

INTERNATIONAL STANDARD

CONSOLIDATED VERSION

BASIC EMC PUBLICATION

**Electromagnetic compatibility (EMC) -
Part 4-34: Testing and measurement techniques - Voltage dips, short
interruptions and voltage variations immunity tests for equipment with ~~input~~
~~mains~~ current more than 16 A per phase**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

Part 4-34: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with ~~input~~ mains current more than 16 A per phase

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This consolidated version of the official IEC Standard and its amendments has been prepared for user convenience.

IEC 61000-4-34 edition 1.2 contains the first edition (2005-10) [documents 77A/498/FDIS and 77A/515/RVD], its amendment 1 (2009-05) [documents 77A/670/CDV and 77A/688/RVC] and its corrigendum 1 (2009-10), and its amendment 2 (2025-08) [documents 77A/1233/CDV and 77A/1247/RVC].

In this Redline version, a vertical line in the margin shows where the technical content is modified by amendments 1 and 2. Additions are in green text, deletions are in strikethrough red text. A separate Final version with all changes accepted is available in this publication.

International Standard IEC 61000-4-34 has been prepared by subcommittee 77A: Low frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

It forms Part 4-34 of IEC 61000. It has the status of a Basic EMC Publication in accordance with IEC Guide 107.

The text of this standard is based on the following documents:

FDIS	Report on voting
77A/498/FDIS	77A/515/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this document and its amendments 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

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INTRODUCTION

IEC 61000 is published in separate parts according to the following structure:

Part 1: General

General considerations (introduction, fundamental principles)

Definitions, terminology

Part 2: Environment

Description of the environment

Classification of the environment

Compatibility levels

Part 3: Limits

Emission limits

Immunity limits (in so far as they do not fall under the responsibility of the product committees)

Part 4: Testing and measurement techniques

Measurement techniques

Testing techniques

Part 5: Installation and mitigation guidelines

Installation guidelines

Mitigation methods and devices

Part 6: Generic standards

Part 9: Miscellaneous

Each part is further subdivided into several parts, published either as international standards or as technical specifications or technical reports, some of which have already been published as sections. Others will be published with the part number followed by a dash and a second number identifying the subdivision (example: 61000-6-1).

INTRODUCTION to Amendment 2

This amendment contains the following main changes in comparison with IEC 61000-4-34:2005 and IEC 61000-4-34:2005/AMD1:2009:

- Addition of a note in Annex C: The sign of phase angles of three-phase systems can differ depending on the convention used. It should be noted that phase angles opposite to those used in the figures and tables in this annex (i.e. -120° for L2 instead of $+120^\circ$) are also common. It is not intended to specify the direction of rotation of the three-phase system used for testing.
- Add $UL1-N = \sqrt{(1+3P^2)}/2$ in Annex C.3,
- Add a new annex "Interpretation of the rise-time and fall-time requirements during EUT testing" (Annex F), as in IEC 61000-4-11:2020, Clause D.4: