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**Electromagnetic compatibility (EMC) –
Part 4-11: Testing and measurement techniques – Voltage dips, short
interruptions and voltage variations immunity tests**

**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**



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ELECTROMAGNETIC COMPATIBILITY (EMC) –

**Part 4-11: Testing and measurement techniques –
Voltage dips, short interruptions and voltage variations immunity tests**

INTERPRETATION SHEET 1

This interpretation sheet has been prepared by subcommittee 77A: Low frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

The text of this interpretation sheet is based on the following documents:

ISH	Report on voting
77A/726/ISH	77A/731/RVD

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

Interpretation of the rise-time and fall-time requirements during EUT testing in IEC 61000-4-11:2004: Electromagnetic compatibility (EMC) – Part 4-11: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests.

- 1) In IEC 61000-4-11:2004, Table 4 does not apply to EUT (equipment under test) testing. Table 4 is for generator calibration and design only.
- 2) With reference to Table 1 and Table 2, there is no requirement in 61000-4-11:2004 for rise-time and fall-time when testing EUT; therefore, it is not necessary to measure these parameters during tests.
- 3) With reference to Table 4, all of the requirements apply to design and calibration of the generator. The requirements of Table 4 only apply when the load is a non-inductive 100 Ω resistor. The requirements of Table 4 do not apply during EUT testing.

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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

FOREWORD

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This Consolidated version of IEC 61000-4-11 bears the edition number 2.1. It consists of the second edition (2004-03) [documents 77A/452/FDIS and 77A/455/RVD] and its interpretation sheet 1 (2010-08), and its amendment 1 (2017-05) [documents 77A/951/FDIS and 77A/961/RVD]. The technical content is identical to the base edition and its amendment.

This Final version does not show where the technical content is modified by amendment 1. A separate Redline version with all changes highlighted is available in this publication.

International Standard IEC 61000-4-11 has been prepared by subcommittee 77A: Low frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility.

This second edition constitutes a technical revision in which

- 1) preferred test values and durations have been added for the different environment classes;
- 2) the tests for the three-phase systems have been specified.

It forms part 4-11 of IEC 61000. It has the status of a Basic EMC Publication in accordance with IEC Guide 107.

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

The committee has decided that the contents of the base publication and its amendment will remain unchanged until the stability date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

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

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).