AS/NZS 61000.4.34:2012
IEC 61000-4-34 Ed.1.1 (2009)

AS/NZS 61000.4.34:2012

Australian/New Zealand Standard™

Electromagnetic compatibility (EMC)

Part 4.34: Testing and measurements techniques—Voltage dips, short interruptions and voltage variations immunity tests for equipment with mains current more than 16 A per phase

STANDARDS Australia

STANDARDS NEW ZEALAND PAEREWA AOTEAROA

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The following are represented on Committee EL-034:

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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-034, Power Quality to supersede AS/NZS 61000.4.34:2007.

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

This Standard is an adoption with national modifications and has been reproduced from IEC 61000-4-34 Ed.1.1 (2009), *Electromagnetic compatibility (EMC)—Part 4-34: Testing and measurement techniques—Voltage dips, short interruptions and voltage variations immunity tests for equipment with mains current more than 16 A per phase,* and has been varied as indicated to take account of Australian/New Zealand conditions.

Variations to IEC 61000-4-34:2009 are indicated at the appropriate places within this Standard. Strikethrough (~~example~~) identifies IEC text, tables and figures which, for the purpose of this Australian Standard, are deleted. Where text, tables or figures are added, each is set in its proper place and identified by shading (example).

IEC 61000-4-34 Ed.1.1 (2009) consists of the IEC 61000-4-34 Ed.1.0 (2005) and its amendment 1 (2009). A vertical line in the margin of the document shows where the base publication has been modified by amendment 1.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number appears on the cover and title page while the International Standard number appears only on the cover.

(b) In the source text 'this part of IEC 61000' should read 'this part of AS/NZS 61000'.

(c) A full point substitutes for a comma when referring to a decimal marker.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the annex to which they apply. A 'normative' annex is an integral part of a Standard, whereas an 'informative' annex is only for information and guidance.

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Any table, figure or text of the international standard that is struck through is not part of this standard. Any Australian/New Zealand table, figure or text that is added is part of this standard and is identified by shading.

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 standard applies to electrical and electronic equipment having a rated mains current exceeding 16 A per phase. (See Annex E for guidance on electrical and electronic equipment rated at more than 200 A per phase.) It covers equipment installed in residential areas as well as industrial machinery, specifically voltage dips and short interruptions for equipment connected to either 50 Hz or 60 Hz a.c. networks, including 1-phase and 3-phase mains.

NOTE 1 Equipment with a rated mains current of 16 A or less per phase is covered by publication IEC 61000-4-11.

NOTE 2 There is no upper limit on rated mains current in this publication. However, in some countries, the rated mains current may be limited to some upper value, for example 75 A or 250 A, because of mandatory safety standards.

It does not apply to electrical and electronic equipment for connection to 400 Hz a.c. networks. Tests for equipment connected to these networks will be covered by future IEC standards.

The object of this standard 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 fluctuations are covered by publication IEC 61000-4-14.

NOTE 2 For equipment under test with rated currents above 250 A, suitable test equipment may be difficult to obtain. In these cases, the applicability of this standard should be carefully evaluated by committees responsible for generic, product and product-family standards. Alternatively, this standard might be used as a framework for an agreement on performance criteria between the manufacturer and the purchaser.

The test method documented in this part of IEC 61000 describes a consistent method to assess the immunity of equipment or a system against a defined phenomenon. 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.