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

GB/T 33588.4-2025

Replacing GB/T 33588.4-2020

**Lightning protection system components (LPSC) - Part 4:
Requirements for conductor fasteners
(English Translation)**

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Table of Contents

Preface
Introduction
1 Scope
2 Normative references
3 Terms and Definitions
4 Categories
5 Requirement
6 Test methods
7 Electromagnetic Compatibility (EMC)
8 Structure and content of test reports
Appendix A (Normative) Environmental impact test for metal and composite fasteners---Corrosion resistance test
Appendix B (Normative) Environmental impact test for non-metallic and composite fasteners---UV resistance test
Appendix C (Normative) Applicability of tests performed according to previous versions
Appendix D (Normative) Test Flowchart for Conductor Fasteners
Reference

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 4 of GB/T 33588 Lightning Protection System Components (LPSC). GB/T 33588 has been published as follows part.

- Part 1: Requirements for connectors;
- Part 2: Requirements for lightning arresters, down conductors and grounding electrodes;
- Part 3: Requirements for isolating spark gaps (ISGs);
- Part 4: Requirements for conductor fasteners;
- Part 5: Requirements for grounding electrode test boxes and grounding electrode seals;
- Part 6: Requirements for lightning strike counters (LSCs);

--- Part 7: Requirements for grounding resistance reduction materials;

--- Part 8: Requirements for isolation components of lightning protection systems.

This document replaces GB/T 33588.4-2020 "Lightning protection system components (LPSC) Part 4: Requirements for fasteners for conductors" Compared with GB/T 33588.4-2020, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

a) Added the terms "composite fasteners" and "type test" and their definitions (see Chapter 3);

b) Added test requirements for the applicability of tests performed in previous versions (see 6.1);

c) The test methods for documents and installation instructions have been changed (see 6.5, 6.5 of the 2020 edition);

d) The figure of "Pendulum impact test device" was deleted (see Figure 4 of the 2020 edition);

e) Added the normative appendix "Applicability of tests performed according to previous versions" (see Appendix C);

f) The normative appendix "Test flow chart for conductor fasteners" has been changed (see Appendix D, Appendix C of the 2020 edition).

This document is equivalent to IEC 62561-4:2023 "Lightning protection system components (LPSC) Part 4: Requirements for conductor fasteners".

The following minimal editorial changes were made to this document.

--- Added notes in 6.1 to facilitate understanding and application;

--- Corrected the unit of temperature deviation in this document from "K" to "°C".

Introduction

GB/T 33588 "Lightning protection system components (LPSC)" aims to establish the lightning protection system components designed and installed according to the IEC 62305 series of standards.

The requirements and test methods for various components used in the life protection system (LPS) are intended to consist of eight parts.

--- Part 1: Requirements for connectors. The purpose is to establish the requirements and test methods for metal connectors in lightning protection systems.

--- Part 2: Requirements for lightning terminals, down conductors and grounding electrodes. The purpose is to establish the requirements for the metallic conductors that constitute

lightning terminals and down conductors.

Requirements and test methods for metal grounding electrodes (non-"natural" conductors) and metal grounding electrodes that constitute the grounding system.

--- Part 3: Requirements for Isolating Spark Gaps (ISGs). The purpose is to establish the requirements for isolating spark gaps in lightning protection systems and test methods.

--- Part 4: Requirements for conductor fasteners. The purpose is to establish the metal fasteners used to fix and support air terminals, down conductors and grounding devices.

Requirements and test methods for fasteners for metal and non-metallic conductors.

--- Part 5: Requirements for grounding electrode detection boxes and grounding electrode seals. The purpose is to establish grounding electrode detection boxes installed underground Requirements and test methods for terminal boxes and earthing electrode seals.

--- Part 6: Requirements for lightning strike counters (LSCs). The purpose is to establish the requirements and test methods for lightning strike counters.

--- Part 7: Requirements for grounding resistance reduction materials. The purpose is to establish the requirements and tests for grounding resistance reduction materials in lightning protection systems method.

--- Part 8: Requirements for isolation components of lightning protection systems. The purpose is to establish the requirements for insulation supports and insulation down conductors and their special tight Requirements and test methods for firmware.

Lightning Protection System Components (LPSC) Part 4: Requirements for conductor fasteners

1 Scope

This document specifies the requirements for metallic and non-metallic conductor fasteners used to fix and support air terminals, down conductors and earthing devices.

The corresponding test methods were developed.

Due to the large number and types of conductor fasteners used in modern buildings, this document does not apply to conductor fasteners that are attached to building structures.

fixed.

This document is not applicable to the testing of conductor fasteners in explosive atmospheres. Conductor fasteners used in hazardous environments must take into account the necessary Additional requirements.

Note: In EU countries, see CLC/T S50703-2 for component test requirements for use in explosive

environments.

2 Normative references

The contents of the following documents constitute essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 2423.18-2021 Environmental testing Part 2: Test methods Test Kb. Salt spray, alternating (sodium chloride solution) (IEC 60068-2-52:2017, IDT) GB/T 2423.55-2023 Environmental testing Part 2: Test methods Test Eh. Hammer test (IEC 60068-2-75. 2014, IDT)

GB/T 16422.3-2022 Plastics laboratory light source exposure test method Part 3: Fluorescent ultraviolet lamp (ISO 4892-3. 2016, IDT)

GB/T 21714.3-2015 Lightning protection Part 3: Physical damage to buildings and life hazards (IEC 62305-3:2010, IDT) ISO 4892-2 Plastics-Methods of exposure to laboratory light sources Part 2: Xenon arc lamps Note. GB/T 16422.2-2022 Plastics laboratory light source exposure test method Part 2: Xenon arc lamp (ISO 4892-2:2013, IDT) ISO 4892-4 Plastics-Methods of laboratory light source exposure test method Part 4: Open carbon arc lamp Note. GB/T 16422.4-2022 Plastics laboratory light source exposure test method Part 4: Open carbon arc lamp (ISO 4892-4:2013, IDT) rosi onresistance) ISO 22479:2019 Corrosion of metals and alloys - Sulfur dioxide in humid air (fixed gas method) Note. GB/T 33588.1-2025 Lightning protection system components (LPSC) Part 1: Requirements for connectors (IEC 62561-1:2023, IDT)