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Överspänningsskydd för lågspänning – Del 11: Överspänningsskydd anslutna till lågspänningsnät – Prestanda och provningsmetoder

*Low-voltage surge protective devices –
Part 11: Surge protective devices connected to low-voltage power systems –
Requirements and test methods*

Som svensk standard gäller europastandarden EN 61643-11:2012. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61643-11:2012.

Nationellt förord

Europastandarden EN 61643-11:2012

består av:

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- **IEC 61643-11, First edition, 2011 - Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods**

utarbetad inom International Electrotechnical Commission, IEC.

Tidigare fastställd svensk standard SS-EN 61643-11, utgåva 1, 2003 och SS-EN 61643-11/A11, utgåva 1, 2007, gäller ej fr o m 2015-08-27.

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English version

**Low-voltage surge protective devices -
Part 11: Surge protective devices connected to low-voltage power
systems -
Requirements and test methods
(IEC 61643-11:2011, modified)**

Parafoudres basse tension -
Partie 11: Parafoudres connectés aux
systèmes basse tension -
Exigences et méthodes d'essai
(CEI 61643-11:2011, modifiée)

Überspannungsschutzgeräte für
Niederspannung -
Teil 11: Überspannungsschutzgeräte für
den Einsatz in Niederspannungsanlagen -
Anforderungen und Prüfungen
(IEC 61643-11:2011, modifiziert)

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CENELEC

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

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Foreword

This document (EN 61643-11:2012) consists of the text of IEC 61643-11:2011 prepared by IEC/SC 37A "Low-voltage surge protective devices", together with the common modifications prepared by CLC/TC 37A "Low voltage surge protective devices".

The following dates are fixed:

- latest date by which this document has to be implemented (dop) 2013-08-27
at national level by publication of an identical national standard or by endorsement
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2015-08-27

This document supersedes EN 61643-11:2002 + A11:2007.

The main changes with respect of EN 61643-11:2002 + A11:2007 are the complete restructuring and improvement of the test procedures and test sequences.

Clauses, subclauses, notes, tables, figures and annexes which are additional to those in IEC 61643-11:2011 are prefixed "Z".

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.

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC)

Endorsement notice

The text of the International Standard IEC 61643-11:2011 was approved by CENELEC as a European Standard with agreed common modifications.

Add the following annexes:

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 60060-1 + corr. March + corr. March	1989 1990 1992	High-voltage test techniques - Part 1: General definitions and test requirements	HD 588.1 S1 ¹⁾	1991
IEC 60112	-	Method for the determination of the proof and the comparative tracking indices of solid insulating materials	EN 60112	-
IEC 60529	-	Degrees of protection provided by enclosures (IP Code)	EN 60529	-
IEC 60664-1	2007	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	2007
IEC 60695-2-11 + corr. January	2000 2001	Fire hazard testing - Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end- products	EN 60695-2-11	2001
IEC 61000	series	Electromagnetic compatibility (EMC)	EN 61000	series
IEC 61180-1	-	High-voltage test techniques for low-voltage equipment - Part 1: Definitions, test and procedure requirements	EN 61180-1	-

1) HD 588.1 S1 is superseded by EN 60060-1:2010, which is based on IEC 60060-1:2010.

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INTRODUCTION

This part of IEC 61643 addresses safety and performance tests for surge protective devices (SPDs).

There are three classes of tests:

The Class I test is intended to simulate partial conducted lightning current impulses. SPDs subjected to Class I test methods are generally recommended for locations at points of high exposure, e.g., line entrances to buildings protected by lightning protection systems.

SPDs tested to Class II or III test methods are subjected to impulses of shorter duration.

SPDs are tested on a “black box” basis as far as possible.

IEC 61643-12 addresses the selection and application principles of SPDs in practical situations.

LOW-VOLTAGE SURGE PROTECTIVE DEVICES –

Part 11: Surge protective devices connected to low-voltage power systems – Requirements and test methods

1 Scope

This part of IEC 61643 is applicable to devices for surge protection against indirect and direct effects of lightning or other transient overvoltages. These devices are packaged to be connected to 50/60 Hz a.c. power circuits, and equipment rated up to 1 000 V r.m.s. Performance characteristics, standard methods for testing and ratings are established. These devices contain at least one nonlinear component and are intended to limit surge voltages and divert surge currents.

2 Normative references

The following referenced documents are indispensable for the application 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.

IEC 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60112, *Method for the determination of the proof and the comparative tracking indices of solid insulating materials*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 60664-1:2007, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 60695-2-11:2000, *Fire hazard testing – Part 2-11: Glowing/hot-wire based test methods – Glow-wire flammability test method for end-products*

IEC 61000 (all parts), *Electromagnetic compatibility (EMC)*

IEC 61180-1, *High-voltage test techniques for low voltage equipment – Part 1: Definitions, test and procedure requirements*