

Komponenter til lynbeskyttelses anlæg (LPSC) – Del 1: Krav til prøvning af samlinger af metaltyndplader anvendt i LPS-anlæg

Lightning Protection System Components (LPSC) – Part 1: Testing requirements for metal sheets' joints used in LPS

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Danish Standards Association

Göteborg Plads 1
DK-2150 Nordhavn
Tel: +45 39 96 61 01
dansk.standard@ds.dk
www.ds.dk

DS/CLC/TS 50703-1:2021

København

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English Version

**Lightning Protection System Components (LPSC) - Part 1:
Testing requirements for metal sheets' joints used in LPS**

Composants des systèmes de protection contre la foudre
(CSPF) - Partie 1: Exigences d'essais relatives aux
jonctions des bandes métalliques utilisées dans les SPF

Blitzschutzsystembauteile (LPSC) - Teil 1:
Prüfanforderungen für in Blitzschutzsystemen (LPS)
verwendete Verbindungsstellen zwischen Metallblechen

This Technical Specification was approved by CENELEC on 2021-05-11.

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CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents	Page
European foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	4
4 Classification	7
5 Requirements	7
5.1 General	7
5.2 Installation instructions	8
5.3 Marking	8
5.4 Lightning current carrying capability	8
6 Tests	8
6.1 General condition on tests	8
6.2 Installation instructions	9
6.2.1 General conditions for tests	9
6.2.2 Acceptance criteria	9
6.3 Marking test	9
6.3.1 General conditions for tests	9
6.3.2 Acceptance criteria for marking completeness	9
6.3.3 Acceptance criteria for marking durability and legibility	9
6.4 Test preparation	10
6.4.1 Arrangement of specimen	10
6.4.2 Conditioning / ageing	10
6.4.3 Lightning current test	10
6.4.4 Acceptance criteria according to the ability to pass the lightning current tests H or N with respect to perforation NP or P	11
7 Structure and content of the test report	11
7.1 General	11
7.2 Report identification	12
7.3 Specimen description	12
7.4 Material	13
7.5 Standards and references	13
7.6 Test procedure	13
7.7 Testing equipment description	13
7.8 Measuring instruments description	13
7.9 Requirements for an approved measuring system	13
7.10 Results and parameters recorded	13
7.11 Statement of pass / fail	14
Bibliography	20

European foreword

This document (CLC/TS 50703-1:2021) has been prepared by CLC/TC 81X “Lightning protection”.

This document supersedes CLC/TS 50703-1:2019.

The document includes the following significant changes with respect to the previous edition:

- a) precise terms / definitions are given for the reader to understand and distinguish the under discussion types of the joints of metal sheets;
- b) conditioning tests have been added which contribute significant on the lightning current capability;
- c) two new classifications have been added as per the ability of the joints of metal sheets to withstand the lightning current with or without perforation;
- d) Table 1 – Clarifications that are more precise are given for parameters of the test current;
- e) requirements for approved measuring system have been added under clause 7.9.

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1 Scope

This document defines the requirements and testing for joints of metal sheets, with or without insulating coatings, used as natural components in roofs, facades or walls of buildings, suitable to conduct lightning current in LPS where the interconnection of these metal sheets does not ensure durable electrical connection.

NOTE This document does not deal with the lightning interception capabilities of these components. The connection clamps for connecting the metallic sheet with the down conductor to the earth termination system are LPSC, tested according to EN 62561-1.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 60068-2-52:1996, *Environmental testing - Part 2: Tests - Test Kb: Salt mist, cyclic (sodium chloride solution) (IEC 60068-2-52:1996)*

EN 62305-3:2011, *Protection against lightning - Part 3: Physical damage to structures and life hazard (IEC 62305-3:2010)*

EN 62561-1:2017, *Lightning Protection System Components (LPSC) - Part 1: Requirements for connection components (IEC 62561-1:2017)*

ISO 22479:2019, *Corrosion of metals and alloys - Sulfur dioxide test in a humid atmosphere (fixed gas method)*

ISO 6957:1988, *Copper alloys - Ammonia test for stress corrosion resistance*