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CSA C828:19
National Standard of Canada

Performance requirements for line voltage thermostats used with individual room electric space heating devices

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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 to judge its suitability for their particular purpose.

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CSA C828:19

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Preface

This is the fourth edition of CSA C828, *Performance requirements for line voltage thermostats used with individual room electric space heating devices*. It supersedes the previous editions published in 2013, 2006, and 1999.

This Standard deals with the thermal regulation of line voltage thermostats used with individual room electric space heating devices and also contains an informative annex that covers some power grid issues.

The requirements specified in this Standard are intended to facilitate energy conservation while informative Annex C aims to prevent disturbances such thermostats could create on the power grid.

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 Performance of Thermostats, under the jurisdiction of the Technical Committee on Residential Equipment and the Strategic Steering Committee on Performance, Energy Efficiency, and Renewables, 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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CSA C828:19
Performance requirements for line voltage thermostats used with individual room electric space heating devices

1 Scope

1.1 General

This Standard specifies performance requirements for thermostats (120 to 240 V) intended for switching of a controlled resistive heating load.

The models covered by this Standard are as follows:

a) wall-mounted thermostats used with baseboards, panel convectors, or radiant floors;
b) built-in thermostats (1000 W up to 1500 W) used in baseboards or panel convectors; and
c) two-component thermostats.

1.2 Thermostats not covered by this Standard

Thermostats used exclusively or built-in in the following units are excluded:

a) fan-forced heaters;
b) kick space;
c) fireplaces;
d) thermal storage heaters;
e) electric baseboards and convectors incorporating both convection and radiant heating elements;
f) portable heaters; and
g) central heating units under the control of a single thermostat.

1.3 Thermal regulation and power grid issues

The mandatory part of this Standard specifies performance requirements covering thermal regulation. The thermal regulation requirements are based on testing in a dual-climate test chamber. Informative Annex C outlines

a) proposed limits on the level of some types of emissions that might be generated by thermostats; and
b) grid impacts that thermostats may help alleviate.

1.4 Terminology

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.