



BSI Standards Publication

Low-voltage surge protective devices

Part 41: Surge protective devices connected to DC low-voltage power systems — Requirements and test methods

National foreword

This British Standard is the UK implementation of EN IEC 61643-41:2025+A11:2025. It is derived from IEC 61643-41:2025.

The start and finish of text introduced or altered by amendment A11 is indicated in the text by tags. Tags indicating changes to text carry the number of the CENELEC amendment. For example, text altered by CENELEC amendment A11 is indicated by A11 A11.

The UK participation in its preparation was entrusted to Technical Committee PEL/37, Surge Arresters - High Voltage.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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Amendments/corrigenda issued since publication

Date	Text affected
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English Version

Low-voltage surge protective devices - Part 41: Surge protective
devices connected to DC low-voltage power systems -
Requirements and test methods
(IEC 61643-41:2025)

Parafoudres basse tension - Partie 41: Parafoudres
connectés aux réseaux basse tension en courant continu -
Exigences et méthodes d'essai
(IEC 61643-41:2025)

Überspannungsschutzgeräte für Niederspannung - Teil 41:
Überspannungsschutzgeräte für den Einsatz in
Niederspannungs-Gleichstromnetzen - Anforderungen und
Prüfverfahren
(IEC 61643-41:2025)

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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

European foreword

The text of document 37A/426/FDIS, future edition 1 of IEC 61643-41, prepared by SC 37A "Low-voltage surge protective devices" of IEC/TC 37 "Surge arresters" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61643-41:2025.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2026-08-31 level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with the (dow) 2028-08-31 document have to be withdrawn

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This document is read in conjunction with EN IEC 61643-01.

This document has been prepared under a standardization request addressed to CENELEC by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZZ, which is an integral part of EN IEC 61643-41:2025/A11:2025.

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The text of the International Standard IEC 61643-41:2025 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 62368-1:2018	NOTE	Approved as EN IEC 62368-1:2020 (not modified) + A11:2020
ISO 4892-1	NOTE	Approved as EN ISO 4892-1
ISO 4892-2	NOTE	Approved as EN ISO 4892-2

European foreword to amendment A11

This document (EN IEC 61643-41:2025/A11:2025) has been prepared by CLC/TC 37A “Low voltage surge protective devices”.

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an identical national standard or by
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For the relationship with EU Legislation, see informative Annex ZZ, which is an integral part of this document.

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Annex ZA
(normative)

**Normative references to international publications
with their corresponding European publications**

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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cencenelec.eu.

The normative references given in Part 01 apply with the following additions:

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61643-01	2024	Low-voltage surge protective devices – Part 01: General requirements and test methods	EN IEC 61643-01	2025
			+ A11	2025

Annex ZZ (informative)

Relationship between this European standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered

This European standard has been prepared under a Commission's standardization request relating to harmonized standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding safety objectives of that Directive, and associated EFTA regulations.

Table ZZ.1 — Correspondence between this European standard and Annex I of Directive 2014/35/EU [2014 OJ L96]

Safety objectives of Directive 2014/35/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
(1)(a)	Clause 4 Clause 6 Clause 7 8.2* 9.2*	* From IEC 61643-01
(1)(b)	Clause 6 8.2* 8.4* 9.2* 9.4*	* From IEC 61643-01
(1)(c)	Clause 7 9.1.1 Annex A*	* From IEC 61643-01
(2)(a)	4.6* 8.3.1* 8.3.3* 9.3.1* 9.3.3 Table 3 - Pass criteria C, E, I, H, J, K* Annex A*	* From IEC 61643-01

Safety objectives of Directive 2014/35/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
(2)(b)	8.3.5* 8.3.6.1.1* 8.3.6.2* 8.3.6.3* 8.3.6.4* 8.3.9 8.6.1.1* 8.6.1.2* 8.6.1.3* 8.6.6* 9.3.5 9.3.6 9.3.6.2 9.3.6.3 9.3.6.4 9.3.9 9.6.1.1* 9.6.1.2* 9.6.1.3* Table 3 pass criteria Q* Annex A* Annex E*	* From IEC 61643-01
(2)(c)	8.5.6.1* 8.5.6.2*	* From IEC 61643-01
(2)(d)	8.3.7* 8.3.8* 8.4.4* 8.6.2* 9.3.7* 9.3.8* 9.4.4* Annex D.2.2*	* From IEC 61643-01
(3)(a)	8.4.5* 9.4.5*	* From IEC 61643-01

Safety objectives of Directive 2014/35/EU	Clause(s) / sub-clause(s) of this EN	Remarks / Notes
(3) (b)	8.5.2* 8.5.3* 8.6.2* 9.3.6.1* 9.5.2* 9.5.2* Annex D.1.1* Annex D.1.2* Annex D.1.3* Annex D.2.1*	* From IEC 61643-01
(3) (c)	8.3.6.1.1* 8.3.6.3* 8.3.6.4* 8.3.9 8.6.1.2* 8.6.1.3* 8.6.6* 9.3.6 9.3.6.3 9.3.6.4 9.3.9 9.6.1.2* 9.6.1.3* Table 3 pass criteria Q* Annex E*	* From IEC 61643-01

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

LOW-VOLTAGE SURGE PROTECTIVE DEVICES –**Part 41: Surge protective devices connected to DC low-voltage power systems – Requirements and test methods**

FOREWORD

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IEC 61643-41 has been prepared by subcommittee 37A: Low-voltage surge protective devices, of IEC technical committee 37: Surge arresters. It is an International Standard.

This first edition only contains the specific requirements for SPDs for DC applications.

This International Standard is to be used in conjunction with IEC 61643-01.

The requirements of this document supplement, modify or replace certain of the general requirements contained in IEC 61643-01 and shall be read and applied together with the latest edition of IEC 61643-01, as indicated by the undated normative reference in Clause 2 of this document.

Numbering of clauses follows the numbering of IEC 61643-01, but, dependent on the application of clauses from IEC 61643-01, does not necessarily follow sequentially.