

## Technical Report

### Electromagnetic compatibility (EMC)

#### **Part 3.14: Limits—Assessment of emission limits for harmonics, interharmonics, voltage fluctuations and unbalance for the connection of disturbing installations to LV power systems**



### **SA/SNZ TR IEC 61000.3.14:2013**

This Joint Australian/New Zealand Technical Report was prepared by Joint Technical Committee EL-034, Power Quality. It was approved on behalf of the Council of Standards Australia on 14 June 2013 and on behalf of the Council of Standards New Zealand on 24 May 2013.

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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 guidance to manufacturers and suppliers of electricity on principles that can be used as the basis for determining the requirements for the connection of disturbing installations to low-voltage (LV) public power systems.

This Technical Report is identical with, and has been reproduced from IEC/TR 61000-3-14, Ed.1.0 (2011), *Electromagnetic compatibility (EMC)—Part 3-14: Assessment of emission limits for harmonics, interharmonics, voltage fluctuations and unbalance for the connection of disturbing installations to LV power systems*. The IEC processes related to development and approval of a Technical Report are subject to a more moderate level of transparency and consensus than the processes related to developing and approving a normative Standard.

Further guidelines for the application of this Technical Report in Australia are under consideration.

As this Technical Report is reproduced from an International Technical Report, the following applies:

- (a) In the source text ‘this part of IEC 61000’ should read ‘this Technical Report.
- (b) A full point substitutes for a comma when referring to a decimal marker.

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<i>Reference to International Standard</i>		<i>Australian/New Zealand Standard</i>	
IEC/TR		SA/SNZ TR IEC	
60725	Consideration of reference impedances and public supply network impedances for use in determining disturbance characteristics of electrical equipment having a rated current $\leq 75$ A per phase	60725	Consideration of reference impedances and public supply network impedances for use in determining disturbance characteristics of electrical equipment having a rated current $\leq 75$ A per phase
IEC 61000	Electromagnetic compatibility (EMC)	AS/NZS 61000	Electromagnetic compatibility (EMC)
61000-2-2 (2002)	Part 2-2: Environment—Compatibility levels for low-frequency conducted disturbances and signalling in public low voltage power supply systems	61000.2.2 (2003)	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 $\leq 16$ A per phase)	61000.3.2	Part 3.2: Limits—Limits for harmonic current emissions (equipment input current $\leq 16$ A per phase)
61000-3-3	Part 3-3: Limits—Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16$ A per phase and not subject to conditional connection	61000.3.3	Part 3.3: Limits—Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current $\leq 16$ A per phase and not subject to conditional connection

IEC/TR		SA/SNZ TR IEC	
61000-3-6 (2008)	Part 3-6: Limits—Assessment of emission limits for the connection of distorting installations to MV, HV and EHV power systems	61000.3.6 (2012)	Part 3.6: Limits—Assessment of emission limits for the connection of distorting installations to MV, HV and EHV power systems
61000-3-7 (2008)	Part 3-7: Limits—Assessment of emission limits for the connection of fluctuating load installations to MV, HV and EHV power systems	61000.3.7 (2012)	Part 3.7: Limits—Assessment of emission limits for the connection of fluctuating load installations to MV, HV and EHV power systems
IEC		AS/NZS	
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 $\leq 75$ A and subject to conditional connection	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—Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current $>16$ A and $\leq 75$ A per phase	61000.3.12	Part 3.12: Limits—Limits for harmonic currents produced by equipment connected to public low-voltage systems with input current $>16$ A and $\leq 75$ A per phase
IEC/TR		SA/SNZ TR IEC	
61000-3-13 (2008)	Part 3-13: Limits—Assessment of emission limits for the connection of unbalanced installations to MV, HV and EHV power systems	61000.3.13 (2012)	Part 3.13: Limits—Assessment of emission limits for the connection of unbalanced installations to MV, HV and EHV power systems
IEC		AS/NZS	
61000-4-15	Part 4-15: Testing and measurement techniques—Flickermeter—Functional and design specifications	61000.4.15	Part 4.15: Testing and measurement techniques—Flickermeter—Functional and design specifications

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