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**Approval and test specification—
Transformer type battery chargers**

STANDARDS AUSTRALIA 

This Australian Standard was prepared by Committee EL/2, Electrical Approvals Standards. It was approved on behalf of the Council of Standards Australia on 23 December 1994 and published on 5 May 1995.

The following interests are represented on Committee EL/2:

Association of Certification Bodies, Australia
Association of New Zealand Electrical Appliance Distributors
Australian Chamber of Commerce and Industry
Australian Electrical and Electronic Manufacturers Association
Consumer Electronics Suppliers Association, Australia
Electrical regulatory authorities
Electrical Supply Association of Australia
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Australian Standard[®]

**Approval and test specification—
Transformer type battery chargers**

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/2 on Electrical Approvals Standards to supersede AS 3193—1990.

This Standard is the result of a consensus among Australian and New Zealand representatives on the Joint Committee to produce this document as an Australian Standard. However, the publishing of a Joint Standard will be considered during the next revision.

This Standard is one of a series of Approval and Test Specifications issued by Standards Australia and Standards New Zealand. In Australia, these Standards are to be read in conjunction with AS 3100, *Approval and test specification—General requirements for electrical equipment*. The objective of these Standards is to outline the conditions which must be met to secure approval for the sale and use of electrical equipment. Only safety matters and related conditions are covered.

This Standard was revised to incorporate Amendment No. 1 to AS 3193—1990 and to effect changes to Clause 6.1 for transformers.

This Standard supersedes AS 3193—1990 from date of publication.

This Standard does not provide all the necessary conditions for a contract.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

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STANDARDS AUSTRALIA

Australian Standard

**Approval and test specification—
Transformer type battery chargers**

1 SCOPE This Standard applies to fixed and portable transformer type battery chargers with input ratings not exceeding 2.5 kV.A, intended primarily for charging automotive type batteries. It specifies essential safety requirements for approval and test purposes.

For the purpose of this Standard a transformer type battery charger is called a charger.

2 APPLICATION

2.1 General requirements of AS 3100 This Standard shall be read in conjunction with AS 3100, and the appropriate provisions of AS 3100 shall apply to the construction of the charger and the insulation and safeguarding of parts which normally carry current.

2.2 Specific requirements of this Standard A charger shall be deemed to comply with this Standard only if it complies with all the requirements of this Standard and passes the tests specified herein.

2.3 Requirements of other Standards Components incorporated in a charger upon which safety depends shall comply with the appropriate requirements of any relevant approval and test specification unless such requirements are varied herein.

3 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

STANDARD

AS 1939 Degrees of protection provided by enclosures for electrical equipment (IP Code)

APPROVAL AND TEST SPECIFICATIONS

AS 3100 General requirements for electrical equipment
AS 3109 Appliance couplers for household and similar general purposes
AS 3109.1 Part 1: General requirements
AS 3161 Thermostats and energy regulators
AS 3191 Electric flexible cords
AS/NZS 3108 Particular requirements for isolating transformers and safety isolating transformers
AS/NZS 3112 Plugs and socket-outlets
AS/NZS 3121 Insulating mouldings

4 DEFINITIONS For the purpose of this Standard the definitions below apply.

4.1 Rated charging voltage—the charging voltage(s) of the charger as given on the nameplate. This may be the nominal voltage of the battery to be charged.

NOTE: The rated charging voltage of a battery charger equals the product of the number of cells connected in series and the nominal voltage of one cell of the battery for which the charger is intended to be used.