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CSA C68.5:20
National Standard of Canada

Primary shielded and concentric neutral cable for distribution utilities

SCC CCN

REVISED MAY 2023

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Preface

This is the third edition of CSA C68.5, *Primary shielded and concentric neutral cable for distribution utilities*. It supersedes the previous editions published in 2013 and 2007.

The first edition of CSA C68.5 adapted the requirements of the following documents:
a) ANSI/ICEA S-94-649;
b) ANSI/ICEA S-97-682;
c) CEA Purchasing Specification WCWG-01 (95), *XLPE Primary Cable up to #4/0 AWG;* and
d) CEA Purchasing Specification WCWG-02 (95), *XLPE Primary Feeder Cable*.

The main revisions incorporated in the third edition of CSA C68.5 include the following:
- Clarification on the four classifications of ethylene propylene rubber insulation and applicable requirements;
- Removal of thermally strippable insulation shield;
- Addition of "WBS" for blocked strand or "WBC" blocked cable for constructions incorporating water-blocking component;
- Removal of the word "optional" for Thermomechanical qualification test to clarify that this test is mandatory on jacketed cables.

This Standard is arranged to allow for selection of the individual components, such as conductors, insulation type and thickness, metallic shield or concentric neutral, and jackets, that are required for a specific installation and service conditions. Clauses 4 to 9 specify the materials, material characteristics, dimensions, and tests applicable to the major components of cables and, if applicable, to the design concept.

Funding in support of the consensus process of this Standard was provided by the following funders, whose assistance is acknowledged with thanks: Canadian Electricity Association (CEA), S&C Electric Canada Ltd., Fortis BC, Fortis Alberta, Maritime Electric, Newfoundland Hydro, Newfoundland Power, Schneider Electric Canada Inc., and IFD Corporation.

This Standard is considered suitable for use for conformity assessment within the stated scope of the Standard.

This Standard was prepared by the Subcommittee on Shielded and Concentric Neutral Power Cables Rated 5–46 kV, under the jurisdiction of the Technical Committee on Insulated Power Cable and the Strategic Steering Committee on Power Engineering and Electromagnetic Compatibility, and has been formally approved by the Technical Committee.

This Standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

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2) *Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.*
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