Skip to main content Skip to primary navigation	
Menu	
 Home Home About this portal Latest updates 	
Print Save Email Resource detail	

AS/NZS 4509.1:2009 (R2016) Stand-alone power systems - Part 1: Safety and installation

Table of Contents

View on Information Provider website {{ linkText }}

Abbreviation

AS/NZS 4509.1:2009

Valid from

Citations

20/12/2009

Information provider

Standards New Zealand

Author

Standards New Zealand, Standards Australia

Information type

New Zealand Standard

Format

PDF

Cited By

This resource is cited by 1 document (show Citations)

Description

This Standard specifies essential safety and installation requirements for stand-alone power systems used for the supply of extra-low (ELV) and low voltage (LV) electric power.

Scope

This Standard sets out safety and installation requirements for stand-alone power systems used for the supply of extra-low (ELV) and/or low voltage (LV) electric power to a single load, or an electrical installation in a single residence or building, or a group of residences or buildings and associated items with switchboards to AS/NZS 3000 requirements.

This Standard covers -

- (a) equipment up to, and including, the output of the stand-alone power system (i.e. the point of supplysee the definition in Clause 1.4.12); and
- (b) direct connection of a stand-alone power system to
 - o (i) a single load (e.g. a water pump);
 - o (ii) a single electrical installation (e.g. a residence); or
 - o (iii) a group of independent electrical installations (e.g. a number of separate residences and/or buildings).

This Standard includes minimum rating and over-current protection requirements for the consumers mains and earthing

arrangements.

This Standard, with additional safety requirements, shall be applied to systems with energy storage at LV.

System design considerations are detailed in AS 4509.2.

For assistance with locating previous versions, please contact the information provider.

Notes/comments

Standard reconfirmed 13 December 2016

Table of Contents | View on Information Provider website | { { linkText } }

For assistance with locating previous versions, please contact the information provider.

Standard reconfirmed 13 December 2016

This resource is cited by:

AS/NZS 4509.1:2009 (R2016) Stand-alone power systems - Part 1: Safety and installation

This document is CITED BY:

AS/NZS 3000:2007

AS/NZS 4509.1:2009 is cited by AS/NZS 3000:2007 Electrical installations (known as the Australian/New Zealand Wiring Rules)

Back

AS/NZS 4509.1:2009 (R2016) Stand-alone power systems - Part 1: Safety and installation

Show what documents this resource is CITED BY

Show what documents this resource CITES

Description

This Standard specifies essential safety and installation requirements for stand-alone power systems used for the supply of extra-low (ELV) and low voltage (LV) electric power.

View on Information Provider website

AS/NZS 4509.1:2009 (R2016) Stand-alone power systems - Part 1: Safety and installation

Description

This Standard specifies essential safety and installation requirements for stand-alone power systems used for the supply of extra-low (ELV) and low voltage (LV) electric power.

View on Information Provider website

This resource does not cite any other resources.

AS/NZS 4509.1:2009 (R2016) Stand-alone power systems - Part 1: Safety and installation

This resource does not CITE any other resources.



Table of Contents

Section 1 Scope And General

- 1.1 Scope
- 1.2 Application
- 1.3 Referenced Documents
- 1.4 Definitions

Section 2 General Requirements

- 2.1 A.C. Output Voltage
- 2.2 Application Of As/Nzs 3000
- 2.3 Signs
- 2.4 Information Sign For Emergency Services
- 2.5 Shutdown Procedure
- 2.6 Identification And Location Of Equipment
- 2.7 Meters And Informative Displays
- 2.8 Mechanical And Thermal Protection Of Equipment

Section 3 Installation, Wiring And Circuit Protection

- 3.1 Cable Protection
- 3.2 Electrical Protection
- 3.3 Equipment Layout
- 3.4 Wiring Issues

Section 4 Connection Of Stand-Alone Power System To Load(S)

- 4.1 General
- 4.2 D.C. Loads
- 4.3 A.C. Loads

4.4 Stand-Alone Power Systems Directly Feeding A Single A.C. Load
4.5 Systems Feeding A Single Electrical Main (Installation) Switchboard
4.6 A.C. Systems Supplying Several Buildings
Section 5 Renewable Energy Generators
5.1 Photovoltaic Arrays
5.2 Wind Turbine Generators
5.3 Hydro Generators
Section 6 Generating Sets
6.1 General
6.2 Installation Of Generating Sets
6.3 Automatic-Start Warning
6.4 Fuel Storage
Section 7 Batteries
7.1 General
7.2 Location Of Batteries
7.3 Equipment Room Or Battery Enclosure
7.4 Location Of Battery Protection Equipment
7.5 Installation
Section 8 Regulators And Battery Chargers
8.1 Temperature Sensing
8.2 Locating The Regulator
8.3 Battery Chargers
8.4 Surge Protection
Section 9 Inverters
9.1 Cabling

9.2 Inverter Fixing
9.3 Installation
9.4 Connection Of Generators To Inverters
Section 10 Testing And Commissioning
10.1 General
10.2 Wiring
10.3 D.C. Polarity
10.4 Pre-Commissioning Checks
10.5 System Functional Test
Section 11 System Documentation
11.1 General
11.2 System Manual
11.3 System And Battery Record Book
11.4 Generating Set Logbook
Appendix A - System Maintenance
Appendix B - Rcd Issues
Appendix C - Battery Enclosure Examples
Print Save Email Feedback
 Contact us Privacy policy Disclaimer Copyright
<u>Feedback</u>