

INTERNATIONAL STANDARD

BASIC EMC PUBLICATION

**Electromagnetic compatibility (EMC) -
Part 4-29: Testing and measurement techniques - Voltage dips, short
interruptions and voltage variations on d.c. input power port immunity tests**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**Electromagnetic compatibility (EMC) -
Part 4-29: Testing and measurement techniques -
Voltage dips, short interruptions and voltage variations
on DC input power port immunity tests**

FOREWORD

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IEC 61000-4-29 has been prepared by subcommittee 77A: EMC – Low frequency phenomena, of IEC technical committee 77: Electromagnetic compatibility. It is an International Standard.

It forms part 4-29 of IEC 61000. It has the status of a basic EMC publication in accordance with IEC Guide 107.

This second edition cancels and replaces the first edition published in 2000. This edition constitutes a technical revision.

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

- a) Increase of the output voltage of the test generator to take into account new DC networks voltages;
- b) provision of tolerances for the duration of the voltage changes;
- c) limitation of the current when applying short interruptions in low impedance condition;
- d) general technical clarifications for the specifications of the test generator and their verification;
- e) clarifications regarding the loads used to verify the switching characteristics and the peak inrush current drive capability of the test generator;
- f) clarifications regarding the evaluation of test results and test reports;
- g) description of the DC environment.

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

Draft	Report on voting
77A/1276/CDV	77A/1282/RVC

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 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 webstore.iec.ch in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

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).

This part is an international standard which gives immunity requirements for testing DC equipment and systems with voltage dips, interruptions and variations on the DC input power port.