

AS/NZS 61000.3.3:1998
IEC 61000-3-3:1995

Australian/New Zealand Standard™

Electromagnetic compatibility (EMC)

**Part 3.3: Limits—Limitation of
voltage fluctuations and flicker in
low-voltage supply systems for
equipment with rated current less
than or equal to 16 A**

[IEC title: Electromagnetic compatibility in electricity supply networks (EMC), Part 3: Limits—Section 3: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current ≤ 16 A]

AS/NZS 61000.3.3:1998

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The following interests are represented on Committee EL/34:

Association of New Zealand Electrical Appliance Distributors
Australasian Railway Association
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Bureau of Steel Manufacturers of Australia
Electricity Engineers Association of New Zealand
Electricity Supply Association of Australia
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/34, Power Quality, to supersede AS 2279.3—1991, *Disturbances in mains supply networks, Part 3: Limitation of voltage fluctuations caused by household and similar electrical appliances*.

It is one of a series of parts which will replace AS 2279 by adopting relevant IEC Standards in the IEC 61000, *Electromagnetic compatibility (EMC)—Part 3: Limits* series. This Standard is technically equivalent to and has been reproduced from IEC 61000-3-3, *Electromagnetic compatibility (EMC)—Part 3: Limits—Section 3: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current ≤ 16 A*.

A variation necessary for Australian/New Zealand requirements is given in Annex ZZ and is indicated in the text by a marginal bar set adjacent to the affected text.

The objective of this Standard is to provide manufacturers and suppliers of electricity and users of electrical equipment intended for connection to an electrical network, with limits for voltage disturbances and flicker produced by that equipment and the methods for ascertaining compliance to them in order to maintain electromagnetic compatibility within the electrical network.

The AS/NZS 61000 series will comprise the following parts:

- Part 3.2: Limits—Limits for harmonic current emission (equipment input current less than or equal to 16 A per phase)
- Part 3.3: Limits—Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current less than or equal to 16 A
- Part 3.5: Limits—Limitation of voltage fluctuations and flicker in low-voltage power supply systems for equipment with rated current greater than 16 A
- Part 3.6: Limits—Assessment of emission limits for distorting loads in MV and HV power systems—Basic EMC publication
- Part 3.7: Limits—Assessment of emission limits for fluctuating loads in MV and HV power systems—Basic EMC publication
- Part 4.7: Testing and measurement techniques—General guide on harmonics and interharmonics measurement and instrumentation, for power supply systems and equipment connected thereto

As they become available from the IEC these parts will be progressively introduced to replace the current 1991 series.

This Standard should be read in conjunction with the regulations, service rules and installation rules of the supply authority approving the connection.

This Standard is concerned with the limitation of voltage fluctuations and flicker impressed on a low-voltage electricity supply system. It specifies limits of voltage changes from equipment such as motor-driven appliances, cooking appliances, lighting equipment and direct water heaters with rated current less than or equal to 16 A under specified conditions. The tests and conditions are included.

The term ‘normative’ has been used in this Standard to define the application of the annex to which it applies. A ‘normative’ annex is an integral part of a Standard.

As this Standard is reproduced from an international Standard the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.
- (b) In the source text ‘this International Standard’ should read ‘this Australian/New Zealand Standard’.
- (c) A full point substitutes for a comma when referring to a decimal marker.

References to international Standards should be replaced by equivalent Australian or Joint Australian/New Zealand Standards as follows:

<i>Reference to International Standards or other publications</i>	<i>Australian or Joint Australian/New Zealand Standard</i>
IEC	AS/NZS
60050 International electrotechnical vocabulary (IEV)	—
60050(161) Chapter 161: Electric and magnetic compatibility	—
60335 Safety of household and similar electrical appliances	3350 Approval and test specification— Safety of household and similar electrical appliances
60335-2-7 Part 2: Particular requirements for washing machines	3350.2.7 Part 2.7 Particular requirements— washing machines
60335-2-11 Part 2: Particular requirements for tumbler dryers	3350.2.11 Part 2.11 Particular requirements— Tumbler dryers
60725 Considerations on reference impedances for use in determining the disturbance characteristics of household appliances and similar electrical equipment	—
60868 Flickermeter—Functional and design specifications Amendment No. 1	4376 Flickermeter—Functional and design specifications
61000 Electromagnetic compatibility (EMC)	61000 Electromagnetic compatibility (EMC)
61000-3-5 Part 3: Limits—Section 5: Limitations of voltage fluctuations and flicker in low-voltage power supply system for equipment with rated current greater than 16 A	61000.3.5 Part 3.5: Limits—Limitations in low-voltage power supply system for equipment with rated current greater than 16 A

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