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Low-voltage surge protective devices -
Part 361: Surge isolation transformers (SITs) connected to low-voltage distribution system - Requirements and test methods

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CONTENTS

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IEC 61643-361 has been prepared by subcommittee 37B: Components for low-voltage surge protection, of IEC technical committee 37: Surge arresters. It is an International Standard.

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

Draft	Report on voting
37B/267/FDIS	37B/270/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.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under webstore.iec.ch in the data related to the specific document. At this date, the document will be

– reconfirmed,
– withdrawn, or
– revised.

INTRODUCTION

This part of IEC 61643 covers surge isolation transformers (SITs) whose rated impulse withstands voltage coordinates with the expected surge environment of the installation location. This type of surge protective component (SPC) isolates and attenuates transient voltage in conjunction with current diverting components (or SPDs).

SITs are a product with specific enhanced insulation layers between the primary and secondary windings and an electric screen (ES) inserted between primary and secondary windings. With these ES and specific enhanced insulation layers, the surge that appears between the primary winding and earth (common-mode) is greatly attenuated and appears between the secondary winding and earth. SITs are products with a particularly improved impulse withstand voltage compared to ordinary isolating transformers.

It is essential that SITs are protected by an appropriate SPD at their primary side, to avoid any damage to the SIT itself. SITs are intended to be used in surge protection to establish lightning protection zones.