

AS/NZS 61000.3.2:1998  
IEC 61000-3-2:1995

Australian/New Zealand Standard™

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**Electromagnetic compatibility (EMC)**

**Part 3.2: Limits—Limits for  
harmonic current emissions  
(equipment input current less  
than or equal to 16 A per phase)**

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[IEC title: Electromagnetic compatibility (EMC), Part 3:  
Limits—Section 2: Limits for harmonic current emissions  
(equipment input current  $\leq 16$  A per phase)]

## **AS/NZS 61000.3.2:1998**

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This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL/34, Power Quality. It was approved on behalf of the Council of Standards Australia on 11 February 1998 and on behalf of the Council of Standards New Zealand on 12 February 1998. It was published on 5 May 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  
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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 2279.1—1991, *Disturbances in mains supply networks, Part 1: Limitation of harmonics caused by household and similar electrical appliances*.

It is one of a series which will replace the AS 2279 series 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 61000-3-2, *Electromagnetic compatibility (EMC)—Part 3: Limits—Section 2: Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)*.

Variations necessary for Australian/New Zealand requirements are given in Annex ZZ and are 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 harmonics 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 specifies limits for harmonic components of the input current which may be produced by equipment such as motor driven appliances, lighting equipment and electronic equipment with input currents less than or equal to 16 A per phase when tested 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
60050 International electrotechnical vocabulary (IEV)	1852 International electrotechnical vocabulary
60050(131) Chapter 131: Electric and magnetic circuits	1852.131 Part 131: Electric and magnetic circuits
60050(161) Chapter 161: Electric and magnetic compatibility	—
	AS/NZS
60065 Safety requirements for mains operated electronic and related apparatus for household and similar general use	3250 Approval and test specification—Mains operated electronic and related equipment for household and similar general use
Amendment No. 2	
Amendment No. 3	
	AS
60107 Recommended methods of measurement on receivers for television broadcast transmissions	1173 Recommended methods of measurement on receivers for television broadcast transmissions
60107-1 Part 1: General considerations—Electrical measurements other than those at audio-frequencies	1173.1 Part 1: General considerations—Electrical measurements other than those at audio-frequencies
60155 Glow-starters fluorescent lamps	4111 Starters for fluorescent lamps—Performance requirements
60268 Sound system equipment	1127 Sound system equipment
60268-3 Part 3: Amplifiers	1127.6 Part 6: Amplifiers
	AS/NZS
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
61000 Electromagnetic compatibility (EMC)	—
61000-2-2 Part 2: Environment— Section 2: Compatibility levels for low-frequency conducted disturbances and signalling in public low-voltage power supply systems	—
61000-4-7 Part 4: Testing and measurement techniques—Section 7: General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto	—

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