

Technical Report

Electromagnetic compatibility (EMC)

Part 1.4: General—Historical rationale for the limitation of power-frequency conducted harmonic current emissions from equipment, in the frequency range up to 2 kHz



TR IEC 61000.1.4:2012

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PREFACE

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

The objective of this Technical Report is to provide the users of electromagnetic emissions Standards with a rationale for the limitation of power-frequency conducted harmonic current emissions from equipment for frequencies up to 2 kHz on the public electricity supply, in the editions up to and including the second edition of AS/NZS 61000.3.2:2003*, and in the first edition of AS/NZS 61000.3.12:2006.

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<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
IEC		AS/NZS	
61000	Electromagnetic compatibility (EMC)	61000	Electromagnetic compatibility (EMC)
61000-2-2	Part 2-2: Environment—Compatibility levels for low-frequency conducted disturbances and signalling in public low-voltage power supply systems	61000.2.2	Part 2.2: Environment—Compatibility levels for low-frequency conducted disturbances and signalling in public low-voltage power supply systems
61000-3-2	Part 3-2: Limits—Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)	61000.3.2	Part 3.2: Limits—Limits for harmonic current emissions (equipment input current less than or equal to 16 A per phase) (IEC 61000-3-2 Ed.3.0 (2005) MOD)
61000-3-3	Part 3-3: Limits—Limitation of voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated current ≤ 16 A per phase	61000.3.3	Part 3.3: Limits—Limitation of voltage fluctuations and flicker in public low-voltage supply systems for equipment with rated current ≤ 16 A per phase (IEC 61000-3-3, Ed.1.2 (2005) MOD)

* AS/NZS 61000.3.2:2003 has been superseded by AS/NZS 61000.3.2:2007, which is a modified adoption of IEC 61000-3-2:2005 (Ed.3.0).

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IEC	AS/NZS
61000-3-4 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	61000.3.4 Part 3.4: Limits—Limitation of emission of harmonic currents in low-voltage power supply systems for equipment with rated current greater than 75 A
61000-3-6 Part 3-6: Limits—Section 6: Assessment of emission limits for distorting loads in MV and HV power systems	61000.3.6 Part 3.6: Limits—Assessment of emission limits for distorting 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 ≤ 75 A and subject to conditional connection	61000.3.11 Limits—Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply system—Equipment with rated current ≤ 75 A and subject to conditional connection
61000-3-12 Part 3-12: Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase	61000.3.12 Limits—Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current > 16 A and ≤ 75 A per phase
61000-4-13 Part 4-13: Testing and measurement techniques—Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests	61000.4.13 Part 4.13: Testing and measurement techniques—Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests

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