of insulating oil is a kind of criteria that decide whether the oil can be used under electric field or not. And because moisture, dust or conducting particles in the oil deteriorate destruction voltage of insulating oil, this test is another criteria that decide whether there are impurities in the oil.

## 3. Summary of the test

Using spherical electrode with 12.5 mm diameter, in which the gap between electrodes are adjusted to be 2.5 mm, and increasing the voltage at the rate of 3 kV per second, measure destruction voltage of new oil or insulating oil at common frequency.

## 4. Device

The device is composed of a transformer, a circuit breaker, voltage regulator, electrodes and vessel. And an example of test circuit is shown in Fig.11.

During test, use this with voltmeter shown in Fig.1.

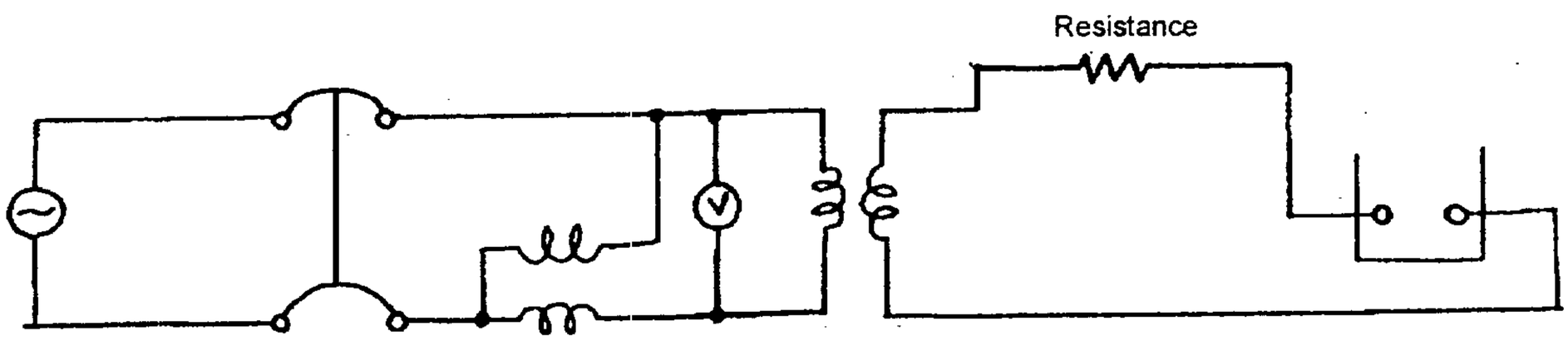


**Fig.1 Destruction voltage of insulation circuit**

(1) Transformer: When transformer applies more than half of expected destructive voltage to the sample, wave rate (Ratio of amplitude to effective volt) should be in the range of



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