

AS/NZS 61000.3.2:2003

IEC 61000-3-2, Edition 2.1:2001

AS/NZS 61000.3.2

Australian/New Zealand Standard™

## **Electromagnetic compatibility (EMC)**

### **Part 3.2: Limits –**

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



**Standards Australia**



**STANDARDS**  
NEW ZEALAND  
*Paerewa Aotearoa*

### **AS/NZS 61000.3.2:2003**

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-034, Power Quality. It was approved on behalf of the Council of Standards Australia on 14 February 2003 and on behalf of the Council of Standards New Zealand on 24 January 2003. It was published on 3 March 2003.

---

The following are represented on Committee EL-034:

Australasian Railway Association  
Australian Chamber of Commerce and Industry  
Australian Consumers Association  
Australian Electrical and Electronic Manufacturers Association  
Australian Institute of Petroleum  
Bureau of Steel Manufacturers of Australia  
Electrical Supply Association of New Zealand  
Electricity Engineers Association (New Zealand)  
Electricity Supply Association of Australia  
Institution of Engineers Australia  
Major Electricity Users Group New Zealand  
Ministry of Economic Development (New Zealand)  
Monash University  
New Zealand Coordinating Committee on Power & Telecommunication systems  
Sydney Water Corporation  
Telstra Corporation  
Transpower New Zealand  
University of Canterbury New Zealand  
University of Wollongong

---

### **Keeping Standards up-to-date**

Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Australia web site at [www.standards.com.au](http://www.standards.com.au) or Standards New Zealand web site at [www.standards.co.nz](http://www.standards.co.nz) and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

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 International or Standards New Zealand at the address shown on the back cover.

---

AS/NZS 61000.3.2:2003

# Australian/New Zealand Standard™

## Electromagnetic compatibility (EMC)

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

Originated as AS 2279.1—1979.  
Previous edition AS/NZS 61000.3.2:1998.  
Second edition 2003.

#### **COPYRIGHT**

© Standards Australia/Standards New Zealand

All rights are reserved. No part of this work may be reproduced or copied in any form or by any means, electronic or mechanical, including photocopying, without the written permission of the publisher.

Jointly published by Standards Australia International Ltd, GPO Box 5420, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 5094 X

## PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-034, Power Quality, to supersede AS/NZS 61000.3.2:1998.

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.

This Standard is identical with and has been reproduced from IEC 61000-3-2, Edition 2.1:2001, *Electromagnetic compatibility (EMC) Part 3.2: Limits—Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)*.

Some minor errors were detected in the IEC text. After consultation with the IEC the text was amended and indicated by shading.

This Standard is Part 3.2 of a series, which, when complete, will consist of the following:

### AS/NZS

- 61000      Electromagnetic compatibility (EMC)
- 61000.1.1   Part 1.1:   General—Application and interpretation of fundamental definitions and terms
- 61000.2.2   Part 2.2:   Environment—Compatibility levels for low-frequency conducted disturbances and signalling in public low-voltage power supply systems
- 61000.2.3   Part 2.3:   Environment—Description of the environment—Radiated and non-network-frequency-related conducted phenomena
- 61000.2.5   Part 2.5:   Environment—Classification of electromagnetic environments
- 61000.2.12   Part 2.12:   Environment—Compatibility levels for low-frequency conducted disturbances and signalling in public medium-voltage power supply systems
- 61000.3.2   Part 3.2:   Limits—Limits for harmonic current emissions (equipment input current less than or equal to 16 A per phase) (this Standard)
- 61000.3.3   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
- 61000.3.5   Part 3.5:   Limits—Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current greater than 16 A
- 61000.3.6   Part 3.6:   Limits—Assessment of emission limits for distorting loads in MV and HV power systems
- 61000.3.7   Part 3.7:   Limits—Assessment of emission limits for fluctuating loads in MV and HV power systems
- 61000.3.11   Part 3.11:   Limits—Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems—Equipment with rated current less than or equal to 75 A and subject to conditional connection
- 61000.3.12   Part 3.12:   Limits—Limitation of emission of harmonic currents in low-voltage power supply systems for equipment with rated current greater than 16 A
- 61000.4.1   Part 4.1:   Testing and measurement techniques—Overview of immunity tests
- 61000.4.2   Part 4.2:   Testing and measurement techniques—Electrostatic discharge immunity test
- 61000.4.3   Part 4.3:   Testing and measurement techniques—Radiated radio-frequency electromagnetic field immunity test

- 61000.4.5 Part 4.5: Testing and measurement techniques—Surge immunity test
- 61000.4.6 Part 4.6: Testing and measurement techniques—Immunity to conducted disturbances, induced by radio-frequency fields
- 61000.4.7 Part 4.7: Testing and measurement techniques—General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto
- 61000.4.8 Part 4.8: Testing and measurement techniques—Power frequency magnetic field immunity test
- 61000.4.16 Part 4.16: Testing and measurement techniques—Test for immunity to conducted common mode disturbances in the frequency range 0 Hz to 150 kHz
- 61000.6.2 Part 6.2: Generic standards—Immunity for industrial environments

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.

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

A reference to an International Standard identified in the Normative References Clause by ~~strikethrough (example)~~ is replaced by a reference to the Australian or Australian/New Zealand Standard(s) listed immediately thereafter and identified by shading (example). Where the struck-through referenced document and the referenced Australian or Australian/New Zealand Standard are identical, this is indicated in parenthesis after the title of the latter.

In this Standard, the following print types are used:

- requirements proper: in arial type;
- *test specifications: in italic type;*
- explanatory matter: in smaller arial type.

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 standard’ should read ‘this Australian/New Zealand Standard’.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

This is a free preview. Purchase the entire publication at the link below:

[Product Page](#)

- 
- Looking for additional Standards? Visit Intertek Inform Infostore
  - Learn about LexConnect, All Jurisdictions, Standards referenced in Australian legislation
-