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

Parafoudres basse tension –
Partie 11: Parafoudres connectés aux réseaux basse tension en courant alternatif – Exigences et méthodes d'essai

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LOW-VOLTAGE SURGE PROTECTIVE DEVICES –

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

FOREWORD

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IEC 61643-11 has been prepared by subcommittee 37A: Low-voltage surge protective devices, of IEC technical committee 37: Surge arresters. It is an International Standard.

This second edition cancels and replaces the first edition published in 2011. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) Specific requirements for SPDs for AC applications are now contained in this document, whereas the common requirements for all SPDs are now contained in IEC 61643-01;
b) Clarification on test application either to a complete SPD, to a "mode of protection", or to a complete "SPD assembly";

c) Additional measurement of voltage protection level on "combined modes of protection" between live conductors and PE;

d) Additional duty test for T1 and T2 SPDs with follow current to check variation of the follow current value at lower impulse currents;

e) Modified and amended short circuit current test requirements to better cover up to date internal SPD disconnector technologies;

f) Improved dielectric test requirements for the SPD's main circuits and added dielectric test requirements for "electrically separated circuits";

g) Additional clearance requirements for "electrically separated circuits".

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.

If a clause in IEC 61643-01 is not explicitly called up or referred to in this document, then this clause does not apply to SPDs covered by this document. Any instructions in this document calling up clauses from IEC 61643-01 are written in Italic type.

NOTE In other words, if e.g. Clause 4 is called up in this document all subclauses of Clause 4 of IEC 61643-01 are applied without modification. But, if e.g. some modifications are required on subclauses of Clause 9 of IEC 61643-01, then the relevant second level subclauses of IEC 61643-01 (e.g. 9.3, 9.5 etc.) are called up separately and it is indicated how they are applied.

The numbering of additional subclauses to IEC 61643-01 in this document starts with the number 100 in the last section of the subclause added (see e.g. 4.100). The numbering of additional tables and figures to IEC 61643-01 in this document starts with the number 100.

The text of this International Standard is based on the following documents:

Draft	Report on voting
37A/427/FDIS	37A/431/RVD

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

A list of all parts in the IEC 61643 series, published under the general title *Low-voltage surge protective devices*, can be found on the IEC website.