UL 1815

STANDARD FOR SAFETY

Nonducted Heat Recovery Ventilators

UL Standard for Safety for Nonducted Heat Recovery Ventilators, UL 1815

Fifth Edition, Dated February 29, 2012

Summary of Topics

This revision to UL 1815 dated December 7, 2021 includes a revision to the test requirement to add the option of performing the dielectric voltage-withstand test using a DC potential equivalent to the AC potential; 49.1, Table 49.1, 68.1, and Table 68.1

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated October 8, 2021.

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UL 1815

Standard for Nonducted Heat Recovery Ventilators

First Edition – April, 1990
Second Edition – April, 1995
Third Edition – November, 2001
Fourth Edition – October, 2009

Fifth Edition

February 29, 2012

This UL Standard for Safety consists of the Fifth Edition including revisions through December 7, 2021.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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INTRODUCTION

1 Scope

1.1 These requirements cover nonducted, stationary or fixed heat recovery ventilators for household, commercial, or industrial use and intended to be employed in accordance with the National Electrical Code, ANSI/NFPA 70.

1.2 These requirements cover heat recovery ventilators rated 600 volts or less.

1.3 These requirements cover heat recovery ventilators that may be mounted through a wall or ceiling, or in a window.

1.4 These requirements cover heat recovery ventilators that may employ short ducts intended to bring air to and from the equipment. These requirements do not cover heat recovery ventilators employing ducts intended to supply conditioned air for environmental heating and/or cooling or distribute air throughout a building; such units are judged under the requirements in the Standard for Ducted Heat Recovery Ventilators, UL 1812. These requirements do not preclude a preheater provided as part of the air exchange system.

2 Undated References

2.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

3 Units of Measurement

3.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

4 Glossary

4.1 For the purpose of this standard the following definitions apply.

4.1.1 CAPACITOR, CLASS X – Capacitor or RC unit of a type suitable for use in situations where failure of the capacitor or RC unit would not lead to danger of electrical shock but could result in a risk of fire. Examples would be units connected phase to phase or phase to neutral.

Note 1: X1 capacitors are generally used in circuits of permanently connected appliances. However, if the appliance is provided with a separate surge protective device that limits the impulse voltage to £ 2.5KV, an X2 capacitor is permitted.

Note 2: X2 capacitors are generally used in circuits of cord-connected appliances.

4.1.2 CAPACITOR, CLASS Y – Capacitor or RC unit of a type suitable for use in situations where failure of the capacitor could lead to danger of electric shock. Examples would be capacitors connected across the primary and secondary circuits where electrical isolation is required to prevent an electric shock or between hazardous live parts and accessible parts.

Note 1: Y1 capacitors are used in circuits where the prevention of electric shock is afforded solely by the isolation provided by the capacitor. Two Y2 capacitors connected in series is considered to provide the same level of protection as one Y1 capacitor.

Note 2: Y2 capacitors are used where the prevention of electric shock is provided by the combination of the capacitor and earth ground for circuits operating at voltages ≥ 150V and ≤ 300V.