

Australian/New Zealand Standard™

**Electrical installations—Construction
and demolition sites**



AS/NZS 3012:2019

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-001, Wiring Rules. It was approved on behalf of the Council of Standards Australia on 23 July 2019 and by the New Zealand Standards Approval Board on 2 October 2019.

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Australian Energy Council
Australian Industry Group
Communications, Electrical and Plumbing Union—Electrical Division
Consumers Federation of Australia
Electrical Contractors Association of New Zealand
Electrical Regulatory Authorities Council
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This Standard was issued in draft form for comment as DR AS/NZS 3012:2018.

Australian/New Zealand Standard™

Electrical installations—Construction and demolition sites

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-001, Wiring Rules, to supersede AS/NZS 3012:2010.

This Standard incorporates Amendment No. 1 (March 2020). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to establish sound practices for the safe use of electricity at construction and demolition sites. It is to be used in conjunction with AS/NZS 3000, *Electrical installations (known as the Australian/New Zealand Wiring Rules)*.

The main differences between this Standard and AS/NZS 3012:2010 include the following:

- (a) The requirements of this Standard have been updated to reflect changes to AS/NZS 3000.
- (b) A reference to AS/NZS 61439.4 has been included for switchboard compliance for Assemblies for Construction Sites (ACS) (see Clause 1.4.3).
- (c) Clause title has been amended to ‘Multi-level buildings’ (see Clause 2.3.1.2).
- (d) Clause title has been amended to ‘Assemblies for construction sites (ACS) switchboard construction’, and a reference to AS/NZS 61439.4 has been included for switchboard compliance (see Clause 2.3.2.2).
- (e) Reference to AS 2790 has been deleted, as have Notes (b)2 and (b)6 (see Clause 2.4.6.3).
- (f) Figure from AS/NZS 3010:2017 for connection from a standalone generator to a site switchboard with an MEN link and electrode has been included (see Figure 2.1).
- (g) Figure from AS/NZS 3010:2017 for an isolated winding generator with integral socket outlets has been included (see Figure 2.2).
- (h) Figure from AS/NZS 3010:2017 for a generator with integral RCD protected socket outlets has been included (see Figure 2.3).
- (i) Clause has been reworded for reference to AS/NZS 3190 and for requirements for marking and regulatory approval (see Clause 2.6.10).
- (j) Requirement to prevent unauthorized disconnection of emergency lighting that has detachable connections (see Clause 2.7.3.1).
- (k) Temporary protected lighting (TPL) as defined in AS/NZS 60598.2.20 is not considered to be festoon lighting (see Clause 2.7.6).
- (l) Clause 3.3 has been deleted and reference to personnel requirements to be a qualified person or a competent person has been included in Clauses 3.3.1 to 3.6.
- (m) Out of service tag to be attached to non-compliant equipment (see Clause 3.7.2).
- (n) Tag for compliant equipment to include the name of the person (and the company if applicable), and the test and re-test date (see Clause 3.7.3).
- (o) Reference to AS 2790 deleted.
- (p) Reference to AS/NZS 60598.2.20, *Luminaires, Part 2.20: Particular requirements—Lighting chains*, included.
- (q) Reference to Building Code of Australia (BCA) deleted and replaced with National Construction Code of Australia (NCC) (see Appendices A and B) and New Zealand

Building Code (NZBC) (see Appendix A). The NCC extracts in Appendix B for use in Australia and New Zealand have been deleted, and Appendix B made void.

- (r) New appendix has been added for New Zealand only on construction power arrangements for domestic housing sites (see Appendix J).

Any requirement that is applicable in Australia only or New Zealand only is indicated by the symbol **A** or **NZ** in the right margin.

Statements expressed in mandatory terms in notes to figures and tables are deemed to be requirements of this Standard.

The terms ‘normative’ and ‘informative’ are used in Standards to define the application of the appendix to which they apply. A ‘normative’ appendix is an integral part of a Standard, whereas an ‘informative’ appendix is for information and guidance.

