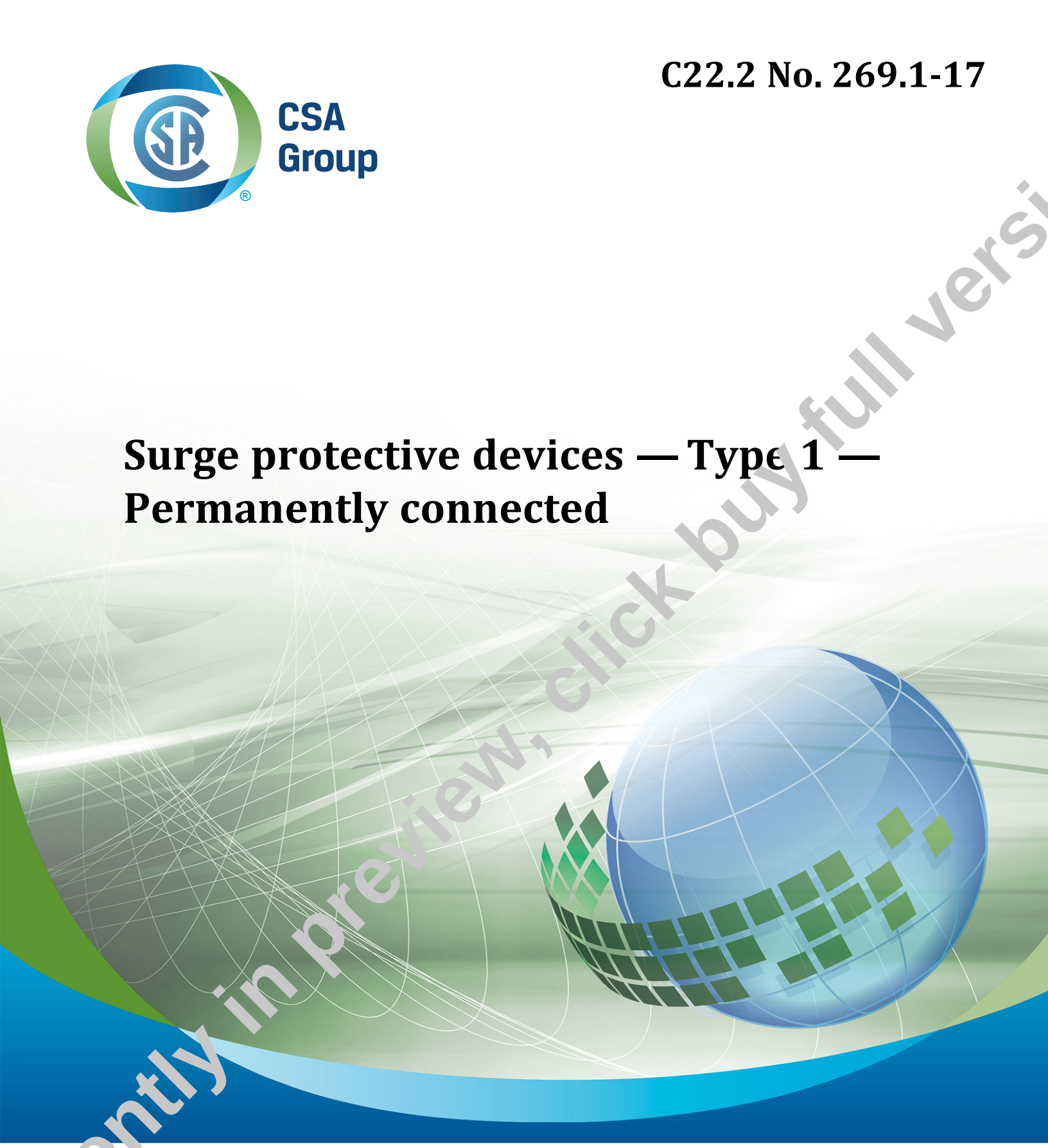
C22.2 No. 269.1-17

CSA Group

Surge protective devices — Type 1 — Permanently connected



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Contents

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Preface

This is the second edition of CSA C22.2 No. 269.1, *Surge protective devices — Type 1 — Permanently connected*. It supersedes the previous edition published in 2014. This Standard is one in a series of standards dealing with surge protective devices. This Standard is issued by the CSA Group under Part II of the *Canadian Electrical Code*.

For general information on the Standards of the *Canadian Electrical Code, Part II*, see the Preface of CAN/CSA-C22.2 No. 0.

This edition incorporates numerous changes throughout to align the requirements with the revisions and updates made to other standards in this series.

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 Surge Protective Devices, under the jurisdiction of the Technical Committee on Industrial Products and the Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the Technical Committee.

Interpretations: The Strategic Steering Committee on Requirements for Electrical Safety has provided the following direction for the interpretation of standards under its jurisdiction: "The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant committee interpretation has not already been published, CSA's procedures for interpretation shall be followed to determine the intended safety principle."

Notes:

1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
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.*
3) *This Standard was developed by consensus, which is defined by* CSA Policy governing standardization — Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include "Request for interpretation" in the subject line:*
   a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
   b) *provide an explanation of circumstances surrounding the actual field condition; and*
   c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

   Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization *and are available on the* Current Standards Activities *page at standardsactivities.csa.ca.*
5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:*
   a) *Standard designation (number);*
   b) *relevant clause, table, and/or figure number;*
   c) *wording of the proposed change; and*
   d) *rationale for the change.*

C22.2 No. 269.1-17
Surge protective devices — Type 1 — Permanently connected

1 Scope

1.1

This Standard applies to surge protective devices (SPDs) intended for:

a) permanently connected applications designed for limiting surge voltages and discharging surge currents;
b) use on 50/60 Hz circuits over 42 V and up to 750 V ac;
c) installation between the secondary of the service transformer and the line side of the service equipment overcurrent protective device. These devices may also be installed on the load side of the main overcurrent protective device;
d) installation where external overcurrent protection may not be present; and
e) indoor or outdoor use in accordance with the *Canadian Electrical Code, Part I*.

1.2

Type 1 SPDs intended for use in lightning protection systems are within the scope of this Standard.

1.3

Equipment designed solely for other power disturbances such as notches, sags and noise is not within the scope of this document.

1.4

SPDs discussed in this standard contain at least one voltage limiting or voltage switching component for diverting surge currents or dissipating surge energy, or both. Examples of such components are metal oxide varistors, silicon avalanche diodes, spark gaps and gas discharge tubes. Ferroresonators, motor-generators, uninterruptible power supplies, and filters containing only inductive or capacitive components are not considered SPDs in this standard.

1.5

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (nonmandatory) to define their application.

