

AS 4044:2024



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Battery chargers for stationary batteries

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Preface

This Standard was prepared by the Standards Australia Committee EL-005, Secondary Batteries, to supersede AS 4044—1992.

The objective of this document is to provide requirements for the design, safe use and testing of stabilized constant-potential battery chargers that are designed to supply direct current power from an alternating current source, while charging a float-type stationary battery, and which may simultaneously supply power to a connected direct current system load.

The major changes in this edition are as follows:

- (a) Changed references to transformers to refer to mains frequency transformers where used, and added or updated requirements for neutral cable protection.
- (b) Inserted requirements where digital instrumentation is used.
- (c) Relaxed the enclosure design requirements where the charger is installed in restricted access areas.
- (d) Added requirements for test report contents.

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

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Battery chargers for stationary batteries

1 Scope

This document specifies requirements for stabilized constant-potential battery chargers that are designed to supply direct current power from an alternating current source, while charging a float-type stationary battery, and which may simultaneously supply power to a connected direct current system load.

NOTE [Appendix A](#) provides guidance on information to be supplied by a purchaser.

2 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 5331, *Acoustics — Determination of sound power levels of noise sources — Guidelines for the use of basic standards*

AS 60529, *Degrees of protection provided by enclosures (IP Code)*

AS 61000.6.4, *Electromagnetic Compatibility (EMC), Part 6.4: Generic standards — Emission standard for industrial environments*

AS/NZS 3000, *Electrical installations (known as the Australian/New Zealand Wiring Rules)*

AS/NZS 3100, *Approval and test specification—General requirements for electrical equipment*

AS/NZS 60076.1, *Power Transformers, Part 1: General (IEC 60076-1, Ed. 3.0 (2011) MOD)*

AS/NZS 61000.6.1, *Electromagnetic Compatibility (EMC), Part 6.1: Generic standards — Immunity for residential, commercial and light-industrial environments*

AS/NZS 61000.6.2, *Electromagnetic Compatibility (EMC), Part 6.2: Generic standards — Immunity standard for industrial environments*

AS/NZS 61000.6.3, *Electromagnetic Compatibility (EMC), Part 6.3: Generic standards — Emission standard for equipment in residential environments*

AS/NZS IEC 61672-1, *Electroacoustics — Sound level meters, Part 1: Specifications*

AS IEC 60038, *Standard voltages*

IEC 60051-2, *Direct acting indicating analogue electrical measuring instruments and their accessories – Part 2: Special requirements for ammeters and voltmeters*

IEC 60417, *Graphical symbols for use on equipment*

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.