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Australian/New Zealand Standard**Electrical installations—Construction and demolition sites**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out minimum requirements for the design, construction and testing of electrical installations that supply electricity to appliances and equipment on construction and demolition sites, and for the in-service testing of portable, transportable and fixed electrical equipment used on construction and demolition sites.

In Australia only, for a single domestic residence intended to be occupied as a residential housing unit, or, adjoining units each with a separate exterior entry and intended to be occupied as residential housing units, the requirements of this Standard are modified as detailed in Appendix A. A

NOTE: The National Construction Code (NCC) for Australia and New Zealand Building Code (NZBC) classification of building and structures is given in Appendix A.

In New Zealand only, for domestic housing sites where an electricity supply not exceeding 32 A single phase is installed specifically for the purposes of construction work, the requirements of this Standard are modified as detailed in Appendix A and Appendix J. NZ

The requirements are intended to protect personnel, livestock and property from electric shock, fire and physical injury hazards that may arise from an electrical installation that is used with reasonable care and with due regard to the intended purpose of the electrical installation.

NOTE: For requirements and recommendations regarding safe working on or near electrical equipment and installations, refer to AS/NZS 4836 and to Codes of Practice or other guidance issued by the regulatory authorities.

This Standard applies to electrical installations associated with construction and demolition sites, which include—

- (a) building work, excavation work, compressed air work and diving work;
- (b) parts of buildings that undergo structural alterations, such as extensions, major repairs or demolition, to the extent that the work necessitates the provision of a temporary electrical installation;
- (c) work on or in connection with the construction or maintenance of roads, airfields or airstrips, civil engineering works or bridges, or of the permanent way of a railway or tramway;
- (d) dredging or salvaging work;
- (e) the laying, lining or maintenance of pipes or cables;
- (f) earthmoving work carried out with equipment requiring the use of other than manual power;
- (g) any work in which explosives are used;
- (h) site offices, cloakrooms, meeting rooms, dormitories, canteens, toilets, appliances and other facilities provided during any work referred to in Items (a) to (g); and
- (i) land clearing in preparation for any work referred to in Items (a) to (g).

1.2 APPLICATION

Electrical installations on construction and demolition sites shall be carried out in accordance with AS/NZS 3000, except as modified herein, and with the applicable additional requirements of this Standard.

This Standard shall be read and used in conjunction with the requirements of relevant legislation.

1.3 NORMATIVE REFERENCES

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document.

NOTE: Documents referenced for informative purposes are listed in the Bibliography.

AS

- 2293 Emergency escape lighting and exit signs for buildings
- 2293.1 Part 1: System design, installation and operation
- 3111 Approval and test specification—Miniature overcurrent circuit-breakers
- 60529 Degrees of protection provided by enclosures (IP Code)

AS/NZS

- 3000 Electrical installations (known as the Australian/New Zealand Wiring Rules)
- 3001 Electrical installations—Transportable structures and vehicles including their site supplies
- 3008 Electrical installations—Selection of cables
- 3008.1.1 Part 1.1: Cables for alternating voltages up to and including 0.6/1 kV—Typical Australian installation conditions
- 3008.1.2 Part 1.2: Cables for alternating voltages up to and including 0.6/1 kV—Typical New Zealand installation conditions
- 3010 Electrical installations—Generating sets
- 3105 Approval and test specification—Electrical portable outlet devices
- 3112 Approval and test specification—Plugs and socket-outlets
- 3120 Approval and test specification—Cord extension sockets
- 3123 Approval and test specification—Plugs, socket-outlets and couplers for general industrial application
- 3190 Approval and test specification—Residual current devices (current-operated earth-leakage devices)
- 3191 Electric flexible cords
- 3199 Approval and test specification—Cord extension sets
- 3760 In-service safety inspection and testing of electrical equipment
- 4763 Safety of portable inverters
- 5000 Electrical cables—Polymeric insulated (series)

AS/NZS

- 60598 Luminaires
- 60598.2.8 Part 2.8: Particular requirements—Handlamps (IEC 60598-2-8, Ed.3.0 (2013) MOD)
- 60598.2.20 Part 2.20: Particular requirements—Lighting chains (IEC 60598-2-20:1996, MOD)