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IEEE Guide for Surge Protectors and Protective Circuits Used in Information and Communications Technology Circuits, Including Smart Grid Data Networks—Overview

IEEE Power and Energy Society

Sponsored by the
Surge Protective Devices Committee

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Abstract: An introduction to a series of guides on the application of surge protectors and protective circuits used in information and communications technology circuits, including Smart Grid data networks, is provided in this guide.

Keywords: gas discharge tube, GDT, ICT, IEEE C62.43.0™, information and communications technology, metal-oxide varistors, MOV, positive temperature coefficient, protection circuits, protector, PTC, surge, surge protection, transformer

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Introduction

This introduction is not part of IEEE Std C62.43.0-2017, IEEE Guide for Surge Protectors and Protective Circuits Used in Information and Communications Technology Circuits, Including Smart Grid Data Networks—Overview.

This guide gives an introduction to a series of guides on the application of surge protectors and protective circuits used in information and communications technology circuits, including smart grid data networks.

Acknowledgments

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1. Scope

This guide gives an overview of the application of surge protectors and protective circuits used in information and communications technology (ICT) circuits, including smart grid data networks.

NOTE—Twisting wire pairs and shielding are two techniques that are also used to mitigate surges. Discussion of these topics is outside the scope of this guide.[1]

2. Normative references

The following referenced documents are indispensable for the application of this document (i.e., they must be understood and used, so each referenced document is cited in text and its relationship to this document is explained). For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments or corrigenda) applies.

IEEE Std C62.36™, IEEE Standard Test Methods for Surge Protectors and Protective Circuits Used in Information and Communications Technology (ICT) Circuits, and Smart Grid Data Circuits.[2,3]

IEEE Std C62.36™-2014, IEEE Standard Test Methods for Surge Protectors and Protective Circuits Used in Information and Communications Technology (ICT) Circuits, and Smart Grid Data Circuits. (subclauses 7.2, 7.4, 7.15, 7.16, 8.3, and 8.4)

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