

IEEE Guide for Determination of Maximum Winding-Temperature Rise in Liquid-Filled-Immersed Transformers

Amendment 1

IEEE Power and Energy Society

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of the
IEEE Power and Energy Society

Approved 3 September 2015

IEEE-SA Standards Board

Abstract: The clause that addresses direct measurement with fiber-optic detectors is expanded and an annex detailing examples of installation techniques for fiber-optic probes is added in this amendment.

Keywords: distribution transformer, hottest-spot temperature, IEEE 1538a™, power transformers, temperature-rise test, thermal model

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Introduction

This introduction is not part of IEEE Std 1538a™-2015, IEEE Guide for Determination of Maximum Winding Temperature Rise in Liquid-Filled Immersed Transformers—Amendment 1.

The state of the art has improved over the years since the last reaffirmation of this guide. This amendment adds substantial detail and general recommendations for sensor location, based on the historical experiences of many fiber-optic measurements, providing sufficient detail for everyday use on common designs. Examples are also provided illustrating proper sensor installation that was missing from the current guide.

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