

IEEE Standard for Metal-Clad Switchgear

Amendment 1: Control and Secondary Circuits and Devices, and All Wiring

IEEE Power and Energy Society

Developed by the
Switchgear Committee

IEEE Std C37.20.2a™-2020
(Amendment to IEEE Std C37.20.2-2015)

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Approved 5 March 2020

IEEE SA Standards Board

Abstract: This amendment addresses the requirements for control, secondary, and logic-level wiring. It covers wire type, ampacity, and methods for protecting wiring across a hinge.

Keywords: control wiring, IEEE C37.20.2™, metal-clad, secondary wiring, switchgear, wiring, wire size, wire type

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Introduction

This introduction is not part of IEEE Std C37.20.2a, IEEE Standard for Metal-Clad Switchgear Amendment 1: Control and Secondary Circuits and Devices, and All Wiring

Control, secondary, and logic-level wiring used in the equipment and covered by the IEEE C37.20 series of documents share the same requirements for wire type, wire size, protection, and support. Through the years and numerous revisions, the words found in the construction clause of IEEE Std C37.20.1™, IEEE Std C37.20.2™, IEEE Std C37.20.3™, IEEE Std C37.20.9™, and IEEE Std C37.21™ have changed. This amendment serves to standardize the wording and requirements for control, secondary, and logic-level wiring throughout the IEEE C37.20 series by providing the changes necessary to update IEEE Std C37.20.2-2015.

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NOTE—The editing instructions contained in this amendment define how to merge the material contained therein into the existing base standard and its amendments to form the comprehensive standard.¹

The editing instructions are shown in ***bold italic***. Four editing instructions are used: change, delete, insert, and replace. ***Change*** is used to make corrections in existing text or tables. The editing instruction specifies the location of the change and describes what is being changed by using ~~strike through~~ (to remove old material) and underline (to add new material). ***Delete*** removes existing material. ***Insert*** adds new material without disturbing the existing material. Insertions may require renumbering. If so, renumbering instructions are given in the editing instruction. ***Replace*** is used to make changes in figures or equations by removing the existing figure or equation and replacing it with a new one. Editing instructions, change markings, and this NOTE will not be carried over into future editions because the changes will be incorporated into the base standard.

7. Construction

Replace 7.3 through 7.3.3.4 with the following subclauses:

7.3 Control and secondary circuits and devices, and all wiring

7.3.1 General

All voltage circuits used for control, relaying, or metering shall be protected within the switchgear as follows:

- a. All circuits supplied from external sources (ac or dc) shall have short-circuit protection. This may be provided by a single set of short-circuit protective devices within the control source incoming section.

¹ Notes in text, tables, and figures of a standard are given for information only and do not contain requirements needed to implement this standard.