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Group**

C22.2 No. 269.5-17

Surge protective devices — Type 5 — Components

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— Components



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Preface

This is the second edition of CSA C22.2 No. 269.5, *Surge protective devices Type 5 — Components*. It supersedes the previous edition published in 2014. This Standard is one of a series of standards dealing with surge protective devices. This Standard is issued by 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.

The previous edition was written with the intent that the components tested to the requirements of this Standard were intended for use within a Type 1, Type 2, or Type 3 SPD device. This new edition was updated to allow for the testing and certification of components that might not necessarily be destined for use within an SPD device, but may instead be used within the circuitry of a domestic appliance or other such equipment.

This edition also includes a new test section for thermal protective devices, a provision to allow the manufacturer to specify nominal discharge current levels, and numerous other minor updates throughout.

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 include 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 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. 269.5-17

Surge protective devices — Type 5 — Components

1 Scope

1.1

This Standard applies to surge protective device (SPD) components designed to mitigate the effects of transient overvoltages and surge events and intended for use in surge protective devices (SPDs) or in non-SPD applications.

1.2

SPD Components containing integral thermal devices are within the scope of this Standard.

1.3

Components include but are not limited to metal oxide varistors (MOVs), silicon avalanche diodes (SADs), spark gaps (open or sealed type), and gas discharge tubes (GDT).

1.4

This Standard does not apply to products that are combinations of components nor to assemblies that use these components as covered in CSA C22.2 No. 269.4.

1.5

Components such as inductors or capacitors and other essentially linear components are not considered SPDs.

1.6

The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

1.7

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.