Australian/New Zealand Standard™

Electromagnetic compatibility (EMC)

Part 3.6: Limits—Assessment of emission limits for distorting loads in MV and HV power systems (IEC 61000-3-6:1996, MOD)

Standards Australia

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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 19 October 2000 and on behalf of the Council of Standards New Zealand on 15 December 2000. It was published on 25 January 2001.

The following interests are represented on Committee EL-034:

Australasian Railway Association
Australian Chamber of Commerce & Industry
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Australian Electrical & Electronic Manufacturers Association
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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 International 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.

It is one of a series of parts which will replace the AS 2279 series on disturbances in mains supply networks by adopting relevant IEC Standards in the IEC 61000, *Electromagnetic compatibility (EMC)*—Part 3: *Limits* series.

The objective of this series of Standards 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.

This Standard is a modified adoption of the IEC technical report, type 3 IEC 61000-3-6, *Electromagnetic compatibility (EMC)*—Part 3: *Limits*—Section 6: *Assessment of emission limits for distorting loads in MV and HV power systems—Basic EMC publication.*

The IEC use the term technical report, type 3 to indicate that the technical committee responsible for writing the document has collected data of a different kind from that which is normally published as an International Standard. For example, this may be state-of-the-art technical data or it may be the presentation of alternative methods of calculation with illustrative examples.

This Australian Standard is structured so that all requirements are in the main Sections of the Standard and all recommendations and illustrative examples are in the Appendices of the Standard.

The term ‘informative’ has been used in this Standard to define the application of the appendix to which it applies. An ‘informative’ appendix is only for information and guidance.

This Standard is Part 3.6 of a series which, when complete, will consist of the following:

AS/NZS
61000 Electromagnetic compatibility (EMC)

- Part 1.1 General—Application and interpretation of fundamental definitions and terms
- Part 2.3 Environment—Description of the environment—Radiated and non-network-frequency- related conducted phenomena
- Part 2.5 Environment—Classification of electromagnetic environments
- Part 3.2 Limits—Limits for harmonic current emissions (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 3.4 Limits—Limitation of emission of harmonic currents in low-voltage power supply systems for equipment with rated current greater than 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 (this Standard)
- Part 3.7 Limits—Assessment of emission limits for fluctuating loads in MV and HV power systems
- Part 4.1 Testing and measurement techniques—Overview of immunity tests

Part 4.3 Testing and measurement techniques—Radiated, radio-frequency electromagnetic field immunity test

Part 4.5 Testing and measurement techniques—Surge immunity test

Part 4.6 Testing and measurement techniques—Immunity to conducted disturbances, induced by radio-frequency fields

Part 4.7 Testing and measurement techniques—General guide on harmonics and interharmonics measurements and instrumentation, for power supply systems and equipment connected thereto

Part 4.16 Testing and measurement techniques—Test for immunity to conducted, common mode disturbances in the frequency range 0 Hz to 150 Hz.

Where approval is required, this Standard should be read in conjunction with the regulations, service rules, electricity code and installation rules of the electricity distributor approving the connection.