

<b>STN</b>	<b>Elektromagnetická kompatibilita (EMC) Časť 4-11: Metódy skúšania a merania Skúšky odolnosti proti krátkodobým poklesom napätia, krátkym prerušeniam a kolísaniam napätia pre zariadenia so vstupným prúdom do 16 A na fázu</b>	<b>STN EN IEC 61000-4-11</b>  33 3432
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Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase

Táto norma obsahuje anglickú verziu európskej normy.  
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 07/20

Obsahuje: EN IEC 61000-4-11:2020, IEC 61000-4-11:2020

Oznámením tejto normy sa od 03.03.2023 ruší  
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**EN IEC 61000-4-11**

NORME EUROPÉENNE

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March 2020

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Supersedes EN 61000-4-11:2004 and all of its amendments and corrigenda (if any)

English Version

**Electromagnetic compatibility (EMC) - Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase  
(IEC 61000-4-11:2020)**

Compatibilité électromagnétique (CEM) - Partie 4-11:  
Techniques d'essai et de mesure - Essais d'immunité aux creux de tension, coupures brèves et variations de tension pour les appareils à courant d'entrée inférieur ou égal à 16 A par phase  
(IEC 61000-4-11:2020)

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**EN IEC 61000-4-11:2020 (E)****European foreword**

The text of document 77A/1039/FDIS, future edition 3 of IEC 61000-4-11, prepared by SC 77A "EMC - Low frequency phenomena" of IEC/TC 77 "Electromagnetic compatibility" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 61000-4-11:2020.

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) 2020-12-03
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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 61000-2 (series)	NOTE	Harmonized as EN 61000-2 (series)
IEC 61000-2-4	NOTE	Harmonized as EN 61000-2-4
IEC 61000-4-11:2004	NOTE	Harmonized as EN 61000-4-11:2004 (not modified)
IEC 61000-4-14	NOTE	Harmonized as EN 61000-4-14

## **Annex ZA** (normative)

### **Normative references to international publications with their corresponding European publications**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cenelec.eu](http://www.cenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC TR 61000-2-8	-	Electromagnetic compatibility (EMC) – Part 2-8: Environment – Voltage dips and short interruptions on public electric power supply systems with statistical measurement results	-	-



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# INTERNATIONAL STANDARD

# NORME INTERNATIONALE



BASIC EMC PUBLICATION

PUBLICATION FONDAMENTALE EN CEM

**Electromagnetic compatibility (EMC) –  
Part 4-11: Testing and measurement techniques – Voltage dips, short  
interruptions and voltage variations immunity tests for equipment with input  
current up to 16 A per phase**

**Compatibilité électromagnétique (CEM) –  
Partie 4-11: Techniques d'essai et de mesure – Essais d'immunité aux creux  
de tension, coupures brèves et variations de tension pour les appareils  
à courant d'entrée inférieur ou égal à 16 A par phase**

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# INTERNATIONAL STANDARD

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BASIC EMC PUBLICATION  
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interruptions and voltage variations immunity tests for equipment with input  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTROMAGNETIC COMPATIBILITY (EMC) –****Part 4-11: Testing and measurement techniques –  
Voltage dips, short interruptions and voltage variations immunity  
tests for equipment with input current up to 16 A per phase**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61000-4-11 has been prepared by subcommittee 77A: EMC – Low frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

It forms Part 4-11 of IEC 61000. It has the status of a basic EMC publication in accordance with IEC Guide 107.

This third edition cancels and replaces the second edition published in 2004 and Amendment 1:2017. This edition constitutes a technical revision.

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

- a) rise time and fall time of transients are now defined terms in Clause 3;
- b) the origin of voltage dips and short interruptions is now stated in Clause 4.

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

FDIS	Report on voting
77A/1039/FDIS	77A/1056/RVD

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

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

A list of all parts in the IEC 61000 series, published under the general title *Electromagnetic compatibility (EMC)*, 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 "<http://webstore.iec.ch>" in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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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: IEC 61000-6-1).

## **ELECTROMAGNETIC COMPATIBILITY (EMC) –**

### **Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current up to 16 A per phase**

#### **1 Scope**

This part of IEC 61000 defines the immunity test methods and range of preferred test levels for electrical and electronic equipment connected to low-voltage power supply networks for voltage dips, short interruptions, and voltage variations.

This document applies to electrical and electronic equipment having a rated input current not exceeding 16 A per phase, for connection to 50 Hz or 60 Hz AC networks.

It does not apply to electrical and electronic equipment for connection to 400 Hz AC networks. Tests for these networks will be covered by future IEC documents.

The object of this document is to establish a common reference for evaluating the immunity of electrical and electronic equipment when subjected to voltage dips, short interruptions and voltage variations.

NOTE 1 Voltage fluctuation immunity tests are covered by IEC 61000-4-14.

The test method documented in this document describes a consistent method to assess the immunity of equipment or a system against a defined phenomenon.

NOTE 2 As described in IEC Guide 107, this is a basic EMC publication for use by product committees of the IEC. As also stated in Guide 107, the IEC product committees are responsible for determining whether this immunity test standard should be applied or not, and, if applied, they are responsible for defining the appropriate test levels. Technical committee 77 and its sub-committees are prepared to co-operate with product committees in the evaluation of the value of particular immunity tests for their products.

#### **2 Normative references**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 TR 61000-2-8, *Electromagnetic compatibility (EMC) – Part 2-8: Environment – Voltage dips and short interruptions on public electric power supply systems with statistical measurement results*

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