



# Wiring Rules 2018

## Transitional arrangements

AS/NZS 3000:2018 (Wiring Rules) has now been published.

A six month transition period will start on 26 June 2018 and end on 1 January 2019. The transition period will allow electrical contractors and workers to access AS/NZS 3000:2018 Wiring Rules and gain a clear understanding of the changes to electrical installation requirements. These changes will need to be adopted into your businesses installation practices to ensure compliance with this new edition. Transitional arrangements are in place for construction projects already commenced under the previous Wiring Rules. The AS/NZS 3000:2007 Wiring Rules will continue to apply in the following circumstances:

- electrical work commenced prior to but continuing beyond 26 June 2018
- electrical work quoted prior to 26 June 2018 that has been awarded a contract
- significant electrical work costed and designed prior to 26 June 2018 for major projects such as shopping complexes and large residential and industrial buildings.

During the transition period we encourage electrical contractors to comply with the 2018 edition where possible. From 1 January 2019 the 2018 Wiring Rules will become mandatory.

## Major changes to the wiring rules includes the following:

### Section 1.

#### 1. New definitions for:

- accessible
- adjacent
- alteration
- arc fault detection device
- de-energised
- electrical fault
- electrical installation—residential
- electric vehicle
- energised
- fire mode
- functional unit
- informative
- lift
- main switch
- neutral earthed system (direct earthing)
- normal supply
- normative
- outbuilding—combined
- protective earth neutral (pen)
- repair
- socket outlet—multiple combination

- socket outlet RCD (SRCD)
- soft wiring
- supplementary supply
- wiring systems.

#### 2. Revised definitions for:

- accessible readily
- authorised person
- consumer mains
- cord flexible
- insulation system
- ingress protection
- multiple earthed neutral (MEN system)
- outbuilding—individual
- protective earthing conductor
- safety service.

3. Direct contact and indirect contact now designated as basic protection and fault protection.
4. Removes references to AS/NZS 3018 and identifies compliance requirements with other standards.
5. Clarified requirements for alterations and repairs have been expanded through the separation of information contained in the clauses.

## Section 2.

1. Further clarification of the original requirements for sub-mains and final subcircuits.
2. New guidelines for vehicle charging circuits.
3. Updated requirements for alternate positions of short circuit protective devices.
4. Discrimination/selectivity of protective devices.
5. Enhanced protection requirements for switchboard internal arcing faults.
6. Illustration of basic clearances for switchboard access updated.
7. New clause detailing arc fault detection devices and their installation requirements.
8. Enhanced requirements for switchboard installation and further clarification regarding rising mains tee-offs, switchboards >800 Amps, minimum clearances around switchboards in switch rooms and locations of fuses and circuit breakers.
9. Existing figures updated, where required; new figures added to further assist the industry.

## Section 3.

1. Improved installation safety requirements for cables that pass through bulk thermal insulation.
2. Colour identification of active, neutral and earth conductors further clarified.
3. Requirements for wiring systems installed in positions where likely to be disturbed, clarified.
4. Cables in common enclosures of different electrical installations and segregation requirements clarified.
5. Requirements for segregation of cables of different voltage levels clarified.
6. Existing figures updated where required; new figures added to further assist the industry.

## Section 4:

1. New figures inserted to identify the installation of electrical equipment under eaves or similar.
2. Revised requirements for soft wiring.
3. Segregation of any electrical equipment from cooking appliances and enhanced requirements for electrical equipment installed in fire rated building surfaces including new figures.
4. Enhanced installation safety requirements for recessed luminaires including updated reference listing of luminaire classifications.
5. Gas appliances prohibited zones clarified.
6. Gas equipment and combined gas-electrical equipment isolation requirements clarified.
7. New isolator requirements for water heaters.
8. Requirements for electrical equipment that may produce hot particles or hot surfaces now included.
9. Further clarification of isolator requirements for air conditioning and heat pump systems
10. Requirements for lifts not deemed to be emergency lifts.
11. Existing figures updated where required, new figures added to further assist the industry.

## Section 5:

1. MEN system further defined for clarity.
2. Outbuilding earthing clarified through enhanced requirements.
3. Equipotential bonding requirements expanded and clarified through enhanced requirements for showers and bathrooms.
4. Equipotential bonding requirements expanded and clarified through enhanced requirements for pools and spas.
5. Existing figures updated where required; new figures added to further assist the industry.

## Section 6:

1. Installation requirements for deluge showers clarified.
2. Showers zone 1 further clarified for different shower head configurations.
3. Fixed water container size reduced from 45l to 40l.
4. A switchboard shall not be located within any wet area classified zone.

5. Spa pools and tubs water capacity values clarified per applicable standards.
6. Electricity distributors electrical equipment in classified zones clarified.
7. Electricity generation systems requirements in classified zones clarified.
8. Existing figures updated where required, new figures added to further assist the industry.

### Section 7:

1. Entire restructure of section 7, safety services: now provides concise installation requirements for each type of safety service.
2. Installation requirements for electricity generation systems reviewed and clarified in line with applicable standards.
3. Normative, informative and deemed to comply standards reviewed and updated where required.
4. Existing figures updated where required, new figures added to further assist the industry.

### Section 8:

1. A number of sections split into sub-clauses to differentiate between general, application, visual inspection, test requirements and accepted values.
2. Extra low voltage installation testing requirements clarified.
3. Further information provided mandatory test failures and continuity of the installation's earthing system.
4. Further information on insulation resistance tests and values required.
5. Enhanced requirements for RCD testing and earth fault-loop impedance testing for circuits not protected by an RCD when supply is and is not available.
6. The date of initial energisation is now mandatory at the installation switchboard

### Appendices

1. Appendix L - deleted.
2. Appendix M, new - reducing the impact of power supply outages - continuity of supply for active assisted living and homecare medical situations added to provide guidance on continuation of supply and back up plans.
3. Appendix N, new - electrical conduits added to provide guidance on the types and variations of conduit available for electrical installations.
4. Appendix O, new - installation of arc fault detection devices added to provide guidance on the installation of these devices.
5. Appendix P, new - guidance for installation and location of electrical vehicle socket-outlets and charging stations added to provide guidance for circuits intended to supply energy to electric vehicle.
6. Appendix Q, new - DC circuit protection application guide added to provide guidance for the selection of circuit protection and switching devices when being operated on a DC supply that would be deemed to meet the design, equipment selection and installation criteria of this standard.

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