

Standard laboratory methods of test for rating the performance of heat/energy-recovery ventilators



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Update No. 1

C439-09

January 2010

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The following revisions have been formally approved:

Revised	Outside front cover and title page
New	National Standards of Canada text
Deleted	None

CSA C439-09 originally consisted of **36 pages** (ix preliminary and 27 text), each dated **January 2009**. It now consists of the following pages:

January 2009	iii–ix and 1–27
January 2010	Cover, National Standards of Canada text, title page, and copyright page

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M. Hopkins	Canadian Standards Association, Mississauga, Ontario	<i>Project Manager</i>

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Preface

This is the fourth edition of CSA C439, *Standard laboratory methods of test for rating the performance of heat/energy-recovery ventilators*. It supersedes the previous editions, published in 2000, 1988, and 1985.

This Standard applies to packaged heat/energy-recovery ventilators.

CSA acknowledges that the development of this Standard was made possible, in part, by the financial support of Natural Resources Canada (NRCan), BC Hydro, Manitoba Hydro, Hydro-Québec, Ontario Ministry of Energy and Infrastructure, the Canadian Electricity Association, and the Ontario Power Authority.

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 Methods of Test for Rating the Performance of Heat/Energy-Recovery Ventilators, under the jurisdiction of the Technical Committee on Heating, Ventilation, Air Conditioning, and Refrigeration and the Strategic Steering Committee on Performance, Energy Efficiency, and Renewables, and has been formally approved by the Technical Committee. It will be submitted to the Standards Council of Canada for approval as a National Standard of Canada.

January 2009

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C439-09

Standard laboratory methods of test for rating the performance of heat/energy-recovery ventilators

1 Scope

1.1

1.1.1

This Standard applies to packaged heat/energy-recovery ventilators (HRVs/ERVs) that consist of factory-assembled elements, including fans or blowers, in which heat or heat and moisture are transferred between two isolated airstreams.

1.1.2

This Standard specifies laboratory methods of test and procedures for rating the apparent effectiveness and heat-recovery efficiency of HRVs/ERVs. Procedures for determining air movement capabilities and the leakage of air from one airstream to another are also included.

1.1.3

Packaged HRVs/ERVs that use a refrigeration cycle or circulating fluid to transfer heat between two isolated airstreams may be rated using this Standard.

1.2

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2 Reference publications

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CAN/CSA-C62301-07

Household electrical appliances — Measurement of standby power

ANSI/AMCA (American National Standards Institute/Air Movement and Control Association International)

210-07

Laboratory Methods of Testing Fans for Certified Aerodynamic Performance Rating