## Australian/New Zealand Standard™

# **Electromagnetic compatibility (EMC)**

Part 4.34: Testing and measurement techniques—Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current more than 16 A per phase (IEC 61000-4-34, Ed. 1.0 (2005) MOD)





#### AS/NZS 61000.4.34:2007

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 5 June 2007 and on behalf of the Council of Standards New Zealand on 27 April 2007.

This Standard was published on 10 August 2007.

The following are represented on Committee EL-034:

Australian Chamber of Commerce and Industry

Australian Electrical and Electronic Manufacturers Association

Australian Energy Market Commission

Australian Information Industry Association

Bureau of Steel Manufacturers of Australia

Consumers Federation of Australia

**Electrical Regulatory Authorities Council** 

Electricity Engineers Association (New Zealand)

**Energy Networks Association** 

Engineers Australia

Ministry of Economic Development (New Zealand)

National Measurement Institute

New Zealand Coordinating Committee on Power & Telecommunication Systems

**Telstra Corporation** 

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 Standards may also be withdrawn.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 Web Shop at www.standards.com.au or Standards New Zealand web site at 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 or Standards New Zealand at the address shown on the back cover.

This Standard was issued in draft form for comment as DR 07029.

AS/NZS 61000.4.34:2007

### Australian/New Zealand Standard™

# Electromagnetic compatibility (EMC)

Part 4.34: Testing and measurement techniques—Voltage dips, short interruptions and voltage variations immunity tests for equipment with input current more than 16 A per phase (IEC 61000-4-34, Ed. 1.0 (2005) MOD)

First published as AS/NZS 61000.4.34:2007.

#### 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, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

#### **PREFACE**

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-034, Power Quality.

The objective of this Standard is provide manufacturers and suppliers of electricity and users of electrical equipment intended for connection to an electrical network, with a common reference for evaluating the immunity of electrical and electronic equipment for rated input current exceeding 16 A per phase, when subjected to voltage dips, short interruptions and voltage variations and methods for ascertaining compliance to them in order to maintain electromagnetic compatibility within the electrical network.

This Standard is an adoption with national modifications and has been reproduced from IEC 61000-4-34, Ed. 1.0 (2005), Electromagnetic compatibility (EMC) – Part 4-34: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations immunity tests for equipment with input 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, Ed. 1.0 (2005) are indicated at the appropriate places throughout this Standard. Strikethrough (example) identifies IEC text, tables and figures which, for the purposes of this Australian/New Zealand Standard, are deleted. Where text, tables or figures are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border.

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 'IEC 61000-4-34' should read 'AS/NZS 61000.4.34'.
- (c) A full point should be substituted for a comma when referring to a decimal marker.

The terms 'normative' and 'informative' are used 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.

### **CONTENTS**

			Page		
1	Scop	pe	1		
2	Normative references				
3	Terms and definitions				
4	General				
5	Test levels				
	5.1	Voltage dips and short interruptions	4		
	5.2	Voltage variations (optional)	5		
6	Test instrumentation				
	6.1	Test generator	7		
	6.2	Power source			
7	Test	set-up	8		
8	Test	procedures	8		
	8.1	Laboratory reference conditions	9		
	8.2	Execution of the test	9		
9	Evaluation of test results				
10	Test	report	12		
Anr	ex A	(normative) Test generator peak inrush current drive capability	13		
Anr	ех В	(informative) Electromagnetic environment classes	15		
Anr	ex C	(informative) Vectors for three-phase testing	16		
Anr	ex D	(informative) Test instrumentation	22		



The ic a nee previous i arenace are chare pasheaten at the limit selection	This is a free preview.	Purchase the	entire publication	at the link below:
--	-------------------------	--------------	--------------------	--------------------

**Product Page** 

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