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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 21714.3-2026

Replacing GB/T 21714.3-2015

**Protection against lightning - Part 3: Physical damage to
structures and life hazard**

雷电防护 第3部分：建筑物的物理损害和生命危险

(English Translation)

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Table of Contents

Preface	
Introduction	
1 Scope	
2 Normative References	
3 Terms and Definitions	
4 Lightning Protection System (LPS) 7.	
4.1 LPS Category	
5 External lightning protection system 8.	
5.1 General Requirements	
5.2 Lightning Reception System	
5.3 Downstream System	
5.4 Grounding Terminal System	
5.5 Other Components	
5.6 Materials and Dimensions	
6 Internal lightning protection system	
6.1 General Requirements	
6.2 Lightning protection equipotential bonding	
6.3 Interval distance	
7 LPS Maintenance and Inspection	
7.1 General Requirements	
7.2 Maintenance	
7.3 Inspection Target	
7.4 Inspection Requirements	
8 Protective measures against personal injury caused by contact voltage and step voltage	
8.1 Protective measures against contact voltage	
8.2 Step Voltage Protection Measures	
Appendix B (Informative) Calculation of Interval Distance (s)	
Appendix C (Normative) Additional LPS Requirements for Buildings with Explosion Risks	
C.1 Overview	
C.2 Basic Requirements	
C.3 Buildings storing solid explosives	

C.4 Buildings in hazardous areas

C.5 Maintenance and Inspection

Appendix D (Informative) Guidelines for the Design, Construction, Maintenance and Testing of LPS

D.1 Overview

D.2 Content Structure of Appendix D

D.3 Additional Information

D.4 LPS Design

D.5 External Lightning Protection System

D.6 Internal Lightning Protection System

D.7 LPS Inspection and Maintenance

References

Install external LPS

Conductor installation

Example

DeltaT(K) and duration t50(s)

Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 3 of GB/T 21714 "Lightning Protection". GB/T 21714 has the following parts published.

---Part 1: General Provisions;

---Part 2: Risk Management;

---Part 3: Physical Damage to Buildings and Life Hazards;

---Part 4: Electrical and Electronic Systems within Buildings.

This document replaces GB/T 21714.3-2015 "Lightning Protection Part 3: Physical Damage to Buildings and Hazards to Life", and is consistent with...

Compared with GB/T 21714.3-2015, apart from structural adjustments and editorial changes, the main technical changes are as follows.

a) Some terms and definitions have been changed (see Chapter 3, Chapter 3 of the 2015 edition);

- b) The parameters that determine the LPS feature classification have been changed (see 4.1, 2015 version 4.1);
- c) The continuity of steel structures in reinforced concrete buildings has been removed (see 4.3 in the 2015 edition);
- d) The relevant provisions for the application of isolated or electrically isolated LPS have been changed (see 5.1.2, 2015 version of 5.1.2);
- e) The relevant regulations for lightning protection systems have been amended (see 5.2, 2015 version 5.2);
- f) The relevant provisions of the referencing system have been changed (see 5.3, 2015 version 5.3);
- g) The relevant provisions for the grounding terminal system have been amended (see 5.4, 2015 version 5.4);
- i) The regulations for lightning protection equipotential bonding of internal systems and lightning protection equipotential bonding of lines connected to the protected building have been changed (see...).

6.2.4~6.2.5 (2015 version of 6.2.4~6.2.5)

- j) The relevant regulations regarding spacing have been changed (see 6.3, 2015 version 6.3);
- k) The maintenance and inspection procedures for LPS have been changed (see Chapter 7, Chapter 7 of the 2015 edition);
- l) The location of the lightning arrester has been removed (see Appendix A of the 2015 edition);
- m) The additional requirements for LPS for buildings with explosion risks have been changed (see Appendix C, Appendix D of the 2015 edition).

This document is equivalent to IEC 62305-3:2024 "Lightning protection - Part 3: Physical damage to buildings and danger to life".

The following minimal editorial changes have been made to this document.

---Note 5 has been added to the "Scope" chapter, and additional notes have been added to pages 3.22, 3.29, 3.35, and 3.40 to facilitate understanding of the document;

---Change the informative content in the definition to the example (see 3.7, 3.21);

---Delete content that is irrelevant to my country.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed and is under the jurisdiction of the National Technical Committee on Lightning Protection Standardization (SAC/TC258).

Introduction

GB/T 21714 "Lightning Protection" aims to propose lightning protection (LP) measures to effectively reduce lightning risks, and is proposed to consist of four parts.

---Part 1: General Provisions. The purpose is to stipulate the general principles to be followed for lightning protection of buildings and their facilities, internal objects, and personnel.

in principle.

---Part 2: Risk Management. The purpose is to define the process for managing lightning risk in buildings, including calculating the building's lightning strike risk.

Value. After selecting the upper limit of risk tolerance, this process allows for the selection of appropriate protective measures to reduce the risk to the tolerance limit or above.

The following also includes assessing the frequency of damage to internal systems caused by lightning surges. After selecting an upper limit for the allowable frequency of damage, this process is followed.

Choose appropriate protective measures to reduce the frequency of damage to or below the permissible limit.

---Part 3: Physical Damage to Buildings and Life Hazards. The purpose is to specify lightning protection measures for physical damage to buildings.

Requirements for protection systems (LPS) and requirements for preventing personal injury from contact voltage and step voltage near the LPS.

---Part 4: Electrical and Electronic Systems within Buildings. The purpose is to specify surge protection measures for electrical and electronic systems within buildings.

The design, installation, inspection, maintenance, and testing requirements for (SPM) are designed to reduce permanent failures caused by lightning electromagnetic pulses (LEMP).
risk.

This document outlines protections against physical damage to the interior and surrounding areas of buildings, as well as personal dangers caused by contact voltage and step voltage.
measure.

It consists of LPS and internal LPS.

External LPS aims to.