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Recent Developments in the Internal Arc Test Standard IEC 62271-200 for Switchgear Assemblies

Authors : Rajaramamohanarao Chennu, S. Sudhakara Reddy, Gurudev T,Maroti

Abstract : With the invent of recent available technology and cost optimization, the switchgear assemblies are becoming more compact and designed to operate at critical levels of thermal and dielectric stress. At the same time, the switchgear assemblies shall be designed for protection of persons, met in the event of internal arc for specified installation conditions, according to the latest available national/international standards. These standards are revising regularly for better product design and personal safety. The switchgear assemblies design shall be modified in accordance with the change in requirements in the latest edition of the standards. This paper presents the signifying changes brought in the latest edition of 62271-200:2021 and effect of these changes and the necessitated design improvements for meeting internal arc test requirements is presented by carrying out the internal arc testing experiments on the switchgear assemblies at High Power Laboratory, Central Power Research Institute, Bangalore, India.

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