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Överspänningsskydd för lågspänning – Del 312: Principer för val och användning av gasurladdningsrör (GDT)

*Components for low-voltage surge protective devices –
Part 312: Selection and application principles for gas discharge tubes*

Som svensk standard gäller europastandarden EN 61643-312:2013. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61643-312:2013.

Nationellt förord

Europastandarden EN 61643-312:2013

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61643-312, First edition, 2013^{*)} - Components for low-voltage surge protective devices - Part 312: Selection and application principles for gas discharge tubes**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61643-311, utgåva 1, 2002, gäller ej fr o m 2016-05-16.

Denna standard ersätter delvis SS-EN 61643-311, utgåva 1, 2002.

^{*)}Corrigendum July 2013 till IEC 61643-312:2013 är inarbetat i standarden.

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**Components for low-voltage surge protective devices -
Part 312: Selection and application principles for gas discharge tubes
(IEC 61643-312:2013 + corrigendum Jul. 2013)**

Composants pour parafoudres basse
tension -
Partie 312: Principes de choix et
d'application pour les tubes à décharge de
gaz
(CEI 61643-312:2013
+ corrigendum Jul. 2013)

Bauelemente für
Überspannungsschutzgeräte für
Niederspannung -
Teil 312: Auswahl- und
Anwendungsprinzipien für
Gasentladungsableiter
(IEC 61643-312:2013
+ corrigendum Jul. 2013)

This European Standard was approved by CENELEC on 2013-05-27. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of document 37B/114/FDIS, future edition 1 of IEC 61643-312, prepared by SC 37B, "Specific components for surge arresters and surge protective devices", of IEC/TC 37, "Surge arresters" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61643-312:2013.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2014-02-27
- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2016-05-27

This document partially supersedes EN 61643-311:2001.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 61643-312:2013 + corrigendum July 2013 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 standards indicated:

IEC 60364-5-51:2001	NOTE	Harmonised as HD 60364-5-51:2006 (modified).
IEC 60068-2-1	NOTE	Harmonised as EN 60068-2-1.
IEC 60068-2-20	NOTE	Harmonised as EN 60068-2-20.
IEC 60068-2-21	NOTE	Harmonised as EN 60068-2-21.
IEC 60721-3-3	NOTE	Harmonised as EN 60721-3-3.
IEC 61643-11	NOTE	Harmonised as EN 61643-11.
IEC 61643-21	NOTE	Harmonised as EN 61643-21.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE When an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-1	-	Environmental testing - Part 2-1: Tests - Test A: Cold	EN 60068-2-1	-
IEC 60068-2-20	-	Environmental testing - Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads	EN 60068-2-20	-
IEC 60068-2-21	-	Environmental testing - Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices	EN 60068-2-21	-
IEC 61643-311	-	Components for low-voltage surge protective devices - Part 311: Performance requirements and test circuits and methods for gas discharge tubes (GDT)	EN 61643-311	-

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COMPONENTS FOR LOW-VOLTAGE SURGE PROTECTIVE DEVICES –

Part 312: Selection and application principles for gas discharge tubes

1 Scope

This part of IEC 61643 is applicable to gas discharge tubes (GDT) used for overvoltage protection in telecommunications, signalling and low-voltage power distribution networks with nominal system voltages up to 1 000 V (r.m.s.) a.c. and 1 500 V d.c. They are defined as a gap, or several gaps with two or three metal electrodes hermetically sealed so that gas mixture and pressure are under control. They are designed to protect apparatus or personnel, or both, from high transient voltages. This standard provides information about the characteristics and circuit applications of GDTs having two or three electrodes. This standard does not specify requirements applicable to complete surge protective devices, nor does it specify total requirements for GDTs employed within electronic devices, where precise coordination between GDT performance and surge protective device withstand capability is highly critical.

This part of IEC 61643

- does not deal with mountings and their effect on GDT characteristics. Characteristics given apply solely to GDTs mounted in the ways described for the tests;
- does not deal with mechanical dimensions;
- does not deal with quality assurance requirements;
- may not be sufficient for GDTs used on high-frequency (>30 MHz);
- does not deal with electrostatic voltages;
- does not deal with hybrid overvoltage protection components or composite GDT devices.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60068-2-1, *Environmental testing – Part 2-1: Tests – Test A: Cold*

IEC 60068-2-20, *Environmental testing – Part 2-20: Tests – Test T: Test methods for solderability and resistance to soldering heat of devices with leads*

IEC 60068-2-21, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 61643-311, *Components for low-voltage surge protective devices – Part 311: Specification for gas discharge tubes (GDT)*