

Abstract

'LIVE AND LOADED' TESTING METHOD  
FOR CURRENT TRANSFORMER

There is provided a method for testing the integrity of a current transformer for use in a protection system for an electrical installation, the current transformer

5 having primary windings defining a primary circuit and secondary windings defining a secondary circuit. The method comprises the steps of applying a voltage ( $v$ ) to the secondary circuit; applying an increasing resistance load to the secondary circuit; obtaining the magnetizing current ( $i_m$ ) of the secondary circuit; plotting a graph of voltage ( $v$ ) versus magnetizing current ( $i_m$ ) in the

10 secondary circuit; and identifying a knee-point at which an  $x\%$  increase in voltage ( $v$ ) results in a  $y\%$  increase in magnetizing current ( $i_m$ ) in the secondary circuit, wherein  $x$  is from 5 to 20 and  $y$  is from 30 to 70.

FIGURE 1