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NATIONAL STANDARD

# ANSI/CAN/UL/ULC 2127:2021

# STANDARD FOR SAFETY

## Inert Gas Clean Agent Extinguishing System Units

Approved American National Standard
ANSI
ANSI/UL 2127-2021

scc ccn

## SCC FOREWORD

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UL Standard for Safety for Inert Gas Clean Agent Extinguishing System Units, ANSI/CAN/UL/ULC 2127

Third Edition, Dated May 9, 2017

***Summary of Topics***

***This revision of ANSI/CAN/UL/ULC 2127 dated November 30, 2021 includes a change in requirements to:***

***– Electronic Documentation for Fire Suppression Standards; 5.1, 57.5A, 58.1 – 58.3, 60.2***

***– Salt Spray Applicability; 7.2, 29.1, 29.2***

***– Flammability of Externally Exposed Parts; 20.2***

***– Nameplate Abrasion Testing Update; 55.2, 55.3***

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 June 16, 2021 and September 10, 2021.

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ANSI/UL 2127-2021

**MAY 9, 2017**
(Title Page Reprinted: November 30, 2021)



# ANSI/CAN/UL/ULC 2127:2021

## Standard for Inert Gas Clean Agent Extinguishing System Units

First Edition – March, 1999
Second Edition – July, 2012

**Third Edition**

**May 9, 2017**

This ANSI/CAN/UL/ULC Safety Standard consists of the Third Edition including revisions through November 30, 2021.

The most recent designation of ANSI/UL 2127 as an American National Standard (ANSI) occurred on November 30, 2021. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, Preface or SCC Foreword. Any other portions of this ANSI/UL standard that were not processed in accordance with ANSI/UL requirements are noted at the beginning of the impacted sections.

This standard has been designated as a National Standard of Canada (NSC) on November 30, 2021.

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# Preface

This is the Third Edition of the ANSI/CAN/UL/ULC 2127, Standard for Safety for Inert Gas Clean Agent Extinguishing System Units.

UL is accredited by the American National Standards Institute (ANSI) and the Standards Council of Canada (SCC) as a Standards Development Organization (SDO). ULC Standards is accredited by the Standards Council of Canada (SCC) as a Standards Development Organization (SDO).

This Standard has been developed in compliance with the requirements of ANSI and SCC for accreditation of a Standards Development Organization.

Annexes A and B, identified as normative, form a mandatory part of this Standard.

This ANSI/CAN/UL/ULC 2127 Standard is under continuous maintenance, whereby each revision is approved in compliance with the requirements of SCC for accreditation of a Standards Development Organization. In the event that no revisions are issued for a period of four years from the date of publication, action to revise, reaffirm, or withdraw the standard shall be initiated.

In Canada, there are two official languages, English and French. All safety warnings must be in French and English. Attention is drawn to the possibility that some Canadian authorities may require additional markings and/or installation instructions to be in both official languages.

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 http://csds.ul.com.

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This Edition of the Standard has been formally approved by the UL Standards Technical Panel (STP) on Extinguishing Systems, STP 300.

This list represents the STP 300 membership when the final text in this standard was balloted. Since that time, changes in the membership may have occurred.

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International Classification for Standards (ICS): 13.220.20

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This Standard is intended to be used for conformity assessment.

The intended primary application of this standard is stated in its scope. It is important to note that it remains the responsibility of the user of the standard to judge its suitability for this particular application.

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## INTRODUCTION

### 1 Scope

1.1 These requirements cover the construction and operation of inert gas clean agent fire extinguishing system units intended to be installed, inspected, tested, and maintained in accordance with the Standard for Clean Agent Fire Extinguishing Systems, NFPA 2001 and with the National Fire Code of Canada.

### 2 General

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

2.2 Where these requirements reference "extinguishing system unit," the requirements also apply to automatic extinguisher units unless specifically noted otherwise.

### 3 Glossary

3.1 For the purpose of these requirements, the following definitions apply.

3.2 AGENT TIME IMBALANCE – A situation in which the start of agent discharge at a nozzle occurs after agent discharge has been completed at any other nozzle in the system.

3.3 CLEAN AGENT – Electrically nonconducting, volatile, or gaseous fire extinguishant that does not leave a residue upon evaporation. The word "agent" as used in this document shall mean "clean agent" unless otherwise indicated.

3.4 CYLINDER/VALVE ASSEMBLY – A container that incorporates a valve and which provides storage of the extinguishing agent and expellant (when applicable) until the valve is actuated. When actuated, the valve releases the agent into the distribution network of the extinguishing system.

3.5 DISCHARGE NOZZLE – A device that is used to uniformly distribute the extinguishing agent:

a) Over a specific area; or

b) Within a specific volume;

or both.

3.6 DISCHARGE TIME – The time required to discharge from the nozzle 95 percent of the agent mass at 21°C (70°F).

3.7 DISCHARGE TIME, MAXIMUM – The longest discharge time specified by the manufacturer; but, not greater than 120 seconds.

3.8 ENGINEERED SYSTEM – A system that requires individual calculation and design, in accordance with the extinguishing system unit manufacturer's instructions, to determine the flow rates, nozzle pressures, quantities of extinguishing agent, and number and types of nozzles for effective extinguishing agent distribution and fire coverage.

3.9 EXTINGUISHING SYSTEM UNIT – Identified components that are assembled into systems for the discharge of an extinguishing agent through fixed piping and nozzles for the purpose of extinguishing fires.

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